

Fisheries

Fisheries		2003 Actual	2004 Estimate	Uncontrollable & Related Changes (+/-)	Program Changes (+/-)	2005 Budget Request	Change from 2004(+/-)
Hatchery Operations and Maintenance	\$ (000) FTE	54,098 443	57,993 455	237	-1,226	57,004 455	-989 0
Fish and Wildlife Management	\$ (000) FTE	52,538 342	56,328 355	200	-9,734	46,794 355	-9,534 0
CAM*		[3,032]	[TBD]			[TBD]	
Total	\$ (000) FTE	106,636 785	114,321 810	437	-10,960	103,798 810	-10,523 0

*The Service is reviewing the Cost Allocation Methodology and will provide an FY 2005 budget proposal by April 15, 2004.

Program Overview

The Service's Fisheries Program has played a vital role in conserving America's fisheries since 1871, and today is a key partner with States, Tribes, Federal agencies, other Service programs, and private interests in a larger effort to conserve fish and other aquatic resources. The Program consists of almost 800 employees nationwide, located in 64 Fishery Resource Offices (including a Conservation Genetics Laboratory), 69 National Fish Hatcheries, 9 Fish Health Centers, 7 Fish Technology Centers and a Historic National Fish Hatchery. These employees and facilities provide a network that is unique in its broad on-the-ground geographic coverage, its array of technical and managerial capabilities, and its ability to work across political boundaries and embrace a national perspective. The Program supports the only Federal hatchery system, with extensive experience culturing more than 100 different aquatic species.

America's fish and other aquatic resources are among the world's richest, they help the Nation grow by providing enormous social, economic, and ecological benefits. Despite conservation efforts by the Service and its partners, many aquatic resources are declining at alarming rates. Almost 400 aquatic species either have, or need, 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 exotic species.

In order to better conserve aquatic resources in the face of increasing threats, the Service and its diverse partners and stakeholders refocused the Fisheries Program and developed a strategic vision, *Conserving America's Fisheries: Fisheries Program Vision for the Future*. The vision of the Fisheries Program is working 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. The Fisheries Program will work with its partners to:

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

The Fisheries Program has identified seven areas of emphasis with associated goals, objectives, and actions to focus on in the future:

- Partnerships and Accountability
- Aquatic Species Conservation and Management
- Aquatic Habitat Conservation and Management
- Public Use
- Cooperation with Native Americans
- Leadership in Science and Technology
- Workforce Management.

In 2003, each Regional Fisheries Program developed a 5-year strategic plan in consultation with its partners and stakeholders. These Regional plans contain measurable program goals and more specific commitments for implementing the *Vision*. A National Fisheries Program Strategic Plan is now in development that combines Regional program goals and performance targets into national totals that will improve national program management and budget-performance integration.

Just as the Regional plans were a result of close coordination with local partners and stakeholders, National Plan development has been coordinated closely with the Department's and Service's planning initiatives to ensure consistency among the three levels of management. Fisheries Program activities support four goals under the Department's strategic plan:

- Resource Protection - Improve the Health of Watersheds, Landscapes, and Marine Resources
- Resource Protection - Sustainable Biological Communities
- Recreation - Ensure Quality Experience and Enjoyment of Natural and Cultural Resources on DOI Managed and Partnered Lands and Waters
- Serving Communities - Fulfill Indian Trust Responsibilities

The Fisheries Program has developed draft performance measures and targets linked to the DOI Strategic Plan and the Fisheries *Vision* and incorporated them in the FY 2004 budget. Through the Fisheries Program strategic planning process, the measures and targets has been further refined. Additionally, the Program has asked the Sport Fishing and Boating Partnership Council to conduct periodic, independent evaluations of the Fisheries Program. The Council's evaluation protocols are scheduled for completion during FY 2004, with the first independent evaluation to occur during early calendar year 2005.

As called for in the Fisheries *Vision*, the Fisheries Program will increase its emphasis on conserving and managing aquatic habitat, by working with partners to facilitate management of aquatic habitats on national and regional scales and expanding the use of Fisheries Program expertise to avoid, minimize or mitigate the impacts of habitat alteration on fish and other aquatic species.

The Service is the lead Federal partner in cooperative efforts to develop a National Fisheries Habitat Initiative modeled after the successful North American Waterfowl Management Plan. The initiative will foster geographically-focused, locally-driven, scientifically-based partnerships to protect, restore, and enhance aquatic habitats, and reverse declines in aquatic species. Several stakeholder scoping sessions will be held in FY 2004 to obtain input from partners and stakeholders on ways to focus available resources on resolving aquatic habitat problems. Partners in developing the initiative include the Sport Fishing and Boating Partnership Council, the International Association of Fish and Wildlife Agencies, and the American Fisheries Society.

The Fisheries Program protects and restores aquatic habitats so that biological communities can flourish. The Program works with the National Wildlife Refuge System through the Land Acquisition Priority System to identify priority aquatic habitats and watersheds for protection to benefit fish, mussels, and other aquatic species. Fish and Wildlife Management Assistance Offices enhance and restore habitats through activities such as removing forest debris to prevent high-intensity forest fires and protect fish habitat, planting riparian vegetation to stabilize stream banks and prevent erosion, constructing fences to reduce stream damage from livestock, and constructing wetlands.

The Fisheries Program conducts habitat planning and assessment to provide information needed for decision-making. The Program works with others to develop landscape and watershed-level habitat restoration plans and to prioritize restoration efforts. Assessment activities determine habitat needs of listed and depleted species, influencing flow rates on large river systems, and identifying priority habitat restoration needs. Fish and Wildlife Management Assistance Offices use Geographic Information Systems (GIS) and Decision Support Systems (DSS) to document aquatic species and their habitats, and provide managers with the geospatial information needed to make sound resource management decisions.

Activities of the National Fish Hatchery System are integrated with cooperative habitat conservation efforts in several ways. Some activities directly improve habitats by providing whole plants or propagates for habitat restoration. The National Wild Fish Health Survey provides information about wild fish diseases that depicts an important aspect of the overall health/fitness of an ecosystem and its potential to provide suitable habitat for restoration or recovery. Other projects provide “research” fish to help determine habitat requirements and water quality limits of various imperiled species; provide tagged “explorer” fish to help locate wild habitats; provide for a cleaner environment through development of water conservation and treatment systems at Service, State, and private hatcheries; ensure that propagated organisms are representative of, and adapted to, their native habitats through genetic analyses of both wild and hatchery fish; and, provide healthy, genetically appropriate fish and other aquatic organisms to re-establish populations once habitats are restored.

Examples of habitat-related activities already occurring within the Fisheries Program include the fish passage program funded at \$1,190,000, and the aquatic nuisance species program funded at \$5,414,000 in the President’s budget request. Since 1999, the fish passage program has reconnected aquatic species to historical habitats by restoring access to 3,750 miles of river habitat and 69,000 acres of wetlands. Funds contributed by partners constituted 73% of total fish passage project costs.

The *Vision* calls for increased integration and collaboration among all Service program areas to better address the Nation’s aquatic crisis. Other Service programs working in partnership with the Fisheries Program to respond to aquatic habitat needs include FERC re-licensing funded at \$1,816,000, the Coastal Program funded at \$13,060,000, and the Partners for Fish and Wildlife Program funded at \$50,000,000 in the President’s budget request. In addition, Fisheries Program employees will continue to work closely with the National Wildlife Refuge System to provide the needed expertise to help improve aquatic habitats on Refuges.

Through its strategic vision, the Service is re-committing to its role as a partner in conserving America’s fish and other aquatic resources. In some cases, the Fisheries Program will lead; in others, it will facilitate or follow. In all cases, the Fisheries Program will focus its efforts to contribute unique resources and capabilities, recognizing that healthy habitats, sound science and solid partnerships will continue to be the key to aquatic resource stewardship.

Hatchery Operations and Maintenance

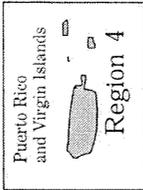
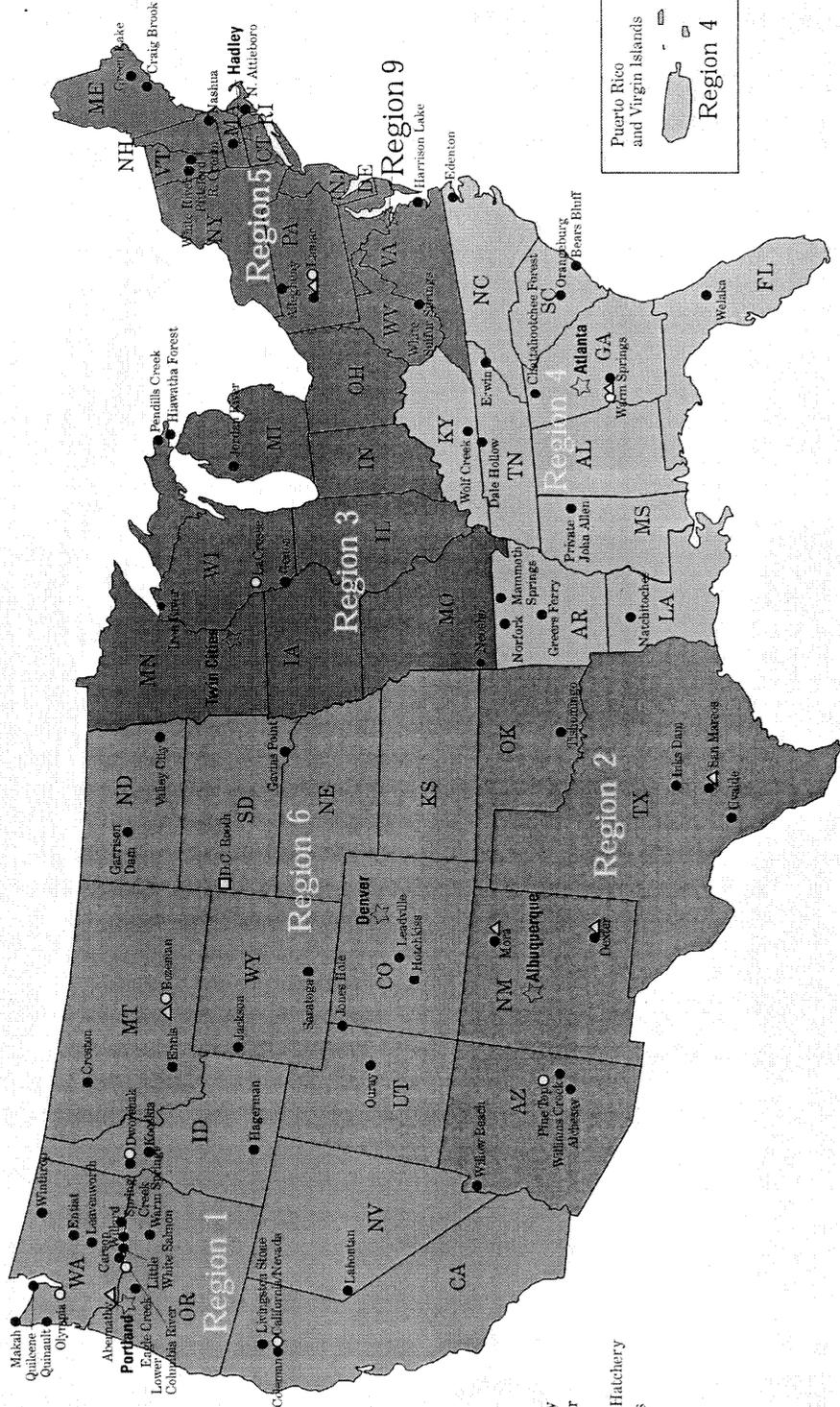
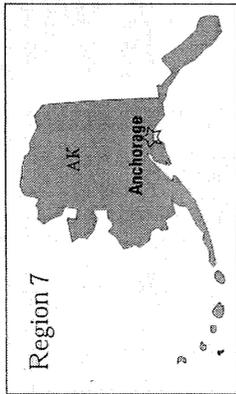
Hatchery Operations and Maintenance		2003 Actual	2004 Estimate	Uncontrollable & Related Changes (+/-)	Program Changes (+/-)	2005 Budget Request	Change from 2004(+/-)
Hatchery Operations	\$(000)	36,462	39,014	237	824	40,075	1,061
	FTE	393	455			455	0
Hatchery Maintenance	\$(000)	17,636	18,979	0	-2,050	16,929	-2,050
	FTE	50	0			0	0
Total, Hatchery O&M	\$(000)	54,098	57,993	237	-1,226	57,004	-989
	FTE	443	455		0	455	0

Program Overview

The National Fish Hatchery System (NFHS) works with partners to recover, 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. The NFHS is comprised of 69 operational National Fish Hatcheries (NFH's), 7 Fish Technology Centers (FTC's), 9 Fish Health Centers (FHC's), and 1 historic NFH. The NFHS is the national leader in many aspects of fish culture and broodstock management, especially for imperiled species. Innovation and continual adaptation to new and changing needs have enabled the NFHS to pioneer fish culture techniques for a variety of imperiled species such as pallid sturgeon, paddlefish, Atlantic sturgeon, alligator gar, bonytail chub, Colorado pikeminnow, and razorback sucker. The system's diversity of fish propagation facilities and expertise helps the Service contribute to cooperative, ecosystem-based projects that recover aquatic species other than fish, such as the endangered Texas blind salamander and endangered native mussels. NFHS facilities also serve local communities by providing public educational programs in aquatic resource conservation.

For the past three years, NFHS employees have worked collaboratively with the Department, OMB, and outside partners to improve NFHS programs and management practices, advance the objectives of the President's Management Agenda, and promote the Secretary's Four C's: conservation through cooperation, communication, and consultation. Emphasis has been placed on budget and performance integration.

National Fish Hatchery System Facilities



- National Fish Hatchery
- △ Fish Technology Center
- Fish Health Center
- Historic National Fish Hatchery
- ☆ Regional Headquarters

October 2000

Use of Cost and Performance Information

The National Fish Hatchery System (NFHS) has made substantial progress toward linking program and fiscal management with performance. The NFHS and its partners and stakeholders have been actively involved in the Fisheries Program's Regional and National strategic planning processes. These strategic plans include performance targets developed in conjunction with the Department during the Administration's PART process, and links to the DOI Strategic Plan to better integrate budget and performance. Specifically, the NFHS has taken the following actions:

- Baseline targets for new performance measures were established so that accomplishments can be reported in FY 2004.
- The Fisheries Program's Fisheries Information System (FIS) has been restructured to capture and track critical performance data. Ambitious performance measure targets are included in Regional FONS projects. The FIS Accomplishments module will collect data to report on all performance measures beginning in FY 2005.
- NFHS personnel worked closely with Department and other Service Planning & Evaluation staff to develop a standard set of work activities and output costs, to implement Activity-Based Costing/Management. ABC/M will allow the NFHS to allocate costs associated with program performance goals and DOI Strategic Plan goals to better align budget and performance information.
- By the end of FY 2005, all NFHS facilities will have implemented SAMMS, the Service adaptation of the Department's standardized facilities management system. Once fully operational, SAMMS will improve maintenance scheduling, comprehensive budget planning, and maintenance accomplishment reporting.
- In response to recommendations from the Administration's PART review, personnel performance evaluations from Regional Fisheries Supervisors down to Project Leaders include direct responsibility for meeting annual performance targets.

NFHS personnel are working with the Sport Fishing and Boating Partnership Council (SFBPC) in their efforts to develop protocols for regular, independent reviews of the Fisheries Program. The guidelines are scheduled for completion in March 2004 and the first independent evaluation will occur by April 1, 2005.

In addition, Activity Based Costing will be implemented throughout the Service beginning in FY 2004. This program will help managers match resources with results by providing concise cost data for all activities performed by the Service. In turn, this information will help managers make more effective use of appropriated fund in accomplishing critical resource outcomes.

In addition, the NFHS is committed to implementing the Fisheries Vision, developed in close collaboration with the Program's many partners and stakeholders, with encouragement from the Senate and House Interior Appropriations Committees, as well as support from the Secretary of the Interior and the Office of Management and Budget. In support of this Vision, and in response to high-priority needs identified by more than 500 of our nation's key fisheries leaders during the Service's National Fisheries Leadership Conference in January 2003, the Service is expanding its involvement in cooperative programs to restore depleted fisheries resources and safeguard other aquatic species. In FY 2005, these efforts will be implemented through strategic plans developed in each of the Service's seven Regions, each guided by specific goals, objectives and strategies that support the Vision. The Regional Strategic Plans form the basis for the National Fisheries Program Strategic Plan, which is nearing completion. The National Plan is being developed in close coordination with DOI and the Service's planning initiatives, to ensure compatibility. Realistic but

inclusive goals and objectives, and ambitious performance targets are set at both Regional and National levels.

By maintaining its varied and complex field stations in good working order, the NFHS supports DOI's Resource Protection Goal to Sustain Biological Communities. With the average field station over half a century old, and with requests for hatchery participation in restoration and recovery plan implementation increasing, the NFHS must keep its water supplies flowing and adapt its physical plants to shelter fish and other aquatic species with unique and previously unknown needs. Guided by Departmental standards and hand-in-hand with other Service programs, the NFHS continues to bring its facility information systems into a new Service Asset and Maintenance Management System (SAMMS). Together with the Service's standardized condition assessment process, SAMMS will help provide credible data that will improve facility management and increase accountability.

Hatchery Operations

2005 Program Overview

Aquatic Species Conservation and Management

The NFHS is a key contributor to accelerating recovery of aquatic species listed under the Endangered Species Act (ESA) and restoration of aquatic species to preclude listing. The NFHS's primary role is the production of healthy and genetically appropriate animals and plants to re-establish wild populations. Fish Technology Centers and Fish Health Centers support habitat investigations and provide the scientific basis of recovery and restoration programs. NFHS recovery and restoration activities are conducted in coordination with State, Federal, Tribal, and private sector partners as prescribed by Recovery Plans and multi-State 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 - The NFHS will focus on recovery tasks necessary to accelerate the recovery of listed fish and aquatic species of mollusks, amphibians, and plants, including establishment and maintenance of refugia and enhancement of propagation and population monitoring techniques. The NFHS will coordinate with other Federal and State partners to accelerate recovery for Pacific and Atlantic salmon, listed cutthroat trout, a number of listed species in the Southwest, as well as several listed and declining inland and coastal sturgeon species.

Recovering and managing listed aquatic species to self-sustaining levels involves a complex network of programs that address current threats to habitat as well as species themselves. Recovery programs address these threats by restoring habitat as well as supplementing native fish with artificially propagated fish where necessary to ensure the survival of the species or population. As the only Federal hatchery system, the NFHS makes substantial contributions to these efforts. One measure of the NFHS contribution to these outcomes is to examine the NFHS' success in accomplishing NFHS-specific tasks identified in Recovery Plans.

The NFHS will continue its efforts to recover listed species, including the threatened Apache and endangered Gila trout in the Southwest. As a result of coordinated habitat restoration and captive propagation programs, recovery plan targets for re-establishing self-sustaining populations for these unique, native species are within several populations of meeting recovery goals. Limited recreational fishing opportunities have already been renewed for the Apache trout. These species are slated for down-listing and de-listing, respectively, in the near future.

As a partner in recovering the endangered pallid sturgeon to self-sustaining levels, the NFHS plays a major role in completing more than a dozen of the 56 tasks in the recovery plan, and a lesser role in more than a dozen others. More than 70,000 pallid sturgeon have been reared, marked, and released into the Missouri River in accordance with state-of-the-art protocols developed per objectives in the species' recovery plan in order to augment and stabilize natural populations, and determine their habitat needs.

Wild Pacific Salmon and steelhead populations in the Pacific Northwest have declined to dangerously low levels. In the Northeast, six Gulf of Maine rivers contain the last known wild Atlantic salmon populations in the United States, with wild returning wild salmon numbering less than 200 fish. Stocking of hatchery-reared fish from state and federal fish culture facilities, along with habitat restoration and harvest management, is one of the few management tools available to recover salmon stocks. The NFHS continues to work with tribal, state and private entities to evaluate and modify salmon recovery strategies. New genetic and external techniques to mark hatchery fish enable managers to evaluate the effectiveness of recovery strategies in terms of the best life stage to stock, productive stocking locations and habitat types, migration patterns, and wild vs. hatchery contribution to the population.

Nearly three quarters (56 plans, covering 72 species) of all ESA Recovery Plans for fish (76 plans, covering 96 species) recommend developing or using captive propagation technology or refugia as part of recovery plan "strategies" to re-establish wild populations (Table 1). The NFHS is currently helping complete tasks specified in approved Recovery Plans for 65 fish species. In addition, NFHS expertise is helping meet performance targets for 13 listed molluscan, amphibian, and plant species, as called for in their recovery plans.

Table 1. Number of imperiled species and populations addressed by the NFHS as of December, 2003.

	Fish Species and Populations	Other Aquatic Species
Endangered	37	10
Threatened	28	3
Candidate	6	1
Petitioned	5	0
Proposed		1
Special Concern	16	4
Total	92	19

Restoration - The NFHS will focus on restoration projects to produce and stock healthy, genetically appropriate animals that can re-establish wild populations; technical support in areas such as biometrics and genetics; disease management and diagnostics; and support of habitat restoration. The Service is committed to this multi-faceted approach and will coordinate with State, Federal, and private sector partners at every level of the restoration process, under the guidance of multi-State fishery management plans and other restoration plans. The NFHS's restoration efforts directly support DOI's Strategic 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. The NFHS's performance in restoring depleted native species not yet listed under the ESA is measured by accomplishment of specific tasks identified in fishery management plans. Currently, the NFHS is accomplishing 76 percent of the NFHS-related production tasks prescribed by fishery management plans. The NFHS is continuing to develop fish

culture technologies, conduct fish health assessments and diagnostics, and produce healthy, genetically fit fish as identified in fishery management plans. Collectively these activities will help restore and maintain fish such as paddlefish, lake trout, coaster brook trout, and American shad, and other aquatic species, to self-sustaining levels.

Restoring and managing native species to self-sustaining levels involves a complex network of programs that address both threats to habitat, and supplementing native fish with artificially propagated fish where necessary to ensure the survival of the species or population. As the only Federal hatchery system, the NFHS makes substantial contributions to these efforts. One measure of the NFHS contributions is to examine its success in accomplishing tasks identified in fishery management plans.

- The American shad, once the most common fish in the James River in Virginia and found in abundance in Maryland, dwindled over the years as dams splintered its spawning grounds. Hatchery and management biologists co-located at the Harrison Lake NFH (VA), working with States, NGOs, the Pamunkey Indian Tribe, and private entities under the Atlantic States Marine Fisheries Commission's Interstate Fishery Management Plan for Shad and River Herring, have led efforts to integrate habitat restoration with fish reintroduction. Stocking young fish in headwaters of the James River has paved the way for returning migratory fish to find their way to former habitats once dams are removed in the lower river. In FY 2005, the NFHS will continue to accelerate the restoration of this species to self-sustaining levels in its native habitat.
- Alligator Gar, the second largest freshwater fish in North America, has almost vanished from our Nation's rivers. Research has shown that this depletion is due to pollution, overfishing, and habitat destruction associated with human development projects. NFHS facilities are developing propagation techniques for recovery of this once important species. Tissue samples are being collected from Mississippi River populations for genetic analyses, and fish are being tagged in an attempt to determine population movement patterns.

Aquatic Habitat Conservation and Management

The NFHS contributes to cooperative habitat conservation efforts in several ways. Some activities directly improve habitats by providing whole plants or propagates for habitat restoration. Other projects provide "explorer" or "research" fish to help determine habitat requirements of various imperiled species. Additional NFH projects provide for a cleaner environment by adopting innovative technology to meet EPA water effluent standards. Furthermore, the National Wild Fish Health Survey (NWFHS) monitors actual habitat health that affects wild aquatic animals. In FY 2005, the NFHS will continue these and similar contributions to cooperative habitat conservation efforts. General Program Activities will target projects that improve physical environments to enhance survival of self-sustaining native fish, evaluate effectiveness of fish passages, reduce effluents from NFHs, and restore natural habitat to be used as refugia.

These activities contribute toward the DOI's Strategic Goals for Resource Protection to Improve Health of Watersheds and Landscapes that are DOI Managed or Influenced, the intermediate outcome strategy To Restore and Maintain Proper Function to Watersheds and Landscape; and To Sustain Biological Communities on DOI Influenced Lands and Waters, and the intermediate outcome strategy To Create Habitat Conditions for Biological Communities to Flourish.

In response to decreasing native aquatic vegetation and quality fish habitat in lakes infested with hydrilla, the Warm Springs FTC examines the effectiveness of using captively

propagated/translocated native plants to replenish aquatic habitat and fishing opportunities in conjunction with reduction of invasive Aquatic Nuisance Species.

The Alchey-Williams Creek NFH (AZ) analyzes hatchery influent and effluent water quality parameters to establish direct impacts of hatchery discharges to the North Fork of the White River. In FY 2005, database monitoring of nutrients and other discharges will reduce the potential of NPDES permit violations and increase the quality of the effluent leaving the hatchery.

Propagation at the White Sulphur Springs NFH is helping scientists and resource managers understand how beds of suspension-feeding freshwater mussels affect water quality within their habitat. In FY 2005, the NFHS will continue to research the role of freshwater mussels in aquatic ecosystems.

The National Wild Fish Health Survey (NWFHS), a GIS-based and Internet accessible database, provides information about wild fish diseases that can indicate the overall health/fitness of an ecosystem and its potential to provide suitable habitat for any fish being moved into, or out of, that ecosystem as part of a restoration, recovery or management plan. In 2005, the NFHS will expand the NWFHS and increase FHC analytical capabilities by seeking new State partners.

Cooperation with Native Americans

The NFHS helps the Service meet the DOI's Goal of Safeguard Lives, Property and Assets, Advance Scientific Knowledge, and Improve the Quality of Life for the Communities We Serve and the DOI's End Outcome Goal to Fulfill Indian Fiduciary Trust Responsibilities by providing fish and wildlife management assistance to Native American Tribes. The NFHS will continue to play a major role to help the Service fulfill Tribal Trust Responsibilities and build Tribal partnerships to assist with restoration of native species that are important to the Tribes both on and off Tribal lands in FY 2005 and beyond.

The Service has a long history of fulfilling Indian Tribal Trust Responsibilities by providing subsistence fish species to Treaty Tribes. Today, this relationship has evolved beyond food fish production for economic assistance. The NFHS provides management assistance to help Tribes re-establish and maintain native fish populations on Tribal lands. Species like the threatened Apache trout and Chinook and Coho salmon are an important cultural resource. In FY 2005, the NFHS will continue its commitment to fulfilling Tribal Trust Responsibilities.

Partnerships and Accountability

Strategic Planning - In 2003, the Fisheries Program in each Service Region developed a 5-year implementation plan in consultation with its partners and stakeholders. These plans contain measurable, Region-specific goals and commitments for implementing the Fisheries Vision. Regional goals and performance targets are being connected in a National Fisheries Program Strategic Plan that will improve national program management and budget performance integration.

Just as the Regional plans resulted from close coordination with local partners and stakeholders, National plan development has been coordinated closely with the Department's and the Service's planning initiatives to ensure consistency among the three levels of management. By FY 2005, all Service Regions will be working under the National Fisheries Program Strategic Plan and implementing actions identified in Regional plans.

Administration's Program Assessment Rating Tool (PART) Review - The NFHS PART assessment for FY 2004 concluded that the program needed to address issues concerning its mission, design, and performance measures. Additionally, it was determined that the program needed to

address reimbursement for mitigation production, conduct more independent evaluations of strategic planning efforts and results, hold field managers accountable for performance measures, and allocate costs with specific performance measures. The Service has implemented a series of actions in response to the assessment.

- **Adopt the mission statement and goals developed during assessment process.** Regional and National strategic plans include goals, performance measures, and ambitious performance targets. Additionally, the Fisheries Program is updating its Fisheries Information System to improve the accuracy of performance targets and reporting of measurable results, both of which are integral to implementation of the Fisheries and the DOI Strategic Plans.
- **Schedule periodic strategic planning and program result evaluations.** In FY 2004, the Fisheries Program has worked with the Sport Fishing and Boating Partnership Council (SFBPC) to define the process and protocols to conduct periodic, independent performance evaluations. In FY 2005, the SFBPC will evaluate Fisheries' implementation of the National Fisheries Strategic Plan.
- **Link individual employee performance plans with goal-related performance targets for each fiscal year.** Annual personnel performance plans for each Regional Fisheries supervisor down to project leaders are linked with the National Fisheries Strategic Plan performance targets.
- **Begin implementing Activity-Based Costing in 2004 to help allocate and associate costs with specific performance measures.** Activity-Based Costing will be implemented throughout the Service beginning in FY 2004. In FY 2005, information from this effort will be used to allocate costs associated with program performance goals and DOI Strategic Plan goals to better link budget and performance information.
- **Seek reimbursement for mitigation production programs.** In its reports *Saving a System in Peril* and *A Partnership Agenda for Fisheries Conservation*, the Sport Fishing and Boating Partnership Council was very clear with its recommendation that costs of mitigating for the loss of fisheries as a result of Federal water projects must be recovered from sponsors of those water projects. The Appropriation's Committee also provided concise guidance on the issue – that mitigation costs recovered from sponsors of water projects should be used to address the many unmet needs of the NFHS.

In FY 2003, the Service elevated mitigation cost recovery associated with NFHS hatchery operations to mitigate Bureau of Reclamation project impacts, as a policy decision at the Department level. The NFHS, Bureau of Reclamation and the Department are working to establish a framework for addressing cost recovery for mitigation activities and includes a related reduction of \$160,000 for Hotchkiss NFH operations supporting BOR activities. These funds are transferred to BOR. If BOR wishes the Hotchkiss Hatchery activities to be continued, the NFHS will seek cost recovery funding from BOR if other priority NFHS activities do not preclude the Hatchery from helping BOR. Once cost recovery issues are resolved within the Department, the working group will address cost recovery from other agencies.

Leadership in Science and Technology

Science and Technology - The Service's Fish Technology Centers (FTCs) and Fish Health Centers (FHCs) provide scientific and technical leadership to solve "on the ground" hatchery and fishery management problems that can make or break restoration and recovery programs, as well as mitigation programs. Their accomplishments contribute to DOI's Resource Protection Goals 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 and the intermediate strategy of Improve Information Base, Resource Management Practices, and Technical Assistance. Over the years, contributions in genetic analyses, nutrition, population dynamics, cryopreservation, biometrics, culture technologies, disease diagnostics, and new approved drugs have improved the quality and relevance of both hatchery production programs and broader fisheries management activities. The FTC's and FHC's will continue to advance science and technology and provide vital support to hatchery and fisheries management activities in FY 2005.

The Warm Springs FTC will enhance information on the genetic health of four broodstock strains, and provide data necessary to assess current management practices to direct future broodstock management.

Fish Health - The Service's current fish health program includes nine Fish Health Centers and a drug approval unit, and focuses its activities on: 1) the Aquatic Animal Drug Approval Partnership (AADAP); 2) the National Aquatic Animal Health Plan and Service's Aquatic Animal Health Policy; 3) whirling disease research, (4) general aquatic animal health support activities for Service facilities (e.g. hatchery inspections), (5) the National Wild Fish Health Survey (NWFHS); and (6) other partnership activities with other aquatic resource management agencies. Increasingly, the Service's FHCs are being called upon to play even greater national and international leadership roles.

The AADAP is a partner-based national program established by the NFHS in 2003 that will maintain the health and fitness of aquatic species in captivity by obtaining acutely needed approvals for animal drugs from the FDA. This new partnership, led by the Service, spreads the otherwise prohibitive cost of the applied research and development needed for FDA approval among the States, Tribes, and private aquaculture community, and enables approved drugs to be manufactured affordably. The AADAP builds on the work of the Service's National INAD Office (Bozeman, MT) and will incorporate participation and cooperation of all Service Regions and outside partners, such as the USGS Upper Midwest Environmental Science Center in LaCrosse, WI. In FY 2005, the NFHS will advance the AADAP by completing applications to FDA for approval of two additional drugs (from the list of 8-12 prospective drugs) necessary for healthy fish production at Service, State, and private hatcheries.

The NFHS will cooperate with the USDA, the Department of Commerce, State and Tribal natural resource agencies, and private aquaculture entities to implement the Federal Joint Subcommittee on Aquaculture's National Aquatic Animal Health Plan (NAAHP). It will establish and implement import health certification protocols to address emerging interjurisdictional disease issues that pose potential catastrophic damage to native aquatic species. Two recently discovered important fish viruses that could have been excluded from our country (had the NAAHP been in place) are Largemouth Bass virus and Spring Viremia of Carp virus, both of which have potential to cause severe losses in native recreational and/or endangered species populations. The NFHS will implement the newly revised Service Aquatic Animal Health Policy to ensure that a fish health component is included in fishery management plans; in particular those plans addressed in the joint FWS/NMFS Policy Regarding Controlled Propagation of Species Listed Under the Endangered Species Act. The Policy includes a state-of-the-science risk assessment tool to help managers make

more informed decisions relative to the movement of aquatic species for which there is little information.

Data generated by FHCs for the NWFHS are critical to the success of restoration, recovery, and mitigation programs in at least 41 States. Samples from more than 171 species have been analyzed to better formulate restoration, recovery, and resource management plans for several imperiled fish species, including bull trout, greenback cutthroat trout, Atlantic salmon, pallid sturgeon, Gila trout, and Ozette sockeye salmon.

The AADAP is pivotal in maintaining the health and fitness of aquatic species in captivity by obtaining much needed approvals for animal drugs from the FDA. In FY 2005, the Program will continue to collaborate and coordinate with partner agencies and the FDA to submit multiple new animal drug applications for aquatic species.

To support the President's Management Agenda for expanded E-government practice, the NWFHS database is Internet accessible to partner agencies and the public. The web site is <http://wildfishsurvey.fws.gov/>.

Public Use

Recreation - Restoration of depleted populations of native game fish by the NFHS provides and enhances recreational fishing opportunities for the nation's 58 million recreational anglers. These activities support the DOI's Recreation Goal to Provide for a Quality Recreation Experience, Including Access, and Enjoyment of Natural and Cultural Resources on DOI Managed and Partnered Lands and Waters, and by indirectly supporting the DOI's Recreation Goal to Enhance the Quality of Recreation Opportunities. The NFHS will continue these activities in FY 2005.

Historically, most of Lake Superior's 3,000 miles of shoreline and 100 tributaries supported fishable populations of coaster brook trout, a highly sought-after recreational species. Over-harvest and habitat loss decimated the populations until only remnant stocks remained. Using river specific broodstocks developed by the NFHS, the Service is reestablishing coaster brook trout populations in Siskiwit Bay, Isle Royale National Park (MI) in partnership with the National Park Service, Keweenaw Bay Indian Community, the Michigan Department of Natural Resources, and Trout Unlimited.

Mitigation - When Federal locks and dams were constructed, the Federal government committed to mitigate impacts on recreational, commercial, and Tribal fisheries. The Service supports mitigation fishery programs through the NFHS to address the adverse impacts of some of these projects. NFHS fish production for mitigation in the Southeast is estimated to generate more than \$107 million annually in direct expenditures on recreational fishing activities and to maintain more than 2,800 jobs.

Over the years, many project-specific authorities have led to a myriad of mechanisms and responsibilities for funding and operating Federal mitigation fisheries. In some cases Federal water project development agencies or the beneficiaries of those Federal projects fund mitigation costs. The Service is working with the Bureau of Reclamation and Department to determine which of the fisheries supported by the Service are actually the responsibility of the Bureau. In FY 2003, the Service and the Bureau determined that approximately 30% of the activities at the Hotchkiss (CO) NFH are conducted to meet the Bureau's mitigation responsibilities, but that none of the activities at the Leadville (CO) NFH are conducted on behalf of BOR.

The Service, the Bureau, and the Department will work together to determine if there are additional mitigation hatchery programs that should be funded by the Bureau of Reclamation. Similar efforts

with other Federal agencies will be pursued in the future. In the meantime, the Service will continue its ongoing mitigation fisheries programs at their current levels.

2003 Program Performance Accomplishments

With the \$36.5 million appropriated in FY2003, and in addition to facility maintenance, visitation, and volunteer goals, the NFHS contributed to goals outlined in the Fisheries Vision. Important 2003 program accomplishments include:

Partnerships and Accountability

During the strategic planning process, each Region had extensive contact with their partners and stakeholders to discuss Regional priorities. These priorities and associated performance targets are reflected in the Regional strategic plans, which are the basis for the development of the National Fisheries Program Strategic Plan.

NFHS hatchery personnel participated on, and offered expertise to, many local, Regional, and national resource efforts. For example, Natchitoches NFH personnel contributed to Regional partnerships through active participation on the Southeast Aquatic Resources Partnership (landscape level habitat planning), the Lower Basin Pallid Sturgeon Work Group and the Pallid Sturgeon Recovery Team (genetic stock differentiation), the Apalachicola/Chattahoochee/Flint River Technical Team (striped bass issues), the Lower Mississippi River Ecosystem Team, and the Caddo Indian Nation (cultural heritage issues).

Aquatic Species Conservation and Management

NFHS facilities provided refugia for endangered and threatened species facing severe drought in the Southwest, including several species of salamanders, the Green River razorback sucker, fountain darter, Devil’s River minnow, Comanche Springs pupfish, Texas Wild Rice, the Cape Fear shiner, Yaqui catfish, and Big Bend gambusia.

In cooperation with the Michigan DNR, the Jordan River NFH, Iron River NFH, and Pendills Creek NFH met the target release of 3,000,000 lake trout into the Great Lakes in compliance with the U.S. v Michigan Consent Decree. Saratoga NFH held 800 broodstock lake trout for future production, to meet the Tribal trust responsibilities outlined in the Decree. In addition, fish health inspections accomplished by the LaCrosse Fish Health Center ensured that disease-free lake trout were released.

The NFHS focused on priority recovery plan tasks for captive propagation, a critical role in the recovery of threatened and endangered fish species. NFHS facilities exceeded the estimated FY 2003 target by over 20%. Species included the Atlantic salmon, razorback sucker, chum salmon, and the Apache trout.

In FY 2003, NFHS facilities distributed approximately 155,000,000 fish weighing approximately 5,000,000 pounds, and approximately 91,000,000 eggs to restoration, recovery, mitigation, and special conservation programs (see Table 2).

Table 2. FY 2003 and FY 2004 Fish and Fish Egg Distribution¹

	Number of Fish	Pounds of Fish	Number of Eggs
FY 2003 Actual			
Recovery	12,314,720	149,562	5,578,700
Restoration	34,226,926	782,536	24,826,568
Mitigation	66,776,662	3,390,500	23,129,864
Special Conservation	41,791,075	998,928	37,442,235
TOTAL	155,109,383	5,321,526	90,977,367

FY 2004 Estimate			
Recovery	15,000,000	200,000	7,000,000
Restoration	35,000,000	800,000	25,000,000
Mitigation	70,000,000	3,000,000	20,000,000
Special Conservation	40,000,000	1,000,000	40,000,000
TOTAL	160,000,000	5,000,000	92,000,000

1 Fish and Fish Egg Distribution are outputs related to higher level performance goals and measures. The 2004 estimates are based on historical levels, adjusted for the proposed 2004 budget. These outputs are not goals, and actual distribution will depend on implementation of higher level goals.

Recovery: (Sustain biological communities)

Activities contributing to down-listing or de-listing Federally endangered or threatened species.

Restoration: (Sustain biological communities)

Activities contributing to re-establishing self-sustaining native populations at levels of abundance and spatial distributions well above the threshold for de-listing or listing.

Mitigation: (Sustain biological communities/ensure quality of recreation)

Activities contributing to offsetting aquatic resource losses and the preserving of native species from potential extinction, due to water projects developed by the Federal government or under the licensing or regulation of the Federal government.

Special Conservation: (Sustain biological communities/ensure quality of recreation)

Activities conducted in cooperation with States, Tribes, and Universities focusing on localized partnerships for enhancement of fish populations.

Public Use

The Nashua NFH hosted approximately 4,000 students and adults from the Adopt-A-Salmon Family watershed education program, area schools, civic, and scouting groups. The objective of this program is to provide students with a learning experience about a host of watershed-related issues through hands-on experiences with Atlantic salmon fry and parr. Unique conservation education learning experiences are also developed that focus on locally-relevant resource issues.

The Carson NFH directly released 1,673,000 Carson strain spring Chinook salmon smolts to the Wind River, Washington to mitigate for salmon spawning grounds lost to Federal water projects on the Columbia River. Benefits include the provision of Tribal and recreational harvest opportunities which pose no threat to listed species and would not exist without this program. Washington Department of Fish and Wildlife estimates that in 2003, Carson NFH spring Chinook salmon releases directly accounted for 32,420 angler days. An additional 6,300 fish and 108,000 eyed eggs were transferred to various sites for research and educational purposes.

Pursuant to recommendations of the Sport Fishing & Boating Partnership Council (SFBPC) in their January 2002 report "A Partnership Agenda for Fisheries Conservation", the Director committed to fulfilling the Service's current mitigation responsibilities while seeking to recover costs of mitigation from sponsors of federal water projects. As an example of this commitment, the Orangeburg NFH stocked striped bass in Lake Murray, a Corps of Engineers water project. This stocking supports mitigation goals in the Santee River Basin and is done in cooperation with the South Carolina Department of Natural Resources. In FY 2003, the Orangeburg NFH stocked 595,948 striped bass into the Santee River Basin.

Cooperation with Native Americans

The Alchey-Williams Creek NFH Complex produced and distributed trout to meet Indian Trust responsibilities for assistance in development of public sport fishing programs on 9 Indian Reservations in Arizona, New Mexico and Colorado. Nonnative trout species produced for these intensive recreational fishing programs are stocked exclusively into reservoirs and impoundments which do not contain nor impact native fishes and are in response to approved fisheries management plans on all Indian Reservations. In FY 2003, 832,933 fish were stocked, providing 360,577 angler-

days and \$12,710,000 in economic benefits to the Tribes. A portion of these revenues support the Tribes native species restoration programs.

Members of the Quinault Indian Nation lack opportunities in the fisheries field. At the Quinault NFH, Tribal Employment Rights Ordinance (TERO) participants worked approximately 1,500 hours with fish culturists and biologists to learn and conduct tasks such as feeding, egg care, spawning operations, and light maintenance. Temporary employment opportunities such as these offer Tribal members the opportunity to increase technical knowledge in the field of fish production.

Leadership in Science and Technology

NFHS personnel contributed to many facets of scientific study related to restoration and recovery of imperiled, threatened, and endangered species. These include quarantine, egg disinfection, fry/larvae disease prevention and treatment, cryopreservation, non-lethal sampling techniques, and diet evaluation studies. These successful studies resulted from cooperative ventures with State, Federal, Tribal, and academic partners. For example, experiments conducted to address cryopreservation of milt and effects of anesthesia on Atlantic sturgeon lead to the development and publication of *The Atlantic Sturgeon Culture Manual*, which summarizes ten years of experience with this species of special concern. Hatchery-reared salmonids frequently exhibit fin erosion (torn and ragged fins), a condition previously thought to be due to culture conditions (i.e., concrete walls or high density conditions). The Bozeman FTC (MT) has demonstrated the underlying cause of the condition is a trace mineral deficiency. Feed formulations with copper mineral balance were developed that prevent fin erosion, thus increasing the quality of hatchery-reared product. Trials are continuing in a number of locations around the U.S to determine the effect of these factors on fish quality and to refine the balance of ingredients in the diets.

Aquatic Habitat Conservation and Management

Jackson NFH (WY) created two acres of aquatic and riparian habitat and 500 feet of spawning habitat for cutthroat trout. In addition, two redds were identified in restored stream channel. Water was diverted from the hatchery's old effluent channel into a two acre pit that serves as a secondary filter for the hatchery's effluent. The pond will remove the nutrient load in the effluent through photosynthesis. A drum filter is currently being installed which will remove the solids from the effluent. The solids will be tested on the National Elk NWR as a potential fertilizer to improve forage for the elk. The pond is open to the public for fishing.

Submerged aquatic vegetation (SAV) is important as fish habitat, food for waterfowl, habitat for shellfish, and other invertebrates. It reduces nutrients, erosion, and sediments in the water, and acts as an indicator of water quality. Sedimentation and increased nutrient input as a result of human activities have caused an 88% decline in SAV within the Chesapeake Bay. The Chesapeake Bay Foundation (CBF) and the Alliance for the Chesapeake Bay (ACB) have developed a program in which volunteers monitor existing SAV beds and establish new ones with plant propagules. Plant propagules are not readily available for the restoration program. Harrison Lake NFH (VA) and the Virginia Fisheries Coordinator, in partnership with CBF and ACB, have established two nursery ponds for the cultivation of underwater grasses. Wild celery is being cultivated (2,200 plants introduced this year) at the station to serve as a dependable source of plant propagules for the SAV restoration programs in the Chesapeake Bay.

Workforce Management

Regular and substantive training is critical to improving efficiency at NFHS facilities. As an example of training opportunities, in FY 2003, each member of the Orangeburg NFH (SC) staff received a minimum of 40 hours of training in their work area, which included administrative, biological, technical, construction, and maintenance facets. Training was received from the Service training

center (NCTC), outside consultants, and personnel development material. This training ensures that station personnel are fully aware of new developments in fish cultural activities, equipment operation, safety issues, and construction/maintenance techniques.

2004 Planned Program Performance

For 2004, the NFHS will begin measuring performance under new measures that roll up the Regional fisheries strategic plans into the National Fisheries Program Strategic Plan and link to the Department's Strategic Plan, supporting the DOI's Resource Protection Goal To Sustain Biological Communities by Managing Populations to Self-sustaining Levels for Specific Species; and Improving Information Base, Resource Management Practices, and Technical Assistance. Specific examples include:

Maintaining genetic fitness is critical for long-term recovery for an estimated 410 pallid sturgeon that remain in the upper Missouri/Yellowstone Rivers. Sperm samples cryopreserved over the past four years at Garrison Dam NFH (ND) have established a successful nucleus for a repository for cryopreserved pallid sturgeon sperm samples. A joint field station project between Warm Springs FTC (GA), Natchitoches NFH (LA), and Garrison Dam NFH will upgrade the repository. This project will enable the Service to make sturgeon sperm available for future use in recovery efforts directed at this imperiled sturgeon, as well as all other sturgeon species.

Atlantic salmon were extirpated from the Connecticut River watershed over two hundred years ago. Previous stocking of smolts from Pittsford NFH (VT) resulted in historic high returns. The Pittsford NFH will undertake work to restore landlocked salmon to their native range in the Lake Champlain Basin, by rearing an additional 35,000 smolts in FY 2004. This project will advance restoration of the species in Lake Champlain, leading to increased benefits to the economy through improved fishing opportunities.

The Neosho NFH (MO) will analyze and monitor water quality in part of the hatchery water supply that houses the endangered Ozark cavefish. This fish is very sensitive to ground water contaminant associated with human population growth and industrial expansion that have contaminated portions of the supply. The hatchery will conduct a complete analysis of water in Hearrell Spring, a part of the hatchery water supply.

The Bears Bluff NFH (SC) will develop culture and refugia techniques for Atlantic sturgeon. The hatchery will determine specific environmental problems encountered by wild sturgeon in natal rivers, provide a source of fish for re-stocking efforts in extirpated rivers, and provide refugia for strains of Atlantic sturgeon that are in danger of extinction. This project will enhance restoration activities along the South Atlantic coast by meeting captive propagation tasks called for in the fishery management plan for this species.

Ecological interactions between hatchery fish, listed wild fish, and other native fish will be evaluated by the Abernathy FTC (WA) to address associated issues for endangered species. The results from this project will help in management decisions for the operation of the Carson NFH (WA) and minimize risks to wild and listed fish while providing sport and tribal fishery benefits.

The Pinetop FHC (AZ) will expand disease sampling efforts in hatcheries and in streams to help ensure that imperiled native fish species being moved to and from, and maintained on, NFH's are free of destructive pathogenic organisms. This project will determine the disease status of waters prior to transport of fish to help prevent the accidental introduction of diseases into hatcheries and/or streams. This information will assist in meeting requirements of recovery plans for depleted and listed native

General Program Increase (+\$1,000,000)

The NFHS will focus the additional funds in three priority areas in accordance with the *DOI's Strategic Plan*, the Fisheries Program's *Vision* and National Strategic Plan, the Administration's PART Review, and more specific Regional strategic plans linked to the DOI goals and the seven *Vision* focus areas. These three priority areas are: Recovery (+\$142,000); Restoration/Recreation (+\$493,000); and Science and Technology (+\$365,000).

Specific activities to be accomplished with these additional funds are described below.

- Recovery (+\$142,000)** The additional funding will enhance the NFHS ability to contribute toward 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* and the intermediate outcome to *Manage Populations to Self-Sustaining Levels for Specific Species*, and the Fisheries Program's *Vision* (objective 2.1). The increased funding in FY 2005 will be used to conduct four mission-critical projects that will implement an additional 7 priority recovery tasks prescribed by approved Recovery Plans. Specifically, the NFHS will enhance hatchery production and genetic refugia for listed species, such as pallid sturgeon and imperiled freshwater mussels, with special focus on sound science and implementing techniques such as non-lethal genetic tagging that increase program efficiency and speed recovery. These projects also reflect partnerships in which the Service's unique federal role complements that of other partners to recover important species in a well-planned and coordinated manner. Project selection balanced ecological, social, and economic factors and needs, resulting in the selection of high priority projects listed in the FONS database.

FY2005 NFHS Operations Increase Request Recovery	
Neosho NFH (MO) FONS # 2002-004 Endangered Species Protection (Blind Ozark Cavefish) This project analyzes water in Hearrell Spring, part of the hatchery water supply that houses the endangered Ozark cavefish. This very sensitive species has adapted to the unique limestone habitat of the Ozark Plateau, and its future is jeopardized by groundwater contamination. The project will provide water quality monitoring to preserve this species and protect the hatchery water supply.	\$30,000
Makah NFH (WA) FONS # 1999-004 Chinook Mass Marking to Support Selective Fisheries This project will assist harvesters distinguish between healthy hatchery stocks and depressed wild stocks of Chinook salmon. Decreasing the impact of harvest on wild fish will hasten their recovery. Hatchery fish marked on an external fin are easily identified by harvesters and can be retained in the catch, while unmarked wild fish can be released. This project will enhance survival of wild salmon by the selective marking and potential harvest of 3.8 million hatchery-produced salmon.	\$17,000

Dale Hollow NFH (TN)
FONS # 2000-001

\$45,000

Propagation of Imperiled Freshwater Mussels

This project will accelerate recovery of imperiled freshwater mussels by expanding the existing mussel propagation capabilities of Dale Hollow NFH. Holding and propagating mussels in refugia while habitats are restored is a proven recovery tool. Funding will be used to coordinate removal of mussels from the wild, develop refugia and culture facilities, and refine spawning techniques in conjunction with the U.S. Geological Survey, the academic community, and the private sector. Benefit: Accelerated restoration of imperiled freshwater mussels within the Tennessee and Cumberland River drainages.

Bozeman FTC (MT)
FONS # 2004-006

\$50,000

Development of Non-lethal Genetic Tagging Methods for Pallid Sturgeon

This project will expand the development/identification of DNA markers so that the pedigree of released/recaptured sturgeon can be identified without stressing the fish. Pallid sturgeon are particularly susceptible to stress-related disease, resulting in catastrophic losses of pallid sturgeon in captivity. A primary stressor is the trauma associated with injecting PIT tags, coded-wire tags and/or elastomer tags. The genotype of each spawned adult pair of sturgeon will be identified by small tissue samples; those samples will be archived so that when pallid sturgeon are recaptured in subsequent years, a small tissue sample can be removed and its DNA genotype compared to the archives. Thus, the parentage of hatchery-spawned fish can be determined or wild spawning documented with minimal risk to the fish.

- **Restoration/Recreation (+\$493,000)** The increased funding will strengthen activities to conserve and restore aquatic resources to self-sustaining levels, and enhance the NFHS's ability to contribute toward 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* and the intermediate outcome to *Manage Populations to Self-Sustaining Levels for Specific Species*; the *DOI's Recreation Goal to Provide for a Quality Recreation Experience, Including Access, and Enjoyment of Natural and Cultural Resources on DOI Managed and Partnered Lands and Waters*, and the intermediate outcome to *Enhance the Quality of Recreation Opportunities*, and the Fisheries Program's *Vision* (objectives 2.2, 2.3, 2.7, 3.1, and 4.1). The Service plays a vital role in restoring declining species to preclude future listing and provide the American people with quality recreational opportunities. The NFHS is a leader in restoring fish and other aquatic species through captive propagation. Many of the fish species restored have significant recreational value.

The additional funding will enable the Service to conduct 9 priority projects that will implement an additional 41 tasks prescribed in approved restoration and fishery management plans. The increased funding should raise annual performance from 76 percent in FY 2004 to 82 percent (23 new tasks) of restoration production tasks achieved in FY 2005; from 52 percent to 55 percent (5 new tasks) of applied science and technology tasks implemented; from 69 percent to 73 percent (13 new tasks) for marking and tagging targets met; and 45 percent (10 new tasks) for post stocking survival targets met; and two new species held in refugium. Project selection was based

on ecological, social, and economic benefits and needs, to help restore species such as lake sturgeon and paddlefish. These high priority projects identified in FONS focus on increasing program efficiency through evaluation of hatchery products and implementation of innovative tools and techniques. Project selection was also based on coordination with partners, thereby increasing the likelihood of successful restoration and increased recreational fishing opportunities.

FY2005 NFHS Operations Increase Request Restoration/Recreation	
<p>Tishomingo NFH (OK) FONS # 1999-001</p> <p>Restoration of Paddlefish in Arkansas-Red River Basin</p> <p>This project will enhance the Tishomingo NFH's ability to propagate native paddlefish to restore populations of the species to historical ranges above impoundments. Meeting these stocking commitments is critical to re-establishing self-sustaining paddlefish populations.</p>	<p>\$112,000</p>
<p>LaCrosse FHC (WI) FONS # 2000-004</p> <p>Lake Sturgeon Restoration on the Menominee Indian Reservation, Wisconsin</p> <p>This project will help the LaCrosse Fish Health Center determine the existence and prevalence of disease organisms in wild and hatchery raised juvenile and adult lake sturgeon. Outbreaks of disease from improperly monitored hatchery operations can devastate hatchery populations as well as infect wild fish. Funding would be used to analyze and evaluate samples and protocols used at Service production hatcheries, as well as analyze tissue samples from wild lake sturgeon. Anticipated benefits include reducing a disease epizootic to more than 500,000 lake sturgeon eggs and juvenile fish annually at the Genoa NFH and maintaining adult lake sturgeon health and genetic integrity in Tribal waters.</p>	<p>\$50,000</p>
<p>Columbia River FPO (WA) FONS # 2004-009</p> <p>Planning and Coordination of Hatchery Reform for Service Operated/Administered Facilities</p> <p>Columbia River Fisheries Program Office personnel will work with Service hatchery managers and other management and co-management staff, to develop a hatchery reform implementation plan for Service operated/administered facilities in the Columbia River Basin. Implementation of hatchery reforms is requested in the Artificial Production Review Evaluation and the NMFS Artificial Production and Federal Columbia River Power System Biological Opinions. This project will develop a prioritized implementation plan and a template for periodic review and evaluation, while coordinating Service activities with other co-managers in the Columbia River Basin.</p>	<p>\$60,000</p>
<p>Bears Bluff NFH (SC)</p>	<p>\$60,000</p>

FONS # 1999-001

Propagation Techniques for Atlantic Sturgeon

This project will enhance research for the propagation and culture of the imperiled Atlantic sturgeon and stocks of shortnose sturgeon outside the Savannah River Basin. Captive stocks of shortnose sturgeon from the Savannah River Basin have been held in refugia at Bears Bluff since 1985 and Southeastern coastal States strongly support continuation of shortnose sturgeon research at the facility. Project funding will increase the holding capacity for additional broodstock and rearing capacity for juvenile sturgeon. Six 60-foot concrete raceways will be constructed along with fencing and covering to prevent predation by birds and other animals. Benefit: enhanced restoration of shortnose and Atlantic sturgeon.

Edenton NFH (NC)

\$22,000

FONS # 1999-002

Sturgeon Population Evaluations in the Roanoke-Tar-Neuse-Cape Fear Ecosystem

This project will enable Edenton NFH to collect scientific information on the presence/absence of sturgeon populations in the Roanoke-Tar-Neuse-Cape Fear ecosystem. In cooperation with State, local, and industry personnel, an active sturgeon tagging/fisherman notification program will be implemented. The project is anticipated to assist in establishing self-sustaining populations of endangered short-nosed sturgeon and provide current biological data for management of all sturgeon species in the RTNCF ecosystem.

Nashua NFH (NH)

\$131,000

FONS # 2002-001

Restore and Enhance American Shad Populations in Northern New England Rivers

This project will increase the population of American shad from 20,000 to 100,000 annually, by stocking five million juvenile shad in underutilized sections of the river above dams. Small scale stocking of fish and eggs from other rivers have met with limited success. The enhanced number of adults would provide a self-sustaining population of shad in the Merrimack, Cochecho, Lamprey, Exeter, and Salmon Falls Rivers.

Creston NFH (MT)

\$20,000

FONS # 1999-003

Restoring Native Westslope Cutthroat Trout on the Blackfeet Indian Reservation

This project will begin a Westslope cutthroat stocking program of approximately 250,000 cutthroat annually in St. Mary's Lake, as requested by the Blackfeet Tribe. Switching from nonnative to native fish in tribal waters would prevent species competition and address genetic concerns in the St. Mary's and Upper Missouri river drainages. The project will assist in Westslope cutthroat restoration and eventually provide a recreational fishery.

<p>Private John Allen (MS) FONS # 1999-001</p> <p>Paddlefish and Lake Sturgeon Propagation</p> <p>This project will provide the capability for the Private John Allen NFH to increase paddlefish and lake sturgeon production at the hatchery by improving the spawning and rearing facilities at the hatchery. A "state of the art" recirculating intensive culture system will be added, which will allow spawning and rearing higher densities of fish in a more controlled environment. This capability is anticipated to increase production of each of the two species from the current 20,000 fish per year to 50,000 fish per year.</p>	<p>\$28,000</p>
<p>Genoa NFH (WI) FONS # 2003-001</p> <p>Restore Lake Sturgeon Populations in the Upper Midwest</p> <p>This project will provide the labor, equipment, and material to produce 30,000 additional fingerling lake sturgeon to meet resource needs. Lake sturgeon are a long lived species requiring as long as two decades to mature. Habitat loss and overexploitation have contributed to population declines throughout its historic range, which includes the Great Lakes Drainage and the Mississippi River basin. This additional production capability will help meet requests for lake sturgeon to support habitat restoration efforts.</p>	<p>\$10,000</p>

- Science and Technology (+\$365,000)** These additional funds will be used to augment science and technology activities to conserve aquatic resources and the habitats that sustain them, and will enhance the NFHS's ability to contribute toward 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* and the intermediate outcome to *Improve Information Base, Information Management and Technical Assistance*, the *DOI's Resource Protection Goal to Protect Cultural and Natural Heritage Resources* and the Fisheries Program's *Vision* (Objective 5.1).

These funds will enable the Service to complete 8 projects addressing NFHS science and technology objectives for fish species, most of which support valuable recreational fisheries. Specific activities include: 1) national brood stock genetic assessment, monitoring and maintenance; 2) development of an integrated genetic data management system; and 3); implementing a long-range plan to comply with the Departmental Manual and other mandates for DOI museum properties at DC Booth Historic National Fish Hatchery. Projects were selected from the FONS database based on ecological, social, and economic factors and needs, with an emphasis on improving fish health both in hatcheries and in the wild.

FY2005 NFHS Operations Increase Request
Science and Technology

<p>Quinalt NFH (WA)</p>	<p>\$15,000</p>
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FONS # 1999-001	
Egg Isolation Unit to Produce Fish Defined in an Agreement with the Quinault Indian Nation	
<p>This project will enhance this facility's ability to isolate Chinook salmon eggs to ensure that the eggs are disease-free. To meet the fall chinook salmon production goals established by a cooperative agreement between the Quinault Indian Nation and the Service, the Quinault NFH must import fall chinook eggs from outside the facility. Currently, eggs received by the station undergo cursory treatments to check for disease. This project is expected to ensure that any disease present in those eggs will not be spread throughout Quinault NFH and to help restore and maintain fall chinook runs on the Quinault River.</p>	
Lahontan NFH (NV) FONS # 2003-005	\$25,000
National Broodstock Genetic Assessment, Monitoring, and Maintenance	
<p>This project provides a genetic baseline and protocols for annual genetic monitoring of inbreeding, polymorphism, and heterozygosity to ensure that genetic drift is not occurring between the captive broodstock and wild populations. Lahontan NFH is developing a captive broodstock from the threatened Pilot Peak strain of Lahontan cutthroat trout for Truckee River Basin recovery, in compliance with the Lahontan Cutthroat Trout Recovery Plan. The project will develop protocols to determine how many and how often wild fish should be added to the captive broodstock, and to minimize impacts to the threatened source populations.</p>	
Jackson NFH (WY) FONS # 2003-002	\$54,000
Integrated Genetic Data Management System: A Tool for Fisheries	
<p>This project will provide an interactive relational database, giving hatchery managers a method to integrate genetic information into daily operations, by evaluating and monitoring hatchery stocks and progeny. The genetic information accumulated on numerous fish species can be used to help improve production, broodstock, and refugium population management. This national initiative will provide managers at several NFH facilities with a critical tool for providing genetically appropriate fish to aid in restoration, recovery, and sport fishery goals.</p>	
Ennis NFH (MT) FONS # 2004-001	\$15,000
National Broodstock Genetic Assessment, Monitoring and Management	
<p>This project will develop a baseline genetic characterization of salmonid stocks using microsatellite technology. Ensuring that broodstocks have not lost genetic diversity since strain development, and providing a consistent genetic baseline for assessment of existing stocks at all facilities is an essential tenet of the National Broodstock Program. Information generated from this project will provide levels</p>	

<p>of inbreeding, polymorphism and heterozygosity for broodstocks; all necessary to direct future broodstock management.</p>	
<p>Jackson NFH (WY) FONS # 2003-001</p>	<p>\$7,000</p>
<p>Native Cutthroat Trout Broodstock Genetic Assessment, Monitoring and Management</p> <p>The project will use microsatellite technology to develop a baseline genetic characterization of native cutthroat trout stocks. National broodstock hatcheries maintain inland salmonid broodstocks to support our Nation's fisheries with egg shipments to Federal, State and Tribal partners. Information from meristic and genetic testing of two cutthroat trout broodstocks at Jackson NFH will be used to develop scientifically sound broodstock programs.</p>	
<p>Bozeman FHC (MT) FONS # 1999-001</p>	<p>\$35,000</p>
<p>Developing a Histological Technical Assistance Program for Native Trout and Imperiled Fish Species</p> <p>This project will enhance the Bozeman Fish Health Center's ability to determine the presence and prevalence of disease organisms in hatchery and wild native cutthroat trout and imperiled species. Histopathology allows accurate detection of fish pathogens in multiple species. Samples and protocols from Service production facilities and samples from free-ranging fish populations will be analyzed. The project should reduce disease threat to more than one-half million native cutthroat trout and facilitate restoration of pallid sturgeon in two segments of the Upper Missouri River.</p>	
<p>DC Booth Historic NFH (SD) FONS # 1999-001</p>	<p>\$36,000</p>
<p>Inventory Historic Properties and Catalogue Collections</p> <p>The project will implement long-range plans in compliance with Part 411 of the Departmental Manual and other mandates for the Department's museum property collections at DC Booth Historic National Fish Hatchery. Proposed funds will be used to inventory historic properties and help meet Service responsibilities for cataloging collections, thus preventing the continued growth of cataloging backlogs.</p>	
<p>Abernathy FTC (WA) Bears Bluff (SC) Bozeman FTC (MT) Lamar FTC (PA) Mora FTC (NM)</p>	<p>\$32,000 \$32,000 \$32,000 \$32,000 \$32,000</p>
<p>Effluent Management at Hatcheries through Nutrition</p> <p>This project will develop and test low polluting diets for National Fish Hatcheries to assist the NFHS in meeting new and more stringent Environmental Protection Agency (EPA) and State effluent standards.</p>	

The EPA is developing new effluent standards and guidelines for aquaculture facilities, including treatment technologies and best management practices (BMPs) for reducing solids and excess feed. This project proposes to develop and test low polluting diets to be used at hatcheries to assist in the management of solids and excess feed. The feed would be highly palatable, highly digestible, and low in excreted phosphorous. Also, non-friable fecal material would be produced making the solids easier to remove. This feed would be used as an important component of the BMP. This technology will benefit Federal, State, and private sector partners.

Western Washington FRO (WA)
FONS # 2000-002

\$18,000

Selective Fishery Evaluation

This project will determine the incidental mortality of wild stocks in fisheries that are intended to selectively harvest hatchery stocks. A survey will be developed and implemented to measure the effectiveness of mass marking and indicator tagging of coho salmon, and analyze the data to assess selective fishery impacts. Hatchery stocks and imperiled wild stocks of salmon fisheries are distinguished from each other, so that harvesters can determine whether a fish comes from a hatchery (marked) or from imperiled wild stock (no mark). The hatchery fish can then be harvested and the wild fish immediately released.

Hatchery Maintenance and Rehabilitation

Program Overview

The NFHS maintenance efforts at its diverse field stations directly support the DOI's Resource Protection Goals to Sustain Biological Communities and To Manage Populations to Self-sustaining Levels for Specific Species by maintaining key assets on NFH's, FTC's, and FHC's in efficient and safe working condition. Proper maintenance of facilities is essential to sustain the captive aquatic populations necessary to meet restoration objectives identified in recovery plans and fishery management plans. Deferred maintenance projects on the FY 2005 five-year plan specifically target the NFHS's mission critical water management assets, i.e. its water supplies and rearing units. Refurbishing the water supply at Garrison Dam NFH (ND) to improve the warm water source is essential to meet recovery goals for the pallid sturgeon. The rehabilitation of the water supply canal banks at Welaka NFH (FL) will not only aid in the restoration of striped bass in the Southeast, but will also alleviate a safety concern to both station staff and the visiting public. The DOI's Strategic Plan now includes a specific performance measure to track the progress we make in bringing these essential assets back to proper working order.

Condition Assessment and Service Assets Maintenance Management System (SAMMS) The NFHS will continue to work with the Department, the Service's Divisions of Refuges and Engineering, and its Regional and field coordinators to implement two significant improvements in the management of the Service's facility information: condition assessments and SAMMS.

- The NFHS has been conducting condition assessments of its field stations for the past three years, completing assessments at 41 out of 78 (53%) field sites to be assessed. With 20 assessments scheduled for FY 2004, the condition assessment process will be on track to conduct the 17 remaining assessments in FY 2005, thus completing one full five-year cycle for the NFHS's 78 field units.
- NFHS field stations are also implementing SAMMS, a Service adaptation of the MAXIMO software package adopted within the Department. Together with the 44 field units that will be participating by the end of FY 2004, the additional 34 stations scheduled to begin the use of SAMMS in FY 2005 will complete this significant transition to the integration of Service information systems.

Mission Critical Water Management – Maintaining mission critical water management assets in good condition is essential for the NFHS to meet its aquatic resource mission while complying with national environmental standards. These assets include those that directly influence the quality or quantity of water delivered and discharged, or assets that determine the actual rearing or holding environment of fish or other aquatic species being held. Keeping NFHS mission critical water management assets in the best condition supports DOI's Resource Protection Goal of Sustaining Biological Communities as both water quality and quantity are critical elements in sustaining biological communities.

2003 Program Performance Accomplishments

The program focused resources on deferred maintenance associated with mission critical assets. FY 2003 accomplishments include:

- Ensuring high quality water for the recovery of the endangered shortnose sturgeon, and reducing safety risks through the rehabilitation of a severely corroded water power control structure at Bears Bluff NFH (SC), thus eliminating both a shock hazard and a power failure risk.
- Facilitating conservation and restoration of Atlantic salmon at the Nashua NFH (NH) through the replacement of an aging, unreliable emergency and security alarm system, ensuring that failure of water supply components such as pumps and degassers could be detected early, and responded to with minimal impact on these imperiled fish.
- Facilitating restoration of imperiled paddlefish and pallid sturgeon at Gavins Point NFH (SD) through the rehabilitation of the water supply rotating drum microstrainer and ultraviolet light disinfection unit to ensure that water-borne diseases do not interfere with these significant conservation efforts.

Improving working conditions at the Allegheny NFH (PA) by the replacement of a rusted, leaking roof on the hatchery building, eliminating further deterioration of the electrical system as well as other related risks to staff and public safety and to the broodstock lake trout and Atlantic salmon reared at this critical facility.

Supporting both the President's Management Agenda to improve governmental effectiveness through implementation of e-government as well as the Service's efforts to standardize and improve the efficiency of its information systems, the NFHS moved its Maintenance Management System records into the Web-based Refuge Management Information System (RMIS). This will result in more timely, more accurate, and more credible data for managing and reporting on management of NFHS physical assets.

Increasing the reliability of the Service's ability to meet fishery management plan expectations in the Northwest through the rehabilitation of two backup generators at Makah NFH (WA). The generators serve as the power source to the hatchery and to employee quarters during frequent winter power outages. The hatchery relies on pumps to supply water to its regionally important salmon and steelhead trout programs, and without power all fish would be lost in a matter of minutes.

Completing 16 (20%) additional condition assessments, with a total of 53% completed compared with 62% targeted. As the NFHS gained experience in conducting condition assessments, the rate of completion improved. Although the FY 2003 target was not attained, completing 20 scheduled assessments in FY 2004 will allow the NFHS to meet its goal of 100% (all 78 facilities assessed) by the end of FY 2005.

2004 Planned Program Performance

In FY 2004, the program will continue to focus support on the DOI's Strategic Goal of Resource Protection to Sustain Biological Communities to Manage Populations to Self-sustaining Levels for Specific Species. Significant projects planned for FY 2004 include:

- Ensuring the safety of employees, visitors, and volunteers at NFHS facilities by completing maintenance projects involving safety issues, such as the replacement of the electrical wiring in the office and visitors center at Greers Ferry NFH (AR), which does not meet local building codes and which also presents electrical shock risks to staff and the public.

- Improving the effectiveness of the water supply at Pendills Creek NFH (MI) through rehabilitation of the water intake settling and filtration system to remove the fine silt the current system cannot handle, reducing the incidence of bacterial gill disease which had seriously affected this lake trout rearing program. The resulting improved water quality should contribute significantly to the ability of the Service to meet U. S. v. Michigan Consent Decree expectations for improved lake trout production.
- Cleaning up the water supply at Williams Creek NFH (AZ) by the addition of a UV treatment system and support structure for the tank house water supply lines. This hatchery lost over 300,000 fingerling trout in 2002 due to a bacterial gill epizootic precipitated by the FDA's withdrawal of the therapeutant Chloramine-T. Threatened Apache trout fingerlings are now experiencing losses to gill disease, so Service restoration efforts for this species will be helped by improving this water supply.
- Improving work and fish rearing conditions at Edenton NFH (NC) through the replacement of 38 corroded pond drain valves. This station's brackish water supply corrodes all metals eventually, leading to leaking and stuck drain valves that impact restoration programs for striped bass and American shad and cause back strain for staff assigned to operate the valves. Valve replacements will enable the station to meet fishery management plan expectations while minimizing staff safety risks.
- Increasing the reliability of data used to enable NFHS facilities to effectively and efficiently meet conservation goals by increasing the number of condition assessments conducted in FY 2004 from the 16 completed in FY 2003 to 20 using both Washington Office and Regional Office staff expertise as well as consulting firms.
- Assuring that maintenance funding is used to accomplish priority conservation projects by having 38 additional NFHS field stations use the SAMMS for facilities management. This Service-wide effort, which includes both real and personal property management, will be fully implemented in the NFHS and NWRS by the end of Fiscal Year 2005.
- Ensuring the safety of employees, visitors, and volunteers at NFHS facilities by completing maintenance projects involving safety issues, such as the replacement of the electrical wiring in the office and visitors center at Greers Ferry NFH (AR), which does not meet local building codes and which also presents electrical shock risks to staff and the public.

Justification of 2005 Program Changes

Subactivity	2005 Budget Request	Program Changes (+/-)
Hatchery Maintenance \$(000)	\$16,929	-\$2,050
FTE	0	0

The FY 2005 budget request for Hatchery Maintenance and Rehabilitation is \$16,929,000 and 0 FTE, a net program decrease of \$2,050,000 and 0 FTE from the FY 2004 enacted level. The Program will help accomplish the Department's Strategic Plan goals with the \$17 M proposed for FY 2005.

Vehicle Reduction (-\$86,000)

According to recent Office of Management and Budget statistics, among civilian agencies Interior has the third largest motor vehicle fleet. Vehicles are used by Interior employees and authorized volunteers to support multiple mission activities, many in remote areas. In some locations,

government vehicles are provided to support service contractors. Over 4,000 vehicles are used seasonally (i.e., only in winter or summer), or for special purposes, such as law enforcement or fire fighting. Nearly 90 percent of the fleet vehicles are trucks, vans, buses and ambulances, and 10 percent are sedans and station wagons.

In 2004, the Department and the bureaus began a collaborative effort to improve the management of vehicle fleets including examination of the infrastructure for fleet management within each bureau, the identification of best practices that could be used Department-wide, and the development of action plans to improve fleet management and realize cost savings.

In anticipation of improved fleet management and the resultant savings, the 2005 budget proposes a reduction in funding. To achieve these savings, the bureau will undertake fleet reductions and cost-savings by: (1) reducing the size of the fleet; (2) employ energy saving practices by fleet operators; (3) acquire more efficient vehicles; (4) acquire the minimum sized vehicle to accomplish the mission; (5) dispose of underutilized vehicles; (6) freeze the acquisition of vehicles from the General Services Administration (GSA) Excess Vehicle program; and (7) explore and develop the use of inter-bureau motor pools.

Washington State Hatchery Improvement Project (-\$2,963,000)

In FY 2004, Congress provided funding for the Washington State Hatchery Improvement Project, to be used by the Washington State hatchery system, the Long Live the Kings project, the Northwest Indian Fisheries Commission, and the Service to initiate State-led salmon and steelhead hatchery reform in Puget Sound and the Washington State marine coast. Funding for this program is eliminated in FY 2005 to offset increases elsewhere in the President's budget request that are necessary to address higher priority needs. 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 2005, the NFHS will focus its efforts on Pacific Northwest Salmon Conservation activities to improve fish propagation strategies for 12 species of hatchery-raised salmon and steelhead in the Columbia River Basin.

Deferred Maintenance (+\$999,000)

The increase funding for hatchery maintenance will be used to prevent minor (<\$20,000) maintenance deficiencies from growing into more costly deficiencies that are added to the deferred maintenance backlog using the Service Asset and Maintenance Management System (SAMMS). The NFHS began to implement SAMMS at approximately half of its facilities with \$430,000 of the increase it received in FY 2004, and will implement SAMMS at all 86 NFHS facilities by the end of FY 2005. SAMMS will make maintenance operations more efficient and accountable by tracking maintenance projects and personnel duties, preventive maintenance expenditures, and property conditions for equipment and real property (excluding land holdings) of all Service field stations as recommended by the Department's Office of the Inspector General in "*Maintaining the Department of Interior's Facilities, A Framework for Action*," December 2001.

In FY 2005, emphasis will be placed on the day-to-day maintenance needs for mission critical water management and public safety assets. Improvements to these assets will increase the dependability of NFHS contributions to regionally and nationally significant multi-agency restoration and recovery programs. Examples include:

- Painting fish crowders prior to them rusting to a point that replacement is needed,
- Fixing leaking water distribution supply lines to prevent fish loss,
- Installing rain gutters on buildings to prevent major water damage,

- Caulking raceway seals to prevent water loss and water damage,
- Correcting leaky fittings on fuel storage tanks to prevent environmental contamination, and
- Repairing ADA compliant access ramps to buildings and visitor contact stations.

Projects are identified and documented in the Service 5 Year Plan that is submitted under separate cover.

Program Performance Summary

The National Fish Hatchery System is fully committed to implementing the Department’s Strategic Plan in FY 2005. The NFHS has continued developing outcome measures that accurately measure its contributions to the DOI End and Intermediate Outcome Goals. In FY 2005, performance measures may be refined after review and recommendations by OMB and the Sport Fishing & Boating Partnership Council.

Performance measure targets identified with an asterisk (*) note the use of an earlier method of estimation. In some cases, no historical accomplishment information was collected related to these performance measures, and therefore, no performance targets are available for FY 2002 and FY 2003. In FY 2003, actual accomplishments were reported, and baseline conditions for these performance measures were verified for use in establishing FY 2004 performance targets. In FY 2004, these measures will become part of the DOI Strategic Plan and the Fisheries Program’s National Strategic Plan.

DOI Strategic Goal: Resource Protection							
Intermediate Outcome Measures (Key and Non-Key) and PART Outcome Measures	2002 Actual	FY 2003 Actual	2004 Budget	2004 Plan	2005 Plan	Change in Performance - 2004 to Planned 2005	Long-term Target (2008)
End Outcome Goal 1.2: Sustain Biological Communities on DOI Managed and Influenced Lands and Waters in a Manner Consistent with Obligations Regarding the Allocation and Use of Water							
Intermediate Outcome: Manage populations to self-sustaining levels for specific species							
% of Recovery Plan production tasks implemented (PART) (a)	UNK	40% 48/121*	41% 50/121*	46% 77/169	49% 83/169	+3% +6	63% 107/169
% of applied science and technology tasks implemented as prescribed by Recovery Plans (PART) (a)	UNK	53% 98/180*	63% 113/180*	43% 57/132	43% 57/132	0	73% 96/132
% of Fishery Management Plan production tasks implemented (PART) (b)	UNK	85% 97/114*	93% 106/114*	76% 292/383	82% 315/385	+6% +23	90% 363/404
% of applied science and technology tasks implemented as prescribed by Fishery Management Plans (PART) (b)	UNK	87% 74/85*	91% 93/102*	52% 83/159	55% 88/161	+3% +5	58% 95/163
% of post-stocking survival targets met, as prescribed by Recovery Plans, for hatchery propagated listed species. (PART) (c)	UNK	UNK	TBD	51% 21/41	51% 21/42	0	71% 30/42

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% of post-stocking survival targets met, as prescribed by Fishery Management Plans, for hatchery propagated depleted species. (PART) (c)	UNK	50% 2/4*	50% 2/4*	39% 45/115	45% 55/123	+6% +10	60% 85/141
% of mission critical water management assets maintained in good or fair condition as measured by the DOI FCI, using total repair and replacement values. (BUR)	UNK	UNK	NA	80% 748/930	81% 754/932	+1% +6	82% 769/937
% of assets directly supporting infrastructure (maintenance and administrative buildings; safety and storage properties) maintained in good or fair condition as measured by the DOI FCI, using total repair and replacement values (BUR)	UNK	UNK	NA	77% 133/173	77% 134/173	0% +1	78% 135/173
Intermediate Outcome: Improve information base, information management and technical assistance							
Intermediate Outcome Measures (Key and Non-Key) and PART Outcome Measures	2002 Actual	FY 2003 Actual	2004 Budget	2004 Plan	2005 Plan	Change in Performance - 2004 to Planned 2005	Long-term Target (2008)
End Outcome Goal 1.3: Protect Cultural and Natural Heritage Resources							
End Outcome Measures	2002 Actual	FY 2003 Actual	2004 Budget	2004 Plan	2005 Plan	Change in Performance - 2004 to Planned 2005	Long-term Target (2008)
% of cultural properties on DOI inventory in good condition (SP)	UNK	UNK	NA	85% 17/20	85% 17/20	0	100% 20/20
% of cultural collections on DOI inventory in good condition (SP)	UNK	UNK	NA	24% 300/1227	24% 300/1227	0	44% 541/1227
Intermediate Outcome: Increase partnerships, volunteer opportunities, and stakeholder satisfaction							
Intermediate Outcome Measures (Key and Non-Key) and PART Outcome Measures	2002 Actual	FY 2003 Actual	2004 Budget	2004 Plan	2005 Plan	Change in Performance - 2004 to Planned 2005	Long-term Target (2008)
# of volunteer participation hours (SP,BUR)	178,150	100,762	NA	45,922	53,240	+7,318	TBD
DOI Strategic Goal: Recreation							
End Outcome Goal 3.1: Provide for a Quality Recreation Experience, including Access, and Enjoyment of Natural and Cultural Resources on DOI Managed and Partnered Lands and Waters							
End Outcome Measure: Satisfaction with quality of experience							
Intermediate Outcome: Enhance the Quality of Recreation Opportunities							
Intermediate Outcome Measures (Key and Non-Key) and PART Outcome Measures	2002 Actual	FY 2003	2004 Budget			Change in Performance - 2004 to Planned 2005	Long-term Target (2008)

		Actual		2004 Plan	2005 Plan		
% of public use assets maintained in good or fair condition as measured by the DOI FCI, using total repair and replacement values (BUR)	UNK	UNK	NA	78% 144/186	80% 149/186	+2% +5	78% 145/186
% of hatchery mitigation production programs fulfilled (PART)	UNK	UNK	93% 33.0M/35.4M (fish)	85% 55/65	85% 55/65	+6% +4	97% 63/65
PART Efficiency Measure						Change in Performance - 2004 to Planned 2005	Long-term Target (2008)
	2002 Actual	FY 2003 Actual	2004 Budget	2004 Plan	2005 Plan		
lbs/\$ of healthy rainbow trout as efficiency measure for recreation	UNK	UNK	TBD	TBD	.37lbs/\$1.00	--	.41lbs/\$1.00

- (a) The data collected for these two measures will equal the performance target for the PART measure: % of NFHS priority recovery tasks implemented as prescribed in approved Recovery Plans
- (b) The data collected for these two measures will equal the performance target for the PART measure: % of NFHS priority restoration tasks implemented as prescribed in approved Fishery Management Plans.
- (c) The data collected for these two measures will equal the performance target for the PART measure: % of survival targets, prescribed by approved management plans, met for hatchery stocks of imperiled species.