

NATIONAL WILDLIFE REFUGE SYSTEM

National Wildlife Refuge System – Operations Current Structure

National Wildlife Refuge System Operations		2004 Actual	2005 Enacted	Internal Transfer	Uncont. & Related Changes (+/-)	Program Changes (+/-)	2006 Budget Request	Change from 2005(+/-)
Protect Wildlife	\$(000)	57,227	58,283	-	-	-	-	-
	FTE	636	636	-	-	-	-	-
Improve Habitat	\$(000)	100,171	95,352	-	-	-	-	-
	FTE	1,112	1,112	-	-	-	-	-
Serve People	\$(000)	137,933	136,081	-	-	-	-	-
	FTE	1,319	1,327	-	-	-	-	-
Total, NWRS Operations	\$(000)	295,331	289,716	-	-	-	-	-
	FTE	3,067	3,075	-	-	-	-	-

National Wildlife Refuge System – Operations Proposed Structure

NWRS Operations		2004 Actual	2005 Enacted*	Internal Transfer	Uncont & Related Changes (+/-)	Program Changes (+/-)	2006 Budget Request	Change from 2005 (+/-)
Wildlife & Habitat Management	\$(000)	-	[143,592]	+143,592	+2,456	+6,841	152,889	+9,297
	FTE	-	[1,410]	+1,410	-	-	1,410	-
Visitor Services	\$(000)	-	[63,503]	+63,503	+1,012	-2,481	62,034	-1,469
	FTE	-	[684]	+684	-	-	684	-
Refuge Law Enforcement	\$(000)	-	[25,521]	+25,521	+175	+2,084	27,780	+2,259
	FTE	-	[226]	+226	-	+10	236	+10
Conservation Planning	\$(000)	-	[13,382]	+13,382	+122	-	13,504	+122
	FTE	-	[91]	+91	-	-	91	-
Total, Refuge Operations	\$(000)	-	[245,998]	+245,998	+3,765	+6,444	256,207	+10,209
	FTE	-	[2,411]	+2,411	-	+10	2,411	+10

*FY 2005 Enacted amounts are shown for comparison purposes between current NWRS budget structure and the proposed structure. With implementation of ABC and other improvements on our financial, personnel, and information systems, it is expected that more accountable funding and FTE levels will be made available as the Service evaluates the internal transfer of funding to the proposed structure. This will be closely tracked and reported throughout FY 2005 and FY 2006. Consequently, a re-alignment may be needed as some point to adjust program funding and FTE reporting to reflect the improved data.

Program Overview

Since 1903, the National Wildlife Refuge System (refuge system or NWRS) has grown from one small Florida sanctuary, Pelican Island, to a 96 million-acre network of lands and waters. The refuge system's geographic range extends from above the Arctic Circle to below the equator, encompassing remote coral atolls and expansive wilderness areas to wildlife oases near our largest cities. The refuge

system's 545 national wildlife refuges and 37 wetland management districts conserve the best of this nation's diverse ecosystems: tundra, deserts, forests, great rivers, vast marshes, small prairie potholes, swamps, mountains, prairies, estuaries, tropical lagoons, and coral reefs. Located in every state and territory, a wildlife refuge is just an hour's drive from every major metropolitan area, providing all Americans the chance to experience our nation's outdoor heritage in all its vibrant colors, tones, textures, and sounds.

Refuges are part of the American landscape, drawing more than 40 million visits a year. More than 3,000 refuge employees, tens of thousands of volunteers, and hundreds of support groups and local communities have dedicated themselves to national wildlife refuges, providing integral assistance to manage the wildlife resources close to their hearts. These partners are stepping forward to help create a plan that will take these lands and wildlife treasures into a second century of conservation.

Linking *Fulfilling the Promise, the Conservation in Action Summit, and the Strategic Plan* – Americans expect sound resource protection and management, along with quality wildlife-dependent recreation. The refuge system has produced and is now refining a strategic vision to fulfill these priorities. The 1997 *Refuge Improvement Act* provided a long-awaited definition of the refuge system's conservation mission and identified its "Big Six" priority public uses. The following year, we came together with partners at the Keystone Conference to define a long-term vision based on this newfound authority. *Fulfilling the Promise*, the ultimate product from Keystone, provided a strategic vision identifying 42 recommended actions to meet our newly defined mission to both protect resources and advance public use. Refuge system instantly established the Promises Implementation Team, a leadership group to turn the *Promises* recommendations into action. To date, the team has sanctioned 14 action teams, each composed of subject matter experts, who developed detailed reports on how to affect the 42 recommendations. Much of what these teams recommended has already been implemented in the past 5 years and available in the *Fulfilling the Promise Progress Report* (<http://refuges.fws.gov/habitats/promises.html>).

In May 2004, more than 250 Service employees and partners enthused about the refuge system participated in the landmark *Conservation in Action Summit* and made major strides in identifying a

Use of Cost and Performance Information

- NWRS Fire Management and Invasive Species programs work together to increase overall effectiveness in the control and management of invasive species. Both fire and invasive species have significant influence on natural resources. By exploiting the relationship between them, we develop a synergy to enhance overall management. For example, the targeted use of prescribed fire can help eliminate and control invasive non-native plant species, enabling restoration of landscapes. We have started reviewing fire and invasive species control projects for opportunities to reduce costs or to improve effectiveness in fuels reduction, fire rehabilitation and invasive species control/prevention. A joint fire and invasive species position is being established in the national office to facilitate greater coordination between programs. For example, through the use of prescribed fire, the Service was able to restore and protect 74,000 acres of Federal and private lands against invasive non-native species, including Phragmites, which poses a threat of fire risk.
- NWRS Law Enforcement program supports the President's Management Initiative of Strategic Management of Human Capital through the International Association of Chiefs of Police recommendations and the Secretary's directives for implementing LE reforms. Specifically, implementation of the Refuge LE Zone System and transition from reliance on dual-function officers to full-time officers link human capital strategies to organization mission, vision core values, goals and objectives to develop a high-performing workforce.
- The FY 2006 budget requests a revised budget structure to improve performance-based management capabilities and better align with the DOI strategic plan. The need for a revised budget and allocation strategy was determined after analysis of 8 years of fiscal and staffing data to identify the rate of increase of field staffing and fiscal resources. The NWRS developed a budget allocation handbook to clarify and streamline procedures for allocating funds for numerous accounts and programs to focus management decisions on alignment of fund allocation to priorities with workload drivers including the DOI Strategic Plan, PART, and ABC.
- Implemented ABC software to track workload trends and align program funding with performance accomplishments.

set of shared priorities to guide the refuge system during the next 5 to 15 years. Their final votes on priorities continued the vision embodied in *Fulfilling the Promise* and yielded many priorities for wildlife-dependent recreation programs. The shared sense of priorities that evolved at the *Summit* can be distilled into three main themes: providing quality wildlife-dependent recreation opportunities; involving communities and national partners in our mission; and, welcoming and orienting visitors. Many of the concepts were considered timely and found strong support amongst the broad group.

In addition, these shared priorities have guided development of the NWRS Strategic Plan to effectively step down the recommendations from the Program Assessment Rating Tool (PART), Government Performance Results Act (GPRA), and the DOI Strategic Plan. We expect the draft Plan, now under review, to become final in 2005. Melding the visionary *Fulfilling the Promise* document, *Summit* priorities, and a goal-oriented Strategic Plan is our next challenge, but we see common themes in all three products. The final *Summit* report, to be issued this spring, will define these priorities, as conceptualized by *Promises* teams, agreed upon at the *Summit*, and built into the goals of the NWRS Strategic Plan.

Program Assessment and Rating Tool – In FY 2004, the Service selected the NWRS to go through a PART evaluation. The results of the PART specified that:

1. The purpose of the refuge system is clearly articulated in the *Refuge System Improvement Act* of 1997, which provides a clear mission statement for the system.
2. The 1999 “Fulfilling the Promise” document provides a vision for the System but lacks specificity and prioritization needed to focus management programs.
3. Measurable outcome based performance goals are needed to effectively and efficiently guide management of the program. Baselines and targets need to be developed for new performance measures.
4. The program does not conduct independent program performance evaluations on a regular basis.

Specific recommended actions from the PART include:

1. Develop a 5-year strategic plan for the NWR.
2. Develop baseline data and targets for performance measures.
3. Develop a plan for and schedule of independent program evaluations.
4. Link individual employee performance plans with goal-related performance targets for each fiscal year.

The NWRS strategic plan consists of 11 goals further defined by multiple performance measures and targets. Key strategies and performance measures that support Resource Protection goals are implemented by applying good science to resource inventories; monitoring, studying, and restoring or improving biological communities; restoring, enhancing, or managing habitats; reducing or removing problems such as invasive species, wildlife diseases, and impacts of environmental pollutants and contaminants; and managing, protecting, identifying and interpreting heritage resources such as wilderness, wild and scenic rivers, and numerous others.

Recreation goals are achieved by providing public access for enjoyment of wildlife-dependent recreation and education consistent with protection of fish, wildlife and plant resources; rendering quality experiences that include adequate availability of staff, signs, brochures, etc.; supplying safe and accessible facilities for the public; and managing recreation fees in a manner that provides the government with a fair return on investments and visitors with appropriate value for fees paid.

Serving Communities goals are pursued through collaborative cost-shared projects with refuge resources or enhanced visitor services that benefit both the refuge and local communities; volunteer and community projects; management of educational programs; wildland fire prevention, response and recovery; and law enforcement that protects visitors, natural and cultural resources, and government property.

Woven throughout all refuge system activities, and in support of all mission areas in the DOI Strategic Plan, is the fundamental element of sound science. The refuge system strives continually to develop and deliver new scientific tools to all programmatic levels, including better maps and geo-spatial information, access to information databases, Web sites, guidelines and handbooks that promote quality and consistency, through appropriate methodologies and good policies for program integration, accountability, oversight and information sharing to accomplish the NWRS mission.

The refuge system plays a key role in the Service's mission of working with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people. For example, the NWRS cooperates closely with Ecological Services, Law Enforcement, Migratory Birds, and Fisheries programs to protect, maintain and restore healthy populations of species that live on or migrate through refuges and nearby habitat; works closely with the Engineering program to develop streamlined standards for moderately priced visitor centers and kiosks, parking, trails and other public use facilities; and provides subject matter experts to work with the International Affairs program. In addition to working with internal partners, the Service is working with the Department of Transportation to prepare for reauthorization of the Refuge Roads program and prides itself in working cooperatively with numerous other federal, state, and local agencies, conservation and environmental organizations, private landowners and citizen volunteers to manage its transportation infrastructure. All of these efforts are premised on strong partnerships with local communities, state agencies and other groups who want to help protect our nation's wildlife heritage.

The refuge system of the 21st century is facing new opportunities and many complex challenges and management issues. These include maintaining or improving habitat for a wide array of species; implementing new policies directing monitoring and habitat management in a consistent, system-like way; addressing the ecological integrity of refuge system lands pursuant to the *National Wildlife System Refuge Improvement Act*; protecting larger numbers of visitors; providing more opportunities for volunteers and community partnerships; helping secure the nation's borders; controlling illegal activities on federal lands; maintaining facilities; accommodating new and expanded refuge lands; and, strategically planning for NWRS responsibilities during its next century of conservation.

Other Sources of Funding

Brief descriptions of two sources of funding that support important operations of the NWRS, but are not included within the Service budget request are the Wildland Fire Management Program and the Refuge Road Program.

Funding for the refuge system's **Wildland Fire Management Program** is included in the DOI Wildland Fire Account and presented within the BLM request. However, a brief overview follows because of its overall importance to the NWRS. This program supports the DOI's Strategic Plan mission of Resource Protection and Serving Communities by improving health of watersheds and landscapes, and sustaining biological communities and by protecting lives, resources and property through improved fire suppression response and through prescribed fire and fuels treatment.

The Director represents the Service on the inter-Departmental Wildland Fire Leadership Council, providing senior leadership guidance for federal wildland fire policy and the National Fire Plan. The

refuge system's Fire Director is a voting member of the National Wildfire Coordinating Group and the National Fire and Aviation Executive Board. The fire program works in coordination with other fire managers to address common issues and prioritize assignment of fire suppression resources on a regional and national level through the Multi-Agency Coordinating Group.

The NWRS fire program is a national leader in the use of prescribed fire, a critical tool for managing fuels and habitat. Fuels treatments emphasize community protection and ecological restoration, in keeping with the objectives of the National Fire Plan and the Healthy Forest Initiative. Refuge system fire personnel manage fires and hazardous fuels conditions to prevent catastrophic wildfires and their effects on surrounding communities and to protect and enhance refuge resources. Other activities include emergency stabilization and rehabilitation of soils, habitat, cultural sites and minor infrastructure; wildland fire and fire safety training; and assistance to rural fire departments through small grants for personal safety gear, training, and equipment.

The Service receives hundreds of applications for rural fire assistance grants annually. In addition, the wildland fire program trains employees throughout the Service to assist international, national, state, and local partners with wildland fire and national disaster recovery efforts.

Congress created the **Refuge Roads Program** with passage of the *Transportation Equity Act for the 21st Century* (TEA-21) in 1998. Congress limited use of the funds to major maintenance and reconstruction of federally owned public-use roads and three transportation enhancements (parking lots, roadside rest areas, and bicycle/pedestrian facilities) within the refuge system. During FY 2002, the Federal Highway Administration (FHWA) completed an inventory and condition assessment of public-use roads and parking lots within the NWRS and National Fish Hatchery System, finding only 23 percent of the 4,800 miles of roads and 24 percent of the 5,000 parking lots were in good condition.

During the 108th Congress, the Administration recommended reauthorization of the *Transportation Equity Act*, which would have provided the Refuge Roads program with funding levels of \$30 million per year for the life of the 6-year bill.

Data Management in the National Wildlife Refuge System

The Service develops and implements a series of national databases that collect and provide crucial information for managing the refuge system. Some of these databases include:

- **The Refuge Management Information System (RMIS)** – Provides managers a prioritized, comprehensive list of operational and maintenance projects.
- **Refuge Comprehensive Accomplishment Reporting System (RCAR)** – documents annual management "outputs" (e.g., acres of habitat restored, etc.) that are linked to the DOI Strategic Plan and draft NWRS Strategic Plan and PART performance measures.
- **Refuge Operating Needs System (RONS)** - Beginning in FY 2000, the NWRS, at the direction of Congress, developed a prioritization system to identify the highest priority program areas and associated projects. A two-tiered system within the RONS separates the essential needs of the refuge system (Priority Tier One) from other important opportunities and strategic needs (Tier Two). Tier One represents essential projects needed to establish adequate baseline operational funding to meet the NWRS mission. Specific project types are classed as mission critical, essential staffing, and new and significantly expanded refuge lands.
- **Maintenance Management System (MMS)** – Tracks and prioritizes the refuge system's major maintenance needs. MMS information is used to develop budget requests, track accomplishments, and plan and prioritize facility needs for the NWRS Five-Year Deferred

Maintenance Plan. This Internet based system allows around-the-clock project initiation and tracking by field managers.

- **Real Property Inventory (RPI)** - Tracks the inventory, condition, and replacement value of all real property within the NWRS. The RPI contains information on each piece of real property and is linked to the MMS for those properties that have deferred maintenance components.
- **Personal Property Inventory (PPI)** - Tracks vehicles, equipment, and other personal property individually valued over \$5,000.
- **The Facility Management Information System (FacMIS)** - Tracks account expenditures on maintenance projects. FacMIS links information from the Federal Financial System (FFS) and other Service databases to track expenditures on NWRS maintenance.
- **Service Asset and Maintenance Management System (SAMMS)** - In Fiscal Year 2001, the Department adopted MAXIMO™ as the software system to manage facility maintenance management. MAXIMO™ has been or is being implemented in BLM, BOR, USGS, FWS, NPS, BIA (Irrigation Projects and Safety of Dams), and NBC (for facility maintenance management of the Main and South Interior Buildings). Bureaus operate MAXIMO™ independently. The Department and its bureaus are moving to a single platform solution in order that there can be a single interface with the Department's forthcoming Financial and Business Management System (FBMS). The single platform solution will result in better control of data standards, easier analysis of Department-wide asset information, and a more efficient and effective interface with FBMS.

2004 Program Performance Accomplishments

In FY2004, NWRS Operations received \$295,331,000 to fulfill its mission critical objectives. To achieve those objectives, the refuge system's Operations budget was divided into three program elements, (1) Protect Wildlife, (2) Improve Habitat, and (3) Serve People that define our commitment to the stewardship of wildlife and wildlife lands for the citizens of the United States. This core funding keeps the refuge system operating on a daily basis and supports the Department's strategic mission areas and outcome goals under Resource Protection, Recreation and Serving Communities.

Protect Wildlife

In FY 2004, the refuge system made significant progress in bringing better science to refuge biological programs through wildlife and habitat management reviews, which are systematic and in-depth assessments of an individual refuge's biological activities. Projects supported the DOI outcome goal to sustain biological communities and focused on surveying and monitoring, managing and restoring populations, and working with others. Protecting Wildlife accomplishments in FY 2004 include:

- Completed wildlife and habitat management reviews at McNary (WA), Umatilla (OR), Ridgefield (WA), and Klamath Marsh (CA) NWRs in preparation for CCP development. These in-depth reviews are performed by a team of Service, State, and university experts and investigate all aspects of a refuge's biological program.
- Embarked on a nation-wide effort to prepare for and address the emerging threat of Chronic Wasting Disease (CWD) to deer and elk herds on both Service and non-Service lands. Regions 1 through 6 initiated developments of surveillance and disease response plans, and to date, completed 50 CWD plans for Service lands, one region-wide plan, and 10 draft plans. In addition, refuge staff participated in an interagency CWD study on the White Sands Missile Range - San Andres NWR (NM); purchased CWD related equipment and supplies; developed a CWD Risk-Needs Assessment tool; received CWD related training; and, worked in close partnership with states in their effort to combat this serious disease.

- Completed field work associated with a study of habitat selection by four species of endangered Hawaiian waterbirds.
- Completed 828 endangered species recovery plan actions assigned to refuges as well as 67 actions on candidate species to preclude listing.
- Continued a 6-year project with the Delta Waterfowl Foundation and the Max McGraw Wildlife Foundation to remove predators from the Devil's Lake WMD (ND). Since the project began, waterfowl nesting success has risen from less than 10 percent in some areas, to as high as 70 to 80 percent.
- Continued recovery efforts for the threatened sea beach amaranth at Cape Romain NWR (SC), where more than 4,000 propagated plants have been successfully planted in a joint project with the Service's Ecological Services Field Office in Charleston.
- The Caribbean Islands Refuges partnered with Puerto Rico Department of Natural and Environmental Resources to install up to 270 low-impact mooring buoys, which reduce anchor damage to sea grass beds and coral reefs areas experiencing hundreds of recreational vessels anchoring per day.
- National Key Deer Refuge (FL) completed its second endangered Key deer translocation project aimed at restoring Key deer to their historic range in the lower Florida Keys, via a "soft release" approach. An 18-acre fenced site on Cudjoe Key was prepared with fire and heavy equipment to serve as a holding area for deer captured on Big Pine Key. The translocated Key deer will reside in the pen on Cudjoe Key for several months prior to removal of the fence.

Volunteers and refuge staff at Sonny Bono Salton Sea NWR (CA), a major stopover for millions of migratory water birds along the Pacific Flyway, continue to coordinate multi-agency responses to numerous fish and avian die-offs. In FY 2004, refuge personnel completed daily airboat patrols to collect affected birds; operated a pathology and necropsy laboratory; provided emergency treatment; transported ill birds to rehabilitation facilities; and released healthy birds back to the wild. Through the efforts of these dedicated individuals, outbreaks that at one time would escalate and cause thousands of avian and fish deaths, were detected early and countered aggressively. Major activities by refuge personnel included:

- Removal of over 4,000 dead waterbirds, mostly ruddy ducks, during a late winter avian cholera outbreak. Refuge staff began controlling the disease outbreak immediately after detecting the first mortality.
- Saved 61 endangered California brown pelicans from a summer-long avian botulism outbreak (birds released back to the wild). A total of 115 sick brown pelicans were retrieved and 99 survived long enough to be sent to rehabilitation facilities. An additional 48 were found dead.
- Assisted neighboring Kofa NWR (AZ) in their attempt to recover and treat many juvenile brown pelicans stranded in the Arizona desert. Refuge staff transferred approximately 30 young pelicans to the Salton Sea for release.
- Collected the first ever confirmed case of West Nile Virus in wild brown pelicans.
- Detected, reported to other cooperating agencies, and monitored at least 7 large fish die-offs, totaling more than 10 million fish, nearly all Tilapia. Approximately 15,000 pounds of dead fish were removed from the environment and kept from fouling adjacent community shorelines.
- Monitored the successful nesting of approximately 150 double-crested cormorants on the Sea's Mullet Island. This species had stopped nesting on the Sea after two outbreaks (1997, 1998) of Newcastle Disease killed nearly all of the local cormorant population.

Improve Habitat

In FY 2004, the refuge system implemented numerous habitat initiatives, linked either to the habitat elements of CCPs or evaluation results of ongoing refuge-habitat management programs. An innovative, on-line Habitat Management Planning Training Course provided quality training, without travel costs, to 155 employees from 94 refuges in FY 2004. The course promoted multiple staff members at each station to take the course together. The advent of the online course to teach habitat management planning was a milestone that will eventually bring all refuge biologists onto the same page as they interpret and apply the policy on writing Habitat Management Plans.

Other major improvements in the refuge system's approach to sound management of its habitats shifted into the implementation phase with impetus gained from the *Conservation in Action Summit*. These improvements included development of the "Refuge Management Actions" and "Refuge Lands Geographic Information System (GIS)" databases, as well as the first steps towards system-wide goals and objectives for habitats, populations, and biodiversity. The Refuge Lands GIS, spatial mapping program, will enable managers to map and track management treatments and on-the-ground changes to habitats over time. The Refuge Management Actions Database, will help summarize and analyze the effects of management actions on wildlife.

The NWRS is implementing numerous habitat initiatives to address the goal of maintaining biologically healthy, productive wildlife habitat. Refuge managers and biologists use a variety of tools, including monitoring at field stations, to understand the complex relationships between plant communities and wildlife, both on land and in the water. In FY 2004, Improving Habitat accomplishments included:

- Restored 89,262 acres of wetlands and enhanced more than 310,000 acres of deep marine and coral habitats.
- Managed more than a million acres of wetlands for ducks and other water birds.
- Completed field work on a study to assess the response of vegetation and invertebrates to wetland manipulations on Kealia Pond and Hanalei NWRs (HI).
- Prepared and implemented fire monitoring plans at San Luis (CA), Turnbull (WA), Little Pend Oreille (WA), and Baskett Slough (OR) NWRs, as well as Hart Mountain National Antelope Refuge (OR).
- Removed and placed for adoption, working with BLM, 99 burros and 772 horses from the Sheldon NWR (NV) (at right). Their removal improves 200,000 acres of upland habitat on the refuge and surrounding lands for sage grouse, mule deer, and other Great Basin species.
- Completed Weed Information Management System training for 23 refuges in Region 1 to facilitate early detection and rapid response efforts on invasive species using volunteers.
- Began a 3-year study, with the USGS Northern Prairie Research Center, on seeding techniques for grassland restoration to counter Canada thistle infestations at Fergus Falls (MN), Morris (MN), and Litchfield (MN) WMDs, and Neal Smith NWR (IA).



- Using volunteers, removed 12 miles of barbed wire fence from Hart Mountain National Antelope Refuge (OR). In the past 10 years, volunteers have removed a total of 188 miles of interior fencing, which restricts wildlife movements.
- Conducted "Wetland Decision Making in Arid Systems" workshop, Bosque del Apache NWR (NM), for refuge managers and biologists, partner agencies, NGOs, and private land owners.
- Restored pine-rockland habitats for the endangered Key deer through successful partnerships between the National Key Deer Refuge (FL), AmeriCorps groups, TNC, Refuge Friends Group, and State of Florida agencies. The partnerships improved 200 acres of this rare habitat through removal of extensive stands and isolated patches of invasive exotic vegetation, thinning by fire, or with intensive hand labor where fire is too risky.

National wildlife refuges are often viewed as both cornerstones and barometers of the environmental health of ecosystems. To maintain, enhance, or restore these systems, we must start with the basics: water quality and quantity, healthy soil, clean air, and the health of plant communities.

Water, perhaps the most fundamental and critical resource of the refuge system, provides vital habitat and sustenance for fish and wildlife, both resident and migratory. Continuing droughts in parts of the western United States in FY 2004 highlighted the value of the nation's water resources. Service water offices provided coordination and technical advice on refuge system needs for water resources, including measuring water quantity, implementation of the Clean Water Act, and identifying water rights or processing permits for use. Regulatory agencies increasingly mandate and control these issues at refuge water recharge and discharge points.

The Service pursues a national water resources program that supports the DOI strategic plan goal to improve the health of watersheds by ensuring water quantity and quality for water-dependent refuge habitats; assisting hydrologic processes crucial to all habitat efforts on wetlands; and, ensuring availability of critical water supplies for fish and wildlife populations. Many refuges along the flyways pump water in both the spring and the fall to manage water levels that provide quality habitat for migratory, wintering, and nesting birds, and prevent major disease outbreaks. Managing water releases in the Rio Grande to replicate flood flows has helped re-establish and re-invigorate the native cottonwood to the floodplain at Bosque del Apache NWR (NM), restoring this important woodland (Bosque) riparian habitat. Monitoring groundwater to document its contribution to isolated spring systems at Ash Meadows NWR (CA) has provided the basis to limit commercial water mining of the aquifer. The refuge system will continue to address baseline water-quality issues with significant impacts on fish and wildlife resources, including nutrient loading, sedimentation, and water temperature.

Air quality, critical for human health, is also important for healthy fish, wildlife, plants, and the habitats they depend on. Furthermore, the air-quality program supports the DOI strategic plan goal to improve health of watersheds, landscapes, and marine resources by managing 21 of the designated 158 Class I areas that receive special protection from air pollution under the Clean Air Act (CAA). The CAA requires the Service to preserve, protect, and enhance air quality related values (AQRVs), which include resources such as vegetation, wildlife, water, soils, and visibility. The Service has an important role in both the regulatory process and in forming partnerships to ensure air pollution does not adversely affect resources on Service lands and benefits human populations. In addition, the Service conducts special studies to identify and evaluate AQRVs and monitors air quality at a number of refuges. In FY 2004, the Air Quality Branch (AQB):

- Performed vegetation surveys of species such as milkweed, black cherry, and aspen to evaluate injury from air pollution at Cape Romain NWR (SC), Mingo NWR (MO), Moosehorn NWR (ME), Seney NWR (MI), and Edwin B. Forsythe NWR (NJ).
- Monitored air-quality parameters in several Class I areas (CIAs): fine and coarse particle concentrations are monitored in 18 CIAs; scenic conditions in 5 CIAs, including two live webcams (Moosehorn and Seney Wilderness Areas) and one video-lapse camera at Moosehorn; mercury deposition in 6 CIAs (some with joint or outside funding); atmospheric deposition in 5 CIAs (plus 5 additional sites in other refuge system units). Monitoring data continues to support the observation that visibility impairment occurs in Service Class I wilderness areas nationwide.
- Reviewed and completed actions on a total of 42 Prevention of Significant Deterioration Project Permits from industries proposing to build new or modify old facilities that might impact air quality related values in Service Class I areas throughout the Nation.
- Provided technical review and recommendation regarding a proposed coal-fired power plant to be located in southern Illinois and affecting the Mingo Wilderness Area. Based upon the evidence presented by the technical staff, the Department's Assistant Secretary for Fish, Wildlife and Parks concluded the projected air pollution emissions would cause an adverse impact on AQRVs and visibility at Mingo. The AQB continues to work with the permit applicant, state Clean Air Act permitting agency, and the U.S. Environmental Protection Agency regional office to resolve the issues.
- Performed Phase II quality tests at Breton NWR (LA) by collecting samples at 20 stations, four times during the year and sampled submerged aquatic vegetation at 30 stations to determine species-specific frequency and abundance. The coastal area near the refuge is susceptible to over fertilization (eutrophication - depletes oxygen from the water) from of atmospheric deposition air pollutants, particularly nitrogen compounds.
- Participated in Regional Planning Organization meetings in all five national groups. Members of the AQB have been active in influencing policy, modeling, and monitoring decisions that have been debated in efforts towards meeting the CAAs goal of achieving natural conditions in all Service Class I areas. The goal includes reaching natural conditions in 60 years, and assuring reasonable progress at various time frames in between. The visibility monitoring data collected by the AQB will be used to assess reasonable progress.
- Participated in partnership groups such as the Western States Air Directors Council, Northeastern Air Quality Committee, Interagency Monitoring for Protected Visual Environments Steering Committee, Federal Land Managers Air Quality Related Workgroup, to communicate and collaborate with the objective of insuring that air quality decisions made are in the best interests of the refuge system trust resources.

Contaminants threaten both the ecological and public health on and off NWRS lands and waters. The percent of known contaminated sites remediated on DOI managed land is a performance measure within the DOI Resource Protection mission. Refuge personnel collaborate closely with technical experts from the Service's Environmental Contaminants and Engineering programs to plan and execute contaminant investigations and, where necessary, cleanup contamination affecting refuge system lands.

Prioritized sites include resources at risk of adverse effects from contaminants as well as legal mandates for environmental compliance. For example, effective remediation of lead relies on accurate source identification. Ongoing refuge investigations at Midway NWR (Pacific) and Yukon-Kuskokwin Delta NWR (AK) use ratios of lead isotopes to distinguish lead from different environmental sources, such as gasoline, lead paint, lead shot, and natural deposits. On Midway, a refuge investigation revealed direct ingestion of lead paint chips from buildings at the decommissioned military base as the source of Laysan albatross chicks' lead poisoning. This

technique will be a valuable tool for determining the sources of lead affecting other wildlife populations and providing managers with data needed to formulate cleanup strategies. Additional contaminant activities in FY 2004 included:

- Approximately 30 contaminant investigations and 30 contaminant cleanup projects, most lasting two - three years, were funded at refuges in every Region.
- Refuge program managers provide technical assistance on complicated contaminant issues in negotiations for federal jurisdiction transfers, such as the Hanford Reach Nuclear Site (WA), Jefferson Proving Grounds (IL), and Vieques Bombing Range (PR).

Invasive Species, which overtake native species, are also a serious problem throughout the country. They cause significant declines of trust species and degrade millions of acres of refuge lands, waters, and wetlands. These invaders have become the single greatest biological threat to refuges and the Service's wildlife conservation mission. Invasive plants such as purple loosestrife, leafy spurge, yellow star thistle, melaleuca, and Australian pine undermine refuge operations and increase habitat management costs. Other species like bufflegrass, Phragmites, and salt cedar are destroying habitat needed by many of America's fastest-declining birds, including Costa's Hummingbird, Seaside Sparrow, Abert's Towhee and the Elf Owl. In addition, a variety of exotic or invasive animals such as nutria, Norway rats, brown tree snakes, Asian swamp eels, exotic wild pigs, and northern snakehead fish spread rapidly and cause extreme damage throughout the refuge system. Rapidly spreading invasive insects and diseases also threaten refuge species and their habitats. Annual control operations are needed on nearly 250,000 aquatic acres within the refuge system, excluding river systems.

The National Invasive Species Council, established by Executive Order 13112, is a multi-agency group of government leaders established to coordinate the development of the National Invasive Species Management Plan and promote prevention and control of invasive species at the federal level. The refuge system's invasive species work supports this Presidential directive within the DOI goals to sustain biological communities and create habitat conditions for biological communities to flourish. The NWRS invasive species team developed a National Strategy for Management of Invasive Species to guide invasive species management on refuges nationwide. The strategy emphasizes assessment information, monitoring recommendations and best management practices. Guided by this national strategy, invasive species operations include preventive activities, early detection and rapid response, control and eradication, research and monitoring, cooperative partnerships and cost-share projects and public education about invasive species. Integrated pest management techniques used in the field include the application of chemicals, mechanical and hand removal, prescribed fire, cultural techniques, and biological control. Prevention efforts, including a new emergency/rapid response program for the refuge system, are significant in preventing newly discovered infestations from gaining a foothold on refuges.

Early detection and rapid response operations are critical to attacking new and outlying infestations, as well as prioritizing other control and management activities. Rapid response to an incipient infestation has also been demonstrated to be the most cost-effective means in the long term for battling invasive species. Activities in FY 2004 to fight the onslaught of this habitat destruction include:

- Early detection in the invasive species program relies heavily on accurate inventory and assessment of the location, status, and spread of invasive species infestations. In partnership with the National Wildlife Refuge Association, TNC, and the USGS National Institute of Invasive Species Science (NISS), the NWRS continues a pilot program on six refuges to engage volunteers in mapping invasive plants using hand-held computers and GPS



devices (see <http://www.refugenet.org/new-invasives/vimp.html>). Nearly 700 acres of invasive plants have been mapped, providing valuable baseline data on the extent of invasive species infestations. Photo shows volunteers at San Pablo Bay NWR (CA) using hand held computers with GPS as part of the volunteer invasive species mapping project.

- The three Rapid Response Strike Teams: the Everglades (Region 4), the Lower Colorado River (Region 2), and the Columbia-Yellowstone-Missouri River basins (Region 6), were established. In addition, Region 6 mapped and/or treated for toadflax species, spotted knapweed, and leafy spurge on more than 4,000 acres and Region 2 treated 822 acres of invasive species for salt cedar and aquatic species.

Control and eradication of invasive species within the NWRS is an important part of refuge management and in many cases part of day-to-day operations as infestations spread throughout the system. Examples of successful control and eradication efforts within the refuge system in 2004 include:

- Funded 15 full-time trappers to eradicate 8,300 nutria, a large rodent species, from Blackwater NWR (MD) in 2 years.
- Eradicated more than 14,000 Japanese barberry plants on the Great Swamp NWR (NJ); few new plants have germinated from seed in the treated areas. In the last 4 years, more than 39,000 have been eliminated.
- Eliminated water hyacinth from Foester Lake, a 650-acre shallow freshwater lake at Aransas NWR (TX). During the 3-year period, the refuge worked with a consortium of local partners to treat various infested areas.
- Reduced orange hawkweed density and recovered native vegetation on Kodiak NWR (AK). Surveys revealed the invasive was gaining an ever-expanding foothold on the refuge; control efforts have been conducted during the last 2 years.

Although active management of invasive infestations on our national wildlife refuges is essential to caring for our natural resources, without education and outreach to our partners and the general public, control efforts will not be successful. In FY 2004, the NWRS initiated an electronic, on-line fieldtrip about invasive species for fifth and sixth graders. More than 16,400 students from around the country participated in this field trip that included a 3-day question and answer period, a 1-hour live chat, and a student worksheet.

The NWRS also recognizes research and monitoring are important components in the fight against invasive species. Laying a foundation through these two activities allows the NWRS to more

efficiently allocate limited resources and estimate future funding and resource needs. In 2004, the NIISS posted the results of an invasive species survey of all national wildlife refuges on www.nwrinvasives.com. This survey provides a baseline of invasive infestations across the NWRS for predictive modeling of future infestations. In addition, an intensive field-monitoring project was initiated at Hart Mountain NWR (OR), also in association with NIISS.

In FY 2004, the NWRS **Wildland Fire Management Program** continued to be a leader in the interagency fire community. Accomplishments include:

- Completed hazardous fuel reduction treatments totaling 169,051 acres in the Wildland-Urban Interface (WUI) and 275,961 acres outside WUI.
- Exceeded the Department's contracting goals for treatments.
- Provided expertise to assess, treat, and monitor hazardous vegetation/fuels within designated WUI areas, and engage partners in collaborative project planning and implementation, using fire and mechanical treatments as appropriate to accomplish land management goals.
- Exceeded all National Fire Plan hazardous fuels treatment targets. The Service is the only DOI bureau to exceed hazardous fuels treatment targets in FY 2002, FY 2003, and FY 2004.
- Established a National Fire Outreach Team to develop and implement a national outreach strategy to enhance visibility in the Service's fire management program.
- Developed a strategic planning process to establish priorities to meet fire management challenges of the future, which resulted in a fire management strategic plan.
- Implemented the new Interagency Fire Qualifications and Certification System, a tracking and certification system for all DOI and USDA Forest Service employees involved with wildland fire management.

During FY 2004, the **Refuge Roads** program provided \$15 million in improvements to public transportation facilities. The program supported more than 100 projects to improve roads, parking lots, and bridges. Additionally, one project was funded by FHWA under the Public Lands Highways Discretionary Fund and one project under TEA-21 as a high priority project.

Partnerships. Over the last 3 years, the NWRS has been investing greater effort in international partnerships to promote healthy habitats for wildlife, a primary tenet of *Fulfilling the Promise*. The refuge system shares nearly 390 miles of borderlands with Canada and Mexico; cross-border collaboration makes sense. Thus, the refuge system seeks opportunities for collaboration through active participation in the Trilateral Committee for Wildlife and Ecosystem Conservation and Management. The NWRS, Division of Natural Resources co-chairs the Ecosystem Conservation Table and, in FY 2004, initiated development of the Terms of Reference for the table.

The long-term survival of populations with unique migratory patterns depends on the integrity of breeding, wintering, and stopover areas in different countries throughout their range. For example:

- Prime Hook NWR (DE) assisted the Delaware Shorebird Monitoring Program for the seventh year to band migrant shorebirds passing through the Delaware Bay. Partners include seven countries, five local environmental groups, and private individuals.
- The Detroit River International Wildlife Refuge (MI) was established in December 2001 through an unprecedented partnership of government agencies, businesses, conservation groups, landowners and private citizens on both sides of the U.S. and Canada. The refuge now hosts an estimated three million ducks, geese, swans and coots that migrate annually through the region.
- The Eastern Shore of Virginia NWR (VA) refuge manager represented the Service on an international team studying wintering Red Knot in Tierra del Fuego, Argentina. Red Knots

have declined from about 140,000 birds in 1988 to only 26,000 in 2002. Atlantic flyway refuges are important to the birds on their spring migration northwards.

- Buenos Aires NWR (AZ) has an agreement with Texas A&M-Kingsville to conduct fall/winter covey surveys for masked bobwhite on the refuge and on two private ranches in southern Sonora, Mexico, known to support this endangered subspecies.
- The South Texas NWR Complex (TX) participated with the Service's Corpus Christi Ecological Services Field Office, and several U.S. and Mexican partners in the Lower Rio Grande/Rio Bravo Binational Ecosystem Group. This group has developed an Ecosystem Binational Management Plan to address common problems along the Texas/Mexico border.

The **Cooperative Conservation Initiative** (CCI) is a Department initiative and embodies the Secretary's four "C's" of cooperation, communication, and consultation in the service of conservation. The refuge system Challenge Cost Share program is an important part of the CCI initiative, the total amount of funding provided by Congress in FY 2004 was \$9.754 million and separated between the **CCI Conservation Challenge Cost Share** and Traditional CCS, the funding also supports regional challenge cost share coordinators. CCI projects included wetland and hydrology restoration, native grassland plantings, prairie restoration, invasive species control, and numerous other activities benefiting wildlife and fish habitat on federal, state and private lands.

In FY 2004, the refuge system CCI program provided \$5.774 million for 121 habitat restoration projects on, or directly benefiting, Service lands in 37 states. The 398 partners provided \$9.487 million in private funds and in-kind contributions to match the federal contribution for a total of \$15.261 million. Working with our partners (private land owners, municipalities, NGOs and others), the refuge system in FY 2004 addressed some of its highest conservation priorities:

- Restoration of the Pit River flowing through Modoc NWR (CA) and adjacent private lands with habitat restoration and enhancements along the one-mile river stretch benefits migratory birds, fisheries, and restored wetlands. Project partners included private landowners and students from Modoc High School's Natural Resource Academy contributing \$50,000, with a Service match of \$50,000.
- Treatment and mechanical control of exotic invasive plant species on 40 acres in Hawaii, including the Kilauea Point, James Campbell, and Pearl Harbor NWRs. The State of Hawaii and Kamehameha Schools partnered by providing 80 participants and contributing \$200,000 in funds or services to the Service's \$30,000 match.
- Seabird habitat restoration at Palmyra Atoll NWR (Pacific) by implementing the same non-native black rat control program which successfully eliminated rats from the Rose and Midway Atolls NWRs (Pacific). TNC and USDA contributed more than \$300,000 to the Service's \$200,000. This project benefits colonies of internationally important migratory seabird colonies by eliminating black rat predation on eggs and chicks.
- Tidal restoration of Clam Bayou at Ding Darling NWR, (FL), by connecting bodies of water to restore water flows, and support marine fisheries, wading birds, and estuarine habitats. The City of Sanibel, South Florida Water Management District, State of Florida, and NOAA partnered to contribute \$525,000 to the Service's \$75,000.
- Restoration of the 680-acre Hackberry Lake at Valentine NWR (NE) by eradicating non-native carp to benefit water birds and native sport fish resources. The Nebraska Game and Parks Commission contributed more than \$44,000 to the Service's match of \$25,000 in a project to improve water quality, public fishing, native vegetation, and aquatic invertebrate abundance as food for migratory waterfowl.

The **Traditional Challenge Cost-Share Program** (CCS), a component of the Department's CCI, is a NWRS partnering program and requires a minimum 1:1 partner match for projects on, or directly

benefiting, Service lands. Traditional CCS projects focus on restoration of natural resources; establishment or expansion of wildlife habitat with durable, lasting results; and, wildlife-oriented recreation and education programs. Further, partners use innovative means or practices to address some of the refuge system's highest conservation priorities, such as introducing disadvantaged children to recreational fishing, restoring native grasslands, coral reef survey and monitoring, invasive species control, and riparian restoration. The FY 2004 CCS provided approximately \$2.9 million for traditional challenge cost share projects and leveraged \$6.6 million in funds and in-kind matches from 388 partners to complete 304 projects.

In FY 2005, Congress provided \$4.339 million, all for the Traditional CCS. The success of this program highlights the importance of these conservation partnerships in leveraging funds with approximately \$2.29 for every \$1 in federal funding for refuge system projects. Highest-ranking projects involve multiple partners; many had four or more partners. Examples of FY 2004 Traditional CCS projects include:

- Coral reef inventory of Navassa Island NWR (PR) part of the Caribbean Island NWR, with partners such as Princeton University, University of Miami, University of Maine, Shedd Aquarium, and NOAA contributing \$72,300, with the Service match of \$15,000.
- Laguna Cartegena wetlands restoration in the Caribbean Island NWR, Puerto Rico with Environmental Protection Agency, University of Puerto Rico, and partners contributing \$183,000, with a Service match of \$25,000.
- National wildlife refuge fishing events held at dozens of refuges included Fishing Day at the Upper Mississippi NWR (MN) with partners such as the Refuge's Friends Group, Trout Unlimited, Winona County Search and Rescue, and Minnesota Aquarium Society. While individual events ran about \$4,000 each, the sheer number and public outreach of these events across the country was far more significant than the monetary amounts.
- Construction of the second phase of an interpretive trail detailing salmon ecology at the Willapa NWR (WA) with partners such as Weyerhaeuser, Templin Foundation, TREX Company, Willapa Heritage Foundation, Friends of Willapa Refuge, and PF Pepiot contributing half of the total \$100,000 with the Service matching it in-kind.

Special Designation Areas -- The NWRS manages land recognized nationally and internationally in 16 special land designations, which include **Wilderness, Ramsar Convention on Wetlands, Marine Protected Areas, National Natural Landmarks, Research Natural Areas, Western Hemisphere Shorebird Reserves, Critical Habitat for Endangered and Threatened Species, Significant Caves, National Natural Landmarks, National Scenic Byways, and Wild and Scenic Rivers**. These unique resource areas demand special management activities to conserve their singular values and are diligently safeguarded to ensure they remain healthy and viable for future generations, thus supporting the DOI goal to protect cultural and natural heritage resources.

Congress set aside **Wilderness areas** to conserve their ecological, recreational, cultural, and spiritual values for present and future generations. Approximately 20 percent of refuge system lands and waters are wilderness. The Service manages wilderness and proposed wilderness areas to protect their wilderness character and unique values while allowing public use and enjoyment. Our 75 wilderness areas encompass 20.7 million acres in 26 states, with approximately 18 million acres in Alaska. The Service also manages approximately 10.6 million acres of proposed wilderness (8.6 million acres of which are located in Alaska) that meet the suitability requirements for wilderness.

The Service is using the Comprehensive Conservation Planning (CCP) process to evaluate wilderness management practices and develop science-based adaptive management strategies to increase the effectiveness of wilderness stewardship, and address complex refuge management issues. Examples

include CCPs for Cabeza Prieta NWR (AZ) and Okefenokee NWR (GA/FL), where wilderness makes up a large majority of each refuge. Okefenokee NWR initiated examination of the composition, structure, and ecological function within its 353,000-acre Wilderness area to promote natural processes and adapt management activities to mimic the results of natural events.

In FY 2004, in commemoration of the 40th anniversary of the Wilderness Act, many refuges held 'Walks' or 'Paddles for Wilderness' or otherwise incorporated wilderness into their Refuge Week education and interpretation activities to raise visitors' awareness of the benefits and value of wilderness. The Service, together with the NPS, BLM, USFS, and USGS, updated the National Wilderness Preservation System map; produced two public outreach videos ("American Values" and "American Wilderness"); created a new brochure about the National Wilderness Preservation System; produced displays on the benefits and values of wilderness; and, continued development of a wilderness education curriculum that meets national and state standards for history, geography, and science. Working together with our federal partners to produce these products lowered Service costs significantly. Using these products to help educate visitors about wilderness encourages them to use and enjoy wilderness in appropriate ways.

In addition to the planning and education accomplishments, the Service also completed management and training projects, including:

- A wilderness dune restoration project at Breton NWR (LA) to benefit nesting and wintering sea birds and shorebirds.
- A partnership project with the Youth Conservation Corp (YCC) to clear two miles of trail using hand tools in Moosehorn NWR (ME) wilderness.
- Methodology developed for monitoring waterbird populations and other resources in Okefenokee wilderness.
- Cabin management policy developed for Kenai NWR (AK), including the Kenai Wilderness.
- Wilderness unit training courses conducted, which allow the Service to train many NWRS staff by sending a trainer to one site, rather than all participants travel to the Carhart Wilderness Training Center in Montana.

Marine Protected Areas (MPAs) cover a small percentage of the earth, but form a valuable network of some of its most diverse, highly sensitive, and biologically complex ecosystems. The NWRS contains the largest number of MPAs and acreage under federal jurisdiction; 169 coastal, ocean, and Great Lakes refuges. These maritime refuges establish a significant DOI leadership role in ocean resource management and conservation. The refuge system MPA sites are geographically located in all hemispheres, and range from the expansive estuarine systems, fjords, and rocky shorelines from the Arctic Circle to the remote, pristine coral reefs, tropical lagoons, and mangrove forests situated below the equator. These refuges are integral to protecting endangered species, rare and unique habitats, and migratory birds. Marine refuges have approximately 30,000 coastal miles and some 20 million coastal acres.

The Alaska Maritime NWR (AK) protects more than 4.9 million acres on 2,500 islands, islets, spires, headlands, and reefs, bounded by the North Pacific Ocean, the Bering Sea or the Arctic Ocean. The refuge stretches approximately 2,500 miles and contains 57 volcanoes, some rising out of the sea to 7,000 feet. The refuge's Aleutian Islands unit is the backbone of the spectacular Pacific "Ring of Fire." This refuge was established to conserve marine mammals, marine birds and other migratory birds, and the marine resources upon which they depend. It provides nesting havens for 40 million seabirds, the majority of North America's nesting seabirds.

Tropical coral reef ecosystems total almost 3 million acres, the significance of which is most profound in the Pacific, where 14 island-based refuges include more than 2 million acres of submerged tropical lands. FY 2004 accomplishments for MPAs included:

- Recovery actions resulted in a record number (17) of endangered Hawaiian Monk Seals born at Midway NWR (Pacific). The number of pups born at Midway has increased dramatically since 1992; previously only one seal pup has been born each year.
- Data collection of hard and soft coral communities, sponges, fish, lobster, and shellfish at Navassa Island NWR (PR) during a 3-week period. Ten scientific divers made 360 dives at 127 locations for benthic mapping and ground-truthing and more than 85 km of track-lines were covered to support an acoustic mapping effort.
- Completion of backcountry regulatory buoy emplacement and maintenance program for 15 backcountry islands protecting nesting and roosting wading birds and bald eagle nests at the Lower Florida Keys refuges (Key Deer, Great White Heron, and Key West).
- Restoration of more than 2.5 acres of transitional dune hammock and black mangrove wetlands by removing hundreds of tons of construction debris and restoring the historic hydrology at National Key Deer Refuge (FL).
- Hosted a regional dive-training workshop, a multi-agency seagrass community assessment project, and conducted visual surveys for unexploded ordnance on two popular swimming beaches at Vieques NWR (PR).
- Creation of 9 wetlands in preparation for the translocation of endangered Laysan ducks to Midway Atoll NWR (Pacific); 50 volunteers planted 1,500 native plants as part of Midway's habitat restoration program that benefits these ducks and seabirds on the refuge. In addition, 21 volunteers spent 3-weeks at Midway conducting the annual albatross census. Record numbers were counted of Laysan Albatross (441,178 pairs) and Black-footed Albatross (20,393 pairs).

Congress established the **National Wild and Scenic Rivers System** to preserve and protect free-flowing rivers that possess "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values." To protect these values, the Service manages ten designated Wild and Scenic Rivers that flow through NWRS lands. In FY 2004, the Service completed the Draft Niobrara River Recreation Management Plan/EA for that part of the Niobrara National Wild and Scenic River flowing through the Fort Niobrara NWR near Valentine, Nebraska.

Areas within the refuge system that merit recommendation for Wilderness or Wild and Scenic River designation are identified and evaluated through the CCP process, which ensures recommendations are developed in collaboration with local communities and private citizens. The Draft CCP and Environmental Impact Statement for the Petit Manan NWR Complex (ME) was completed and released for public review in April 2004. The preferred alternative identifies 13 islands of the Refuge Complex as suitable for Wilderness designation (currently part of 8 Wilderness study areas).

Serve People

The Refuge Improvement Act of 1997 legally defines wildlife-dependent recreation as a prominent and important goal for the NWRS. The Act recognizes the importance of a close connection between wildlife resources and the American character, and the need to conserve America's wildlife for future generations to enjoy. It supports DOI strategies to provide access for recreation where appropriate and promote and enhance the quality of recreation opportunities. The NWRS takes the Act seriously and weaves its mandates into our daily work to provide greater access to use Service lands where appropriate.

The priority public uses are the “Big 6”: hunting, fishing, wildlife photography, wildlife observation, education, and interpretation. The employees of the NWRS provide quality wildlife-dependent recreation opportunities to visitors, looking for special opportunities to expand a family experience into an exciting event. Visitors have the opportunity and often embark on a discovery journey they will remember, share with their family, support through volunteer services or a Friends organization, and learn the value of wildlife and its contribution to the quality of life and our national heritage.

Beyond providing quality wildlife-dependent recreation opportunities, Visitor Services administrative programs enhance the likelihood of a quality experience when the visitor comes through the gate. These programs support the DOI goal to provide for and receive fair value in recreation and include concessions management, recreation fee program, uniform program, cultural and historical resources, customer satisfaction surveys, accessibility programs, volunteer program, Friends program, sharing valuable information with the public through Recreation.gov and Volunteer.gov, community partnerships, special use permits, and a host of other activities designed to efficiently manage services to visitors.

Local communities that have the ability to enjoy quality wildlife-dependent recreational and educational experiences in the “wild” can carry that experience to the next level - personal involvement in meeting the refuge system mission. In FY 2004, almost 40 million people visited refuges. More than 2.3 million came to hunt, 7 million to fish, and 25 million to observe wildlife from trails, observation towers, decks, and platforms. In addition, 5 million came to photograph wildlife, while almost one million participated in on-site and off-site environmental education activities. And more than 28 million were involved in an interpretative experience, which for approximately 15.8 million of them included walking through visitor centers and viewing exhibits.

Quality wildlife-dependent education, like all good education, depends on highly qualified teachers who understand the state education system, the science, and the community within which they work. Quality wildlife-dependent education engages the public in, and increases community support for, the conservation mission of the refuge system; it makes fish, wildlife and wildlife habitat relevant, meaningful, and accessible to the American public; it instills a sense of ownership, understanding and appreciation for the fish, wildlife, and habitat in their community; and, it elevates opportunities focused on the student’s relationship with nature. In FY 2004 activities to provide quality wildlife-dependent experiences to the public included:

- Establishing a unique environmental education program in partnership with the Fergus Falls Independent School District, MN. The Prairie Wetlands Learning Center uses a local prairie wetlands ecosystem in an integrating and motivating context to engage 100 fifth-grade students in science, math, and writing through real world, field-based learning experiences.
- Creating opportunities for wildlife photography in partnership with the North American Nature Photography Association to reach wildlife enthusiasts and develop opportunities for wildlife-dependent recreation. The Morris Wetland Management District (MN), Fort Niobrara/Valentine NWR (NE), and DeSoto NWR (IA) received new photo blinds to enhance wildlife photography.
- Providing seven academically and professionally trained environmental education specialists, one on a field station in each region. A standardized position description ensures people trained in the field of education. The *Conservation in Action Summit* ranked education as the number one priority of the shared priorities for wildlife-dependent recreation in the NWRS.

Trails and Scenic Byways. In FY 2004, the Service nominated 17 trails for designation as National Recreation Trails. Additionally, the Service became a formal partner of the National Trails Training Partnership and is working with the Centers for Disease Control and other organizations to support

the Administration's *Trails for Health* initiative. The Service also participated in an interagency training program titled, "Trail Management: Plans, Projects and People", and worked with local organizations to designate two state scenic byways associated with Malheur NWR (OR) and Kootenai NWR (ID).

Volunteers Reflect the Workforce. *Take Pride in America* is a national partnership established by DOI to empower volunteers from every corner of America. President Bush has stated, "Our volunteers are a powerful force in the effort to overcome evil with acts of kindness and decency, and their service demonstrates the best of the American spirit." In this spirit, the NWRS fosters a vibrant volunteer workforce. Based on the latest report in FY2004, 32,933 people volunteered to conserve wildlife on our National Wildlife Refuges contributing 1.3 million hours.

Friends Organizations, the bread and butter of our community relations program, are groups of volunteers dedicated to the mission of a specific refuge and the refuge system. In FY2004 the number of Friends groups grew by 6 organizations and now 286 refuges are supported by partnerships with Friends groups encompassing a pool of approximately 30,000 volunteers. Each region held, in conjunction with the Refuge Headquarters and the National Wildlife Refuge Association, Friends Workshops to help citizens learn how to be partners with the NWRS through their own nonprofit, 501.c3 organization. Everything from bookstore management to core conservation messaging was discussed. A goal of bringing together people of such diverse interests under the umbrella of wildlife conservation is a wonderful endeavor with rich benefits for wildlife, not to mention refuge system employees.

Partnerships. In the *National Wildlife Refuge Improvement Act*, the Congress recognized that the NWRS serves a "pivotal role" in the conservation of wildlife and its habitat in America. While the refuge system may not be the total answer to wildlife conservation, it is critical to the success of conserving America's wildlife. If a federal agency can build a constituency who cares about wildlife, connects with national conservation organizations, and engages all partners who could contribute to wildlife conservation, the impact on wildlife conservation would reverberate for generations. Collaborative efforts with states, national partners, Friends organizations, and community partners are a cornerstone to this success. New non-traditional partnerships are reaping mutual benefits for the refuge system and its partners. In FY 2004:

- The Service worked with partner Bass Pro Shops to produce a refuge system exhibit for display at their "Wonders of Wildlife" Museum in Springfield, MO.
- The refuge system successfully partnered with the Walt Disney Corporation and the National Fish and Wildlife Foundation to fund research proposed by 12 students at doctoral, graduate, and undergraduate levels. The program supports research to help improve the management and understanding of diverse fish, wildlife and plant resources on our national wildlife refuges. The program will continue through 2006.

In FY 2004 the NWRS Branch of Communications began transitioning from a primary function of coordinating the refuge system's Centennial celebrations towards a communications function more typical of a large organization. The Branch is utilizing key partnerships to enable it to reach an audience never before realized by the NWRS. The most prominent partnerships are:

- ESPN Outdoors – Through a cost-share agreement NWRS works with ESPN to produce four 30-minute programs, more than a dozen 2-minute vignettes, and several countdowns on weekend programs, all of which highlight the NWRS and conservation issues. Articles and banners on ESPN Online complement these programs.

- The Weather Channel (TWC) – The NWRS worked with TWC to produce a segment on the use of radar in conserving migratory birds, and highlighting the importance of refuges as habitat.
- Bass Pro Shops – A long-standing partnership with Bass Pro Shops allowed NWRS to reach sporting audiences through in-store, TV, online, and catalog avenues. A current program links new store openings with nearby refuges and a portion of the sales/proceeds fund refuge restoration, recreation, and education programs.
- Wheelin' Sportsmen – Each year, in cooperation with Wheelin' Sportsmen, the NWRS creates and promotes 3-4 hunting opportunities for people with disabilities. These events garner much media coverage and help deliver the message that refuges provide hunting opportunities accessible to all.

Local partnerships are the link to local communities and stronger relationships between citizens and their refuges. Many refuge events also sponsored fishing for youth, birding festivals, and other educational programs. For example, at Waccamaw NWR (SC), 170 students participated in 8 months of environmental study under the "Environment for Learning," Environment as an Integrating Context model, created by the state Education and Environmental Roundtable.

A series of awards in the refuge system prove that core conservation messages are reaching people in exemplary ways. In FY 2004 the refuge system was recognized for:

- Development of the Herbert Bateman Educational and Administrative Center at Chincoteague NWR (VA) and its outstanding engineering design.
- Don Edwards San Francisco Bay NWR (CA) was recognized for its onsite publications.
- Ms. Ann Melinda Bell, representing 19 Pacific Island refuges, was honored for her interpretation project using the voyage of the Hokule'a, a traditional Hawaiian canoe, through the northern Hawaiian Islands to encourage 1,800 4th and 5th grade school children to appreciate and care for Hawaii's resources and refuges.
- *Refuge Update* won awards for excellence and serves as one of the primary communication vehicles to refuges across the nation.

Protection and management of historical, **archaeological and cultural** properties is part of the NWRS overall resource stewardship responsibilities and supports the DOI strategy to protect important resources and offer interpretive and educational programs on their value. More than 12,000 archaeological and historical sites have been identified throughout the refuge system, where communities left their "footprints on the landscape." These areas and artifacts provide a historical record of people's relationship with natural resources. Museum collections consist of approximately 4.4 million museum objects maintained in 150 offices or on loan to more than 200 non-federal repositories, such as museums and educational institutions, for study and long-term care. Accomplishments in the cultural resources programs for FY 2004 include:

- Ridgefield NWR (WA), through active grants and partners programs, continues to work on the re-creation of a Chinookan Tribal longhouse similar to the kind visited by the Lewis and Clark Expedition as it journeyed to the mouth of the Columbia River in 1805. The structure will be used as a refuge interpretive center to illustrate the cultural and natural history of the Lower Columbia River area.
- Malheur NWR (OR) has re-opened the historic Sod House Ranch to the public. The volunteer-run education program at the ranch provides visitors with a tour of the buildings and information on the history of ranching in the Blitzen Valley.
- Great Dismal Swamp NWR (VA) has been designated as an Underground Railroad Network to Freedom Program site. The swamp was a haven for runaway slaves during their journey to

northern States. Historic markers have been erected and refuge volunteers offer interpretive programs on this nationally significant historic site.

Law Enforcement. The Refuge Law Enforcement program supports the DOI Serving Communities mission through the strategic goal to safeguard lives, property, and assets. In order to provide quality wildlife experiences for visitors, it is imperative the NWRS include prevention, enforcement, protection and security activities to ensure compliance with wildlife laws, refuge regulations and related laws so that: 1) fish and wildlife resources are protected from over-harvest, poaching, or other abuse; 2) visitors' security is assured and they can enjoy recreation, interpretation, and environmental education without fear of crime or incident; and 3) government property is secure from terrorist threat and not subject to vandalism, abuse, or destruction.

The NWRS continues to transition to a smaller dual-function officer workforce and an increase in the number of full-time law enforcement officers. Dual-function officers have a primary job function such as refuge manager or biologist but spend between 25 percent and 50 percent of their duty time on law enforcement functions. Allowing dual-function officers to focus on their primary duties combined with eliminating the associated need for law enforcement training is an effective and efficient use of that workforce.

The NWRS implementation of the Zone System and transition to full-time law enforcement officers (LEOs) are outstanding examples of the Strategic Management of Human Capital within the President's Management Agenda. In the near-term, they link human capital strategies to organizational mission, vision, core values, goals and objectives. In the long-term, the NWRS will build, sustain, and effectively deploy a skilled, knowledgeable, diverse, and high-performing law enforcement workforce to meet current and emerging needs to government and its citizens. The zone system provides refuges with technical assistance on law enforcement, institutes reliable record-keeping and defensible reviews, enhances training, and promotes communication and coordination with other law enforcement agencies. FY 2004 accomplishments include:

- Implemented Director's Order number 155. Current accomplishments are:
 1. Continued reduced dependency on dual-function officers and movement to full-time LEOs.
 2. Dual-function officers documented their time spent conducting law enforcement activities to meet the required level of work.
 3. Continued implementation of the Zone System by hiring eight full-time LEOs to serve as Zone Officers. There are currently 30 officers hired for the 59 zones nationwide.
 4. Funded 11 additional full-time LEOs and 1 Refuge Law Enforcement Training Manager to continue transition from a dual-function law enforcement workforce to a full-time officer workforce to meet obligations for public safety, resource protection, and officer safety.
- Continued development of a sound and defensible staffing and deployment model with the assistance of the International Association of Chiefs of Police (IACP).
- Completed the rapid application development phase for the NWRS law enforcement incident reporting system modules, which will be integrated with the DOI Incident Management, Analysis, and Reporting System (IMARS), a Department-wide law enforcement database.
- As part of a DOI Office of Law Enforcement and Security (OLES) job task analysis project, a contractor developed a series of physical tests that were held throughout the nation to develop sound and defensible physical standards for LEOs. The implementation of physical standards will begin in FY 2005.

- Continued the investigation of applications for communication systems to increase officer and visitor safety; the development and updating of law enforcement policies; and workforce analysis/career ladder development for refuge LEOs through the use of standardized law enforcement position descriptions.
- Monitored the Field Training and Evaluation Program (FTEP), a 10-week program that provides highly trained, fully functional, positively motivated natural resource LEOs on every refuge. All officers, upon graduation from the Federal Law Enforcement Training Center (FLETC) or transferring to the refuge system from other agencies, are required to attend the FTEP.

Land Protection Planning. In FY 2004, the Service developed three draft policies that, when adopted, will provide guidance on strategic growth of the National Wildlife Refuge System. These three policies will be incorporated into the Service Manual as sections on Strategic Growth; Land Conservation Planning; and Land Acquisition Planning. The Strategic Growth policy focuses on meeting national, regional, ecoregional and local conservation goals for species and habitats thereby filtering proposals through a series of threshold standards to ensure approval of only the most important projects. The Land Conservation Planning policy describes the specific procedures and documents used in the preliminary and detailed conservation planning processes. The Land Acquisition Planning policy describes the role of the Division of Realty in the conservation planning process and provides criteria for prioritizing approved proposals for funding and implementation. Approved preliminary proposals for land acquisition will be prioritized in a 5-year plan, based on the projected availability of funds for operations and maintenance. First priority will be given to the completion of acquisitions within approved refuge boundaries. Second priority will be given to proposals to expand existing refuges, where necessary to fulfill the purposes of the refuge and meet the mission and goals of the NWRS. The establishment of new refuges, when other parties or the Service cannot adequately conserve outstanding fish and wildlife resources of national significance using other tools, will be the third priority. Key FY 2004 Land Protection Planning programmatic accomplishments are summarized in a table at the end of the NWRS section.

This activity could potentially contribute to virtually all of the Department's Strategic Plan goals for Resource Protection, Recreation, and Serving Communities. The most direct contribution is toward the intermediate outcome goal of creating habitat conditions for biological communities to flourish within the Resource Protection mission.

Comprehensive Conservation Plans (CCPs). A refuge CCP provides a strategic vision for the next 15 years and ensures resource stewardship is undertaken in accordance with law and policies, and receives public review. They are the primary avenues the Service uses to conduct citizen-centered government for the NWRS. These long-term management plans, as well as step-down management plans, rely on public participation during development and give communities a stake in the care of refuges. Public participation provides refuges a powerful alliance in local communities and, in the process, refuges become an important force in improving the quality of life beyond its boundaries.

The National Wildlife Refuge Improvement Act of 1997 mandated a CCP be completed for every NWRS station (National Wildlife Refuges and Wetland Management Districts (WMD)) within 15 years of the passage of the Act or establishment of the station, whichever comes first. When the Act passed, there were 514 NWRs and 37 WMDs. Since then, Congress has mandated the Service also complete CCPs for three new stations ((Hanford Reach National Monument (WA), Rocky Flats NWR (CO), Red River NWR (LA)) before the 2012 deadline. Thus, 554 NWRS stations require CCPs by 2012.

In FY 2004, due to the complex nature of many planning efforts, which involve extensive public involvement, resolution of highly controversial issues, and lengthy internal review and approval procedures, only 22 of the 51 stations scheduled to complete their CCPs actually did so. CCPs were completed for the following stations in 2004: Kern NWR Complex (includes Kern and Pixley NWRs) (CA), Nisqually NWR (WA), Las Vegas NWR (NM), Grulla NWR (NM), Muleshoe NWR (TX), Minnesota Valley NWR and WMD (MN), Illinois River NW & FR (includes Cameron – Billsbach Unit, Chautauqua, Emiquon, and Meredosia NWRs) (IL), Mark Twain Complex (includes Port Louisa, Great River, Two Rivers, Middle Mississippi River, and Clarence Cannon NWRs) (IA, IL, MO), Bayou Cocodrie NWR (LA), Noxubee NWR (MS), Eastern Shore of Virginia and Fisherman Island NWRs (VA), Fish Springs NWR (UT), and Arapaho NWR (CO). The remaining 29 stations are included in the 114 stations expected to complete their CCPs in FY 2005. Since passage of the Act, the Service has completed CCPs for 84 NWRS stations, representing 15.2 percent of the total workload. Of the 470 stations left to be planned, CCPs are currently underway on 170 stations.

Because it provides a comprehensive strategic look at all functions, the activity contributes to the DOI Strategic goals for Resource Protection, Recreation, and Serving Communities.

2005 Planned Program Performance

Protect Wildlife

Protecting wildlife furthers the DOI Strategic Plan to Protect Resources. Refuge personnel conduct and/or administer numerous studies and inventories to ensure responsive management plans (e.g., CCP, HMP) and programs are developed and implemented. The slate of FY 2005 projects includes actions to monitor the status and health of wildlife populations to further wildlife conservation in the refuge system. Refuge field projects will involve banding, tagging, monitoring, captive propagation and release, disease contingency planning, as well as invasive/exotic species control and eradication efforts. Wildlife focused projects planned in FY 2005 include:

- Continue removal of rats and arctic foxes from the Aleutian Islands in the Alaska Maritime NWR (AK); and support restoration of native wildlife such as the endemic Evermann's rock ptarmigan, which was successfully translocated to Agattu Island in 2003 and 2004.
- Complete public review and implement the predator management plan to protect seabird nesting colonies on the Oregon Coast NWR Complex (OR).
- Continue to reestablish and maintain populations of endangered species dependent upon refuge lands for recovery, such as whooping cranes at Aransas NWR (TX), Necedah NWR (WI), and Chassahowitzka NWR (FL), and red wolves at Alligator River NWR (NC).
- Collar and monitor caribou in the Galena Mountain Herd of Koyukuk NWR (AK), in conjunction with Alaska Department of Fish and Game, to determine why the herd has declined in recent years from 300-500 animals to about 100.
- Implement several projects on Eastern Shore of Virginia NWR (VA) to reduce predation on nesting Royal Terns, American Oystercatchers, Black Ducks and Brown Pelicans. These will include the use of remote cameras to learn how chicks are lost.
- Continue to focus on preparedness and complete and implement Chronic Wasting Disease (CWD) surveillance and response plans, where appropriate, on Service administered lands; work closely with states on CWD efforts; and support the 2nd National Chronic Wasting Disease Symposium from July 12-14 in Madison, Wisconsin.
- Conduct four wildlife and habitat management reviews in Region 1 to support initiation of CCPs and HMPs

Improve Habitat

The refuge system efforts will also focus on addressing priority habitat-related needs of refuges nationwide in FY 2005. Conducting ecosystem restoration projects benefits a wide-range of native wildlife species that inhabit the different targeted habitats. Refuge personnel restore a number of habitat types such as prairie grasslands in former agricultural areas, reestablishment of freshwater wetland function, restoration of riparian stream banks, and control of invasive species such as salt cedar. Restoration and enhancement work also includes use of fire and contaminants cleanup, addressed elsewhere in this document. Examples of habitat-related projects planned for FY 2005 include:

- Develop independent water management on three units of a 2,000-acre wetland complex on Bear Lake NWR (ID). The refuge will also restore 500 acres of perennial emergent marsh and associated fish passage to allow the last native remnant of the Bonneville cutthroat trout access to spawning habitat.
- Continue to restore native habitats from abandoned cropland by planting 9,000 acres with native trees, brush and cactus, grass and forbs propagated in refuge and contract nurseries at Lower Rio Grande Valley NWR (TX).
- Erect deer exclosures on Eastern Shore of Virginia NWR (VA) to assess the deer impacts on shrubs important to forest-dependent songbirds.
- Restore more than 500 acres of marsh habitat at the Southwest Louisiana Refuge NWR Complex (LA) in partnership with state and federal agencies, local municipalities and non-governmental Organizations and funded primarily through Coastal Wetlands Planning, Protection and Restoration Act, Natural Resource Damage Assessment, and North American Wetlands Conservation Act.
- Conduct three sessions of the online Habitat Management Planning Training Course for field managers and biologists.
- Test and improve vegetative mapping techniques such as eCognition, a specialized computer segmentation program, now in experimental use on Canaan Valley NWR (WV). Spatial mapping technologies are critical to the refuge system's development of System-wide goals and objectives for habitats and biodiversity, as well as for a range of planning actions.

Many refuges have some form of oil and gas activity such as exploration, development, or pipeline right-of-ways. In response to the GAO report to Congress, "Opportunities to Improve the Management and Oversight of Oil and Gas Activities on Federal Lands," the refuge system is developing a handbook for refuge managers that will provide guidance on the management of oil and gas programs and ensure consistent response to oil and gas exploration, development, and production activities on refuges. Because many refuge lands were acquired with mineral rights outstanding, it has become essential the rights and responsibilities of the private mineral owner and those of refuge system, as the surface owner, are clearly understood and protected. The Service's National Conservation Training Center will support development of a training module for refuge managers in FY 2005.

Invasive species control and eradication remain in the forefront of the refuge system management activities. Success will rely in part on a strong coalition of organized citizen volunteers. Efforts to map invasive plants on refuges, with assistance from volunteers, will increase with the addition of eight new refuges into the volunteer mapping program this year. Follow-up at the original six pilot refuges where mapping was initiated last year will be conducted in the form of an integrated training, outreach, control and restoration program. In addition, individual refuges and Friends groups will be invited to submit proposals for participation in a competitive grants program that supports cooperative projects focusing on priority species and innovative approaches.

Training of refuge system staff, partners and volunteers will be conducted to identify the pathways of infestation and foster a greater awareness for preventing further spread of invasive species. The refuge system will conduct Hazard Analyses and Critical Control Point Training to develop plans for the prevention and spread of invasive species in conducting management activities.

Although invasive species strike teams will treat and control some large established invasive plant infestations, an important part of their duties will be to attack early or outlying infestations of invasive plants in target areas. Efforts will focus on topical and geographical focus areas identified by the National Invasive Species Council and the Department, and priority species such as salt cedar, leafy spurge and yellow star thistle. These teams will create habitat conditions for native communities to flourish through control and management of invasive species, including rapid response to infestations and integrated management techniques. Strike teams will continue their work in 2005 in the following priority areas: the Everglades, Lower Colorado River in the Southwest, and the Columbia-Yellowstone-Missouri River. Efforts will be coordinated with the National Park Service's Exotic Plant Management Teams, where appropriate, and the Boise Interagency Fire Center, to link prescribed burn activities and invasive species control efforts where feasible.

In FY 2005, the NWRS **Fire Management Program** will:

- Coordinate effective treatments to prevent loss of critical resources and infrastructure in the face of intense, fast-moving fires.
- Improve efficiency in controlling fuels and invasive plants such as tamarisk and cheatgrass by enhancing and focusing intra-agency communications at national and regional levels.
- Support interagency and DOI initiatives in human capital workforce planning through sponsorship of the National Prescribed Fire Training Center, the Fire Use Training Academy, FWS Fire Mentoring Program, and other employee development programs.
- Participate in the first interagency wildland fire management Quadrennial Fuels and Fire Review modeled after the Defense Department's Quadrennial Defense Review.
- Assist other FWS programs with tracking and reporting non National Fire Plan accomplishments that contribute to the President's Healthy Forest Initiative.
- Plan and prioritize fuels projects in collaboration with local partners and complete as funding allows. Emphasis will be placed on reducing the risk to state identified Communities at Risk, contracting fuels treatments and/or utilizing Biomass wherever practical, and reducing fuels in fire regimes I, II, and III.
- Assess and begin improving Fire Management infrastructure with special emphasis on staffing, skills, and competencies needed to meet future fire management expectations through the implementation of the Interagency Fire Program Management Qualifications System.
- Begin implementation of Phase I and initiate development of Phase II of the Fire Program Analysis System, an interagency budget formulation and allocation system designed to standardize and streamline the budget process for all five federal wildland fire bureaus.
- Initiate strategies for full implementation of Interagency Federal Wildland Fire Policy as directed by the Wildland Fire Leadership Council, developing common language and unified direction and guidance for bureau manuals, directives, and handbooks concerning wildland fire management activities.
- Implement a new funding allocation program for WUI within the FireBase system that incorporates critical directives and priorities of the National Fire Plan and 10 Year Comprehensive Strategy to prioritize wildland urban interface project selection and funding.
- Develop strategies to enhance spatial data capabilities including GIS expertise to support the LANDFIRE and Fire Program Analysis systems.

Coordination with other **Wilderness** and **Wild and Scenic River** management agencies is undertaken to provide technical assistance, policy guidance, and public information through the activities of the Wilderness Policy Council, Interagency Wilderness Steering Committee, and the Interagency Wild and Scenic Rivers Coordinating Council. The refuge system manages all of these areas to protect their unique values while allowing public access and enjoyment. In FY 2005 we will:

- Work with federal agency and international government partners to develop the Global Wilderness Seminar for Government Agencies to be held immediately preceding the 8th World Wilderness Congress in Anchorage. This includes participating in an international Wilderness Roundtable where the participants share their knowledge of a variety of models for conserving wildlands as a prelude to the WWC.
- Develop educational wilderness products with partners for non-traditional audiences.
- Monitor and implement methods to enhance survival and recovery of threatened loggerhead sea turtle populations in Cape Romain NWR (SC) wilderness.
- Participate on an interagency work group to develop guidance and training for applying minimum requirement analysis on wilderness in Alaska.
- Conduct a regional workshop to address issues associated with fire management in wilderness areas.
- Conduct a minimum of three Wilderness Unit training courses.
- Conduct a regional workshop to provide guidance on wilderness reviews and the CCP process for the remote Pacific Islands refuges.

The NWRS program for **Marine Protected Areas** plays a significant role in conserving marine resources, both locally and within global ecosystems, through the 169 ocean, coastal and Great Lakes refuges. In FY 2005 the refuge system will support a host of conservation programs that ensure the maintenance of biological integrity and environmental health of refuge lands and waters, such as:

- Implement a public and stakeholder driven experimental marine zoning plan in the waters of Mosquito Lagoon, Merritt Island NWR (FL), to protect sensitive seagrass beds and economically valuable recreational shallow-water fisheries.
- Continue to work with state and other partners at refuges in the lower Florida Keys (Key Deer, Great White Heron, Key West NWRs) to restore refuge areas where long-term use has altered mangrove and seagrass meadow habitats that serve as valuable fishery nursery areas.
- Continue to translocate endangered Laysan ducks, ensure protection for the Hawaiian monk seal, and restore historic wetland habitat at Midway Atoll NWR (Pacific). Volunteers will spend 3-weeks counting nesting albatross pairs, information critical to understanding the overall health of seabirds in the Pacific. Additionally, the refuge will continue to expand its visitor services to accommodate cruise-ship passengers experiencing Midway's historical and natural wonders.
- Create a dynamic partnership and develop plans with TNC and institutions of higher learning at Palmyra Atoll NWR (Pacific) for scientific research on this remote island's pristine coral reef ecosystems and the unique terrestrial habitats. Insert Photo.
- Continue to implement erosion control measures on Culebra NWR and Desecheo NWR, part of the Caribbean Islands NWR Complex (PR), to reduce deleterious sediment impacts to surrounding coral reefs.
- Continue to work with the U.S. Navy on identifying, securing and removing unexploded ordnance that may pose dangers to tourists visiting the Vieques NWR (PR). The refuge will also work with partners to remove a breakwater that impedes long-shore sand transport denying the beaches natural sand replenishment.
- Continue coral reef restoration efforts at Rose Atoll NWR (Pacific) through removing debris to alleviate and moderate impacts caused by a grounded commercial fishing vessel.

- Continue to work cooperatively with the State of Hawaii and NOAA on the study of unique coral reef habitats and characterize marine archeology sites within the Hawaiian Islands NWR, such as historical ship wrecks dating back to the 1800s.

The NWRS is involved with international partnerships to promote healthy habitats for wildlife. In FY 2005, the Service will continue the collaboration with Canadian and Mexican wildlife agencies through the Trilateral Committee for Wildlife and Ecosystem Conservation and Management and host a Trilateral Protected Areas Workshop for field managers from the three countries to enhance communication and information exchange among the countries. Under the Trilateral, we will develop a draft Sister Protected Areas program to enhance cross-border collaboration on shared issues of concern. Additional international projects include:

- Participate in expanded Red Knot work by assisting with juvenile red knot surveys in Brazil, where a large percentage of the young population over-winters. Data on young birds provides insight into population dynamics and survivorship.
- Coordinate and help host the 8th World Wilderness Congress in Anchorage that will provide a forum for governments, NGOs and resource managers to assess models of wildland and ocean conservation.
- The Alaska Maritime NWR will continue to coordinate with the Komandorskiy Natural Reserve on the Commander Islands, Russia, on shared natural resource management issues.

Serve People

This program element supports the DOI strategic plan mission of Recreation. Quality environmental education and interpretation activities that provide good wildlife and cultural resource information are being designed to stimulate thoughtful conversation with our community citizens. Quality programs help develop an identity niche for the NWRS, letting visitors know how and why we are different from other land management agencies. In FY 2005, the refuge system will:

- Continue a major focus on environmental education, with the International Association of Fish and Wildlife Agencies and the States on this shared priority to reach larger audiences.
- Partner with the National Scenic Byway Resource Center in Minnesota to produce a 1-hour PBS documentary on the refuge system to be broadcast in June 2005.
- Reach out to a nationwide travel and tourism audience through membership and collaboration with the Travel Industry Association of America (TIA). The NWRS will participate in the TIA's national convention, POW-WOW, the largest travel industry trade show in the world. NWRS will also place articles in TIA publications (website, newsletter, annual report, etc.), and place public service announcements in travel and tourism publications managed by other member organizations.
- Continue our partnership with The Weather Channel to produce a segment on the use of radar in conserving migratory birds and highlighting the importance of refuges as habitat in the weeks before International Migratory Bird Day.
- Upgrade and expand the recreational fee program now that legislation has made it permanent.
- Continue participating in the interagency training program titled: "Trail Management: Plans, Projects and People," offered at the National Conservation Training Center.
- Conduct a historical review of segments of the "Trail of Tears" National Historic Trail that traverses the Wheeler (AL), White River (AR) and Tennessee NWRs (TN). Potential benefits for the Service include interpretive signage and markers and assistance from the National Park Service's National Trail System Program. The "Trail of Tears" was designated as a memorial to those tribes removed from their traditional lands to reservations in the Western United States during the 19th Century. The project will be an opportunity to share information

with the public about the refuge system's role in protecting and interpreting many nationally significant historical and archaeological sites.

- Initiate a new uniform contract for employees. A uniformed employee provides instant recognition for the public and serves to welcome and orient visitors and enhance our wildlife conservation visibility with our neighbors. The Fish and Wildlife Service Uniform Program is in the fifth and final year of an Interagency Uniform Contract. The Service is working with the National Park Service and the Army Corps of Engineers to prepare a Request for Proposal for the new contract that will be in place October 1, 2005. The new contract will be streamlined to provide each agency with a professional, functional, and cost-effective uniform program.

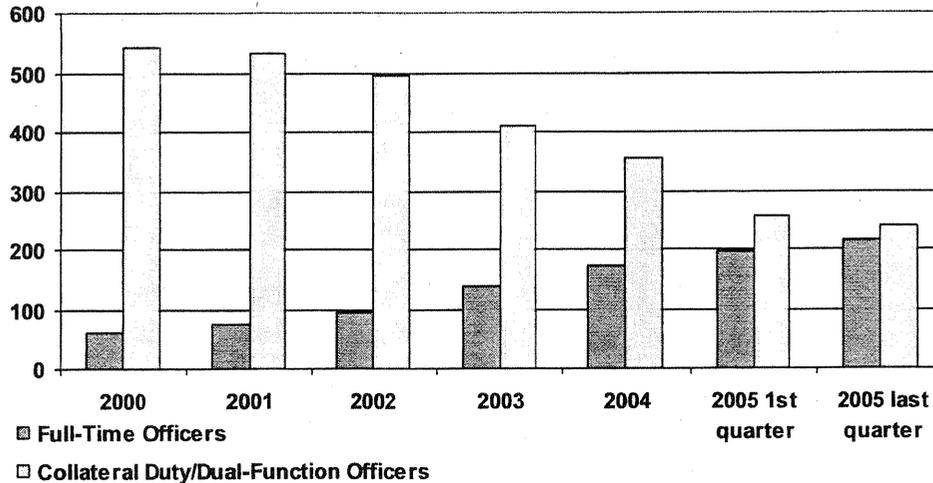
Guidelines help provide quality wildlife-dependent recreation. All visitors are made welcome and safe in their journey on a National Wildlife Refuge and should know where they are and be able to orient themselves to their desired activities. In 2005 the refuge system will establish new guidance for engineering services and construction of visitor centers. This guidance will provide better management and clear directions for engineering services and overhead cost containment.

The Refuge Law Enforcement program meets the DOI Strategic Plan to "protect lives, resources, and properties." In FY 2005, the NWRS law enforcement program will continue compliance with the Secretary's directives to implement law enforcement reforms and address issues identified by the International Association of Chiefs of Police and the Inspector General. The NWRS is dedicated to building an improved, highly trained, and professional law enforcement program to provide the safest environment for both Service employees and the public. The Service has completed many recommended improvements, demonstrating the refuge law enforcement program is a top priority for the bureau. FY 2005 efforts include:

- Continue implementation of the Refuge Law Enforcement Zone System by funding 8 new Zone System LEOs, bringing implementation to 38 of the 59 identified for the Zone System.
- Improve capability to perform quality law enforcement and continue transition from a dual-function law enforcement workforce to a full-time officer workforce to meet obligations for public safety, resource protection, and officer safety by hiring 9 new full-time LEOs and a Service Security and Emergency Manager. Seven of the LEOs will be placed at refuges with essential staffing needs along our Southwest borders at San Diego NWR (CA), Buenos Aires NWR (AZ), and Cabeza Prieta NWR (AZ); and Southeast borders at Sandy Point NWR (VI) and Pine Island NWR (FL).
- Deploy three full-time officers to the Vieques NWR (PR) due to severe civil disobedience that erupted after the transfer of the former naval base to the Service. It is likely these activities will continue, potentially damaging federal property and risking employee and public safety. Visitor safety is a priority concern; there is an expectation by the local community that all public uses previously allowed by the Navy will continue under Service management. This deployment effort addresses the DOI Office of Law Enforcement and Security's guidance to coordinate with the Department of Homeland Security and other partners on border issues.
- Develop and implement the web-based law enforcement staffing and deployment model.
- Continue the development and design of the NWRS modules for IMARS. The NWRS will begin to procure equipment, develop support agreements, and hire two staff positions to manage and operate the IMARS-NWRS automated case management system.
- Complete and begin implementing new physical fitness standards derived from the Job Task Analysis of FY 2004.

- Appoint a National Refuge Officer Basic School (ROBS)/Field Training Evaluation Program (FTEP) specialist, staffed at the Federal Law Enforcement Training Center (FLETC), to supervise the ROBS/FTEP program.

Refuge Law Enforcement Officer Trends 2000-2005



Land Protection Planning. NWRS guidance requires proposals for new refuges and major expansions of existing refuges go through both a preliminary and a detailed planning process. The preliminary planning process leads to the development of a conservation proposal (CP). The CP replaces the preliminary planning proposal as the Service’s principal preliminary planning document. The CP provides an executive overview of an area’s long-term management and biological and ecological needs, and considers how the proposal fits into landscape level plans and the strategic growth of the NWRS. In broad terms, the preliminary planning process will:

- identify the purpose or need for the action (defining objectives);
- establish a series of alternatives that could in some significant degree solve the problem or meet the objectives;
- identify the possible consequences or impacts of each alternative; and,
- determine if the proposed action complies with existing laws, policies, Executive Orders, and other mandates, including the National Environmental Policy Act (NEPA), the Endangered Species Act, and contaminants surveys.

Public participation is an important part of the detailed planning process and there are several opportunities for public input. Upon completion of the preliminary planning process, a decision is made whether or not to proceed with detailed planning. If the determination is to proceed, the detailed planning process leads to the development of a decision document (DD). The DD is a compilation of the information collected and analyzed during the detailed planning process. The DD includes a core report or NEPA document; certification of compliance with laws, policies, etc.; supplemental reports; and a Land Protection Plan (LPP). A list of current FY 2005 projects and their status are summarized in a table at the end of the NWRS section. This activity could potentially contribute to virtually any of the new DOI Strategic Plan goals for Resource Protection, Recreation, and Serving Communities. The most direct contribution is toward the intermediate outcome of creating habitat conditions for biological communities to flourish within the Resource Protection goal.

Comprehensive Conservation Plans (CCPs). CCPs have been completed for 84 NWRS stations (National Wildlife Refuges/Wetland Management Districts). The following 49 NWRS stations are expected to complete their CCPs in 2005:

- | | |
|--------------------------------------|------------------------------------|
| Sacramento River NWR (CA) | Mackay Island NWR (NC) |
| San Joaquin River NWR (CA) | Okefenokee NWR (GA) |
| Ridgefield NWR Complex (WA) | Pea Island (NC) |
| Turnbull NWR (WA) | Reelfoot NWR (TN) |
| Washington Maritime NWR Complex (WA) | Lake Isom NWR (TN) |
| Anahuac NWR Complex (TX) | Roanoke River NWR (NC) |
| Cabeza Prieta NWR (AZ) | Sabine NWR (LA) |
| Hagerman NWR (TX) | St. Marks NWR (FL) |
| Maxwell NWR (NM) | Chesapeake Marshlands Complex (MD) |
| Detroit River International NWR (MI) | Eastern Massachusetts Complex (MA) |
| Sherburne NWR (MN) | Great Dismal Swamp NWR (VA) |
| Squaw Creek NWR (MO) | Lake Umbagog NWR (ME) |
| Bon Secour NWR (AL) | Long Island Complex (NY) |
| Cameron Prairie NWR (LA) | Petit Manan NWR (ME) |
| Cedar Island NWR (NC) | Rachel Carson NWR (ME) |
| Theodore Roosevelt NWR Complex (MS) | Shawangunk Grasslands NWR (NY) |
| Chickasaw NWR (TN) | Arrowwood NWR (ND) |
| Crocodile Lake NWR (FL) | Kirwin NWR (KS) |
| Currituck NWR (NC) | Lost Trail NWR (MT) |
| Hatchie NWR (TN) | North Dakota Easement Refuges (ND) |
| Hobe Sound NWR (FL) | Rocky Flats NWR (CO) |
| Lacassine NWR (LA) | Sand Lake NWR (SD) |
| Lake Ophelia NWR (LA) | Alaska Peninsula NWR (AK) |
| Lower Hatchie NWR (TN) | Kodiak NWR (AK) |
| Pelican Island NWR (FL) | |

In addition to completing the above CCPs, a major program focus in FY 2005 will be examining ways to reduce the time it takes to complete planning efforts.

Projected Number of Stations with Completed CCPs				
	2002	2003	2004	2005
Completed (cumulative)	52	62	84	198
Underway	144	150	188	128
Initiated in FY	14	16	60	54
CCPs required, but not started	358	342	282	228
Total Due 2012 ¹	554	554	554	554

¹ Totals reflect 3 CCPs required to be completed by 2012, but not part of the NWRS at the signing of the *National Wildlife Refuge System Improvement Act of 1997*.

Proposed Budget Restructure

Current refuge activities are budgeted through two subactivities: Operations and Maintenance. Both contain multiple program elements that encompass a very wide range of activities. The Operations subactivity is a large account with a label that does not adequately capture the breadth of conservation activities accomplished with these funds. Restructuring the refuge system budget will provide for

better integration of budgets with performance and will give greater transparency to programs and activities. It is also consistent with improved business management practices advanced by the Administration under the President's Management Agenda. The proposed budget structure will include five subactivities to provide a stronger management tool for budget development, execution, and reporting. It also aligns the budget structure to the main organizational bodies and work areas of the refuge system, lending to better workforce planning capabilities. These five subactivities include Wildlife & Habitat Management, Visitor Services, Refuge Law Enforcement, Conservation Planning, and Refuge Maintenance.

An analytical model using actual expenditures, salary data, financial reports, historical funding distributions, and regional/field surveys was used for the initial distribution of funds to the five subactivities. Salaries are the largest expenditure of Operational funding, and served as the primary source of information for apportioning funds in the proposed structure. Most job series or organizational positions are directly aligned with a subactivity, e.g., biologists and resource specialists with Wildlife and Habitat; outdoor recreation planners with Visitor Services; refuge rangers or officers for Refuge Law Enforcement, and planning positions for Conservation Planning. Funding for refuge managers and other administrative or program support staff were distributed to Wildlife and Habitat and Visitor Services subactivities proportionate to the amount of salaries associated with the two subactivities. Positions with shared responsibility between subactivities (e.g., biologist with law enforcement credentials) were credited to the subactivity dominating their responsibility. Expenditure of funds to multiple subactivities will be tracked with ABC codes. Non-salary and line item funds not historically tracked were distributed to the five subactivities based upon the total salaries associated with each subactivity. One notable change in the restructuring is moving salary and benefit costs associated with Refuge Maintenance support personnel out of the current structure Refuge Operations subactivity and placing these funds in the proposed Refuge Maintenance subactivity.

The next step in application of the five-subactivity budget structure is to integrate it with the NWRS draft Strategic Plan and ABC coding structure. With the implementation of ABC, and other improvements on our financial, personnel, and other information systems; it is expected that more accountable funding levels will be made available as we evaluate the internal transfer of funding to the proposed structure. This will be closely tracked and reported throughout FY2005 and FY 2006. Consequently, a re-alignment may be needed at some point in the future to adjust program funding to reflect the improved data.

Wildlife & Habitat Management

National Wildlife Refuge System – Wildlife & Habitat Management		2004 Actual	2005 Enacted*	Internal Transfer	Uncont & Related Changes (+/-)	Program Changes (+/-)	2006 Budget Request	Change from 2005(+/-)
Wildlife & Habitat Management	\$(000)	-	[133,601]	+133,601	+2,456	-759	135,298	+1,697
	FTE	-	[1,410]	+1,410	-	-	1,410	-
Healthy Habitats & Populations	\$(000)	-	[5,061]	+5,061	-	-	5,061	-
	FTE	-	-	-	-	-	-	-
Cost Sharing Partnerships	\$(000)	-	[1,972]	+1,972	-	+7,600	9,572	+7,600
	FTE	-	-	-	-	-	-	-
Alaska Subsistence	\$(000)	-	[2,958]	+2,958	-	-	2,958	-
	FTE	-	-	-	-	-	-	-
Total, Wildlife & Habitat Mgt	\$(000)	-	[143,592]	+143,592	+2,456	+6,841	152,889	+9,297
	FTE	-	[1,410]	+1,410	-	-	1,410	-

*FY 2005 Enacted amounts are shown for comparison purposes between current NWRS budget structure and the proposed structure. With implementation of ABC and other improvements on our financial, personnel, and information systems, it is expected that more accountable funding and FTE levels will be made available as the Service evaluates the internal transfer of funding to the proposed structure. This will be closely tracked and reported throughout FY 2005 and FY 2006. Consequently, a re-alignment may be needed as some point to adjust program funding and FTE reporting to reflect the improved data.

The proposed Wildlife and Habitat Management subactivity includes activities related to habitat restoration and management, inventory and monitoring, banding and radio tracking, contaminant investigations and cleanup, wildlife disease control, control of invasive species, and cost sharing and partnerships. Program Elements include:

- Refuge Wildlife and Habitat Management.** This program element includes salaries and base funding for the broad array of recurring wildlife and habitat management actions on about 3.5 million acres of refuge habitat every year and includes: restoring wetlands, riparian zones, and uplands; annually managing extensive wetland impoundments and other bodies of water; and managing vegetative habitats through methods such as farming, prescribed burning, mowing, haying, grazing, forest harvest or selective thinning, and the control of invasive pest plants. This element also provides for the installation or expansion of smaller-scale (less than \$500,000) wildlife management facilities such as dikes, levees, pumps, spillways, access points, and water level control structures; and water rights protection and adjudication. Inventory and monitoring of habitat by field or remote sensing techniques is also part of this program area. Management actions for wildlife populations include reintroduction of imperiled species, erecting nest structures, predator control, banding and radio-tracking, and monitoring and inventory of species groups. Invasive species management is another critical activity that prevents the introduction and spread of invasive species, and controls or removes them where they are already established. Use of integrated pest management techniques is applied wherever feasible but mechanical removal or herbicides are often necessary where extensive infestations occur. Early treatment of newly emerging problems is sought wherever possible to prevent problems from growing into a much more difficult and costly treatment regime. Invasive species can be very persistent; therefore, adequate control frequently requires repeated, long-term treatment. These active management activities enable us to better meet resource objectives within our existing land base.

- **Healthy Habitats & Populations.** This program element includes funds directed to environmental contaminant investigations and cleanup on refuges, and for addressing wildlife diseases found on refuges, such as chronic wasting disease.
- **Cost Sharing and Partnerships.** The Challenge Cost Share and Cooperative Conservation Initiative are both programs that work with partners in a cost-sharing approach to accomplish wildlife and habitat objectives. Habitat restoration, wildlife inventories and monitoring, and GIS data development (supporting Geospatial One Stop) are standard activities under this program. At least one other partner must be involved and include a minimum 1:1 match of funding or in-kind services. The sponsored projects must occur on a refuge or directly benefit a refuge.
- **Alaska Subsistence.** The Alaska Subsistence program manages subsistence uses by rural Alaskans on 237 million acres of federal lands by coordinating the regulation and management of subsistence harvests among five federal agencies (FWS, NPS, BLM, BIA and Forest Service), coordinating with the Alaska Department of Fish and Game, and providing technical and administrative support for ten rural Regional Advisory Councils.

Justification of 2006 Program Changes

Wildlife & Habitat Management		2006 Budget Request	Program Changes (+/-)
Wildlife & Habitat Management*	\$(000)	135,298	-759
	FTE	1,410	-
Healthy Habitats & Populations	\$(000)	5,061	-
	FTE	-	-
Cost Sharing Partnerships*	\$(000)	9,572	+7,600
	FTE	-	-
Alaska Subsistence	\$(000)	2,958	-
	FTE	-	-
Total, Wildlife & Habitat Management	\$(000)	152,889	+6,841
	FTE	1,410	1,410

*The total requested for the Cooperative Conservation Initiative/Challenge Cost Share in FY 2006 is shared between the Wildlife and Habitat Management (\$10.53 million) and Visitor Services (\$1.47 million) proposed subactivities.

The FY 2006 budget request for Wildlife and Habitat Management is \$152,889,000, a net program increase of \$6,841,000. Portions of funding from Wildland Fire Management, Recreation Fee Program, and Refuge Roads, under the Department of Transportation, contribute to Wildlife and Habitat Management goals.

Wildlife and Habitat Management Operations

Invasive Species – Strike Teams (+\$1,000,000): The FY 2006 request will build on current and planned FY 2004 and FY 2005 activities. The Service has launched three invasive species “strike teams” for rapid response to satellite infestations that are currently located in the Southwest, Columbia-Yellowstone-Missouri River watershed, and the Everglades. The NWRS will use FY 2006 requested funding to provide staffing and support for two additional strike teams, one in Hawaii and the Pacific Islands and the other on the North Dakota refuges. The Service will continue to study the National Park Service’s success with their exotic plant management teams and further incorporate successful strategies where appropriate, including centralized coordination at a national level.

The new strike teams will give priority, as appropriate, to topical and geographical focus areas identified by the National Invasive Species Council and the Department, such as: Tamarisk (Species specific Category I); Leafy Spurge and Yellow Star Thistle (Species specific Category I); and, Early Detection and Rapid Response (Early Detection and Rapid Response Category IV). This request creates habitat conditions for biological communities to flourish through control and management of invasive species, including rapid response to infestations and integrated management techniques and programs implemented through partnerships on networked lands.

Invasive Species - Loxahatchee National Wildlife Refuge (FL) (+\$1,000,000): An increase of \$1.0 million is requested to enable the Service to continue to implement effective control of invasive species on Loxahatchee NWR (FL) and to meet performance measures mandated in the 50-year operational license agreement signed with the State of Florida in June 2002. This funding will be used to aerially treat 2,500 acres of dense Lygodium on tree islands and allow re-treatment of 14,000 acres infested with Melaleuca, Lygodium, Brazilian pepper and Australian pine on other lands. This request is vital to the Service's continuing invasive plant removal efforts at Loxahatchee NWR.

Invasive Species (+\$100,000): An increase of \$100,000 is requested to further focus Service efforts on the Early Detection Rapid Response (EDRR) phase of invasive species management. The National Invasive Species Council has identified EDRR as a priority (Category IV) in part because research has shown this approach to be the most cost effective way to manage long-term invasions. Increasing the Service's commitment to this focus area now will lead to lower costs in the future.

Invasive Species – Willapa Bay NWR Spartina Grass (-700,000): In FY 2005, Congress provided \$700,000 for Willapa NWR to control non-native cordgrass (*Spartina alterniflora*). *Spartina* eliminates the value of intertidal areas for wildlife, the aquaculture industry, and recreational pursuits because it chokes the bay with dense, rapidly growing stands of vegetation. In FY 2006, the President's budget invests additional resources toward invasive species strike teams and other early detection, rapid response projects that have been shown to be more cost effective.

Invasive Species - Invasives with Friends (-\$1,000,000): In FY 2005, Congress provided \$1,000,000 for invasive species projects with partners. While the Invasives with Friends program is valuable for the achievement of long-term objectives and goals, increasing the number of rapid response strike teams is currently a higher priority for use of limited resources. Refuges that trained volunteers and Friends groups will continue to benefit from this program.

General Operations (-\$1,064,000): The Service requests a reduction of \$1,064,000 for general program activities within the Wildlife and Habitat Management program. Funding will no longer be necessary for completed projects involving removal of dead or dying timber, wildlife management activities, grassland reseeding, and wetland and other habitat enhancements and restoration. Certain activities, such as data gathering, inventories, studies and surveys, are used to establish baselines and assist in making management decisions and developing long-term wildlife and habitat management plans. The NWRS is undergoing a review of its inventory and monitoring activities by scientists with the USGS – Biological Resource Division. Results of the study will be incorporated into current and future program improvements. Until the completion of the review, the Service will reduce data collection including ongoing operations.

Federal Vehicle Fleet (-\$95,000): In 2004, the Department began a collaborative initiative to improve fleet management, developed a strategic plan, and began to implement recommendations from a review of the program conducted by the Office of Inspector General. The initiative focuses on economic-based strategies, including implementation of life-cycle replacement schedules, disposal of underutilized vehicles and vehicles that have surpassed their lifecycle, use of fleet performance

measures, energy-saving practices and expanded use of alternate-fueled vehicles, and expanded leasing. The Department-wide strategy for improved fleet management includes migrating fleet management programs to a more standardized operational model that promotes energy-saving technologies, the development of fleet composition baselines and multi-year plans, improved performance metrics that address efficiency and effectiveness, vehicle and motor pool sharing, and purchase and lease arrangements that consider seasonal workforces.

On an annual basis, Interior spends over \$160 million to operate and maintain its fleet of approximately 38,000 vehicles. Interior's improvement plan provides a goal for reduction to fleet expenditures of \$11 million in 2005 and an additional \$3.689 million in 2006.

Cost Sharing Partnerships

Cooperative Conservation Initiative/Challenge Cost Share (+\$7,600,000): The Service recognizes the value of cooperative approaches to conservation and supports the Secretary's Four Cs philosophy - conservation through consultation, cooperation and communication. This request for an additional \$7,600,000 for the CCI/CCS will expand opportunities for natural resource partnerships as part of the Secretary's Four Cs philosophy. CCI/CCS wildlife and habitat related projects have facilitated identification and removal of invasive species by trained volunteers; replanted native grasses and trees; improved riparian habitat along stream and river corridors and wetlands; developed conservation plans for endangered species and their habitat; and, enhanced a variety of habitats on refuges. The increased funding will provide the NWRS and our partner's additional opportunities to use innovative means or practices to address a wide range of refuge system conservation priorities.

Visitor Services

National Wildlife Refuge System – Visitor Services		2004 Actual	2005 Enacted*	Internal Transfer	Uncont & Related Changes (+/-)	Program Changes (+/-)	2006 Budget Request	Change from 2005(+/-)
Refuge Visitor Services	\$(000)	-	[59,364]	+59,364	+1,012	-570	59,806	+442
	FTE	-	[684]	+684	-	-	684	-
Visitor Facility Enhancements	\$(000)	-	[1,972]	+1,972	-	-1,972	-	-1,972
	FTE	-	-	-	-	-	-	-
Volunteers	\$(000)	-	[758]	+758	-	-	758	-
	FTE	-	-	-	-	-	-	-
Cost Sharing Partnerships	\$(000)	-	[1,409]	+1,409	-	+61	1,470	+61
	FTE	-	-	-	-	-	-	-
Total, Visitor Services	\$(000)	-	[63,503]	+63,503	+1,012	-2,481	62,034	-1,591
	FTE	-	[684]	+684	-	-	684	-

*FY 2005 Enacted amounts are shown for comparison purposes between current NWRS budget structure and the proposed structure. With implementation of ABC and other improvements on our financial, personnel, and information systems, it is expected that more accountable funding and FTE levels will be made available as the Service evaluates the internal transfer of funding to the proposed structure. This will be closely tracked and reported throughout FY 2005 and FY 2006. Consequently, a re-alignment may be needed as some point to adjust program funding and FTE reporting to reflect the improved data.

The proposed Visitor Services subactivity includes activities related to wildlife-dependent recreation (hunting, fishing, wildlife observation, photography, environmental education and interpretation), cultural resources (historic and archaeological sites, museum property items), volunteers and Friends groups, and cost sharing and partnerships. Program Elements include:

- Refuge Visitor Services.** This category includes the salary and base funding that supports the array of recreational activities on refuge lands, with preference given to wildlife-dependent recreation as called for in the *National Wildlife Refuge System Improvement Act of 1997*. Wildlife-dependent recreation (hunting, fishing, wildlife observation, photography, environmental education and interpretation) is provided to the extent that it does not compromise the accomplishment of the primary purpose of the station; and, the quality of the experience and level of public interest is such that such provisions can be considered efficient and effective use of funding and staff relative to similar opportunities at other locations. Non-wildlife dependent outdoors recreation (e.g., swimming, sunbathing, recreational boating, picnicking, camping) is discouraged to the extent it compromises accomplishment of wildlife-oriented objectives. Interpretive activities include talks, tours, staffed exhibits, and demonstrations. Environmental education involves structured classroom activities for teachers, students, or others. Professional workshops or structured instructional programs to learn bird watching, natural resource management, land stewardship, or wildlife recovery and management are also included. These activities are provided both on- and off-site to contribute to the accomplishment of the primary purpose of the station. Teacher workshops, which are especially effective at reaching out to local school districts, provide a service that teachers can then relay to their students.

Visitor Services also manages cultural resources, including archaeological sites, historic structures, traditional religious sites, and museum property items that are managed under the mandates of the *Archaeological Resources Protection Act of 1979*, the *National Historic*

Preservation Act of 1966, the Native American Graves Protection and Repatriation Act of 1990, and other applicable historic preservation statutes.

- **Visitor Facility Enhancements.** This program element includes the development, rehabilitation, or increase in facilities that support public use at our refuges. Parking areas at trail heads, kiosks, interpretive signs and displays, trails and boardwalks, and information desks are all part of the suite of facility improvements that are needed to support the increase number of visitors to refuges, and to enhance the quality of the experience while on the refuge.
- **Volunteers.** This program element encompasses activities in support of volunteerism and community partnership efforts provided for by the *Volunteer and Community Partnership Enhancement Act of 1998*. Volunteers accomplish nearly 20 percent of the work performed on refuges. More than 200 organized support groups work to assist refuges in meeting public use and natural resource management goals. Managing a good volunteer program requires an investment in developing projects and activities suitable for volunteers; maintaining a communication and organizational framework to ensure people with the right skills and capability are on the right job; and finally, volunteers are trained and outfitted with the proper gear to do a quality job in a safe manner.
- **Cost Sharing and Partnerships.** This program element includes activities with partners that are recreational and educational, or in other ways involving the public. The part of the Challenge Cost Share program that includes recreational activities and public celebrations is under this program area.

Justification of 2006 Program Changes

Visitor Services		2006 Budget Request	Program Changes (+/-)
Refuge Visitor Services	\$(000)	59,806	-570
	FTE	684	-
Visitor Facility Enhancement	\$(000)	-	-1,972
	FTE	-	-
Volunteers	\$(000)	758	-
	FTE	-	-
Cost Sharing Partnerships*	\$(000)	1,470	+61
	FTE	-	-
Total, Visitor Services	\$(000)	62,034	-2,481
	FTE	684	-

*The total requested for the Cooperative Conservation Initiative/Challenge Cost Share in FY 2006 is shared between the Wildlife and Habitat Management (\$10.53 million) and Visitor Services (\$1.47 million) proposed subactivities.

The FY 2006 budget request for Visitor Services is \$62,034,000, a net program decrease of \$2,481,000. Portions of funding from Wildland Fire Management, Recreation Fee Program, and Refuge Roads, under the Department of Transportation, contribute to Wildlife and Habitat Management goals.

Refuge Visitor Services

General Operations (-\$532,000): Wildlife-dependent recreation in the form of education and interpretation programs, hunting and fishing programs, and wildlife observation and photography will be reduced in order to fund other, higher priority projects elsewhere in the budget. Activities such as local schools and community programs, recreation facilities such as public trails, and staff time

dedicated to administering recreation programs will be curtailed on refuges with the least visitation, allowing remaining funding to be directed to those with higher visitation.

Federal Vehicle Fleet (-\$38,000): In 2004, the Department began a collaborative initiative to improve fleet management, developed a strategic plan, and began to implement recommendations from a review of the program conducted by the Office of Inspector General. The initiative focuses on economic-based strategies, including implementation of life-cycle replacement schedules, disposal of underutilized vehicles and vehicles that have surpassed their lifecycle, use of fleet performance measures, energy-saving practices and expanded use of alternate-fueled vehicles, and expanded leasing. The Department-wide strategy for improved fleet management includes migrating fleet management programs to a more standardized operational model that promotes energy-saving technologies, the development of fleet composition baselines and multi-year plans, improved performance metrics that address efficiency and effectiveness, vehicle and motor pool sharing, and purchase and lease arrangements that consider seasonal workforces.

On an annual basis, Interior spends over \$160 million to operate and maintain its fleet of approximately 38,000 vehicles. Interior's improvement plan provides a goal for reduction to fleet expenditures of \$11 million in 2005 and an additional \$3.689 million in 2006.

Visitor Facility Enhancements

Visitor Facility Enhancements (-\$1,972,000): Funding for Visitor Facility Enhancements include small construction projects such as docks, boat launches, interpretive signs, kiosks, piers, observation towers, boardwalks, decks, and trails that get people outdoors rather than inside more costly visitor centers, enjoying a quality wildlife-dependent recreational experience, per the Refuge Improvement Act of 1997. Funds provided in FY 2005 will be used to complete approximately 25 projects on national wildlife refuges across the nation. Most of these activities were funded in preparation for and in recognition of the NWRS Centennial. Funding for this program is eliminated to offset higher priority budget needs identified elsewhere in the President's request.

Cost Sharing Partnerships

Cooperative Conservation Initiative/Traditional Challenge Cost Share (+\$61,000): The FY 2005 Omnibus Appropriations Act (P.L. 108-447) included two across-the-board rescissions, netting a 1.3 percent reduction to all Service programs. An increase of \$61,000 will restore funding to the FY 2004 enacted level and will allow the Service to maintain performance and base program capability. The restored funding will continue opportunities for natural resource partnerships under CCI/Traditional CCS visitor services related projects.

Refuge Law Enforcement

National Wildlife Refuge System – Law Enforcement		2004 Actual	2005 Enacted*	Internal Transfer	Uncont & Related Changes (+/-)	Program Changes (+/-)	2006 Budget Request	Change from 2005(+/-)
Law Enforcement	\$(000)	-	[24,535]	+24,535	+175	+1,384	26,094	+1,559
	FTE	-	[224]	+224		+10	234	+10
Incident Management Reporting	\$(000)	-	[986]	+986	-	+700	1,686	+700
	FTE	-	[2]	+2	-	-	2	-
Total, Law Enforcement	\$(000)	-	[25,521]	+25,521	+175	+2,084	27,780	+2,259
	FTE	-	[226]	+226	-	+10	236	+10

*FY 2005 Enacted amounts are shown for comparison purposes between current NWRS budget structure and the proposed structure. With implementation of ABC and other improvements on our financial, personnel, and information systems, it is expected that more accountable funding and FTE levels will be made available as the Service evaluates the internal transfer of funding to the proposed structure. This will be closely tracked and reported throughout FY 2005 and FY 2006. Consequently, a re-alignment may be needed as some point to adjust program funding and FTE reporting to reflect the improved data.

The proposed Refuge Law Enforcement (LE) subactivity includes prevention, enforcement, protection, and security activities to assure resource protection, public safety, and secure government property. Program elements include:

- Refuge Law Enforcement.** This program element includes salaries and base funding for the Refuge LE program. The program encompasses prevention, enforcement, and protection and security activities to ensure compliance with wildlife laws, refuge regulations and related laws so that: 1) fish and wildlife resources are protected from over-harvest, poaching, or other abuse, 2) visitors can safely enjoy recreation, interpretation, and environmental education without fear of crime or incident; and 3) government property is secure from outside threat and not subject to vandalism, abuse, or destruction. Included under the funding are zone officers, Regional Refuge LE Chiefs, full-time field officers, training, equipment, and supplies. Salaries for dual-function officers are not represented under this category, since their primary function is assigned to other subactivities.
- Incident Management Reporting System (IMARS).** The Refuge LE program is working with the DOI to develop and implement the Department-wide incident reporting system - IMARS. The program will document all incidents occurring on refuges, and will be accessible at all levels of the organization (field, region, national headquarters, and Department). It will track not only different types of crimes, but also locations, which will allow us to be proactive in crime prevention. This information is also necessary to prioritize LEO needs and to deploy officers in emergencies. Funds are used for software development and maintenance, system implementation, training, data management, and end-user support.

Justification of 2006 Program Changes

Refuge Law Enforcement		2006 Budget Request	Program Changes (+/-)
Refuge Law Enforcement	\$(000)	26,094	+1,401
	FTE	234	+10
IMARS	\$(000)	1,686	+700
	FTE	2	-
Total, Law Enforcement	\$(000)	27,780	+2,101
	FTE	236	+10

The FY 2006 budget request for Refuge Law Enforcement is \$27,780,000 and +10 FTE, a net program increase of \$2,101,000. This subactivity directly supports DOI's Strategic Plan strategy plan mission of Serving Communities and the goal to protect lives, resources, and property through improving public safety and security and protecting public resources from damage.

Refuge Law Enforcement

Building a credible and highly professional law enforcement program to meet this century's demands on visitor and resource protection is our priority, as evidenced by the many initiatives and reforms discussed above. In FY 2006, the NWRS law enforcement program will continue complying with the Secretary's directive to implement law enforcement reforms and address issues identified by the International Association of Chiefs of Police (IACP) and the Inspector General. The refuge system is enhancing the quality and professionalism of the law enforcement program with continued improvements in training and program management, and by updating communications, reporting systems, weapons, and equipment standards.

Refuge Law Enforcement Officers (+1,119,000): The FY 2006 budget requests funding for eight additional full-time LEOs who will be placed at refuges with the highest priority law enforcement needs in each region, continuing the strategy of hiring full-time officers to compensate for the loss of law enforcement capability due to reduction of collateral duty officers. This request will fund the highest priority projects identified in the separate law enforcement ranking within the RONS and place one full-time LEO at refuges that currently have no full-time officer coverage or as little as one officer for multiple refuges within a complex, and at refuges located in fast growing metropolitan areas or on a border that presents challenges for public safety and resource protection. A list of proposed LEO locations can be found at the end of this section. These additional resources bring the projected number of full-time officers to 234 in FY 2006. The NWRS will soon be able to utilize the Law Enforcement Assessment and Deployment Model (LEAD) to identify the highest priority for officers from a defensible and sound deployment model. The LEAD model will help determine the staffing needs for refuges by using a consistent and conservative approach as well as drive the location and placement of law enforcement officers in the future.

Zone System (+282,000): Zone Officers assist refuge managers in developing individual Law Enforcement Plans for stations and complexes within their zone and conduct periodic law enforcement reviews and inspections. These positions are a critical part of both the Zone System and the Field Training and Evaluation Program (FTEP) for the NWRS. This request would place one Zone Officer each at Nisqually NWR (WA) and Missisquoi NWR (VT), filling 41 of 59 positions planned for implementation of the Zone System.

Incident Management and Reporting System

IMARS (+\$700,000): The requested increase will fund the final phase of the NWRS implementation of IMARS and allow the Service's scheduled IMARS implementation to coincide with other DOI

bureaus. The main goal for a nationwide system is to document incidents, as well as locations, on refuges throughout the nation. Reliable and timely incident information will be accessible at all levels, including the field, region, and national headquarters, as well as by the Department. The information can then be linked with emergency or security events critical for documentation, analysis, and management. It will fund training, equipment, and connectivity enabling the system to be fully operational nationwide. It is critical to fully complete and implement IMARS because it will be interlinked with the LEAD model, which will be used to help prioritize and deploy new positions and emergency operations, assuring complete implementation and utilization of all refuge officers. IMARS is a critical tool for successful management of the program, including reporting and outcome performance results.

Federal Vehicle Fleet (-\$17,000): In 2004, the Department began a collaborative initiative to improve fleet management, developed a strategic plan, and began to implement recommendations from a review of the program conducted by the Office of Inspector General. The initiative focuses on economic-based strategies, including implementation of life-cycle replacement schedules, disposal of underutilized vehicles and vehicles that have surpassed their lifecycle, use of fleet performance measures, energy-saving practices and expanded use of alternate-fueled vehicles, and expanded leasing. The Department-wide strategy for improved fleet management includes migrating fleet management programs to a more standardized operational model that promotes energy-saving technologies, the development of fleet composition baselines and multi-year plans, improved performance metrics that address efficiency and effectiveness, vehicle and motor pool sharing, and purchase and lease arrangements that consider seasonal workforces.

On an annual basis, Interior spends over \$160 million to operate and maintain its fleet of approximately 38,000 vehicles. Interior's improvement plan provides a goal for reduction to fleet expenditures of \$11 million in 2005 and an additional \$3.689 million in 2006.

Conservation Planning

National Wildlife Refuge System – Conservation Planning		2004 Actual	2005 Enacted*	Internal Transfer	Uncont & Related Changes (+/-)	Program Changes (+/-)	2006 Budget Request	Change from 2005(+/-)
Refuge Planning	\$(000)	-	[6,857]	+6,857	+122	-	6,979	+122
	FTE	-	[91]	+91	-	-	91	-
Land Protection Planning	\$(000)	-	[3,603]	+3,603	-	-	3,603	-
	FTE	-	-	-	-	-	-	-
Comp Conservation Planning	\$(000)	-	[2,922]	+2,922	-	-	2,922	-
	FTE	-	-	-	-	-	-	-
Total, Cons Planning	\$(000)	-	[13,382]	+13,382	+122	-	13,504	+122
	FTE	-	[91]	+91	-	-	91	-

*FY 2005 Enacted amounts are shown for comparison purposes between current NWRS budget structure and the proposed structure. With implementation of ABC and other improvements on our financial, personnel, and information systems, it is expected that more accountable funding and FTE levels will be made available as the Service evaluates the internal transfer of funding to the proposed structure. This will be closely tracked and reported throughout FY 2005 and FY 2006. Consequently, a re-alignment may be needed as some point to adjust program funding and FTE reporting to reflect the improved data.

The proposed Conservation Planning subactivity includes all activities associated with land protection planning (strategic growth of the NWRS) and completion of refuge Comprehensive Conservation Plans. Program elements include:

- **Refuge Planning.** Includes the salaries and base funds associated with major planning activities in support of refuges, principally Land Protection and Comprehensive Conservation planning.
- **Land Protection Planning.** This program element includes all activities associated with the completion of planning activities associated with potential land acquisition projects to continue with strategic growth of the National Wildlife Refuge System as called for in the *Refuge System Improvement Act of 1997*. Core aspects of these activities include gathering of background data, coordination with state and local entities, public involvement efforts, issues analysis, and printing and distributing draft and final plan documents.
- **Comprehensive Conservation Plans.** This program element includes all activities associated with the completion of single station or multi-station Comprehensive Conservation Plans which are to be generally prepared every 15 years as called for in the *Refuge System Improvement Act of 1997*. Core aspects of these activities include gathering of background data, coordination with state and local entities, public involvement efforts, analysis of issues, and printing and distributing draft and final plan documents. In addition to base funds for Comprehensive Conservation Plans that are included under Refuge Planning, flexible funds are distributed for short-term project completion and represented under this element.