

**Activity: Fisheries and Aquatic Resource Conservation (Fisheries)**

		2007 Actual	2008 Enacted	2009			Change From 2008 (+/-)
				Fixed Costs & Related Changes (+/-)	Program Changes (+/-)	Budget Request	
National Fish Hatchery Operations	(\$000) FTE	45,808 376	45,919 389	+730	-3,142 -16	43,507 373	-2,412 -16
Maintenance and Equipment	(\$000) FTE	17,899 86	18,561 82	+137	-773 -	17,925 82	-636 -
Aquatic Habitat and Species Conservation	(\$000) FTE	45,455 291	53,720 311	+691	-7,069 -18	47,342 293	-6,378 -18
Aquatic Invasive Species	(\$000) FTE	5,454 12	5,323 12	+29	-8 -	5,344 12	+21 -
Marine Mammals	(\$000) FTE	3,162 18	2,976 19	+45	-504 -2	2,517 17	-459 -2
<b>Total, Fisheries &amp; Aquatic Resource Conservation</b>	<b>(\$000) FTE</b>	<b>117,778 783</b>	<b>126,499 813</b>	<b>+1,632</b>	<b>-11,496 -36</b>	<b>116,635 777</b>	<b>-9,865 -36</b>

**Summary of 2009 Program Changes for Fisheries and Aquatic Resource Conservation**

Request Component	(\$000)	FTE
• Washington State Mass Marking	-1,477	-8
• National Fish Hatchery Operations – General Program Activities	-1,477	-8
• NFHS Maintenance and Equipment – Annual Maintenance	-256	-
• NFHS Maintenance and Equipment – Deferred Maintenance	-384	-
• FWCO Maintenance and Equipment – General Program Activities	-98	-
• National Fish Passage Program	-5,907	-18
• Habitat Assessment & Restoration – General Program Activities	-310	-
• Penobscot River Restoration Activities	-492	-
• Population Assessment & Coop. Mgmt - General Program Activities	-184	-
• Marine Mammals – General Program Activities	-493	-2
• Travel and Relocation Expense Reduction	-336	-
• Performance-based Contract Reduction	-82	-
<b>TOTAL Program Changes</b>	<b>-11,496</b>	<b>-36</b>

**Justification of 2009 Program Changes**

The 2009 budget request for Fisheries and Aquatic Resource Conservation is \$116,635,000 and 777 FTEs, a program change of -\$11,496,000 and -36 FTEs from the 2008 Enacted.

**Washington State Mass Marking (-\$1,477,000/-8 FTEs)**

In FYs 2006 and 2007, Congress provided unrequested funding to assist the Service in mass-marking all salmon (including, but not limited to coho, chinook, and steelhead) at all Pacific Region National Fish

Hatcheries. This reduction is consistent with the Fisheries Program's National Strategic Plan, which focuses the Program's resources on mission-critical activities that can be undertaken using Service facilities and personnel. This project is not directly related to Service performance goals under the DOI strategic plan.

**National Fish Hatchery Operations – General Program Activities (-\$1,477,000/-8 FTEs)**

The proposed funding level provides funding for the highest priority hatchery operations. NFHS funding of ongoing and necessary production tasks, such as reintroduction of trust species into restored habitats, establishment and maintenance of refugia, enhancement or development of propagation and population monitoring techniques, and genetics work critical to the recovery of these species, will be directed to those of the highest priority as ranked by the Service regions.

**NFHS Maintenance and Equipment – Annual Maintenance (-\$256,000)**

Funding for Annual Maintenance is reduced to ensure the highest priorities of the Service can be achieved. The proposed reduction may impact periodic maintenance of its used assets for aquatic conservation programs.

**NFHS Maintenance and Equipment - Deferred Maintenance (-\$384,000)**

Funding for Deferred Maintenance is reduced to ensure the highest priorities of the Service can be achieved. The reduction of \$384,000 in deferred maintenance may impact the initiation of seven maintenance projects originally scheduled for FY 2009.

**FWCO Maintenance and Equipment – General Program Activities (-\$98,000)**

General program activities funding in FWCO Maintenance and Equipment is reduced to help fund Service. The proposed reduction may impact preventive maintenance and property replacement.

**National Fish Passage Program (-\$5,907,000/ -18 FTEs)**

This reduction returns the Fish Passage program approximately to the FY 2007 funding level.

**Penobscot Rivers Restoration Activities (-\$492,000)**

This earmark is not currently in the inventory for planned restoration efforts in FY 2009 for either the Recovery, Fish Passage, or Coastal programs. As a result, funding this unrequested project would circumvent the Service's priority setting process and redirect funding to lower priorities at the expense of higher priorities elsewhere.

**Habitat Assessment and Restoration - General Program Activities (-\$310,000)**

General program activities funding in Habitat Assessment and Restoration will be reduced by \$310,000 from the FY 2008 enacted level to help fund higher priority Service activities.

**Population Assessment and Cooperative Management - General Program Activities (-\$184,000)**

General program activities funding in Population Assessment and Cooperative Management will be reduced by \$184,000 from the FY 2008 enacted level to offset funding higher priority initiatives elsewhere in the President's budget.

**Conservation Management – General Program Activities (-\$493,000/ -2 FTEs)**

Funding for marine mammals will be reduced to fund higher priority Service activities. Three projects for key stock assessment and conservation and management actions initiated with congressional earmarks in FY 2008 will be discontinued. These projects include monitoring of sea otters in Kachemak Bay, monitoring of Pacific walrus along the Chukchi Sea coast, and coordination with coastal communities along the Chukchi Sea coast.

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## Program Overview

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The mission of the Service's Fisheries Program is to work with partners to restore and maintain fish and other aquatic resources at self-sustaining levels, and to support Federal mitigation programs for the benefit of the American public. Since 1871, the Fisheries Program has played a vital role in conserving America's fisheries, and is currently a key partner with States, Tribes, other Federal agencies, and private interests in a larger effort to recover and conserve fish and other aquatic resources and to connect the American public with those resources.

The components of the Fisheries Program include the National Fish Hatchery System, the Fish and Wildlife Conservation program, the Aquatic Invasive Species program, and the Marine Mammals program. Approximately 800 employees are located nationwide in 64 Fish and Wildlife Conservation Offices (including a Conservation Genetics Laboratory), 70 National Fish Hatcheries, one Historic National Fish Hatchery, 9 Fish Health Centers, 7 Fish Technology Centers, the Aquatic Animal Drug Approval Partnership program, and Aquatic Invasive Species and Marine Mammals Program offices. Our employees and facilities provide a network unique in its broad geographic coverage across, its diverse array of technical and managerial capabilities, and the ability to work across political and program boundaries to embrace and address national perspectives and emerging issues.

America's fish and other aquatic resources are among the world's richest and provide substantial social, economic, and ecological benefits to the Nation. Many aquatic resources are declining at alarming rates despite conservation efforts by the Service and its partners. Almost 400 aquatic species have special protection in some part of their natural or historic range. The reasons for these declines are linked largely to habitat loss and the impacts of harmful non-native species. Emerging conservation issues such as viral hemorrhagic septicemia virus (VHS), spring viremia of carp (SVC), and potential adverse effects of climate change also pose serious threats to the health of aquatic resources, as well as to the many important recreational and commercial fisheries they support.

In the past ten years, the Fisheries Program has made significant progress in improving its ability to address these challenges by refining the Program's purpose, design, strategic planning process, management, and ability to demonstrate results and accountability. In 2005, the Fisheries Program underwent a rigorous, independent review by the Sport Fishing and Boating Partnership Council. The Council found that the Program was "Effective" in delivering its mission. In 2006, the Fisheries Program worked closely with the Department and OMB to complete the Administration's comprehensive Program Assessment Rating Tool (PART) review. The Program earned a rating of "Effective," one of only a handful of Department programs to earn that rating, and the highest rating and score in the Service to date. The Fisheries Program is actively implementing recommendations from both of these reviews to continue improvement in management, accountability, and mission delivery.

Challenges to the recovery of threatened and endangered species are many, and the Fisheries Program addresses them with prioritized cross-programmatic and inter-agency efforts focused on achieving results. In close coordination with the Endangered Species Program, the Fisheries Program currently provides captive propagation/stocking, refugia, and assessment and monitoring activities for 57 threatened and endangered species to meet specific tasks prescribed in Recovery Plans. These long-term coordinated efforts have resulted in many successes. Most notably, in 2006, the Gila trout status was reclassified from endangered to threatened. This success can be attributed to the diligent work of employees from the States of New Mexico and Arizona, New Mexico State University, the U.S. Forest Service, and the Service's Endangered Species and Fisheries Programs. Limited recreational fishing is now available for this once critically-depleted species. In addition, the M/V Spencer F. Baird, a 95-foot vessel, was commissioned in the Great Lakes in 2006 to help restore depleted native lake trout populations, which were nearly wiped out due to sea lamprey invasion, overfishing, and pollution. The vessel will stock native lake trout and evaluate their performance. It will also measure other species, helping meet the

information and research needs of the Service and its partners, contributing to the Great Lakes ecosystem and economy.

The Fisheries Program has many ongoing activities with the National Wildlife Refuge System and other partners. For example, our Aquatic Nuisance Species (ANS) personnel work closely with our State partners and their State ANS Plans to halt the spread of injurious wildlife and plants. Sound science is the cornerstone of all of our collective efforts, including our Aquatic Animal Drug Approval Partnership (AADAP) program. The AADAP provides national leadership in bringing essential aquatic animal drugs through the complex FDA approval process on behalf of hundreds of State, Tribal, and private aquaculture entities. The AADAP has been instrumental in developing the data required for the recent (March 2007) approval of the new in-feed antibiotic Aquaflor<sup>®</sup> for use in freshwater-reared salmonids and catfish. AADAP is also a member of a consortium responsible for the January 2007 approval of PEROX-AID<sup>®</sup> for use in a variety of freshwater finfish species. These represent the first new drugs approved for aquatic species in over a decade.

The Fisheries Program is committed to Connecting People with Nature as it initiates activities, programs, and events that reach out to children and adults. The National Fish Hatchery System Volunteer Enhancement Act of 2006 provides a mechanism to elevate the Fisheries Program's status as a preeminent focal point for aquatic conservation education. "Friends Groups," citizens in proximity to Fisheries Program facilities, provide countless hours of volunteer service to those facilities in nearly every facet of facility operation, community outreach, and mission delivery. The D.C. Booth Society, associated with the D.C. Booth Historic National Fish Hatchery, located in South Dakota, is the oldest of these entities, and provides local communities across the country with assistance as they move to establish Friends Groups. Recently, the Assistant Director for Fisheries and Habitat Conservation and the National Fish Hatchery System provided funding to the Mescalero Apache Tribe to implement a Youth Conservation Corps program at the Mescalero Tribal Hatchery, New Mexico. The funds will be used to hire Apache youth during the summer to learn hatchery operations and perform needed maintenance on their facility. Also, in June 2007, the Fisheries Program helped organize the annual D.C. National Fishing and Boating Week Youth Fishing Event on the National Mall at Constitution Gardens Pond. This event brought together a wide array of public and private partners to provide children living in an urban environment with the opportunity to try their hand at fishing, learn about boating safety, and be exposed to some of the animals they might encounter in the wild. Approximately 200 students in Grades 4-6 participated, many of whom had never held a fishing rod.

Working closely with State, Tribal, and nongovernmental organization partners, the Program provides recreational opportunities to bring people closer to their natural resources, as well as the associated, and substantial economic benefits to local communities as a result. The Fisheries Program propagates and stocks fish to mitigate for the loss of recreational fisheries on behalf of Federal water development agencies. According to a recent peer-reviewed analysis of the top eleven National Fish Hatcheries (in terms of rainbow trout stocking in FY 2004), the \$5.4 million expended on these activities generated 3.9 million angler days and over \$172 million in angler-related expenditures, supported over 3,500 jobs, and resulted in over \$325 million in total economic benefits to State and local communities.

To accomplish aquatic species propagation, health, scientific, and management tasks associated with nearly 100 species of fish and a growing variety of imperiled native mollusks, amphibians, and plants, it is crucial that the infrastructure and equipment assets be maintained in good working condition. To meet the special requirements associated with non-fish species propagation, existing assets usually require substantive renovation. Fisheries Program assets and equipment total over \$1.32 billion, of which nearly 3/4 are critical water management assets. Without these water assets in proper operating condition, accomplishing the Fisheries program mission is much more challenging. The average age of National Fish Hatcheries is over 63 years and some infrastructure, including an array of mission critical water

management assets, are in a condition that jeopardizes captive populations of any number of imperiled species and broodstocks held on our Hatcheries.

The Fisheries Program is also working to implement the Healthy Lands Initiative (HLI). Under HLI, the Service will take a broad landscape approach to conservation in the Green River Basin, Wyoming where oil and gas extraction is causing public controversy. Work conducted with the National Fish Habitat Action Plan funds will focus on improving habitat for Colorado River cutthroat trout on the south and west slopes of the Wind River mountain range.

#### **Use of Cost and Performance Information**

- The Fisheries Program tracks costs through Activity Based Costing, links costs to performance, and uses the information for program management. For example, the program used ABC data to prioritize critical success factors in the initial stages of formulation of the FY 2009 budget.
- The Fisheries Program uses the Fisheries Information System (FIS) and the Fish Passage Decision Support System to track priority needs, outcomes, performance, and cost drivers (e.g. populations, fish barriers). In 2006, FIS was integrated into the Service's Environmental Online Conservation System (ECOS) to provide a central access point and integrated analysis tools for program management information. After several months of training at the Region and field levels, the web-based FIS system came online in July 2006. This powerful tool is being enhanced further to link with other Service databases, such as the Endangered Species' Recovery On-line Reporting Database (ROAR) system.
- The Marine Mammal Program seeks efficiencies by implementing Alaskan sea otter, walrus, and polar bear population surveys and assessments of subsistence harvest levels/trends in partnership with the U.S. Geological Survey/Biological Resources Discipline. This information is used to make key cost projections for long-term population status and trends monitoring, and to most efficiently and effectively focus limited fiscal resources to secure vital scientific information to guide resource management of trust Arctic species. Through this approach, the Service has identified 3 of 10 marine mammal stocks that are being managed at self-sustaining levels. In addition, this partnership effort has enhanced the Service's understanding of population trends for 6 of the 10 stocks.
- In FY 2001, the National Fish Hatchery System's deferred maintenance needs were identified at \$305 million. NFHS personnel actively participated in interagency development of standardized terminology for asset management and repair need categorization, and implemented a rigorous 5-Year Condition Assessment process (cycle), to verify and prioritize deferred maintenance needs within the \$1.32 billion NFHS infrastructure. Due to a combination of these processes and completion of high-priority deferred maintenance projects, the deferred maintenance needs was reduced to \$152 million in FY 2007 - a 50% decrease.
- In FY 2006 the NFHS, FWMA, and ANS programs were included in a comprehensive PART of the Service's Fisheries Program. The Fisheries Program worked closely with Department and OMB staff to determine the many areas of success and those that could be improved. The Fisheries Program received a rating of Effective, the highest score and PART rating in the Service and among the highest in the Department to date. The Program has implemented 12 of the 13 PART Improvement tasks. The Fisheries Program views the PART as a valuable process to ensure continued improvement in program management and to improve and enhance all aspects of cost and performance integration.

## Fisheries Program Performance Overview

Measure	2005 Actual	2006 Plan	2006 Actual	2007 Plan	2007 Actual	2008 Plan	2009 President's Request	Change from 2008 to 2009	Long-term 2012 Target
CSF 7.12 % of populations of aquatic threatened and endangered species (T&E) that are self-sustaining in the wild (Fisheries PART).	9% (38/416)	22% (97/435)	9% (55/592)	10% (61/594)	10% (61/595)	4% <sup>4</sup> (26/597)	4% <sup>4</sup> (26/597)	0	4% <sup>4</sup> (26/597)
#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).	75% (113/150)	77% (142/185)	31% (55/177)	31% (55/177)	34% (61/177)	12% <sup>4</sup> (19/160)	12% <sup>4</sup> (19/160)	0	12% <sup>4</sup> (19/160)
#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).	13% (62/479)	12% (62/516)	51% (300/592)	48% (286/594)	50% (296/589)	51% <sup>4</sup> (303/597)	51% <sup>4</sup> (303/597)	0	51% <sup>4</sup> (303/597)
#7.12.4 % of aquatic T&E populations managed or influenced by the Fisheries Program with approved Recovery plans (Fisheries PART).	48% (228/516)	44% (228/516)	81% (477/592)	81% (482/594)	81% (480/589)	89% <sup>4</sup> (533/597)	89% <sup>4</sup> (533/597)	0	89% <sup>4</sup> (533/597)
#7.12.5 % of tasks implemented as prescribed in Recovery plans (Fisheries PART).	77% (155/202)	67% (180/270)	50% (518/1042)	41% (462/1119)	49% (558/1150)	36% <sup>4</sup> (523/1460)	36% <sup>4</sup> (523/1460)	0	36% <sup>4</sup> (523/1460)

Measure	2005 Actual	2006 Plan	2006 Actual	2007 Plan	2007 Actual	2008 Plan	2009 President's Request	Change from 2008 to 2009	Long-term 2012 Target
#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).	23% (266/1,165)	23% (276/1,175)	16% (224/1,411)	11% (157/1,409)	25% (347/1414)	23% <sup>4</sup> (342/1465)	23% <sup>4</sup> (342/1465)	0	23% <sup>4</sup> (342/1465)
CSF 5.2 % 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).	34% (392/1,165)	34% (394/1165)	31% (473/1,515)	37% <sup>1</sup> (454/1,240)	34% (540/1589)	38% <sup>4</sup> (557/1465)	38% <sup>4</sup> (557/1465)	0	38% <sup>4</sup> (557/1465)
Comment	<p><sup>1</sup>Performance originally planned for FY 2007 was an incorrect estimate, as it did not include the total populations managed in Region 5. The denominator for this measure should have been equal to 1,409, making the "percent of populations for which current status and trend is known" equal to 32%, (454/1,409)</p> <p><sup>2,3</sup>Performance exceeding 100% results from the initial implementation of the online Fisheries Information System (FIS) (for performance reporting requirements in FY 2006) and associated FIS user error. Total populations of management concern and total tasks implemented, the denominators for both of these measures, were under-reported in the Enterprise Planning System for FY 2006 Actual performance.</p> <p><sup>4</sup>FY2008 and FY2009 Fisheries Program targeting was problematic because a) new Fisheries PART measures had been developed (i.e., populations and task-base measures); b) the Service's annual performance targets were finalized before the 2008 enacted funding level was known; and c) critical additions to the Fisheries Information System (i.e., the Targets Module) were not completed. The Targets Module is scheduled for completion in 2008, which will solve most of the problems.</p>								
#5.2.2 % of populations of native aquatic non T&E species with approved management plans (Fisheries PART).	47% (543/1,165)	52% (602/1,165)	163% <sup>2</sup> (777/477)	51% (722/1,409)	58% (821/1426)	54% <sup>4</sup> (787/1465)	54% <sup>4</sup> (787/1465)	0	54% <sup>4</sup> (787/1465)
CSF 5.3 % of tasks implemented as prescribed in management plans (Fisheries PART).	72% (413/572)	43% (459/1,080)	119% <sup>3</sup> (1,366/1,145)	42% (1,043/2,507)	46% (1588/3429)	40% <sup>4</sup> (1625/4062)	40% <sup>4</sup> (1625/4062)	0	40% <sup>4</sup> (1625/4062)
#12.2.6 # of activities conducted to support the management/control of aquatic invasive species (Fisheries PART).	41	42	42	43	43	43	43	0	43

Measure	2005 Actual	2006 Plan	2006 Actual	2007 Plan	2007 Actual	2008 Plan	2009 President's Request	Change from 2008 to 2009	Long-term 2012 Target
#15.4.6 % of fish populations at levels sufficient to provide quality recreational fishing opportunities (Fisheries PART).	20% (201/990)	20% (201/990)	26% (249/990)	26% (249/990)	25% (275/1113)	16% <sup>4</sup> (181/1113)	16% <sup>4</sup> (181/1113)	0	16% <sup>4</sup> (181/1113)
Comment	<sup>4</sup> FY2008 and FY2009 Fisheries Program targeting was problematic because a) new Fisheries PART measures had been developed (i.e., populations and task-base measures); b) the Service's annual performance targets were finalized before the 2008 enacted funding level was known; and c) critical additions to the Fisheries Information System (i.e., the Targets Module) were not completed. The Targets Module is scheduled for completion in 2008, which will solve most of the problems.								
#15.8.10 # of waters where the Fisheries Program provides recreational fishing opportunities to mitigate the impacts of Federal water development projects (Fisheries PART).	221	221	221	221	221	221	221	0	221
# 15.4.11 Pounds/dollar (lbs/\$) of healthy rainbow trout produced for recreation (Fisheries PART).	.33lb/\$1	\$.35lb/\$1	.33lb/\$1	.35lb/\$1	.33lb/\$1	.35lb/\$1	.35lb/\$1	0	.35lb/\$1
CSF 15.4 % of mitigation tasks implemented as prescribed in approved management plans (Fisheries PART).	90% (9/10)	54% (7/13)	80% (64/80)	68% (27/40)	73% (30/41)	79% <sup>4</sup> (44/56)	79% <sup>4</sup> (44/56)	0	79% <sup>4</sup> (44/56)
#5.5.1 Condition of mission critical water management assets as measured by the DOI FCI.	0.185 \$184,929,983/ \$1,001,592,758	0.182 \$349,309,154/ \$1,921,968,658	0.096 \$101,665,544/ \$1,059,605,059	0.086 \$96,081,362/ \$1,115,216,172	0.118 \$120,270,843/ 1,015,999,141	0.12 \$125,887,492/ 1,015,999,141	0.12 \$125,887,492/ 1,015,999,141	0	0.12 \$125,887,492/ 1,015,999,141



Measure	2005 Actual	2006 Plan	2006 Actual	2007 Plan	2007 Actual	2008 Plan	2009 President's Request	Change from 2008 to 2009	Long-term 2012 Target
#9.1.6 Percent of populations managed or influenced by the Marine Mammal Program for which current population trend is known	60% (6/10)	60% (6/10)	60% (6/10)	60% (6/10)	60% (6/10)	70% (7/10)	70% (7/10)	0	60% (6/10)
#9.1.5 Number of current marine mammal stock assessments	6	4	4	6	4	6	6	0	6
#9.1.2 Number of marine mammal stocks with voluntary harvest guidelines	2	2	2	2	2	2	2	0	2
#9.1.3 Number of cooperative agreements with Alaska Natives for marine mammal management and monitoring	3	3	3	3	3	3	3	0	3
#9.1.4 Number of marine mammal stocks with incidental take regulations that require mitigating measures	2	2	2	3	3	3	3	0	4
<p>Note: For marine mammals in this table, "Percent of marine mammal species that are managed to self-sustaining levels, in cooperation with affected States and others, as defined in approved management documents," refers to stocks of marine mammals that are at optimum sustainable population (OSP) under the MMPA. The Service manages stocks so that they remain at OSP or are increasing towards OSP. Although funding for marine mammals is proposed to be cut by \$2 million in FY 2008, planned performance does not show a decrease in species managed to self-sustaining levels - this is because affecting a change in OSP status is a cumulative process that would result from multiple years of reduced management activities. Similarly, the Marine Mammal Program plans to increase, by one, the number of populations for which current population trend is known in FY 2008 despite a proposed funding reduction. This is the result of multiple years of design, testing, and implementation of a walrus survey – understanding the trend of this species is possible in FY 2008 after previous years' efforts and funding. In future years, without surveys and analysis, this understanding will diminish. Similarly, although the Service will maintain 3 cooperative agreements with Alaska Natives in the long term through base funds, these agreements will be reduced in scope, and in the number of joint efforts they foster, in FY 2008 and beyond. An outcome of this is that the Service and Alaska Native Organizations will not be able to maintain voluntary harvest guidelines for one stock of marine mammals.</p>									
<p>Note: Fisheries performance measures in this table report to measures identified and approved through the Fisheries 2008 PART. Performance measures reported in program change packages are work load measures that contribute to the long-term outcome-oriented Fisheries PART measures listed above. Change measures are essentially components of the Fisheries outcome measures, i.e., the number of population assessments conducted for T&amp;E populations contributes directly to the measure 13.1A.13: % of aquatic T&amp;E populations managed or influenced by the Fisheries Program for which current status (e.g., quantity and quality) and trend is known (Fisheries PART), and the number of instream/shoreline miles restored for non-T&amp;E populations contributes directly to the measure 7.1.19: % of populations of native aquatic non-T&amp;E species that are self-sustaining in the wild, as prescribed in management plans (Fisheries PART).</p>									

**Activity: Fisheries**  
**Subactivity: National Fish Hatchery System Operations**

		2007 Actual	2008 Enacted	2009			Change From 2008 (+/-)
				Fixed Costs & Related Changes (+/-)	Program Changes (+/-)	Budget Request	
National Fish Hatchery Operations	(\$000) FTE	45,808 376	45,919 389	+730	-3,142 -16	43,507 373	-2,412 -16

**Summary of 2009 Program Changes for National Fish Hatchery System Operations**

Request Component	(\$000)	FTE
• Washington State Mass Marking	-1,477	-8
• General Program Activities	-1,477	-8
• Travel and Relocation Expense Reduction	-151	0
• Performance-based Contracting	-37	0
<b>TOTAL Program Changes</b>	<b>-3,142</b>	<b>-16</b>

**Justification of 2009 Program Changes**

The 2009 budget request for National Fish Hatchery System Operations is \$43,507,000 and 373 FTEs, a program change of -\$3,412,000 and -16 FTEs from the 2008 Enacted.

**Washington State Mass Marking (-\$1,477,000/-8 FTEs)**

This funding reduction is consistent with the Fisheries Program's National Strategic Plan, which focuses the Program's limited resources on mission-critical activities that can be undertaken using Service facilities and personnel. In FY 2006, a congressional earmark provided funding to mass-mark all salmon (including, but not limited to coho, chinook, and steelhead) at all Pacific Region National Fish Hatcheries. The funding was used to comply with Section 138 of P.L. 108-7, which requires the Service to mass mark salmonid stocks released from Federally operated or financed hatcheries, except those for restoration, recovery, research, Tribal programs or where there is no selective fishery. This marking helped minimize harvest impacts on species listed under the Endangered Species Act. In FY 2007, the Service marked 95% of all fish.

**General Program Activities (-\$1,477,000/-8 FTEs)**

The Secretary's and the Service Director's priority of native aquatic species recovery is highly valued by our many partners and stakeholders. All NFHS efforts are directed at meeting the Fisheries Program's long-term outcome measures. NFHS funding of ongoing and necessary production tasks, such as reintroduction of trust species into restored habitats, establishment and maintenance of refugia, enhancement or development of propagation and population monitoring techniques, and genetics work critical to the recovery of these species, will be limited to those of the highest priority as ranked by the Service regions. NFHS's partnership-based implementation of high-priority projects to accelerate the recovery of listed trout species and Federally-listed native freshwater mussel species will continue at the request level.

Service NFHS facilities are considered integral parts of the communities in which they are located. Friends Groups have been established at 27 of our facilities (36%), and they serve in many capacities on

our hatcheries including guiding tours, visitor center staffing, and assistance with educational activities. The Service considers its relationship with its communities a very high priority, and will work diligently in FY 2009 to help form four new Friends Groups (+5.4%).

**Program Performance Change**

Performance Goal	2005 Actual	2006 Actual	2007 Actual	2008 Plan	2009 Base Budget (2008 Plan + Fixed Costs)	2009 President's Budget	Program Change Accruing in 2009	Program Change Accruing in Outyears
<b>Resource Protection - Sustaining Biological Communities</b>								
CSF 5.3 Percent of tasks implemented, as prescribed in management plans (PART)	unk	unk	46% (1,588 of 3,429)	40% (1,625 of 4,062)	40% (1,625 of 4,062)	40% (1,625 of 4,062)	0.0%	0
CSF Total Actual/Projected Cost(\$000)	unk	unk	\$49,064	\$51,412	\$51,412	\$52,646	\$1,234	
CSF Program Total Actual/Projected Cost(\$000)	unk	unk	\$36,006	\$36,871	\$36,871	\$37,755	\$885	
Actual/Projected Cost Per Tasks (whole dollars)	unk	unk	\$30,896	\$31,638	\$31,638	\$32,397	\$759	
Comments:	Due to congressional adds, enacted after the 2008 target was finalized, we estimate actual performance will exceed the 2008 plan by approximately +12 FMP.							
5.3.1.3 % of tasks implemented, as prescribed in management plans - NFHS (PART)	unk	unk	69% (709 of 1,029)	42% (705 of 1,667)	42% (705 of 1,667)	42% (705 of 1,667)	0.0%	0
Comments:	Due to congressional adds, enacted after the 2008 target was finalized, we estimate actual performance will exceed the 2008 plan by approximately +12 FMP.							
CSF 7.12 Percent of populations of aquatic threatened and endangered species (T&E) that are self-sustaining in the wild (PART)	9%	13% (55 of 435)	10% (61 of 595)	3% (26 of 962)	3% (26 of 962)	3% (26 of 962)	0.0%	0
CSF Total Actual/Projected Cost(\$000)	unk	\$34,971	\$30,199	\$13,181	\$13,181	\$13,497	\$316	
CSF Program Total Actual/Projected Cost(\$000)	unk	\$17,194	\$15,610	\$15,984	\$15,984	\$16,368	\$384	
Actual/Projected Cost Per Unit (whole dollars)	unk	\$635,843	\$495,072	\$506,953	\$506,953	\$519,120	\$12,167	
7.12.5.3 % of tasks implemented as prescribed in Recovery Plans - NFHS (PART)	unk	unk	52% (190 of 368)	38% (247 of 657)	38% (247 of 657)	38% (247 of 657)	0.0%	0
Comments:	Due to congressional adds, enacted after the 2008 target was finalized, we estimate actual performance will exceed the 2008 plan by approximately +6 Recovery Plan tasks.							

Performance Goal	2005 Actual	2006 Actual	2007 Actual	2008 Plan	2009 Base Budget (2008 Plan + Fixed Costs)	2009 President's Budget	Program Change Accruing in 2009	Program Change Accruing in Outyears
<b>Management Excellence</b>								
CSF 52.1 Number of volunteer hours per year supporting FWS mission activities (GPRA)	1,404,064	2,164,648	2,328,109	1,963,849	1,963,849	2,081,083	117,234 (6.0%)	0
52.1.7 % of NFHS with friends groups	34%	30% (24 of 79)	37% (27 of 73)	36% (27 of 74)	36% (27 of 74)	42% (31 of 74)	5.4% (14.8%)	0
Comments:	Due to congressional adds, enacted after the 2008 target was finalized, we estimate actual performance will exceed the 2008 plan by approximately +4 Friends Groups.							

### Program Overview

America's fishery and other aquatic resources are among the world's richest and most diverse, and provide enormous social, economic, and ecological benefits to the Nation. Since 1871, the Service's National Fish Hatchery System (NFHS) has played a critical role in conserving America's fisheries, and today is a key partner with States, Tribes, other Federal agencies/programs, and private interests in a broad collaborative effort to conserve fish and other aquatic resources. The NFHS consists of 70 National Fish Hatcheries (NFHs), one Historic National Fish Hatchery (HNFH), 9 Fish Health Centers (FHCs), 7 Fish Technology Centers (FTCs), and the Aquatic Animal Drug Approval Partnership (AADAP) Program. These facilities and their highly-trained personnel provide a network unique in national conservation efforts because of the suite of capabilities available: propagation of healthy and genetically appropriate aquatic animals and plants to help re-establish wild populations, and scientific leadership in development of aquaculture, fish nutrition, and disease diagnostic technologies. Working closely with State, Tribal, and nongovernmental organizations, the Program provides excellent recreational opportunities and economic benefits for local communities.

To fulfill its long-term commitments, the Service's NFHS worked with external partners to establish five-year (FY 2004 – FY 2008) targets for each performance measure outlined in the National Fisheries Program Strategic Plan. Currently, the NFHS is beginning work with the other Fisheries Program entities and its many partners to draft the FY 2009 – FY 2013 Fisheries Strategic Plan. Focus areas such as Aquatic Species Conservation and Management, Aquatic Habitat Conservation and Management, Partnerships and Accountability, Leadership in Science and Technology, Public Use, Cooperation with Native Americans, and Workforce Management will remain consistent with the first 5-Year Plan. Performance targets were set for each performance area. Achievement of those targets has resulted in imperiled species recovery and development of the Service's Aquatic Animal Drug and Chemical Use Policy. The Service's NFHS is beginning work with internal and external partners to draft the FY 2009 – FY 2013 National Fisheries Program Strategic Plan.

### Aquatic Species Conservation and Management

The Service's NFHS is a key contributor in accelerating the recovery of ESA-listed aquatic species and restoring aquatic species where populations are declining, precluding the need to list. FTCs and FHCs conduct habitat investigations and provide the scientific foundation for restoration programs. The AADAP Program provides access for hatchery and field biologists to approve drugs and

chemotherapeutants necessary to safeguard and manage critical stocks. NFHS recovery and restoration activities are conducted in coordination with State, Federal, Tribal, and private sector partners as prescribed by Recovery Plans and multi-entity fishery management plans. These activities support the DOI's resource protection goal to sustain biological communities on DOI managed and influenced lands and waters in a manner consistent with obligations regarding the allocation and use of water.

***Recovery of Species Listed Under the ESA*** – The NFHS contributes to the recovery of threatened and endangered aquatic species/populations, by developing and refining captive propagation techniques; developing and maintaining genetically distinct broodstock populations; stocking propagated species into restored habitats; developing non-lethal marking and tagging techniques; providing refugia for populations seriously impacted due to wildfire, drought, or other environmental conditions; conducting post-stocking assessments on survival and migration of introduced fish; developing methods to identify and track habitat preference; and many other activities prescribed in approved Recovery Plans.

***Restoration of Depleted, Non-Listed Species*** - The NFHS also: conducts restoration projects that protect non-listed species and enhance recreational opportunities through production and stocking of healthy, genetically appropriate animals to maintain or re-establish wild populations; provides technical support in areas such as biometrics, nutrition, physiology, and conservation genetics; and provides support in fish health, disease diagnostics, treatment, and management; and support for habitat restoration.

### **Aquatic Habitat Conservation and Management**

The Service NFHS's contribution to cooperative habitat conservation efforts is multi-faceted. The National Wild Fish Health Survey helps monitor habitat health that affects all wild aquatic animals. Some activities directly improve habitats by providing whole plants or propagules for habitat restoration projects. Other projects provide "explorer" or "research" fish to help determine habitat preferences, population dynamics and interactions, or other requirements of imperiled species. The NFHS also develops innovative technologies to meet EPA and FDA water effluent standards. These activities provide some of the scientific basis for recovery and restoration programs inherent in the National Fish Habitat Action Plan.

The NFHS fully supports the President's initiative for birds. Water sources and the associated riparian habitats found on National Fish Hatcheries attract many different bird species and provide critical stopover habitats that they need and depend on for their annual migrations. Those facilities close to the US/Mexico border are especially important, as they are positioned in a major migratory bird flyway. Several ponds at the Williams Creek NFH (AZ) are regularly enhanced to attract ducks and other species. Local communities also realize the potential NFHS contributions to bird conservation. For example, local Audubon Society members have erected several covered observation stations around the 2-acre wildlife pond at Uvalde NFH (TX). The wildlife area and other Uvalde NFH ponds are maintained by hatchery staff and provide resting and foraging opportunities to countless migratory and local birds.

### **Partnerships and Accountability**

***Strategic Planning*** – In FY 2008, each Service Region is working under the last year of their 5-year plan. These plans contain measurable, region-specific goals and commitments for implementing the Fisheries Program mission, stepping down from national priorities. These goals and performance targets stem from the National Fisheries Program Strategic Plan, and will improve national program management and budget/performance integration. The Service worked closely with State partners in developing these strategic planning goals and targets at both the Regional and National levels. These coordinated efforts ensure that Service conservation and management activities also complement State Wildlife Action Plans.

Once the Fisheries Program completes FY 2009-2013 Strategic Plan, the Regions will once again work with their partners to generate region-specific plans.

The NFHS worked with the Sport Fishing and Boating Partnership Council (SFBPC) to develop protocols for regular, independent evaluations of the Fisheries Program as it implements the Fisheries Strategic Plan. The Council evaluated the Fisheries Program in FY 2005 and found that the NFHS is "Effective" in delivering its mission to the American people. The Fisheries Program provides regular updates to the Council on its efforts to address Council recommendations to further improve Program management and responsiveness to resource issues.

**Other Efforts** – The Fisheries Information System (FIS) has become the primary tool for the Fisheries Program to meet requirements of the Government Performance and Results Act of 1993 (GPRA). The Accomplishment Module of FIS captures annual performance data. The Fisheries Operational Needs (FONS) module of FIS captures regionally-prioritized needs, developed in conjunction with regional partners, and includes associated budget and performance targets. In 2007, FIS was available for online entry and ranking of operational needs and for accomplishment reporting. The database includes "reference" modules that allow for entry and tracking of the management plans and populations we work with. As a component of the Service's Environmental Conservation Online System (ECOS), FIS is integrated with databases of other Service programs, such as the Endangered Species Program, enhancing our ability to share data for project planning and implementation to more efficiently meet the overall mission of the Service.

### **Leadership in Science and Technology**

**Science and Technology** - The Service's Fish Technology Centers, Fish Health Centers and Aquatic Animal Drug Approval Program provide scientific and technical leadership to solve "on-the-ground" hatchery and fishery management problems that are critical to many restoration and recovery programs. Contributions include genetic analyses, nutrition, reproductive biology, population dynamics, cryopreservation, biometrics, culture technologies, disease diagnostics, health management, and availability of critical new aquatic animal drugs. For example, biologists at White Sulphur Springs NFH (WV) use state-of-the-art technology to efficiently produce green algae, which meets the nutritional requirements for both juvenile and adult endangered freshwater mussel species. The self-contained bioreactor (Biofence®), the only system of its kind in North America, automatically feeds growth media and carbon dioxide to the culture, allowing continuous algae harvest with minimal human involvement, and without opening the system and exposing it to contamination. The system pays for itself in reduced labor costs and was built with the capacity to provide algae to as many as five other National Fish Hatcheries that propagate imperiled native mussels. Innovation, efficiency, and expertise at the White Sulphur Springs NFH exemplifies the quality of work being accomplished at all of the National Fish Hatchery System's facilities.

**Fish Health** - Increasingly, the Service's FHCs provide national and international leadership roles with partners such as the American Fisheries Society's Fish Health Section, the National Oceanic and Atmospheric Administration, the Department of Agriculture's Animal and Plant Health Inspection Service, and the State Department. The NFHS' fish health program focuses on: 1) the National Aquatic Animal Health Plan (NAAHP) and Service's Aquatic Animal Health Policy; 2) the National Wild Fish Health Survey (NWFHS); and 3) general aquatic animal health support activities for Service and non-Service facilities (e.g., hatchery inspections, diagnostics of fish and other aquatic organisms including mollusks and amphibians).

The Aquatic Animal Drug Approval Partnership (AADAP) Program in Bozeman, MT is a partner-based national program established by the NFHS in FY 2004 that provides multi-agency coordinations to obtain

FDA approval for new aquatic animal drugs and therapeutants. The U.S. aquaculture “industry,” which includes federal, state and tribal natural resource agency facilities, in addition to private-sector facilities, has been severely hampered for many years by the paucity of FDA-approved drugs needed to combat diseases in aquatic species and facilitate the efficient production of healthy animals. In the public sector these drugs are critical to the restoration or recovery of aquatic species (including many threatened or endangered species), mitigation of federal water projects via fish-plantings, and recreational fisheries enhancement through stocking. In the private aquaculture sector, unchecked diseases have significantly reduced efficiencies and our ability to compete with foreign producers. This partnership allows the otherwise prohibitive cost of the applied research and development needed for FDA approval to be shared by the States, Tribes, private aquaculture community, and other partners, thereby enabling the development of consolidated data packages for submission to FDA.

In addition, FHCs work with the Service’s Environmental Contaminants Program to document potential fish food contamination and possible effects on propagated species.

### **Public Use**

**Recreation** – The NFHS’ role in the restoration of depleted populations of native game fish provides and enhances recreational fishing opportunities for the nation’s 58 million recreational anglers. All of this work is in conjunction with State, Tribal, nongovernmental organizations, and partners operating under approved fishery management plans.

A recent report on the economic benefits accrued as a result of the NFHS production of rainbow trout provides a view of the impacts the NFHS has on local economies. According to the report, \$5.4 million expended by NFHS facilities to grow and stock rainbow trout provided a total economic output of \$325.1 million. These NFHS activities account for over 3,500 jobs and \$172.7 million in angling-related sales. Overall, for each taxpayer dollar budgeted for NFHS rainbow trout production, \$32.20 in retail sales and \$36.88 in net economic value are generated.

**Education** – Most National Fish Hatcheries are considered integral parts of the communities in which they are located. As such, NFHS personnel consider re-instilling our Nation’s conservation ethic in our youth as a vital part of their mission. Our National Fish Hatcheries are used as education centers to provide hands-on educational opportunities. For example, initiatives such as *Salmon in Schools* allow students a real-world experience with native aquatic species.

**Mitigation** - When Federal locks and dams were constructed, Congress and the Federal government committed to mitigate impacts on recreational, commercial, and Tribal fisheries. Consistent with the *Fisheries Program Strategic Plan* and the *Fisheries Vision for the Future*, the Service helps to mitigate the adverse effects of Federal water development projects while focusing on native fish recovery and restoration, and meeting the expectations of its program stakeholders to work towards reimbursement by responsible agencies. The Service is developing options to obtain full cost-recovery from responsible Federal agencies, including meeting with the U.S. Army Corps of Engineers (Corps) administration in FY 2008. The Service is optimistic that a partnership between the Service, Corps, and affected States or Tribes will allow the government to more efficiently meet its mitigation responsibilities for Federal water development projects.

### **2009 Program Performance**

In FY 2009, the NFHS will continue its multi-faceted efforts to accelerate recovery of listed fish and other native aquatic species. Working with State, Tribal, Federal, non-governmental, and internal (Endangered Species Program and Fish and Wildlife Conservation Offices, in particular) partners, the NFHS will

implement recovery activities that include propagation and stocking healthy, genetically sound fish, and providing refugia to populations in distress – tasks prescribed in approved Recovery and Fishery Management Plans. The NFHS will continue to complete Recovery and Restoration Plan tasks, including: 1) improving culture, spawning, and rearing methods; 2) enhancing “wild” attributes to maximize survival of broodstock and progeny; 3) minimizing contaminant risks to human health and successful propagation; 4) developing data required for new animal drug approvals; 5) obtaining information on biological threats to native populations; and 6) propagating genetically fit native aquatic species for reintroduction into restored habitats. High-priority projects include production and release of native trout, other finfish, and imperiled and declining native freshwater mussel species.

The NFHS will continue its work on tasks prescribed in Recovery Plans to accelerate the recovery of Gila trout, other listed fish species, and continue its work to delist the Apache trout. The NFHS will continue its vital role in maintaining the number of threatened and endangered populations that are self-sustaining in the wild, in addition to performing refugia tasks and applied science and technology tasks prescribed in Fishery Management Plans. The NFHS will work diligently with its partners to provide leadership in the area of emerging conservation issues, including field sampling, water testing, laboratory work, and collaborative development of management strategies to address aquatic pathogens.

Other planned program activities include:

- **Recovery of Species Listed Under the ESA** - National Fish Hatchery System personnel will actively participate on the team assembled to complete the 5-Year Review Team of the threatened Apache trout, which is an important step in the process to remove that species from the Endangered Species List. Work will continue on the only captive population of endangered relict darter at the Wolf Creek NFH (KY); propagation and stocking of the endangered Higgins-eye pearly mussel at the Genoa NFH (WI); propagation and stocking of the endangered pallid-sturgeon at the Neosho NFH (MO) and the Natchitoches NFH (LA); captive propagation and stocking of the threatened Lahontan cutthroat trout at the Lahontan NFH (NV); and cutting-edge work on the endangered Texas wild rice and the Texas blind salamander at the San Marcos NFH and Technology Center (TX).
- **Restoration of Depleted, but Non-Listed Species** - These efforts have helped preclude additional ESA listings of species such as Atlantic sturgeon, American shad. Close coordination with our State and Tribal partners will continue on such projects as: propagation and stocking of Chinook, coho, and steelhead at the Makah NFH and Quinault NFH (WA); striped bass at the Orangeburg NFH (SC); lake trout at the Iron River NFH (WI); and paddlefish at the Garrison Dam NFH (ND).
- **Science and Technology** - The NFHS’ Fish Health Centers will continue to provide diagnostic support to our National Fish Hatcheries as well as State and Tribal hatcheries, and work with the USDA and the Great Lakes partners on emerging pathogen issues in that area. Our Fish Technology Centers will continue to techniques, while the Aquatic Animal Drug Approval Partnership (AADAP) will enhance its liaison with the FDA, private drug companies, and public/private partners to facilitate cost-effective aquatic animal drug approvals.
- **Recreation** - The NFHS will continue its long-term efforts with the States and Tribes to propagate and stock fish to ensure recreational opportunities.



- **Education** – The National Fish Hatchery System considers conservation education to be a core value. No greater legacy can be left to future generations than a sense of conservation ethics in our children. In FY 2009, more than 30,000 youths will interact with NFHS personnel at fishing derbies, hatchery tours, and other educational activities. NFHS facilities will continue to be used as “outdoor classrooms” and NFHS personnel will share their varied expertise with an anticipated 2 million visitors.

**Program Performance Overview**

Performance Goal / Measure	2005 Actual	2006 Actual	2007 Plan	2007 Actual	2008 Plan	2009 President's Budget	Change from 2008 Plan to 2009	Long-term 2012 Target
<b>Resource Protection - Sustaining Biological Communities</b>								
CSF 5.1 Percent 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)	30%	40% (70 of 174)	42% (63 of 150)	42% (63 of 150)	28% (46 of 164)	28% (46 of 164)	0.0%	28% (46 of 164)
CSF Total Actual/Projected Cost(\$000)	unk	\$26,286	unk	\$25,879	\$19,349	\$19,814	\$464	\$19,814
CSF Program Total Actual/Projected Cost(\$000)	unk	\$1,099	unk	\$561	\$574	\$588	\$14	\$588
Actual/Projected Cost Per Species (whole dollars)	unk	\$375,515	unk	\$410,777	\$420,635	\$430,731	\$10,095	\$430,731
<b>5.1.2.3 % of populations of native aquatic non-T&amp;E species that are self-sustaining in the wild, as prescribed in management plans - NFHS (PART)</b>								
5.1.2.3 % of populations of native aquatic non-T&E species that are self-sustaining in the wild, as prescribed in management plans - NFHS (PART)	unk	unk	unk	unk	0% (4 of 1,282)	0% (4 of 1,282)	0.0%	0% (4 of 1,282)
CSF 5.2 Percent 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 (PART)	69%	31% (473 of 1,515)	37% (454 of 1,240)	34% (540 of 1,589)	20% (557 of 2,843)	20% (557 of 2,843)	0.0%	20% (557 of 2,843)
CSF Total Actual/Projected Cost(\$000)	unk	\$21,280	unk	\$17,318	\$18,292	\$18,731	\$439	\$18,731
CSF Program Total Actual/Projected Cost(\$000)	unk	\$3,436	unk	\$3,839	\$3,931	\$4,025	\$94	\$4,025
Actual/Projected Cost Per Populations (whole dollars)	unk	\$44,989	unk	\$32,071	\$32,840	\$33,629	\$788	\$33,629
<b>5.2.1.3 % of populations of native aquatic non-T&amp;E species managed or influenced by the Fisheries Program for which current status (e.g., quantity and quality) and trend is known - NFHS (PART)</b>								
5.2.1.3 % 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 - NFHS (PART)	unk	unk	unk	unk	1% (20 of 1,345)	1% (20 of 1,345)	0.0%	1% (20 of 1,345)
<b>5.2.2.3 % of populations of native aquatic non T&amp;E species with approved management plans - NFHS (PART)</b>								
5.2.2.3 % of populations of native aquatic non T&E species with approved management plans - NFHS (PART)	unk	unk	unk	unk	2% (26 of 1,345)	2% (26 of 1,345)	0.0%	2% (26 of 1,345)

Performance Goal / Measure	2005 Actual	2006 Actual	2007 Plan	2007 Actual	2008 Plan	2009 President's Budget	Change from 2008 Plan to 2009	Long-term 2012 Target
CSF 5.3 Percent of tasks implemented, as prescribed in management plans (PART)	unk	unk	43% (1,106 of 2,562)	46% (1,588 of 3,429)	40% (1,625 of 4,062)	40% (1,625 of 4,062)	0.0%	40% (1,625 of 4,062)
CSF Total Actual/Projected Cost(\$000)	unk	unk	unk	\$49,064	\$51,412	\$52,646	\$1,234	\$52,646
CSF Program Total Actual/Projected Cost(\$000)	unk	unk	unk	\$36,006	\$36,871	\$37,755	\$885	\$37,755
Actual/Projected Cost Per Tasks (whole dollars)	unk	unk	unk	\$30,896	\$31,638	\$32,397	\$759	\$32,397
Comments:	Due to congressional adds enacted after the 2008 target was finalized, we estimate actual performance will exceed the 2008 plan by approximately +12 FMP.							
5.3.1.3 % of tasks implemented, as prescribed in management plans - NFHS (PART)	unk	unk	70% (650 of 927)	69% (709 of 1,029)	42% (705 of 1,667)	42% (705 of 1,667)	0.0%	42% (705 of 1,667)
Comments:	Due to congressional adds enacted after the 2008 target was finalized, we estimate actual performance will exceed the 2008 plan by approximately +12 FMP.							
5.3.1.4 # of tasks implemented, as prescribed in management plans - NFHS (PART)	unk	unk	650	709	705	705	0	705
5.3.1.5 Total # of tasks, as prescribed in management plans - NFHS (PART)	unk	unk	927	1,029	1,667	1,667	0	1,667
5.3.7 # of applied aquatic science and technologic tools developed through publications	206	632	184	402	305	305	0	305
5.3.8 # of data-related submissions made to the U.S. Food and Drug Administration (FDA) to complete technical section requirements for the approval of new animal drugs for use in aquatic species for which FDA assigns a Document Control Number.	101	75	76	89	79	79	0	79

Performance Goal / Measure	2005 Actual	2006 Actual	2007 Plan	2007 Actual	2008 Plan	2009 President's Budget	Change from 2008 Plan to 2009	Long-term 2012 Target
CSF 5.5 Conservation and Biological Research Facilities Improvement: Overall condition of NFHS buildings and structures (as measured by the FCI) that are mission critical and mission dependent (as measured by the API) with emphasis on improving the condition of assets with critical health and safety needs (GPRA)	0.185	0.000	0.086 (96,081,362 of 1,115,216,172)	0.118 (120,270,843 of 1,015,999,141)	0.124 (125,887,492 of 1,015,999,141)	0.124 (125,887,492 of 1,015,999,141)	0.000	0.124 (125,887,492 of 1,015,999,141)
5.5.1 The condition of NFHS mission critical water management assets, as measured by the DOI FCI, is x. (GPRA)	0.185	0.000	0.086 (96,081,362 of 1,115,216,172)	0.118 (120,270,843 of 1,015,999,141)	0.124 (125,887,492 of 1,015,999,141)	0.124 (125,887,492 of 1,015,999,141)	0.000	0.124 (125,887,492 of 1,015,999,141)
CSF 7.12 Percent of populations of aquatic threatened and endangered species (T&E) that are self-sustaining in the wild (PART)	9%	13% (55 of 435)	10% (61 of 594)	10% (61 of 595)	3% (26 of 962)	3% (26 of 962)	0.0%	3% (26 of 962)
CSF Total Actual/Projected Cost(\$000)	unk	\$34,971	unk	\$30,199	\$13,181	\$13,497	\$316	\$13,497
CSF Program Total Actual/Projected Cost(\$000)	unk	\$17,194	unk	\$15,610	\$15,984	\$16,368	\$384	\$16,368
Actual/Projected Cost Per Unit (whole dollars)	unk	\$635,843	unk	\$495,072	\$506,953	\$519,120	\$12,167	\$519,120
7.12.1.3 % of populations of aquatic threatened and endangered species (T&E) that are self-sustaining in the wild - NFHS (PART)	9%	13% (55 of 435)	10% (61 of 594)	10% (61 of 595)	4% (22 of 584)	4% (22 of 584)	0.0%	4% (22 of 584)
7.12.2.3 % of populations of aquatic threatened and endangered species (T&E) with known biological status that are self-sustaining in the wild - NFHS (PART)	unk	unk	unk	unk	4% (15 of 409)	4% (15 of 409)	0.0%	4% (15 of 409)
7.12.3.3 % 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 - NFHS (PART)	unk	unk	unk	unk	1,077% (64 of 594)	1,077% (64 of 594)	0.0%	1,077% (64 of 594)

Performance Goal / Measure	2005 Actual	2006 Actual	2007 Plan	2007 Actual	2008 Plan	2009 President's Budget	Change from 2008 Plan to 2009	Long-term 2012 Target
7.12.4.3 % of aquatic T&E populations managed or influenced by the Fisheries Program with approved Recovery plans - NFHS (PART)	unk	unk	unk	unk	27% (132 of 490)	27% (132 of 490)	0.0%	27% (132 of 490)
7.12.5.3 % of tasks implemented as prescribed in Recovery Plans - NFHS (PART)	unk	unk	57% (210 of 367)	52% (190 of 368)	38% (247 of 657)	38% (247 of 657)	0.0%	38% (247 of 657)
Comments:	Due to congressional adds, enacted after the 2008 target was finalized, we estimate actual performance will exceed the 2008 plan by approximately +6 Recovery Plan tasks.							
<b>Recreation</b>								
CSF 15.4 Percent of mitigation tasks implemented as prescribed in approved management plans	unk	unk	68% (27 of 40)	73% (30 of 41)	79% (44 of 56)	79% (44 of 56)	0.0%	79% (44 of 56)
CSF Total Actual/Projected Cost(\$000)	unk	unk	unk	\$20,389	\$30,622	\$31,357	\$735	\$31,357
CSF Program Total Actual/Projected Cost(\$000)	unk	unk	unk	\$19,766	\$20,240	\$20,726	\$486	\$20,726
Actual/Projected Cost Per Tasks (whole dollars)	unk	unk	unk	\$679,647	\$695,958	\$712,661	\$16,703	\$712,661
15.4.1.3 % of mitigation tasks implemented as prescribed in approved management plans - NFHS (PART)	unk	unk	68% (27 of 40)	73% (30 of 41)	90% (35 of 39)	90% (35 of 39)	0.0%	90% (35 of 39)
15.4.1.4 # of mitigation tasks implemented as prescribed in approved management plans - NFHS (PART)	unk	unk	27	30	35	35	0	35
15.4.1.5 total # of mitigation tasks - NFHS (PART)	unk	unk	40	41	39	39	0	39
15.4.6.3 % of fish populations at levels sufficient to provide quality recreational fishing opportunities - NFHS (PART)	unk	unk	unk	unk	0% (4 of 884)	0% (4 of 884)	0.0%	0% (4 of 884)
15.4.8 # of aquatic outreach and education events - NFHS	unk	unk	unk	unk	603	610	7 (1.2%)	610

Performance Goal / Measure	2005 Actual	2006 Actual	2007 Plan	2007 Actual	2008 Plan	2009 President's Budget	Change from 2008 Plan to 2009	Long-term 2012 Target
15.4.11 Pounds per dollar (lbs./\$) of healthy rainbow trout produced for recreation (PART)	unk	0.33	0.33	0.33	0.35	0.35	0	0.35
15.4.12 Total # of visitors to NFHS facilities	1,653,327	1,540,090	1,485,908	2,392,144	2,167,197	2,200,000	32,803 (1.5%)	2,200,000
CSF 15.8 % of adult Americans participating in wildlife-associated recreation	unk	unk	unk	unk	38% (385 of 1,000)	38% (385 of 1,000)	0.0%	38% (385 of 1,000)
CSF Program Total Actual/Projected Cost(\$000)	unk	unk	unk	unk	\$7,954	\$8,144	\$191	\$8,144
15.8.10 # of waters where recreational fishing opportunities are provided - NFHS (GPRA)(PART)	unk	unk	221	221	221	221	0	221
CSF 18.1 Percent of planned tasks implemented for Tribal fish and wildlife conservation as prescribed by Tribal plans or agreements	3,178%	115% (639 of 554)	72% (427 of 591)	84% (495 of 591)	65% (340 of 520)	65% (340 of 520)	0.0%	65% (340 of 520)
CSF Total Actual/Projected Cost(\$000)	unk	\$4,834	unk	\$5,513	\$3,878	\$3,971	\$93	\$3,971
CSF Program Total Actual/Projected Cost(\$000)	unk	\$1,562	unk	\$3,286	\$3,365	\$3,446	\$81	\$3,446
Actual/Projected Cost Per tasks (whole dollars)	unk	\$7,564	unk	\$11,138	\$11,405	\$11,679	\$274	\$11,679
18.1.2 % of planned tasks implemented for Tribal fish and wildlife conservation as prescribed by Tribal plans or agreements - NFHS	2,408%	79% (61 of 77)	64% (64 of 100)	79% (79 of 100)	54% (77 of 142)	54% (77 of 142)	0.0%	54% (77 of 142)
52.1.2 # of volunteer participation hours are supporting Fisheries objectives for Hatcheries (GPRA)	120,055	113,407	98,739	117,915	110,690	115,000	4,310 (3.9%)	115,000
52.1.7 % of NFHS with friends groups	34%	30% (24 of 79)	38% (28 of 73)	37% (27 of 73)	36% (27 of 74)	42% (31 of 74)	5.4% (14.8%)	42% (31 of 74)
Comments:	Due to congressional adds, enacted after the 2008 target was finalized, we estimate actual performance will exceed the 2008 plan by approximately +4 Friends Groups.							

**Activity: Fisheries**  
**Subactivity: Maintenance and Equipment**

		2007 Actual	2008 Enacted	2009			Change From 2008 (+/-)
				Fixed Costs & Related Changes (+/-)	Program Changes (+/-)	Budget Request	
National Fish Hatchery Maintenance and Equipment	(\$000)	16,565	17,167	+137	-675	16,629	-538
	FTE	86	82		0	82	0
FWCO Maintenance & Equipment	(\$000)	1,334	1,394	0	-98	1,296	-98
	FTE	0	0	0	0	0	0
<b>Total, Maintenance &amp; Equipment</b>	<b>(\$000)</b>	<b>17,899</b>	<b>18,561</b>	<b>+137</b>	<b>-773</b>	<b>17,925</b>	<b>-636</b>
	<b>FTE</b>	<b>86</b>	<b>82</b>	<b>0</b>	<b>0</b>	<b>82</b>	<b>0</b>

**Summary of 2009 Program Changes for Maintenance and Equipment**

Request Component	(\$000)	FTE
• NHFS Annual Maintenance	-256	0
• NHFS Deferred Maintenance	-384	0
• FWCO General Program Activities	-98	0
• Travel and relocation expense reduction	-28	0
• Performance-based contracting	-7	0
<b>TOTAL Program Changes</b>	<b>-773</b>	<b>0</b>

**Justification of 2009 Program Changes**

The 2009 budget request for Maintenance and Equipment is \$17,925,000 and 82 FTEs, a program change of -\$773,000 and 0 FTE from the 2008 Enacted.

**Annual Maintenance - NFHS (-\$256,000)**

Funding for Annual Maintenance is reduced to ensure the highest Service priorities can be achieved. The proposed reduction may impact periodic maintenance of Service assets used for aquatic conservation programs. Although the link between aquatic species production and asset maintenance is not one-to-one, reduced daily and periodic maintenance could impact rearing and producing aquatic organisms. Delaying or failing to perform annual maintenance can impact water pumps, backup generators, alarm systems, pipelines, and other building components.

**Deferred Maintenance – NFHS (-\$384,000)**

Funding for Deferred maintenance is reduced to help fund Service priorities. The priority of deferred maintenance projects is established by the Service Asset and Maintenance System (SAMMS). The reduction of \$384,000 may impact the initiation of seven maintenance projects originally scheduled for FY 2009.

The funds remaining will be used to address human safety priorities and other projects addressing water management assets. The NFHS will initiate efforts to focus on mission critical water management assets that foster the success of specific recovery, restoration plans and fishery management plans.

**FWCO Maintenance and Equipment – General Program Activities (-\$98,000)**

Funding for general program activities is reduced to help achieve Service priorities. The Fish and Wildlife Conservation Offices (FWCOs) maintenance and equipment funds are used to maintain sensitive equipment in safe working condition and replace mission-critical equipment (e.g., boats, vehicles, and sampling apparatus). Reduced funding may impact preventive maintenance and property replacement.

**Program Overview**

To successfully achieve the Service's diverse aquatic resource missions, the assets crucial to fulfilling those missions must be managed properly and proactively. The Fisheries Program has developed an Asset Management Plan that provides guidance and strategies for managing real and personal property inventories, including the systematic and objective tracking, evaluation, and reporting of asset condition and the prioritization of their management.

Because of the direct link between assets at program facilities and the success of propagation and refugia programs, asset management directly supports the Department's resource protection goals to sustain biological communities and to manage populations to self-sustaining levels for specific species. By developing and implementing strategies to get mission critical assets into proper operating condition, the health and safety of employees and visitors and the condition of species held at National Fish Hatchery (NFHS) field stations will be addressed. Additionally, the program continues to implement the recommendations made to the Department in the Office of the Inspector General's December 2001 Advisory Report, "Maintaining the Department of Interior's Facilities, A Framework for Action." The report documents the need, among others, to take such actions as reducing the deferred maintenance needs, managing facilities proactively, conducting condition assessments, establishing performance measures, and implementing a facilities management system. Using the Service Asset and Maintenance Management System (SAMMS), an integrated, web-based information system, the Fisheries Program can standardize asset management, corroborate deferred maintenance needs with comprehensive condition assessment data, identify short and long-term maintenance needs, and initiate analyses of annual operating and maintenance expenditures. Implementing more comprehensive and proactive asset management strategies is essential to sustain captive aquatic populations necessary to meet recovery, restoration, and mitigation objectives and Tribal trust responsibilities identified in approved Recovery Plans and fishery management plans.

**National Fish Hatchery System Maintenance and Equipment**

The NFHS mission accomplishments are largely determined by the condition of key assets associated with water delivery, aquatic species culture, and effluent management. These assets include those that directly deliver and treat the water delivered to and discharged from the facility, and regulate the actual rearing or holding environment of fish and other aquatic species. Three-fourths of the NFHS' \$1.32 billion of real property assets are mission critical. The NFHS has embraced the Office of the Inspector General's recommendations on facilities maintenance, as well as Department asset management initiatives, and has developed asset performance measures and a sound strategy for ensuring its crucial assets are kept fully functional. The NFHS agrees with the Departmental standard that mission critical assets be maintained in "good" condition. With a current facility condition index (FCI, or the needed repairs as a fraction of the assets' replacement value) for its critical assets of 0.12, the NFHS will work to minimize any losses of fish associated with water supply failures, especially those involving threatened or endangered species.

Through the Service's Asset Management Plan and Regional Asset Business Plans, the NFHS proactively manages its assets, addressing key repair needs, and disposing of assets that are low in priority or excess to the government's needs. Incorporating the condition assessment process ensures that the NFHS' repair needs are objectively determined. With a primary goal of ensuring that the NFHS' critical assets are in fully operational condition, attention to both annual maintenance (regular servicing of water supply



components), and deferred maintenance (outstanding repair needs of these vital assets) is necessary. This strategy supports the DOI resource protection goal of sustaining biological communities, as both water quality and quantity are critical elements in sustaining biological communities.

The NFHS Maintenance Budget has three components: 1) Annual Maintenance, 2) Deferred Maintenance, and 3) Equipment Repair and Replacement.

**Annual Maintenance** - NFHS annual preventive maintenance funds are used to pay salaries of maintenance employees, ensure timely upkeep of hatchery real property and equipment, purchase maintenance supplies (e.g., lumber, pipe, paint, tools, filters), and replace small equipment (generally less than \$5,000), thus avoiding adding additional projects to the deferred maintenance backlog. Properly managed, annual preventive maintenance is a logical approach to emerging maintenance issues; addressing needs as they occur is most cost-effective. With the increased requirements for State and Federally-mandated effluent treatment, annual maintenance has greatly increased (replacing ultraviolet bulbs, screen filters, and valves). Current annual maintenance funding will allow some preventive maintenance needs to be addressed in a timely manner and reduce the burden on operational budgets. Similarly, critical water assets such as wells and pumps require regular rehabilitation to ensure dependable operation. Existing funding will be used to service critical components such as water pumps at appropriate intervals, reducing the likelihood of pump failure and increasing the life expectancy of pump motors and shafts. Through the use of the Service Asset and Maintenance Management System (SAMMS) and comprehensive condition assessment process, the NFHS can plan component renewal and recurring maintenance to enable a more proactive asset management strategy, reduce maintenance needs from becoming more costly deferred maintenance deficiencies, and foster the successful completion of operational activities.

**Deferred Maintenance** – Deferred maintenance projects target those assets which are used for restoration, recovery, and recreational efforts. Deferred maintenance funding is directed to the repair, rehabilitation, or replacement of constructed assets. Focus will be on high priority mission critical water management asset projects and human health and safety projects. This will result in maintaining current efficiencies (including reduced losses) in fish production and attention to safety issues. The proposed funding will help address the NFHS' existing \$152 million deferred maintenance needs. With three-fourths of the NFHS' \$1.32 billion in assets consisting of its mission critical water management assets, currently in marginally poor condition, getting these properties fully functional will be key to the NFHS' ability to conserve significant fish and other aquatic species.

Projects are identified and tracked in Service maintenance databases and are prioritized for funding in the NFHS Five-Year Deferred Maintenance Plan. The FY 2009-2013 Plan includes a detailed list of projects to be accomplished during each of those years. Consistent with DOI guidance, projects are ranked and scored on the following criteria: 1) critical health and safety, 2) critical resource protection, 3) critical mission, and 4) other important needs.

**Equipment: Routine Maintenance, Repair, and Replacement** – NFHS equipment is essential to mission accomplishment and is comprised of machinery (e.g., fish pumps, tractors, loaders, backhoes, riding mowers), fish transports (trucks, tanks, oxygen containment), standard vehicles (e.g., pickups, sedans, vans), and tools (e.g., table saws, welders, and hand-held power tools). With proper operation by trained and qualified operators, and with scheduled maintenance completed and documented on a timely basis, equipment will remain useable for the foreseeable future. Proper maintenance of equipment includes both short and long-term storage.

The NFHS equipment line funds maintenance, repair, and replacement of these items. Replacement generally targets those items with a value greater than \$5,000 and less than \$30,000, as well as passenger-

carrying vehicles. More expensive equipment is presently identified for purchase through the Five-Year Deferred Maintenance Plan. To avoid the need to purchase high dollar, specialized equipment, the NFHS works closely with the National Wildlife Refuge System to accomplish certain projects. In the event such arrangements cannot be accommodated because of scheduled equipment usage, specialized equipment is leased from the private sector and Refuge-based equipment operators are “loaned” to Hatcheries for the duration of the project, saving the Service considerable funds.

### **Fish and Wildlife Conservation Office Maintenance and Equipment**

The Fish and Wildlife Conservation Office (FWCO) maintenance efforts address mobile equipment management and acquisition of property critical to FWCOs in conducting core-mission activities to effectively manage populations of federal trust species and their habitats. This equipment (e.g., boats, vehicles, sampling apparatus), valued at \$18 million, allows FWCOs to assess the condition of aquatic resources, thereby more efficiently progressing toward restoring and maintaining native species of fish and other aquatic resources at self-sustaining levels. FWCOs will continue to use SAMMS to provide a comprehensive understanding of preventive maintenance needs and accomplishments. SAMMS will also be used to identify mobile equipment replacement needs such that on-the-ground habitat monitoring and assessment can be safely and efficiently conducted.

### **2009 Program Performance**

The requested funding will enable the NFHS to continue to work on its repair needs involving mission critical water management assets by implementing the following highly-ranked projects from the FY 2009-2013 NFHS Deferred Maintenance Plan:

- Rehabilitate a solid waste dump site at Lamar NFH (PA) to comply with a safety audit that identified possible access by area children. The project will remove construction debris and bring the site into compliance with local codes.
- Rehabilitate a water alarm system at Abernathy Fish Technology Center (WA) to provide protection for fish held as surrogates for threatened and endangered species in applied research studies. In Fall 2005, thousands of fish were lost due to a system failure, impacting research important to the Service, Bonneville Power Administration, and the Independent Scientific Review Panel of the Columbia River Fish and Wildlife Authority.
- Rehabilitate a production pond to conserve water and control weeds at Dexter National Fish Hatchery and Technology Center (NM), as water losses due to seepage in the pond are considerable, affecting the station’s mission to culture, propagate, and restore native fishes of the Southwest.
- Replace a portable generator with a permanent backup generator at Garrison Dam NFH (ND), because frequent power interruptions have jeopardized fish health and compromised the Service’s ability to produce a healthy product. A recent Pallid Sturgeon Propagation Workgroup pointed to the lack of backup power as a serious threat to this recovery effort.

Presently, several States are permitting continued fish culture operations at NFHS facilities only because pollution abatement projects are on schedule in the maintenance or capital improvement plans. Any deviations from those schedules would likely lead to a reduction or cessation of production for such programs as Atlantic salmon and other imperiled species. All the critical maintenance issues that directly deal with human health and safety, water delivery, water treatment (both influent and effluent), fish culture, and efficient discharge are high priorities for the NFHS. In recent years, documented instances of fish losses, including listed species, have been directly attributable to critical infrastructure failure. A highly dedicated NFHS workforce continues to maximize production of a large variety of aquatic species for restoration, recovery, and mitigation. Rehabilitating or replacing these mission critical assets is

essential to the continued success of meeting program goals, objectives and the expectations of the Service's many partners and stakeholders in aquatic resource conservation.

Addressing critical maintenance needs will help the NFHS meet performance targets associated with Facility Condition Indexes. Furthermore, the continuance of a dedicated approach to conducting condition assessments has directly contributed to the gradual reduction of the NFHS' officially reported repair need through the elimination of needs that were not deferred maintenance, and to increasing the credibility of repair needs identified for essential assets.

In FY 2009, the NFHS is committed to:

- Continuing the second 5-year cycle of assessments by completing Comprehensive Condition Assessment at approximately 20 hatcheries. Additionally, efforts will continue to improve the assessment program by implementing knowledge gained in the first 5-year cycle, using SAMMS to improve the efficiency of the data storage and retrieval system, and increasing the reliability of data used to effectively and efficiently meet DOI and NFHS maintenance goals and objectives.
- Implementing an Asset Management Plan and Asset Business Plan that outlines proactive strategies to maintain assets for their efficient, safe use. Multiple strategies will be identified and those which pose the greatest fiscal and asset benefit will be implemented. Additionally, Asset Business Plans developed by each Program at the Regional level will continue to be implemented, ensuring essential Service uniformity in managing its crucial assets.

The NFHS is fully committed to the President's Management Agenda, linking performance with budget and continued implementation of the Department's Strategic Plan in FY 2009. The NFHS has continued development of outcome measures and modification of other long-term measures to accurately describe its contributions to the DOI End and Intermediate Outcome Goals. Actual accomplishments are being reported and baseline conditions for these performance measures have been verified for use in establishing performance targets for FY 2009.

**Activity: Fisheries**  
**Subactivity: Aquatic Habitat and Species Conservation**

		2007 Actual	2008 Enacted	2009			Change from 2008 (+/-)
				Fixed Costs & Related Changes (+/-)	Program Changes (+/-)	Budget Request	
Habitat Assessment & Restoration	(\$000) FTE	13,878 71	22,257 91	+166	-6,259 -18	16,164 73	-6,093 -18
Population Assessment & Cooperative Management	(\$000) FTE	31,577 220	31,463 220	+525	-810 0	31,178 220	-285 0
<b>Total, Aquatic Habitat and Species Conservation</b>	<b>(\$000) FTE</b>	<b>45,455 291</b>	<b>53,720 311</b>	<b>+691</b>	<b>-7,069 -18</b>	<b>47,342 293</b>	<b>-6,378 -18</b>

**Summary of 2009 Program Changes for Aquatic Habitat and Species Conservation**

Request Component	(\$000)	FTE
• Fish Passage Program	-5,907	-18
• Habitat Assessment & Restoration - General Program Activities	-310	0
• Habitat Assessment & Restoration – Travel and Relocation Expense Reduction	-34	0
• Habitat Assessment & Restoration – Performance-based Contract Reduction	-8	0
• Penobscot River Restoration Activities	-492	0
• Population Assessment and Restoration – General Program Activities	-184	0
• Population Assessment and Restoration – Travel and Relocation Expense Reduction	-108	0
• Population Assessment and Cooperative Management – Performance-based Contract Reduction	-26	0
<b>TOTAL Program Changes</b>	<b>-7,069</b>	<b>-18</b>

**Justification of 2009 Program Changes**

The 2009 budget request for Aquatic Habitat and Species Conservation is \$47,342,000 and 293 FTEs, a program change of -\$7,069,000 and -18 FTEs from the 2008 Enacted.

**National Fish Passage Program (-\$5,907,000 / -18 FTEs)**

In FY 2009, funding for this program will be reduced by \$5,907,000 from the FY 2008 enacted level to approximately the FY 2007 level. In FY 2008, the President's budget requested a one-time \$6 million increase for the National Fish Passage Program to help implement the Administration's Open Rivers Initiative. Approximately, the FY 2008 increase will result in an additional 90 barriers removed or bypassed, 600 miles and 6,000 acres opened for access to fish passage. The Service's FY 2009 targets will be similar to its FY 2007 targets.

Through the *Federal Fish Passage Action Plan*, the Fisheries Program works with Federal partners to deliver the Administration's Open Rivers Initiative in a seamless approach, complementing efforts of the National Marine Fisheries Service (NMFS) in removing obsolete dams in coastal states and the Natural Resources Conservation Service (NRCS) in cost-sharing with landowners to remove small private dams and water diversions. Also, the \$300,000 of base funding used to support the Penobscot River Restoration Project will be reduced to the FY 2007 funding level of \$75,000.

**Program Performance Change**

Performance Goal	2006 Actual	2007 Actual	2008 Plan	2009 Base Budget (2008 Plan + Fixed Costs)	2009 President's Budget	Program Change Accruing in 2009	Program Change Accruing in Outyears
<b>Resource Protection - Landscapes and Watersheds</b>							
5.1.11 # of fish passage barriers removed or bypassed to benefit populations of mgnt. concern - FWMA	123	92	73	81	81	0	0
Comments:	Due to congressional adds enacted after the 2008 target was finalized, we estimate actual performance will exceed the 2008 plan by approximately 90 barriers removed or bypassed with the requested \$6 million funding increase.						
5.1.12 # of miles reopened to fish passage - FWMA	1,179	2,863	1,023	463	463	0	0 (0.0%)
Comments:	Due to congressional adds enacted after the 2008 target was finalized, we estimate actual performance will exceed the 2008 plan by approximately 600 miles reopened to fish passage with the requested \$6 million funding increase.						
5.1.13 # of acres reopened to fish passage - FWMA	1,518	756	1,232	347	347	0	0
Comments:	Due to congressional adds enacted after the 2008 target was finalized, we estimate actual performance will exceed the 2008 plan by approximately +6,000 acres reopened to fish passage with the requested \$6 million funding increase.						

**Habitat Assessment & Restoration - General Program Activities (-\$310,000)**

General activities program funding in Habitat Assessment and Restoration will be reduced by \$310,000 from the FY 2008 enacted level to help fund higher priority Service activities. The Service will continue to pursue program goals using existing funding by working with its State and Tribal partners, and utilizing alternative funding sources such as the State and Tribal Wildlife Grant Programs. Specific reductions in performance will be determined at the Regional level in consultation with States, Tribes, and other partners.

**Population Assessment & Cooperative Management - General Program Activities (-\$184,000)**

General program funding in Population Assessment and Cooperative Management will be reduced by \$184,000 from the FY 2008 enacted level to help fund Service priorities. The Service will continue to pursue program goals using existing funding by working with its State and Tribal partners, and utilizing alternative funding sources such as the State and Tribal Wildlife Grant Programs. Specific reductions in performance will be determined at the Regional level in consultation with states, tribes, and other partners.

**Penobscot River Restoration Activities (-\$492,000)**

This unrequested earmark is not currently in the inventory for planned restoration efforts in FY 2009 for either the Recovery, Fish Passage, or Coastal programs. As a result, funding this project would circumvent the Service's priority setting process and redirect funding to lower priorities at the expense of higher priorities elsewhere. In FY 2008, Congress provided funding to assist the Service in Atlantic Salmon Penobscot River restoration activities. Removal of dams and other fish restoration measures may enhance populations of Atlantic salmon in the Penobscot River watershed.

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## Program Overview

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### Habitat Assessment and Restoration

Fish and Wildlife Conservation Offices (FWCOs) work to manage and conserve habitats important to native federal trust populations. This work occurs at the national, regional, and local scale. Core activities in this program area focus on restoring aquatic habitats, including assessing the ability of habitats to support healthy and self-sustaining aquatic populations, identifying important fish habitat needs, removing or bypassing artificial barriers to fish passage, installing fish screens, performing in stream and riparian habitat enhancement projects, monitoring and evaluating results of habitat projects, and mitigating the impacts of climate change on species and aquatic habitat. The two major focus areas of the Habitat Assessment and Restoration Program are:

*National Fish Habitat Action Plan:* The Service is a partner with States, Tribes, and other stakeholders in implementing the National Fish Habitat Action Plan. The Plan will foster geographically-focused, locally-driven, and scientifically-based partnerships to protect, restore, and enhance aquatic habitats and reverse the decline of fish and aquatic species. The mission of the Action Plan is “to protect, restore, and enhance the nation’s fish and aquatic communities through partnerships that foster fish habitat conservation and improve the quality of life for the American people.” The Action Plan is non-regulatory and voluntary, and relies upon the energies and expertise of geographically-focused regional Fish Habitat Partnerships (FHPs) dedicated to protecting, restoring, and enhancing fish habitats. For example, the Fisheries Program is working to implement the Healthy Lands Initiative (HLI) in the Green River Basin. Work conducted with National Fish Habitat Action Plan funds will focus on improving habitat for Colorado River cutthroat trout on the south and west slopes of the Wind River mountain range. Projects will assess and improve aquatic habitats in cooperation with the Wyoming Game and Fish Department and address priorities of the Western Native Trout Initiative, a Pilot Fish Habitat Partnership under the Action Plan.

*National Fish Passage Program:* Millions of artificial barriers block fish movement in the United States contributing to the depletion of native and migratory fish species, including many that are threatened or endangered. The Service’s National Fish Passage Program addresses the problem of fish barriers on a national level, working with local communities and partner agencies to restore natural flows and fish migration by strategically removing and bypassing barriers. The National Fish Passage Program is an on-the-ground, resource outcome-based habitat restoration program that uses a voluntary, non-regulatory partnership-based effort that exemplifies the spirit of the Healthy Lands Initiative and the practice of cooperative conservation. Fish passage improvement projects are implemented in collaboration with dam owners, local governments, landowners, Tribes, and others who contribute approximately 60% of total project funds to achieve habitat restoration results. Projects focus on promoting the de-listing of recovered species and restoring depleted fish and aquatic species populations to self-sustaining status, preventing listing of aquatic species, and contributing to healthy habitats for the benefit of the American people. In addition, projects under the Fish Passage Program help mitigate for the impacts of climate change by promoting access to habitat refugia and migratory capability of fish populations.

More than 2.5 million dams, and millions of other poorly designed culverts and other structures, impede fish passage across the American landscape. The Fisheries Operational Needs System (FONS) currently contains 468 priority fish passage projects with a total cost of \$87,495,239. These projects would remove or bypass 464 barriers and open access to 4,831 miles and 42,143 acres of historical spawning and rearing habitats for Federal trust aquatic species. Since the inception of the National Fish Passage Program in 1999, the Program has supported cost-share projects removing or bypassing 550 barriers, restoring access to over 7,696 miles of river and 55,657 acres of wetlands for fish spawning and growth. In addition, the program supported 3,754 habitat and 2,374 population assessments.

The National Fish Passage Program ensures the capability of the FWCOs to strategically remove or bypass barriers to fish passage; assess and monitor the effectiveness of fish passage improvement projects; inventory priority watersheds to identify fish passage problems; provide project design and engineering technical assistance, expertise, and training to our partners; and maintain the partnerships that are vital to the success of the National Fish Passage Program. Through the use of the Fish Passage Decision Support System (FPDSS), FWCOs will identify and target priority areas which provide the best opportunities for continued self-sustaining fish and other aquatic species, to preclude listing of species, and to measurably contribute to species recovery and restoration.

FWCOs and Conservation Planning Assistance will coordinate to identify fish passage improvements and fish passage prescriptions resulting from the Federal Energy Regulatory Commission (FERC) licensing process and incorporate these into the FPDSS. Lastly, the Fisheries Program will coordinate with other programs that provide technical assistance to other entities (Federal Energy Regulatory Commission (FERC), Department of Transportation, U.S. Army Corps of Engineers) to capture fish passage accomplishments conducted by other agencies and incorporate these fish passage improvements into the FPDSS.

### **Population Assessment and Cooperative Management**

This program element combines core activities previously addressed by the Fish and Wildlife Conservation Office and the Anadromous Fish Management program elements. Core activities focus on reversing declines in populations of Federal trust aquatic species by assessing the status of populations of aquatic species of management concern; cooperatively developing and implementing plans for restoring, recovering, and managing sustainable fisheries; evaluating population responses to habitat restoration, stocking, and other conservation strategies; managing subsistence harvest of fisheries on Federal lands in Alaska; conducting genetic assessments of wild fish populations; and providing technical assistance to Native Americans to support cooperative fish and wildlife conservation. Fisheries management activities focus on listed and depleted populations of native species, as well as interjurisdictional fish species such as American eel, American shad, Atlantic sturgeon, river herring, striped bass, and Pacific salmon.

This program element also complements the work of other Service programs. For example, FWCO biologists conduct population surveys in National Wildlife Refuge System waters and help develop Refuge Comprehensive Conservation Plans. The FWCO Program supports the Endangered Species Program by providing support and leadership on recovery teams. FWCO biologists work with the Habitat Conservation Program to review hydropower and other development projects for potential impacts to aquatic resources. Through coordinated planning and post-stocking evaluation, the FWCO Program works with the National Fish Hatchery System to implement effective restoration and recovery programs for native fish and mussels. The Program measures the performance of captive propagation programs, works with stakeholders to develop management and restoration plans that define the appropriate use of hatchery fish, and measures progress toward meeting plan objectives.

Program biologists focus program expertise and resources on key watersheds as determined by the Service and its partners and identify the needs of priority trust species and their habitats. The Program works across jurisdictional boundaries with other State and Federal agencies, and cross-programmatically within the Service, to implement management actions at the landscape scale to recover populations of species to self-sustaining levels and to preclude listing of depleted species by addressing threats to their sustainability.

The Program also works with Native American tribes to assess fish and wildlife resources, develop management plans, coordinate fish stocking, and evaluate results of management actions on fish and wildlife resources under tribal jurisdiction. Additional activities include coordination with the Department of Defense of military installations under the Sikes Act to develop, implement, and revise

Integrated Natural Resources Management Plans for military installations with significant natural resources.

### **Alaska Subsistence Management Program**

More than 135,000 people in over 270 communities live in rural Alaska and are entitled to subsistence fishing, hunting, and trapping on Federal lands. Across Alaska, the average subsistence harvest is approximately 375 pounds of food per person, or 50 million pounds of food per year. Replacing subsistence harvested foods with store-bought foods would cost to \$270 million<sup>1</sup>. The Alaska Fisheries Subsistence Management Program provides a direct benefit to rural subsistence users on more than 237 million acres of Federal lands, encompassing 66% of Alaska's lands and 52% of Alaska's rivers and lakes.

The Program is funded with \$10.07 million in Fisheries and \$2.8 million in Refuge Operations. These funds enable the Service to serve as the lead Federal agency to administer the program for the Department of the Interior and Department of Agriculture. Since 1999, the Service's Office of Subsistence Management has implemented an annual regulatory program and a fisheries monitoring program, has supported ten Regional Advisory Councils, and has provided administrative and technical support to five Federal agencies and the Federal Subsistence Board. The subsistence management program operates with strong stakeholder participation by rural residents and the State of Alaska.

### **2009 Program Performance**

In FY 2009, the FWCOs will continue their comprehensive efforts to assess the condition of aquatic habitats and populations, restore physical condition and fish passage, reverse declines in populations of Federal trust aquatic species, manage subsistence fisheries in Alaska, provide technical assistance to Native Americans, and cooperatively develop and implement plans for restoration, recovery, and sustainable fisheries. FWCOs will use the Fisheries Operational Needs System and Fish Passage Decision Support System to identify specific projects that could be conducted with requested funding to meet anticipated targets. Expected effects on program performance may include reductions of 26 population assessments completed, 18 technical assistance requests fulfilled, and nine tribal consultations. The decrease may also reduce the rate of recovery and restoration of trust fish species and recreational fishing opportunities.

### **Working with Tribes**

FWCO works with Native American Tribes to assess their fish and wildlife resources, develop management plans, coordinate fish stocking and habitat improvement, and evaluate results of management actions on fish and wildlife resources under Tribal jurisdiction. In FY 2009, those efforts will continue, such as implementing the 2000 Consent Decree to manage fish stocks in the Great Lakes with 5 Chippewa/Ottawa Tribes and the State of Michigan, working with the Penobscot Indian Nation on effective salmon conservation in the northeast, and working with Tribes to evaluate big game herds such as deer, elk, and pronghorn antelope on Montana reservations.

Staff will continue efforts to enhance recreational fishing for native fish species on Refuge and military lands by updating Refuge Comprehensive Conservation Plans and fishery management plans, monitoring fish population status and trends, creating additional fishing access, enhancing habitat, and conducting outreach activities.

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<sup>1</sup> Fall, J. A., D. Caylor, M. Turek, C. Brown, J. Magdanz, T. Krauthoefer, J. Heltzel, and D. Koster. 2007. Alaska Subsistence Salmon Fisheries 2005 Annual Report. Alaska Department of Fish and Game, Division of Subsistence Technical Paper No. 318, Juneau, Alaska.



**Evaluating the Population Outcomes of Habitat Restoration Projects**

Habitat degradation and loss are the number one cause of declining and imperiled fish populations in the United States. The Service is meeting this challenge through several habitat restoration partnership programs each tailored to address specific needs, including the National Fish Passage Program, the National Fish Habitat Action Plan, and the Partners for Fish and Wildlife program. However, because of the biology of many fish species, the population benefits may not be realized for several years.

**Reducing Status and Trend Data Needs for Threatened and Endangered Species**

FWCOs will continue efforts to recover threatened and endangered native aquatic populations with the goal of delisting species currently on the Endangered Species List. Of the 1,531 fish populations for which the Service has responsibilities, only 21% have current and adequate scientific assessment data. The fish populations include 404 that are classified as threatened or endangered, 474 that are depleted (including candidate species and those proposed for listing under the Endangered Species Act), and 325 whose status is unknown. Information on population trends shows that 17% are declining and 25% are stable or increasing, but trends are unknown for 58% of the fish populations. The Service will help to reduce this need with the continued support of Fish and Wildlife Conservation Offices. This type of coordinated effort between the Endangered Species and Fisheries programs has already demonstrated its value. For example, the endangered Gila trout was downlisted to threatened status in 2006 after population assessments by the New Mexico FWCO showed that the number of Gila trout populations have tripled in the last 40 years. For FY 2009, the Service will continue its efforts in close coordination with the Endangered Species program and the State Wildlife Action Plans.

**National Fish Habitat Action Plan**

Through the Association of Fish and Wildlife Agencies (AFWA), the States will continue to lead the implementation of the Fish Habitat Action Plan, in cooperation with the Service and other key partners. The National Fish Habitat Board will continue its established responsibility to promote, oversee, and coordinate implementation of the Action Plan. The Board has developed guidance for establishing FHPs and will be engaged in allocating national funding and related resources to priorities of the FHPs. Core staff from the Service, USGS, AFWA, and NOAA assist the Board in implementing its programs.

The continued funding will enable the Fisheries Program to further the Service's work in implementing the Action Plan, and will provide funds to help:

- Facilitate coordination and leadership at the Regional level to develop FHPs and promote strategic investment to achieve Action Plan goals;
- Implement on-the-ground cost-share projects identified by FHPs, approved by the Service Director and in consultation with the National Fish Habitat Board; and
- Evaluate the effectiveness of selected projects and report results to the Board and others to help guide restoration efforts.

The Service will continue to implement the Healthy Lands Initiative (HLI) in the Green River Basin through work conducted with National Fish Habitat Action Plan funds. Projects will focus on improving habitat for Colorado River cutthroat trout on the south and west slopes of the Wind River mountain range and assess and improve aquatic habitats in cooperation with the Wyoming Game and Fish Department and address priorities of the Western Native Trout Initiative, a Pilot Fish Habitat Partnership under the Action Plan. At least 70% of the funds will be used for on-the-ground habitat projects, and no more than 30% for activities that indirectly support the projects. Accomplishments will be reported in the Fisheries Information System.

The Service anticipates that 100 population assessments and 285 habitat assessments will be completed for native trust species, including the assessment of 1,200 miles of stream and riparian habitat and 231

miles of stream and shoreline will be restored or enhanced to achieve habitat conditions to support aquatic species conservation.

Fish habitat projects identified in the FONS that may be funded include:

- Restoration of 13.6 miles of stream habitat by installing 65 instream structures improving habitat for the Southern Appalachian Brook Trout in 15 streams within the Chattahoochee National Forest in Georgia;
- Restore 1,400 linear feet of floodplain function of the Trout Creek in California, through bioengineering techniques (such as grade control structures), soil stabilization, and riparian replanting to benefit a population of native trout;
- Restore instream aquatic habitat conditions by planting hardwood trees for resident freshwater recreational fish species that have been degraded by road construction and associated removal of riparian vegetation in Reedy and Big Bogue Creeks in the Pascagoula River basin in Mississippi;
- Restore 6 miles of bull trout and redband habitat in Mores Creek, Boise River, Idaho by installing four instream structures that will increase water exchange and reduce the temperature by the formation of pools behind the structures and reducing sediment load for this 303(d) listed stream, improving habitat for bull and redband trout

### **National Fish Passage Program**

Through the use of the Fish Passage Decision Support System (FPDSS), FWCOs will identify and target priority areas which provide the best opportunities for continued self-sustaining fish and other aquatic species, to preclude listing of species, and to measurably contribute to species recovery and restoration. Continued support will ensure the National Fish Passage Program's ability to contribute to the performance goals of the National Fish Passage Program in inland and coastal areas that are not the focus of NMFS or NRCS efforts.

Fish passage projects identified in the Fisheries Operational Needs System (FONS) that may be funded in 2009 through continued support include:

- In Pennsylvania, removal of up to 10 dams in the Delaware River watershed, including two on Perkiomen Creek and two on the West Branch of the Chester River, will open over six stream miles and enhance 3.9 miles of riparian and instream habitat, and 10 acres of wetlands for American shad, alewife, American eel, and herring.
- In Kansas, removal of two obsolete dams on the Arkansas River will reopen fish migration for state listed Arkansas darter, Arkansas River shiner, speckled chub, and Federal trust species (e.g., shovelnose sturgeon, paddlefish, longnose gar), enhancing Service efforts meet State wildlife management plan priorities.
- In Greenfield, Maine, removal of the Wiley-Russell and Mill Street dams and construction of fishways at the Swimming Hole and Water Supply dams will provide access to over six miles of restored habitat for interjurisdictional wild Atlantic salmon, American eel, sea lamprey, and resident fish species.
- On the lower Susquehanna River in Pennsylvania, dozens of locally-owned or orphaned dams in several tributaries will be removed to reopen historic migratory and resident fish habitat and assist in meeting river and Chesapeake Bay restoration goals.

**Program Performance Overview**

Performance Goal / Measure	2005 Actual	2006 Actual	2007 Plan	2007 Actual	2008 Plan	2009 President's Budget	Change from 2008 Plan to 2009	Long-term 2012 Target
<b>Resource Protection - Sustaining Biological Communities</b>								
CSF 5.1 Percent 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)	30%	40% (70 of 174)	42% (63 of 150)	42% (63 of 150)	28% (46 of 164)	28% (46 of 164 )	0.0%	28% (46 of 164)
CSF Total Actual/Projected Cost(\$000)	unk	\$26,286	unk	\$25,879	\$19,349	\$19,814	\$464	\$19,814
CSF Program Total Actual/Projected Cost(\$000)	unk		unk					
Actual/Projected Cost Per Species (whole dollars)	unk	\$375,515	unk	\$410,777	\$420,635	\$430,731	\$10,095	\$430,731
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)	30%	40% (70 of 174)	42% (63 of 150)	42% (63 of 150)	28% (46 of 164)	28% (46 of 164)	0.0%	28% (46 of 164)
5.1.2.6 % of populations of native aquatic non-T&E species that are self-sustaining in the wild, as prescribed in management plans - FWMA (PART)	unk	16% (224 of 1,411)	11% (157 of 1,408)	25% (347 of 1,414)	24% (338 of 1,412)	24% (338 of 1,412)	0.0%	24% (338 of 1,412)
5.2.2.6 % of populations of native aquatic non T&E species with approved mngnt plans - FWMA (PART)	56%	163% (777 of 477)	51% (722 of 1,409)	58% (821 of 1,426)	54% (761 of 1,417)	54% (761 of 1,417)	0.0%	54% (761 of 1,417)

Performance Goal / Measure	2005 Actual	2006 Actual	2007 Plan	2007 Actual	2008 Plan	2009 President's Budget	Change from 2008 Plan to 2009	Long-term 2012 Target
CSF 5.3 Percent of tasks implemented, as prescribed in management plans (PART)	unk	unk	43% (1,106 of 2,562)	46% (1,588 of 3,429)	40% (1,625 of 4,062)	40% (1,625 of 4,062)	0.0%	40% (1,625 of 4,062)
CSF Total Actual/Projected Cost(\$000)	unk	unk	unk	\$49,064	\$51,412	\$52,646	\$1,234	\$52,646
CSF Program Total Actual/Projected Cost(\$000)	unk	unk	unk					
Actual/Projected Cost Per Tasks (whole dollars)	unk	unk	unk	\$30,896	\$31,638	\$32,397	\$759	\$32,397
5.3.1.6 % of tasks implemented, as prescribed in management plans - FWMA (PART)	unk	unk	28% (456 of 1,635)	37% (879 of 2,400)	38% (920 of 2,395)	38% (920 of 2,395)	0.0%	38% (920 of 2,395)
7.12.3.6 % 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 - FWMA (PART)	19%	51% (300 of 592)	48% (286 of 594)	50% (296 of 589)	44% (239 of 540)	44% (239 of 540)	0.0%	44% (239 of 540)
CSF 15.4 Percent of mitigation tasks implemented as prescribed in approved management plans	unk	unk	68% (27 of 40)	73% (30 of 41)	79% (44 of 56)	79% (44 of 56)	0.0%	79% (44 of 56)
CSF Total Actual/Projected Cost(\$000)	unk	unk	unk	\$20,389	\$30,622	\$31,357	\$735	\$31,357
CSF Program Total Actual/Projected Cost(\$000)	unk	unk	unk					
Actual/Projected Cost Per Tasks (whole dollars)	unk	unk	unk	\$679,647	\$695,958	\$712,661	\$16,703	\$712,661

**Activity: Fisheries**  
**Subactivity: Aquatic Invasive Species**

		2007 Actual	2008 Enacted	2009			Change From 2008 (+/-)
				Fixed Costs & Related Changes (+/-)	Program Changes (+/-)	Budget Request	
State Plans/NISA Implementation	(\$000) FTE	2,849 6	2,819 6	+14 0	-4	2,829 6	+10 0
Prevention	(\$000) FTE	1,450 3	1,434 3	+8 0	-3 0	1,439 3	+5 0
Control Management	(\$000) FTE	1,155 3	1,070 3	+7 0	-1 0	1,076 3	+6 0
<b>Total, Aquatic Invasive Species</b>	<b>(\$000) FTE</b>	<b>5,454 12</b>	<b>5,323 12</b>	<b>+29 0</b>	<b>-8 0</b>	<b>5,344 12</b>	<b>+21 0</b>

**Summary of 2009 Program Changes for Aquatic Invasive Species**

Request Component	(\$000)	FTE
• State Plans/NISA Implementation – Travel and Relocation Expense Reduction	-3	0
• State Plans/NISA Implementation – Performance-based Contract Reduction	-1	0
• Prevention – Travel and Relocation Expense Reduction	-2	0
• Prevention – Performance-based Contract Reduction	-1	0
• Control Management – Travel and Relocation Expense Reduction	-1	0
<b>TOTAL Program Changes</b>	<b>-8</b>	<b>0</b>

The 2009 budget request for Aquatic Invasive Species is \$5,344,000 and 12 FTEs, a program change of \$8,000 and 0 FTE from the 2008 Enacted.

**Program Overview**

The impacts caused by the introduction and spread of aquatic invasive species are among the primary reasons for the decline of native populations and their habitats. It is estimated that more than 50,000 non-indigenous species have invaded the United States and their ecological damages and control costs total more than \$137 billion per year<sup>2</sup>. The aquatic invasive species that produce the most damage and need for control are: fishes; zebra and quagga mussels; and others. One of the most serious ecological costs of biological invading species is the extinction of native species caused by non-native species. Approximately 40% of the species forced to extinction in aquatic ecosystems are due to predation, parasitism, and competition from biological invaders.

The pathways used by invasive species to move to new locations are not always obvious. Many problematic species, diseases and parasites have been transferred to new locations as undetected and

<sup>2</sup> Pimentel, D., Lach, L., Zuniga, R., Morrison, D., 1999. Environmental and economic costs associated with introduced non-native species in the United States. Manuscript, 1 –28.

unintentional hitchhikers. Because the non-native species are not readily detected in aquatic environments, their impacts to native species are not immediately known.

The Service's Aquatic Invasive Species (AIS) Program contributes to maintaining sustainable native populations and recovering threatened and endangered populations by preventing the introduction and spread of aquatic invasive species, monitoring habitats to determine the distribution of invasive species, rapidly responding to new invasions, and controlling established invaders. The Aquatic Invasive Species Program is committed to the implementation of the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (as amended by the National Invasive Species Act of 1996) and the Injurious Wildlife Provisions of the Lacey Act.

The AIS subactivity is comprised of three program elements: State Plans/NISA Implementation, Prevention, and Control Management

### **State Plans/NISA Implementation**

The Service implements and meets our mandates under the National Invasive Species Act (NISA) by funding the implementation of State, Interstate/Tribal Aquatic Nuisance Species Management (ANS) Plans that have been approved by the ANS Task Force; providing resources and support to the six Regional Panels of the ANS Task Force; providing operational functions of the ANS Task Force; and implementing prevention and control activities of NISA through the Fisheries and Aquatic Resource Conservation Program in the Service Regions.

### **Prevention**

The Service implements activities to prevent the introduction, spread, and establishment of aquatic invasive species. These activities include: implementing HACCP (Hazard Analysis & Critical Control Points) plans to identify hitchhikers (or Hazards) and define actions that reduce the risk of hitchhiker spread through specific pathways; evaluating species for possible addition to the list of injurious wildlife under the Lacey Act; conducting detection and monitoring surveys for species such as round gobies, zebra mussels, and Asian carp in conjunction with routine field work; implementing "Stop Aquatic Hitchhikers!"<sup>TM</sup> and "Habitattitude"<sup>TM</sup>, social marketing campaigns that provide opportunities to change the behaviors of the target audiences; and efforts such as the 100<sup>th</sup> Meridian Initiative, which seeks to stop the movement of AIS species, particularly zebra mussels, at the 100<sup>th</sup> meridian.

### **Control/Management**

In conjunction with the ANS Task Force and multiple state, industry, and federal partners, the Service has led and will continue to lead the development and implementation of plans to control and manage established aquatic invasive species. The Service is leading the implementation of the following National species management plans: ruffe, brown treesnake, Caulerpa, and mitten crabs. The Service is also leading the development of other species management plans.

### **2009 Program Performance**

In FY 2009, the Aquatic Invasive Species Program will continue to engage in activities that support the DOI Resource Protection end outcome goal of sustaining biological communities on DOI managed and influenced lands and waters in a manner consistent with obligations regarding the allocation and use of water, under the Intermediate Outcome Goals of managing populations to self-sustaining levels for specific species and improving information base, information management, and technical assistance.

As in past years, the Service plans to contribute to maintaining sustainable native populations and recovering threatened and endangered populations by preventing and controlling aquatic invasive species. In FY 2009, as described below, the Service, building on accomplishments in FY 2007 and anticipated accomplishments in FY 2008, also plans to: (1) work with additional state and tribal partners to

implement new State/Interstate ANS management plans; (2) continue actions that prevent the introduction and spread of aquatic invasive species; and (3) engage in new collaborative activities to control and manage existing populations.

The Service works with multiple State, interstate, and tribal partners to implement ANS Task Force-approved ANS management plans. In FY 2008 and FY 2009, the Service will work with additional states to facilitate the development of new ANS plans or the revision of existing ANS management plans.

To prevent the introduction and spread of aquatic invasive species in FY 2007 and FY 2008, the Service implemented HACCP plans at Fisheries field stations in all Service Regions to minimize the risk spread of aquatic invasive species; conducted surveys for early detection of aquatic invasive species; completed injurious wildlife evaluations for silver carp and largescale silver carp and published a proposed rule in the Federal Register; expanded the number of partners in the “Stop Aquatic Hitchhikers!™” and “Habitattitude™” social marketing campaigns; completed the draft rapid response plan to prepare for the potential discovery of zebra mussels in the Columbia River Basin; and less than a week after the detection, initiated an effort with over 120 volunteers and over 200 hours of labor to rapidly respond to and eradicate a population of purple loosestrife in Alaska, thereby protecting hundreds of wetland acres from potential infestation. In FY 2009, the Service will increase the implementation of HACCP plans at field stations, which will reduce the risk of introducing new AIS through Service field work; conduct injurious wildlife evaluations for additional species; continue current and initiate new detection and monitoring surveys to identify new introductions or range expansions of AIS.

In FY 2007 and FY 2008, the Service contributed to the control of established aquatic invasive species by coordinating and assisting in cooperative control efforts to reduce and eradicate populations of *Cryptocoryne beckettii* in the San Marcos River; and, in conjunction with multiple partners, completed and published the draft National Management and Control Plan for Asian Carps in the United States and the draft National Management and Control Plan For New Zealand mudsnails in the Federal Register for public comment. In FY 2009, the Service will continue collaborative and innovative efforts with States and other ANS Task members Force to control established invaders such as ruffe, Asian carp, and New Zealand mudsnails.

**Program Performance Overview**

Performance Goal / Measure	2005 Actual	2006 Actual	2007 Plan	2007 Actual	2008 Plan	2009 President's Budget	Change from 2008 Plan to 2009	Long-term 2012 Target
12.2.3 # of aquatic invasive species populations controlled/managed (annually) - FWMA	11	8	12	14	14	14	0	14
12.2.6 # of activities conducted to support the management/control of aquatic invasive species - FWMA (PART)	175	42	43	150	120	120	0	120

**Activity: Fisheries**  
**Subactivity: Marine Mammals**

		2007 Actual	2008 Enacted	2009		Change From 2008 (+/-)	
				Fixed Costs & Related Changes (+/-)	Program Changes (+/-)		Budget Request
Stock Assessment/ Conservation Management	(\$000)	2,848	2,719	+43	-504	2,258	-461
	FTE	17	18		-2	16	-2
Cooperative Agreements	(\$000)	314	257	+2	0	259	+2
	FTE	1	1		0	1	0
<b>Total, Marine Mammals</b>	<b>(\$000)</b>	<b>3,162</b>	<b>2,976</b>	<b>+45</b>	<b>-504</b>	<b>2,517</b>	<b>-459</b>
	<b>FTE</b>	<b>18</b>	<b>19</b>		<b>-2</b>	<b>17</b>	<b>-2</b>

**Summary of 2009 Program Changes for Marine Mammals**

Request Component	(\$000)	FTE
• Stock Assessment/Conservation Management	-493	-2
• Stock Assessment/Conservation Management – Travel and Relocation Expenses Reduction	-9	0
• Stock Assessment/Conservation Management – Performance-Based Contract Reduction	-2	0
<b>TOTAL Program Changes</b>	<b>-504</b>	<b>-2</b>

**Justification of 2009 Program Changes**

The 2009 budget request for Marine Mammals is \$2,517,000 and 17 FTE, a program change of -\$504,000 and -2 FTEs from the 2008 Enacted.

**Stock Assessment/Conservation Management – General Program Activities (-\$493,000/ -2 FTEs)**

Funding for marine mammals is reduced to offset higher priorities elsewhere in the President's budget. At the request level, three projects for key stock assessment, conservation and management actions initiated with congressional earmarks in FY 2008 will be discontinued. These projects include:

- Monitoring of unusual sea otter mortality in Kachemak Bay: This comprehensive field study to survey, capture, and conduct detailed analyses of sea otters in Kachemak Bay will be discontinued after its second year. The study is designed to determine specific disease pathogens causing mortality and percent occurrence in the area. Otters in Kachemak Bay are adjacent to the listed distinct population segment (DPS) of otters. A critical aspect of the study is to determine whether and how the disease will spread into the listed population and become an additional threat. The Service will seek to incorporate information from the study in management decisions related to the listed DPS.
- Monitoring the distribution and abundance of Pacific walrus along the Chukchi Sea coast: The Service will discontinue a walrus monitoring program started in FY 2008. The Service will use preliminary information from a single year of monitoring to improve management decisions.
- Coordination with coastal communities along the Chukchi Sea coast: These cooperative efforts provide information on walrus distribution and subsistence harvest patterns on the Chukchi Sea coast



to initiate local walrus conservation planning efforts to protect coastal haul outs. In addition to initiating local conservation efforts, these coordination activities are helpful for implementing the proposed Chukchi Sea incidental take regulations for the oil and gas industry. The regulations, promulgated under the Marine Mammal Protection Act, require that impacts to subsistence uses of marine mammals be evaluated and stocks be protected. Given that the frequency of walrus occurring on land is anticipated to increase as sea ice retreats, longer term coordination with coastal communities is important. The Service will seek to maximize the utility of a single year of such coordination efforts.

### **Program Overview**

Marine mammals are a resource of great aesthetic, economic, cultural, and recreational significance. As cornerstone species occupying upper trophic levels of oceanic and marine ecosystems, marine mammals provide valuable insights into the health and vitality of ecosystems that occupy a majority of the global area.

The United States provides leadership in the protection and conservation of the marine environment and marine mammals through vigorous research and management programs that have been underway for decades. One of the most important statutory authorities for conserving and managing marine mammals is the Marine Mammal Protection Act (MMPA). The MMPA assigns the Department of the Interior responsibility for the conservation and management of polar bears, walruses, sea and marine otters, three species of manatees, and dugongs. This responsibility has been delegated to the Service. Under the MMPA, marine mammal populations, and the health and stability of marine ecosystems upon which they depend, are required to be maintained at, or returned to, healthy levels. The Service's Marine Mammal Program acts to conserve and manage polar bear, Pacific walrus, three stocks of northern sea otter in Alaska, and the northern sea otter population in Washington State, as well as support recovery of the Federally listed southwest Alaska distinct population segment of the northern sea otter, southern sea otter in California, and the West Indian manatee in Florida and Puerto Rico.

The Marine Mammal subactivity is comprised of two program elements: Stock Assessment/Conservation Management and Cooperative Agreements.

#### **Stock Assessment/Conservation Management**

The majority of the Service's marine mammal funding is provided for stock assessment, conservation, and management activities in Alaska; the balance of available funding provides for national program coordination in the Washington Office. In general, program activities in Alaska address population monitoring and assessment, monitoring and recording harvest information, cooperative activities with Alaska Natives, and development of international agreements for marine mammal populations shared with Canada and Russia. Activities to conserve marine mammal stocks outside Alaska are pursued under Ecological Services funding, primarily through endangered species recovery efforts.

#### **Cooperative Agreements**

Section 119 of the MMPA authorizes the Service to enter into cooperative agreements with Alaska Native organizations to conserve marine mammals and provide for co-management of subsistence use by Alaska Natives. The purpose of the agreements is to develop capability in the Alaska Native community to actively participate in management of subsistence harvest, and collect information on subsistence harvest patterns and harvested species of marine mammals. Efforts pursued under this program element enhance our communications with Alaska Native communities and allow the initiation of projects with the potential to significantly increase our collective understanding of marine mammals and to gather information critical for developing long-term conservation strategies.

The Service recognizes that meeting our mandate for the conservation of marine mammal species requires communication, consultation, and cooperation with other Federal agencies (including NMFS, the Marine Mammal Commission, and USGS), State Governments, Alaska Native Organizations (ANOs), scientists from numerous institutions and organizations, industry groups, nongovernmental organizations, and others. Through active collaboration and coordination, we are able to enhance the effectiveness of our efforts to implement the MMPA and achieve its goal of Optimum Sustainable Population for marine mammal stocks.

To carry out its responsibilities, the Service:

- prepares, reviews, and revises species management plans and stock assessments;
- conducts and supports a variety of biological investigations, scientific research, and studies with management applications;
- assesses population status and trends;
- develops and implements management plans and habitat conservation strategies;
- promulgates and implements incidental take regulations;
- conducts harvest monitoring projects for Alaska species;
- implements the Marking, Tagging, and Reporting Program for polar bears, walruses, and northern sea otters harvested by Alaska Natives;
- implements the 1973 International Agreement on the Conservation of Polar Bears between the U.S., Canada, Russia, Norway, and Denmark (for Greenland); and,
- develops and supports U.S. bi-lateral and multi-lateral efforts and agreements for the conservation and management of marine mammal species.

The Service works with ANOs to assess subsistence harvest, determine sustainability of harvests, and gather biological information from harvested animals. This collaborative effort provides the Service with important information on the health and status of populations of marine mammals subject to Alaska Native subsistence harvest. Furthermore, the Service works with ANOs to develop and implement voluntary marine mammal harvest guidelines. Both the Service and ANOs recognize the importance of maintaining sustainable marine mammal populations to meet Alaska Native subsistence, cultural, and economic needs. Because the MMPA does not provide a mechanism for regulating subsistence harvest of marine mammals, unless a stock becomes depleted, the Service and ANOs strive to ensure harvests are conducted in a biologically sound manner. The Service is working with its ANO partners and others to enact enforceable harvest management mechanisms through the reauthorization of the MMPA.

The Marine Mammal Program's activities support the Department of the Interior's Strategic Plan Resource Protection End Outcome Goal of *sustaining biological communities on DOI managed and influenced lands and waters in a manner consistent with obligations regarding the allocation and use of water*, through the Intermediate Outcome Goals of *managing populations to self-sustaining levels for specific species and improving information base, information management, and technical assistance*.

### **2009 Program Performance**

In FY 2009, the Service will continue to implement priority stock assessment and conservation management work in support of the most prominent Administration, Department, and Service issues as available resources and information permit. The Service also plans to continue cooperative agreements with ANO and international partners, monitor status and trends of marine mammal populations, and implement incidental take regulations related to oil and gas industry activities and three stocks of marine mammals in the seas and coastal areas of Alaska. In FY 2009, as described below, the Service also plans to:

- Implement new incidental take regulations related to oil and gas industry activities in the Chukchi Sea and existing incidental take regulations in the Beaufort Sea;

- Continue analyses of available data gathered during range-wide surveys for Pacific walrus to improve knowledge of its population trends and focus field survey efforts on sea otters and polar bears;
- Update stock assessments for all six marine mammal stocks in Alaska; and
- Engage in collaborative activities with Russian partners related to conservation and management of the Bering/Chukchi Seas polar bear population.

**Cooperative Agreements:**

In FY2009, the Service will continue cooperative agreements of reduced scope with the Alaska Nanuq Commission, the Eskimo Walrus Commission, and a coalition of Native marine mammal commissions interested in sea otters, for monitoring and management of polar bears, Pacific walruses, and northern sea otters, respectively, through base funds. These cooperative agreements pertain to harvest monitoring, traditional knowledge surveys, and biological monitoring and sampling. Appropriations provided for these agreements were reduced in FY 2007. In FY 2008 and FY 2009 the scope of the agreements, and the number of joint efforts pursued under the agreements, will remain at reduced levels. The scaled-back agreements will continue to play an important role in maintaining partnerships with Alaska Natives, partnerships that provide key management tools for understanding population trends and managing subsistence harvest.

**Managing Marine Mammal Incidental Take**

The Service received a request from the oil and gas industry (Industry) to promulgate comprehensive regulations under the MMPA to authorize incidental taking of polar bear and Pacific walrus in the course of Industry operations in the Chukchi Sea and adjacent western coast of Alaska. The Service proposed these regulations in FY 2007, and anticipates they will be finalized in FY 2008 through a process that analyzes the potential take of marine mammals from all Industry operators in the area over a five-year period. The regulations must ensure that the total anticipated take will have a negligible impact on the species and will not have an immitigable adverse impact on the availability of such species for Alaska Native subsistence purposes. Should such findings be made, in FY 2009, under the requested funding level, the Service will issue annual Letters of Authorization (LOAs) to numerous Industry operators that describe permissible methods of take, measures to ensure the least practicable impact on the species and subsistence, and requirements for monitoring and reporting under these regulations. Similarly, the Service will continue to issue LOAs to operators under regulations promulgated in 2006 for incidental take of polar bears and walrus in the Beaufort Sea and adjacent northern coast of Alaska.

**Status and Trends of Marine Mammal Populations**

In FY 2009, the Service will seek collaborative opportunities with partners and stakeholders to conduct surveys and track status and trends of the six marine mammal stocks in Alaska. The Service will continue collaborative efforts with Russian colleagues to analyze the range-wide survey data collected on Pacific walrus and will also collaborate with USGS and private industry to track walrus movements in the Chukchi Sea. The Service will focus limited field efforts to support strategically selected sea otter and polar bear surveys.

**Polar Bear Listing Decision**

In FY 2009, the Service will continue to support the process begun in 2006 under the Endangered Species Act to respond to a petition to list polar bears as threatened. A final listing determination is anticipated to be made in FY 2008. Information gathered as part of ongoing Marine Mammal Program activities, such as population assessments, plays an important role in all stages of the implementation of the Endangered Species Act as it relates to polar bears, both during the listing process and after the listing process is completed.

**Polar Bear Bilateral Agreement**

On October 16, 2000, U.S. and Russia signed a bilateral agreement for the Conservation and Management of the Alaska–Chukotka Polar Bear population. In FY 2007 Congress enacted legislation to implement this treaty to address concerns regarding illegal and unquantified harvest of bears in Russia as well as unrestricted harvest in Alaska. In FY 2008, the Service will assess how to implement priority elements of the agreement with available base funds in consultation with our Russian Native and Government partners, and Alaska Native partners. In FY 2009, the Service will continue implementation as feasible through cooperative efforts and the joint committee established by the treaty.