

Conserving America's Wetlands 2006:  
Two Years of Progress  
Implementing the President's Goal

Council on Environmental Quality  
April 2006

# Acknowledgements

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This report to Congress shows how Federal agencies are implementing President George W. Bush's 2004 Earth Day goal to "work to restore and to improve and to protect at least three million acres of wetlands over the next five years." The report includes the accomplishments of the first two years and the requested budget and planned accomplishments for FY 2007, with descriptions of contributing Federal programs.

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# **Conserving America's Wetlands 2006: Two Years of Progress Implementing the President's Goal**

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Department of Agriculture  
Department of Commerce  
Department of Transportation

Department of the Army  
Department of the Interior  
Environmental Protection Agency

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**Council on Environmental Quality**  
April 2006

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EXECUTIVE OFFICE OF THE PRESIDENT  
COUNCIL ON ENVIRONMENTAL QUALITY  
WASHINGTON, D.C. 20503

***Members of Congress:***

On Earth Day 2004, President George W. Bush announced his Wetlands Initiative, which set a goal of moving beyond the federal policy of “no net loss” of wetlands and called for a new commitment to attain an overall increase in the quality and quantity of wetlands in America. To achieve this objective, President Bush set an aggressive goal to restore, improve, and protect at least three million acres of wetlands by Earth Day 2009.

I am pleased to report that the Administration is on track to meet President Bush’s performance goals. With expanded programs and funding—including the reauthorization of the North American Wetlands Conservation Act and over \$40 billion in conservation funding in the 2002 Farm Bill—we are making progress in partnership with states, communities, tribes, and private landowners.

This report documents the first two years of progress toward the President’s five-year goal. It tracks wetland progress across the Federal government and outlines measures under way that help meet President Bush’s ambitious wetlands goal.

In the two years since the President made his announcement, the Bush Administration has achieved remarkable success. Data collected from across the federal government shows we have created, improved, or protected 1,797,000 acres of wetlands.

As part of this initiative, the U.S. Fish and Wildlife Service completed its fourth report to Congress on the status and trends of wetlands five years ahead of schedule. The report, *Status and Trends of Wetlands in the Conterminous United States 1998 to 2004*, documented for the first time that wetland acreage gains outdistanced losses. The report did not document or address changes in wetland quality, function, or condition.

Over the past five years, the Bush Administration has implemented policies to increase wildlife habitat, improve water quality, and protect America’s most treasured natural resources. President Bush strongly supports using innovative programs and incentives to encourage private stewardship and cooperative conservation partnerships. Working collaboratively with private landowners and local officials has proven highly effective in improving and sustaining America’s wetlands.

The Bush Administration has worked with Congress to pass bipartisan legislation improving forest health, revitalizing brownfields, cleaning up the Great Lakes, and conserving America’s natural resources. Congress is an essential partner in meeting the President’s wetlands goal, and we look forward to working with you on this and many other important environmental initiatives.

A handwritten signature in blue ink, appearing to read "James L. Connaughton".

***Sincerely,***

***James L. Connaughton***  
***Chairman***

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WILL CHANGE!!!**

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# Executive Summary

On Earth Day 2004, President George W. Bush celebrated the opportunity to move beyond the Federal policy of “no net loss” of wetlands and called for a new commitment to attain an overall increase in the quality and quantity of wetlands in America.

As President Bush said in April 2004, **“The old policy of wetlands was to limit the loss of wetlands. Today I’m going to announce a new policy and a new goal for our country: Instead of just limiting our losses, we will expand the wetlands of America.”**

President Bush set an aggressive goal to create, improve, and protect at least three million wetland acres between Earth Day 2004 and 2009. To increase overall wetland acreage and quality, the President’s goal calls for:

- Restoring and creating at least one million wetland acres;
- Improving or enhancing at least one million wetland acres; and
- Protecting at least one million wetland acres.

This report documents the first two years of progress toward the President’s five-year goal. The Bush Administration—in partnership with states, communities, tribes, and private landowners, and with additional program funding—is on track to meet or exceed this goal.

**Since this goal was set, 1,797,000 acres of wetlands have been restored, created, protected, or improved.**

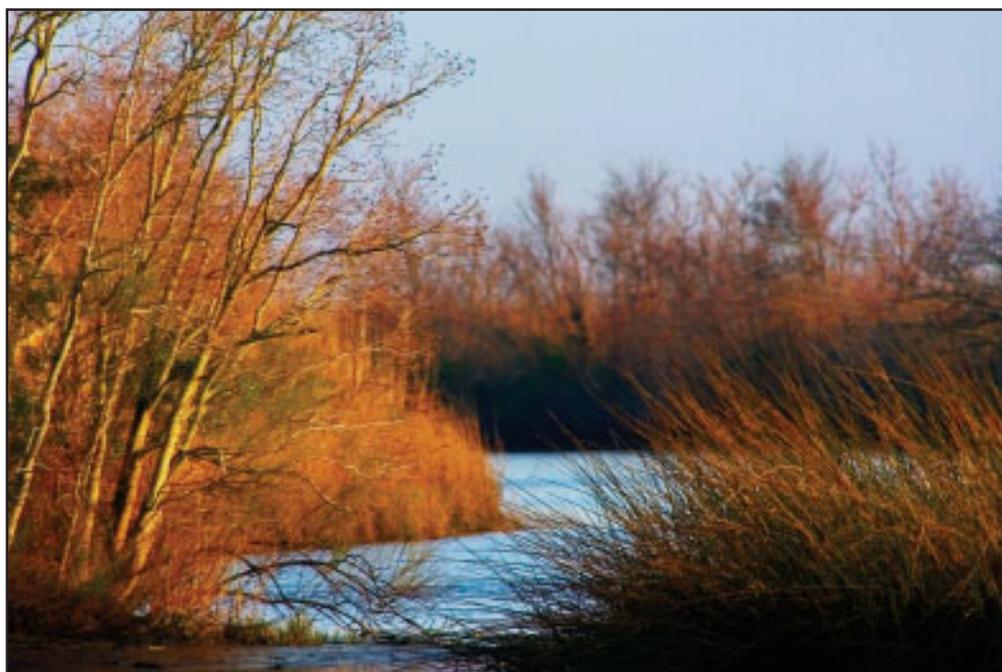
During the past year alone,

- 287,000 acres were restored or created;
- 364,000 acres were improved; and
- 352,000 acres were protected.

This report also highlights anticipated progress between Earth Day 2006 and 2007, during which time **the Bush Administration expects an additional 1.5 million wetland acres to be restored, created, improved, or protected.**

These wetland accomplishments will augment the acreage and enhance the condition of the nation’s wetlands base of 107.7 million acres, as documented by the U.S. Fish and Wildlife Service (FWS) in the recently updated national wetlands status and trends report. FWS further documented a net gain in wetlands that was largely attributable to restoration and creation on active and inactive agricultural lands, and to the creation of freshwater ponds.

This report chronicles the major contributions of federal agencies, working together and in partnership with others, to help achieve the President’s wetland goal of three million acres by 2009.



*Coastal wetland within Paul J. Rainey Wildlife Sanctuary, Vermillion Parish, Louisiana. (NOAA)*



# Introduction

Wetlands have long been recognized as critical to a clean, properly functioning environment and to ecosystem health. They provide important ecological benefits, contributing to water quality, supplying life-sustaining habitat to hundreds of species, and connecting aquatic and terrestrial ecosystems. The Nation's wetlands provide an array of benefits to society, and their continued ability to exist and thrive affects the economic, ecological, and cultural heritage of all Americans. The importance of wetland stewardship is reflected in the array of public-private partnerships that have formed, enhanced through efforts at the Federal level. Recognizing the need for more effective use and coordination of Federal wetland activities, on April 22, 2004, President George W. Bush announced a new National policy on wetlands to achieve an overall increase of U.S. wetlands each year, with a goal to restore or create, improve, and protect at least three million wetland acres between Earth Day 2004 and 2009.

Two years after the President underscored the importance of wetlands, significant progress has been made toward achieving his goal to increase overall wetland acreage and its quality—588,000 acres have been restored or created, 563,000

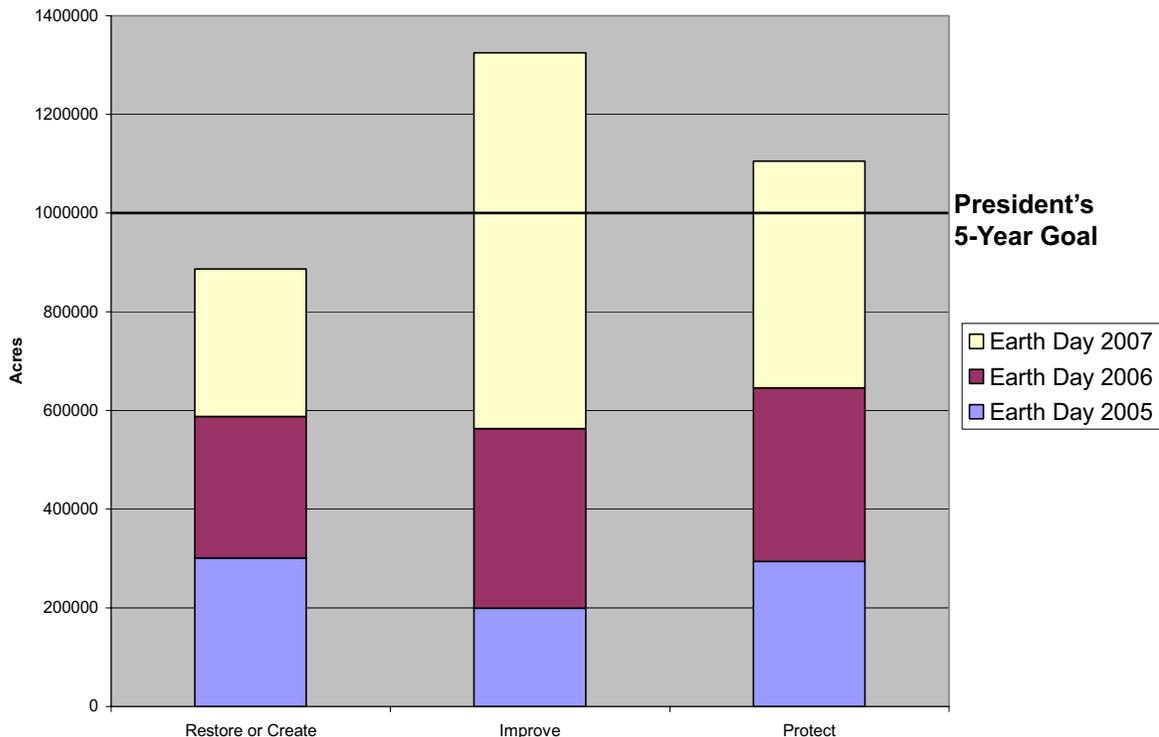
acres have been improved, and 646,000 acres have been protected. Between Earth Day 2004 and 2007, it is expected that a total of 887,000 acres will be restored or created, 1,325,000 acres will be improved, and 1,105,000 acres will be protected (Figure 1).

Because more than 85 percent of our Nation's wetlands are on non-Federal lands, the effectiveness of Federal efforts to improve the health, quality, and use of the Nation's wetlands will be greatly enhanced by expanding public-private partnerships. The Federal government can facilitate these partnerships by providing matching grants, technical assistance, and opportunities for recreation and other activities. Federal agencies must encourage and partner with non-Federal parties (state and local governments, tribes, and nongovernmental organizations). Well-coordinated public-private efforts focused on wetland opportunities will yield significant ecological benefits.

## About This Report

Conserving America's Wetlands: Implementing the President's Goals presents a snapshot of Federal efforts to

Figure 1. Estimated Progress Toward the President's Wetlands Goal



Note: Values have been adjusted for double-counted acres.

achieve the President’s goals for wetland acreage and quality. In providing information, the participating agencies used terminology similar to that developed by the White House Wetlands Working Group and the same terminology used in the 2005 report. Agencies reported all notable accomplishments toward the President’s goal in the year the project was completed, or projected to be completed, rather than the year the project was funded. Adjustments were made to account for projects reported by multiple agencies (“double-counting”). Projected estimates in the 2005 report were adjusted as actual results became available. Appendix A provides a thorough discussion of terminology and methodology, and Appendices B through I present program-level information and descriptions.

## Restore and Create

### Accomplishments

The President’s goal for wetlands has led the responsible Federal agencies to focus their resources—by managing programs more strategically, leveraging resources, and partnering with others whenever possible. The following sections summarize accomplishments planned for each of the three goal areas included in the President’s Fiscal Year (FY) 2007 budget, with major contributing programs highlighted.

## Restoring or Creating Wetlands

**First-Year Accomplishment: 301,000 acres**

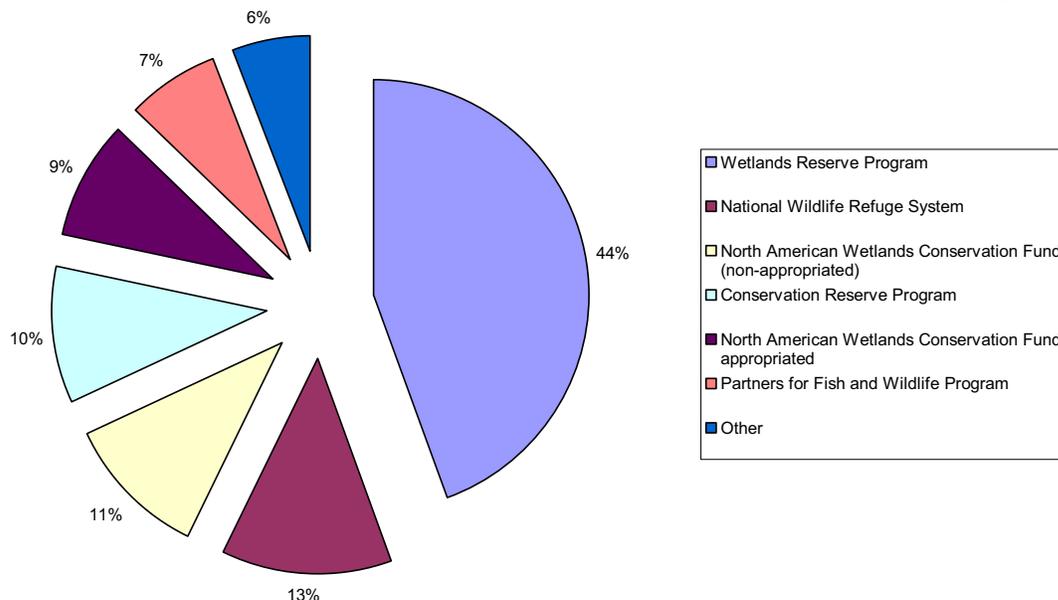
**Second-Year Accomplishment: 287,000 acres**

Wetlands can be added by creating new wetlands or by restoring former wetlands lost to drainage. Agencies create new wetlands in upland areas or deepwater sites. A gain in wetland acres may also be achieved by re-establishing former wetlands to restore functions and values approximating natural/historic conditions. Because of difficulties in establishing wetlands in upland areas, agencies have preferred to re-establish former wetlands when possible. In many cases the necessary soils and seed stock still exist, and wetlands flourish once more as soon as the hydrology is restored.

During the first year, Federal agencies reported restoring or creating 301,000 acres of new wetlands. In the second year, Federal agencies plan to create or restore an additional 287,000 acres. Of the second-year gains, 96 percent will result from re-establishing former wetlands and only four percent from establishing wetlands (primarily on upland sites).

The Federal Government will restore wetlands in FY 2007 primarily through the Wetlands Reserve Program, National Wildlife Refuge System, North American Wetlands Conservation Fund, Conservation Reserve Program, and Partners for Fish and Wildlife Program (Figure 2).

**Figure 2. Proportion of Wetland Acres Anticipated to be Created or Restored by Major Programs in FY 2007**



## The Importance of Coastal Wetland Protection and Restoration

Healthy coastal and marine ecosystems are essential to the nation's economy. Because 95 percent of commercial fish and 85 percent of sport fish spend a portion of their life cycles in coastal wetlands and estuaries, the commercial and recreational fishing industries rely on productive coastal habitat. The value added to the national economy by the commercial fishing industry is over \$28 billion

per year, and each year nearly 18 million Americans engage in marine recreational fishing. In addition, coastal and marine waters support over 28 million jobs.

Coastal wetlands include all wetlands in a coastal watershed—tidal and non-tidal, saline and fresh. More than 30 percent of all wetlands in the United States are coastal. In addition to supporting a diverse array of wetlands, coastal areas also support the majority of this country's population—coastal counties contain 53 percent of the nation's population on only 17 percent of the nation's land area. With this population density comes intense development pressure and increased wetland loss. From 1992 to 1997, coastal counties experienced a net loss of approximately 24,400 acres of wetlands per year. And even though coastal wetland restoration has received increased emphasis in recent years, the area of coastal wetlands lost was 4.3 times the area of wetlands gained.

Overall the wetland loss in coastal counties was nearly three times that of inland counties. Not surprisingly, wetland loss to development is disproportionately high in coastal areas: coastal counties (excluding Alaska, Hawaii, and the Great Lakes states) occupy seven percent of the land area, have 20 percent of the wetlands, and have experienced 31 percent of the gross wetland loss and 42 percent of the gross loss to development.

The majority of coastal wetland loss has occurred in Louisiana. Approximately 40 percent of the coastal wetlands of the



*Development pressure on Florida's coastal wetland ecosystem in St. Petersburg. (NOAA)*

lower 48 states are located in Louisiana, which has suffered coastal land loss at the alarming rate of about 30 square miles each year for the past 50 years. Critical fishery and wildlife habitats are rapidly disappearing, billions of dollars in commercial and industry infrastructure are at risk, and entire coastal communities have been lost. If the current rate of wetland loss is not reduced, an additional 431,360 acres with no action or an additional 328,320 acres of wetlands with action will disappear by 2050.

Numerous federal programs are working with states and communities to protect and restore coastal wetlands. The Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) provides \$55 million to \$60 million annually for protection and restoration projects in Louisiana. Since 1992, these federal dollars have been matched with contributions from state, nonprofit, and private partners to protect and restore more than 100,000 acres of wetlands in Louisiana. However, it has been estimated that CWPPRA is addressing less than 25 percent of the area's protection and restoration needs. In 1998, the State of Louisiana and its Federal partners approved a coastal restoration plan entitled *Coast 2050: Toward a Sustainable Coastal Louisiana*. This plan presents strategies jointly developed by federal, state, and local interests to address Louisiana's massive coastal land loss problem. By implementing the plan's regional ecosystem strategies, it is envisioned that a sustainable ecosystem will be restored in coastal Louisiana, in large part by using the same natural forces that initially formed the landscape.

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## Wetlands Reserve Program

Floodplain forests, prairie potholes, and coastal marshes are among the wetlands restored through the USDA Natural Resources Conservation Service (NRCS) Wetlands Reserve Program (WRP). In FY 2005, NRCS, on behalf of the Commodity Credit Corporation, made \$4,045,000 in financial assistance available for Wetland Reserve Enhancement Program (WREP) partnership proposals (1) that address wetland creation and enhancement efforts on easements enrolled in prior years; (2) where partners will contribute significantly to WRP technical assistance costs; and (3) that provide assistance with managing easement projects. Of the total funding, \$500,000 was available for partnership proposals addressing bog turtle habitat in the East, and \$500,000 was available for partnership proposals addressing ivory-billed woodpecker habitat in Arkansas.

This initiative allowed NRCS to continue restoring and protecting the most possible acreage while dealing with a decreasing funding level. It especially enhanced the agency's ability to complete restoration, creation, and enhancement activities on lands previously protected by easement.

In FY 2006, the USDA anticipates restoring or creating 158,000 acres of wetlands through this program. The President's proposed enrollment authorization for FY 2007 will allow NRCS to restore, create, or enhance an additional 173,000 acres.



*Wetland restoration project utilizing EQUIP in Iowa. (NRCS, Lynn Betts)*

## North American Wetlands Conservation Act

This program promotes long-term conservation of North American wetland ecosystems for the benefit of waterfowl and other migratory birds, fish, and wildlife. Funds are provided by appropriations and by nonappropriated sources such as the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA), interest earned on Pittman-Robertson Funds, and fines collected under the Migratory Bird Treaty Act. In FY 2005, 35 completed North American Wetlands Conservation Act (NAWCA) projects contributed to the President's wetlands goal.

One such initiative was the San Pablo Bay Tidal Wetlands Habitat Restoration Project. In an effort to re-establish historic wetland functions lost to agricultural conversion and habitat degradation, the project restored 9,224 wetland acres in San Pablo Bay (part of the San Francisco Bay Estuary). Activities included levee construction, creation of drainage swales and shallow water ponds, and restoration of a mosaic of estuarine and palustrine emergent wetlands on the Napa Sonoma Marshes State Wildlife Area. The grantee—the California Wildlife Conservation Board—was joined on this project by the following partners: Ducks Unlimited, Sonoma Land Trust, Save the Bay, CALFED, California Department of Fish and Game, United Heckathorn Trustee Council, Marin/Sonoma Mosquito Abatement District, Pacific Gas and Electric, Sonoma Community Foundation, Sonoma County Fish and Wildlife Board, Shell Oil Spill Litigation Settlement Trust, NRCS, U.S. Bureau of Reclamation, and the U.S. Fish and Wildlife Service (FWS).



*Weir at Glacial Ridge Wetland Restoration Project in northwest Minnesota. (Greg Bengston, NRCS)*

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This program expects to restore or create approximately 107,000 acres of wetlands in FY 2006 and 78,000 acres in FY 2007.

### National Wildlife Refuge System

Many National wildlife refuges are restoring former wetlands. Working with our partners, the refuge system in FY 2006 will address conservation priorities, including activities to restore the lower Salmon Creek in California in joint efforts with nine partners, including the State and the Wiyot Tribe. The creek's delta on Humboldt Bay National Wildlife Refuge is at the bottom of a watershed, with Bureau of Land Management ownership at the top. The delta provides habitat for endangered Chinook, coho, and steelhead salmon, as well as tidewater goby.

A second effort will take place at Horseshoe Lake, an old oxbow of the Missouri River on Boyer Chute National Wildlife Refuge in Nebraska. This collaborative effort with Ducks Unlimited, Cargill Sweeteners NA, and Omaha Public Power District will create a complex of basins that will provide critical hydrological and biological functions. This project will benefit a host of wetland-dependent plants and wildlife, particularly migratory birds.

The National Wildlife Refuge System expects to restore or create approximately 48,000 acres of wetlands in FY 2006 and, given a slight funding increase, create or restore 49,000 acres in FY 2007.

### Conservation Reserve Program

Wetlands restored through this USDA program range from prairie potholes to floodplains to bottomland hardwood forest. Currently, 846,000 acres of wetlands and 1.46 million acres of associated buffers are under contract, with nearly \$35 million in annual rental payments for maintenance of wetland values. Conservation Reserve Program (CRP) wetland successes include partnerships with states through the Conservation Reserve Enhancement Program (CREP), which has enrolled over

88,000 acres of wetlands and associated buffers. In addition, in August 2004 President Bush announced the Non-Floodplain Wetland Restoration Initiative to encourage landowners to enroll 250,000 acres of large wetland prairie pothole complexes and playa lakes located outside the 100-year floodplain. These wetlands provide important environmental benefits, including critical breeding habitat for ducks and grassland birds. Wildlife biologists at the Department of the Interior estimate that CRP efforts have resulted in a 30 percent increase in duck populations and significant increases in grassland bird populations on CRP lands compared to cropland.

CRP anticipates restoring and creating 19,000 acres of wetlands in 2006 and 40,000 acres in 2007.

### Partners for Fish and Wildlife Program

At the forefront of the FWS wetland restoration efforts on private lands is the Partners for Fish and Wildlife Program. Because more than 70 percent of our Nation's fish and wildlife resources are located on private lands, Federal and state agencies and other conservation groups cannot completely provide for them. The Partners program was established in 1987 to fill this gap. It provides technical and financial assistance directly to private landowners and tribes who volunteer to help meet the habitat needs of fish and wildlife on their lands. The program has garnered support over the years, expanding into a much larger and more diversified habitat restoration program. Today, the results-oriented initiative



*2,100 volunteers have committed over 20,500 hours of service to restore wetland and riparian areas essential to Idaho's migrating salmon. (Mountain Visions, Idaho)*

assists thousands of private landowners in every state and territory. The Partners program supports more than 35,000 landowner partnership agreements and has restored or enhanced more than 720,000 acres of privately owned wetlands nationwide.

The Partners program anticipates restoring or creating approximately 28,000 acres of wetlands in FY 2006 and 27,000 acres in 2007.

## Improving Wetlands

**First-Year Accomplishment: 199,000 acres**

**Second-Year Accomplishment: 364,000 acres**

Some degraded wetlands do not function properly because of past or present stressors. Agencies can improve wetlands by modifying the physical, chemical, or biological characteristics of a degraded wetland site with the goal of repairing its natural/historic functions and associated values (referred to as rehabilitation). They also can modify the physical, chemical, or biological site characteristics to heighten, intensify, or improve specific functions or to change the growth stage or composition of vegetation. These actions are taken with a specific goal in mind, such as improving water quality, floodwater retention, or wildlife habitat. This type of improvement, called enhancement, results in a change in wetland functions and associated values, may lead to a decline in other wetland functions and values, and does not result in a gain in wetland acres.

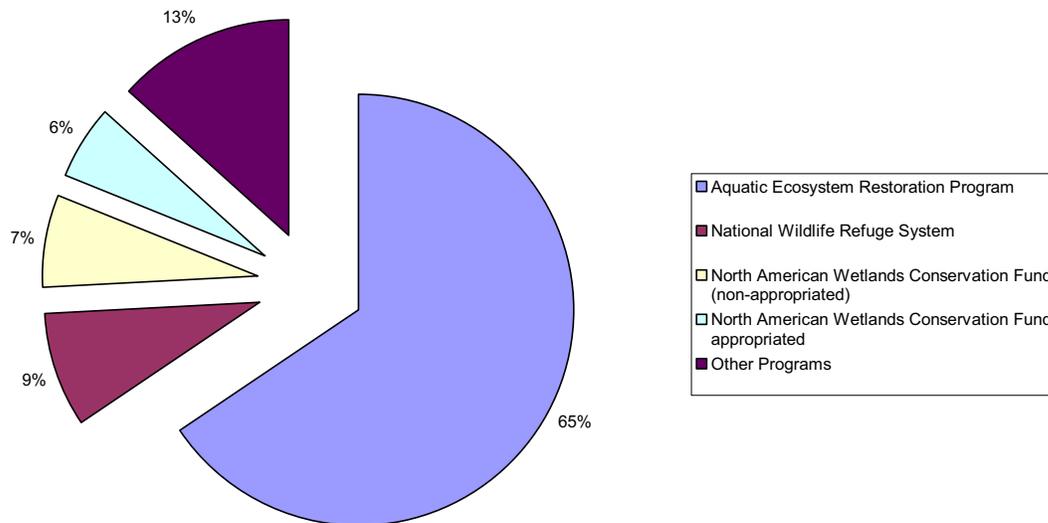
Between Earth Day 2005 and 2006, Federal agencies reported improving the quality of 364,000 acres of existing wetlands. By Earth Day 2007, Federal agencies plan to improve the quality and associated values of an additional 762,000 acres of existing wetlands. Of the second year improvements, 21 percent of the gains in wetland quality will come from rehabilitating the natural/historic functions and associated values of degraded wetlands, and the remaining 79 percent will come from enhancing specific functions and values.

The major programs that are planning FY 2007 wetland improvements include the Aquatic Ecosystem Restoration Program, North American Wetlands Conservation Fund, and National Wildlife Refuge System. Other programs of note are the Conservation Technical Assistance Program and the North American Waterfowl Management—Joint Ventures as exemplified by BLM’s Oregon and California Grant Lands Parker Creek Project (Figure 3).

### Aquatic Ecosystem Restoration Program

The U.S. Army Corps of Engineers (USACE) has numerous study, project-specific, and programmatic authorities for implementing Aquatic Ecosystem Restoration projects. Activities contributing to the President’s goal also occur on the 12 million acres of water and land managed by USACE for other purposes, such as flood damage reduction, navigation, and recreation. For example, dredged material is used to create, restore, or improve wetland habitat as part of routine maintenance dredging of Federal channels. Most USACE restoration projects take several

**Figure 3. Proportion of Wetland Acres Anticipated to be Improved by Major Programs in FY 2007**



years to complete. Projects are included in the budget based on the effectiveness in addressing significant regional or National aquatic ecological problems. The Davis Pond Freshwater Diversion in Louisiana is an Aquatic Ecosystem Restoration project that will improve thousands of acres in FY 2007.

Aquatic Ecosystem Restoration projects are expect to improve approximately 13,000 acres of wetlands in FY 2006 and 813,000 acres in FY 2007.

### North American Wetlands Conservation Act Program (NAWCA)

NAWCA funds improvement projects that modify a functioning wetland ecosystem to provide additional long-term wetland conservation benefits (e.g., installation of nest boxes, creation of habitat islands, and land management activities such as erecting fences and signs). In 2005, Ducks Unlimited, working with the Illinois Department of Natural Resources, enhanced approximately 3,000 acres of palustrine emergent wetlands in Sanganois State Fish and Wildlife Area as part of the Illinois River Basin project. NAWCA grant funds were matched 2.1-to-one on this project, which provided water management capabilities for both public



*Replacement of an undersized culvert to increase tidal flow to a salt marsh in Rockport, Mass. (NOAA)*

and private lands. Partnering with Ducks Unlimited on this project were private landowners, the Daniel F. and Ada L. Rice Foundation, Illinois Department of Conservation, Kankakee River Conservancy District, U.S. Environmental Protection Agency (EPA), and FWS.

NAWCA expects to improve approximately 150,000 acres of wetlands in FY 2006 and 154,000 acres in FY 2007.

## USGS Reports Latest Land–Water Changes for Southeastern Louisiana After Hurricanes Katrina and Rita

The USGS National Wetlands Research Center reports that 118 square miles of marshland has been transformed to new water areas in a 9,742 square mile area from the Chandeleur Islands to the Atchafalaya River. This area encompasses the basins of Breton Sound, Mississippi River, Pearl River, Pontchartrain, Barataria, and Terrebonne, as well as the western quarter of the Atchafalaya basin.

These landscape changes created new water bodies and expanded water bodies throughout southeast Louisiana, with major impacts concentrated east of the Mississippi River basin. Many of the new water areas consist of shallow ponds, where the marsh surface has been sheared or ripped to the root mat or to the underlying firm substrate of clay by storm surge. USGS will continue to monitor how these

changes may affect future hydrodynamic and flooding conditions.

Over 90 percent of the new open-water area in the Breton Sound basin occurred within the freshwater and brackish marsh communities. USGS scientists and partners are continuing to monitor and project future transformation of coastal landscapes, and will expand their efforts to include southwestern Louisiana, which was affected by Hurricane Rita.

The latest hurricane land change maps for southeastern Louisiana and the information sheet from which this text is condensed are available at [http://www.lacoast.gov/latest\\_hurricane\\_land\\_change/index.htm](http://www.lacoast.gov/latest_hurricane_land_change/index.htm)

## National Wildlife Refuge System (NWRS)

National wildlife refuges focus on management purposes and wildlife goals that depend on healthy wetland habitats. Many refuge habitats are managed areas requiring a great deal of manipulation; for example, forested wetlands, moist soil units, and managed impoundments require seasonal flooding regimes to mimic the original natural conditions. In FY 2005, NWRS improved 15,024 acres of forested wetlands and similar habitats throughout the refuge system, and performed enhancement and rehabilitation activities on 94,424 acres.

In FY 2006, NWRS expects to improve approximately 107,000 acres of wetland and an additional 107,000 acres in FY 2007.

## Conservation Technical Assistance Program (CTA)

CTA helps private landowners make wetland determinations, develop wetland mitigation and restoration plans, establish or re-establish wetlands for scenic beauty, and increase and improve wildlife habitat. In FY 2005, CTA provided technical support to help agricultural landowners plan and apply conservation practices to protect and enhance their lands. These conservation plans benefit everyone's quality of life by reducing soil erosion and sedimentation, improving air and water quality, improving grazing management, restoring or protecting wetlands, improving animal waste management, reducing nutrient and pesticide loading, and enhancing wildlife habitat.

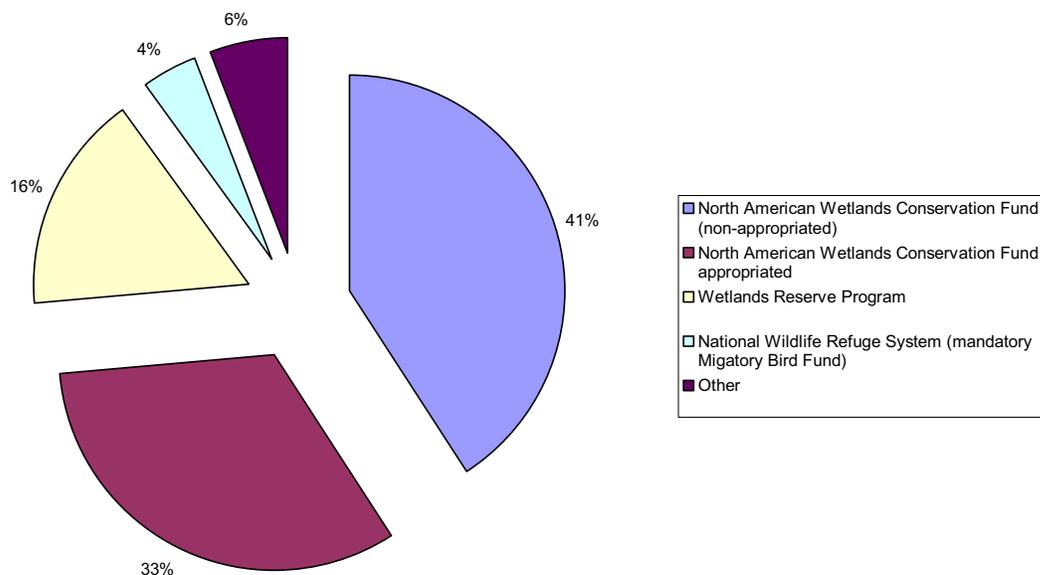
CTA plans to help restore, create, or improve 49,000 acres of wetlands in FY 2006 and FY 2007.

## Oregon and California Grant Lands

The Packer Creek Project is a joint venture, under the North American Water Management Plan, undertaken by the Spokane, Washington, District of the Bureau of Land Management (BLM). The project was developed cooperatively by BLM, FWS, Ducks Unlimited, and the Washington Department of Fish and Wildlife. The goals for Packer Creek include restoring hydrologic function (*i.e.*, ditch backfilling and grade control) to a reach of the creek that was channelized in the 1950s for agricultural purposes, and restoring the hydrology of a wetland complex developed in the 1970s by the NRCS and the landowner. The actual restoration work was completed in two phases between 2003 and 2005. Changes in community composition will continue more gradually over seven growing seasons, as new wildlife species colonize and the hydrology and soil function continue to develop.

This project was developed in support of BLM's Riparian-Wetland Initiative for the 1990s, to achieve the goals of restoring and maintaining riparian-wetland areas in proper functioning condition and ultimately, when consistent with resource management objectives, achieving an advanced ecological status. The Packer Creek Project is consistent with the Spokane District Resource Management Plan, Standards for Rangeland Health, and Guidelines for Grazing Management,

Figure 4. Proportion of Wetland Acres Anticipated to be Protected by Programs in FY 2007



which include restoration and promotion of properly functioning condition as objectives.

Oregon and California Grant Lands expects to improve approximately 29,000 acres of wetlands in FY 2006 and 16,000 acres in FY 2007.

## Protecting Wetlands

**First-Year Accomplishment: 294,000 acres**

**Second-Year Accomplishment 352,000 acres**

Priority wetlands can be protected from activities that may imperil their existence or condition. In this report, protection refers to acquisition of land or easements of at least 30 years. Because protection maintains the base of existing wetlands, it does not result in a gain of wetland acres or function.

During the first year of the President's Wetlands Initiative, Federal actions protected 294,000 acres of existing wetlands. In the second year, Federal agencies protected an additional 352,000 acres. The major programs planning FY 2007 wetland protection in FY 2007 are the North American Wetlands Conservation Fund, Wetlands Reserve Program, and National Wildlife Refuge System (Figure 4).

## North American Wetlands Conservation Act (NAWCA)

NAWCA projects often involve partnerships of state and local governments and nongovernmental and private organizations seeking to acquire wetland habitat. These acquisitions may be incorporated into the FWS National Wildlife Refuge System or into a state's protected area system, or they may be included in holdings protected by a nonprofit conservation organization (e.g., The Nature Conservancy).

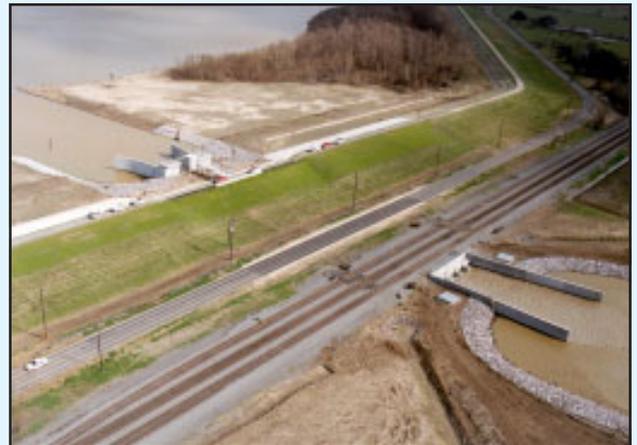
### Mississippi Delta Region, Louisiana

The marshes surrounding New Orleans are deteriorating. Several factors are to blame, including subsidence, erosion, and saltwater intrusion. Introduction of freshwater, nutrients, and sediments from the Mississippi River via the Davis Pond diversion structure will reduce this degenerating trend in the Barataria Basin. This project—funded by the U.S. Army Corps of Engineers and the State of Louisiana—will improve existing commercial and recreational fisheries by enhancing existing marsh conditions, thereby improving the project area's fish and wildlife habitat and resources. Construction will be completed in FY 2007.

Estimated annual monetary benefits for Davis Pond total \$15,295,000 (commercial fish and wildlife, \$14,997,000; recreation, \$298,000).

### Expected Project Outputs

The Davis Pond diversion structure will divert freshwater, with its accompanying nutrients and sediments, from the Mississippi River into the Barataria Basin. The diversion will reduce saltwater intrusion and establish favorable salinity conditions in the area and thus combat land loss. It will also increase commercial and recreational fish and wildlife productivity, and enhance vegetated growth for a healthier estuarine ecosystem in the project area. The shallow



*Davis Pond diversion structure with Mississippi River in upper left corner. Water flows from the river to the conveyance channel at the lower right.*

embayments support oyster and crab production and shrimp and food fish reproduction, and the marsh areas produce food for fur-bearing animals and migratory waterfowl. Approximately 33,000 acres of wetlands will be rehabilitated and 777,000 acres of marshes and bays will be enhanced during the 50-year life of the project. Freshwater diversions will occur under regulated conditions developed by monitoring basin salinities and the fish and wildlife resources.

Total project cost for Davis Pond is \$123,000,000 (Federal, \$92,300,000; non-Federal \$30,700,000).

For example, in 2005 the Conservation Fund transferred its 13,069-acre Canoe Bay property in Alaska to the FWS. The Fund had acquired this property using a NAWCA grant and matching funds provided by the Richard and Rhoda Goldman Fund and the Richard King Mellon Foundation. Canoe Bay will be included in the Izembek National Wildlife Refuge Complex, which is internationally recognized for its importance to migratory birds.

NAWCA expects to protect approximately 297,000 acres of wetlands in FY 2006 and 579,000 acres in FY 2007.

### Wetlands Reserve Program (WRP)

WRP is a voluntary program providing technical and financial assistance to eligible landowners to address wetland, wildlife habitat, soil, water, and related natural resource concerns on private lands. The program provides financial incentives for landowners to restore, protect, and enhance wetlands in exchange for retiring marginal land from agriculture. Enrollment options include permanent easements, 30-year easements, and restoration cost-share agreements.

The WRP was reauthorized in the Farm Security and Rural Investment Act of 2002 (Farm Bill). The program is adminis-

tered by NRCS and funded by the Commodity Credit Corporation. In FY 2005, NRCS state offices secured 751 easements on approximately 134,200 acres. Indiana recorded the most easements (84), followed by New York (81) and Minnesota (76). Minnesota protected the most acreage (15,975 acres), followed by Mississippi (13,815), California (9,236), and Arkansas (9,137) acres.

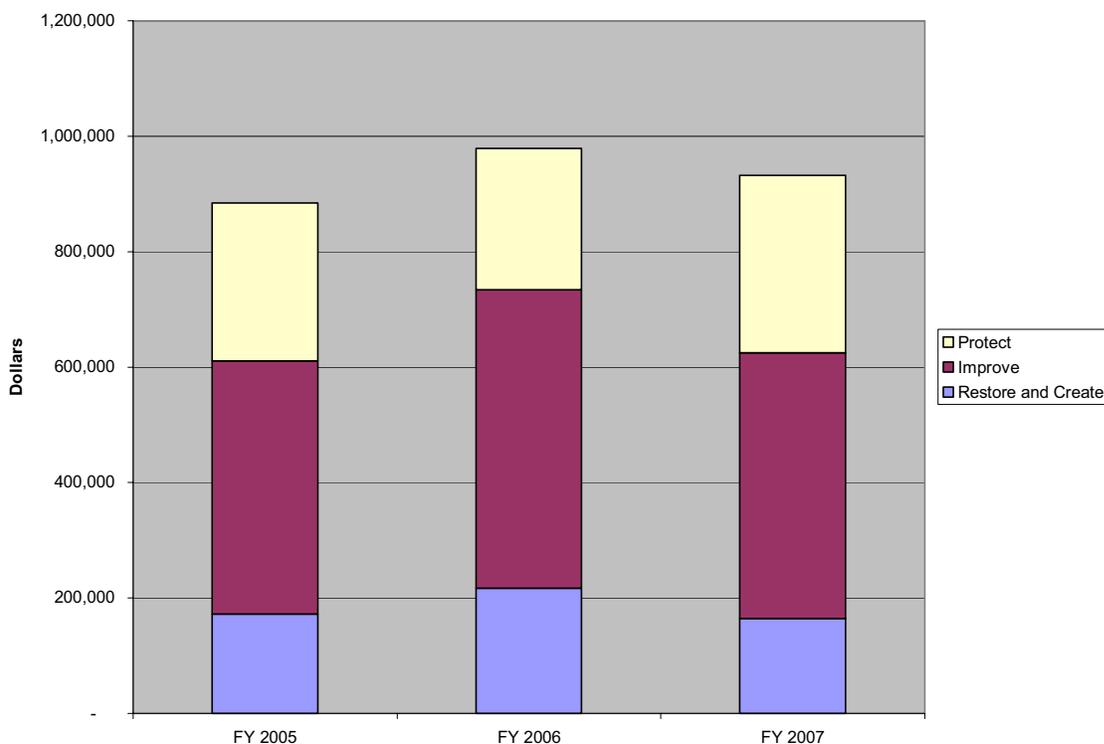
In 2005 WRP protected approximately 116,000 acres of wetlands, and expects to protect 128,000 acres in 2007.

### National Wildlife Refuge System

The Migratory Bird Conservation Fund finances land acquisition programs that protect large tracts of wetlands. Financed by the sale of Duck Stamps, import duties, and refuge fees, the fund purchases major areas for migratory birds under the authority of the Migratory Bird Conservation Act. The fund also acquires small natural wetlands, located mainly in the Prairie Pothole region of the Upper Midwest.

Migratory Bird Conservation Funds will be used to protect approximately 33,000 acres of wetlands in FY 2006 and 33,000 acres in FY 2007.

Figure 5. Budget for Wetlands Goal in FY 2005, 2006, and 2007 (thousands of dollars)



## Perspective

This report documents the individual and collective accomplishments of Federal agencies toward the President's wetlands goal. Agencies used available programmatic tools, with particular emphasis on public-private partnerships. The President's FY 2007 budget provides for continuation of these efforts to make important gains in the breadth and health of the Nation's wetlands.

Federal agencies will continue to leverage personnel, budgets, and authorities to ensure the best possible results. When the jurisdiction or expertise of more than one Federal agency is involved, interagency coordination at the National and regional levels can help implement cooperative wetland restoration projects. Because the vast majority of wetlands are in non-Federal ownership, the Federal agencies will continue to foster and support collaborative strategies and innovative public-private partnerships.

For example, the Corporate Wetlands Restoration Partnership provides matching funds for Federal wetland efforts. Another example of successful private-public partnerships are the Fish and Wildlife Service Joint Ventures (JVs) formed to implement the North American Waterfowl Manage-

ment Plan (NAWMP). These self-directed partnerships—involving Federal, state, and local governments; corporations; and a wide range of nongovernmental conservation organizations—have proven to be successful tools for developing cooperative conservation efforts to protect waterfowl and other bird habitat. The 17 current JVs address multiple local, regional, and continental goals for sustaining migratory bird populations by developing scientifically based habitat projects.

To accomplish the President's Earth Day goal, the FY 2007 budget requests over \$932 million specifically for wetlands (Figure 5). This budget proposal reflects a continued commitment to the goal of achieving an overall increase in the quality and quantity of wetlands in America, and represents a prudent and necessary course to ensure the Nation's wetlands will continue to meet the needs of current and future generations.

The FY 2007 budget continues to focus on cooperative conservation partnerships and large-scale ecosystem restoration efforts. The budget emphasizes voluntary programs through which agencies work closely with individual landowners, such as the FWS Partners for Fish and Wildlife and the USDA Wetlands Reserve and Conservation Reserve programs.



*Geese at the Virginia portion of the Chincoteague National Wildlife Refuge*

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Cooperative conservation efforts with states, tribes, localities, and nongovernmental organizations also are a priority, including the North American Wetlands Conservation Act. The budget calls for large-scale ecosystem restorations in areas such as South Florida and Louisiana, where a holistic approach is critical to restoring ecosystems. More detailed information on how the requested funds will be used appears in the appendices to this report and in congressional justifications submitted by the participating agencies.

Increased Federal attention to wetland efforts highlights the importance of wetlands and heightens public awareness. Because active citizen involvement is a central component of efforts to restore, improve, and protect wetlands, this Administration remains committed to fostering volunteer efforts that advance and promote individual stewardship. An informed public working in partnership with Federal, state, tribal, and local agencies will ensure wetlands are conserved for future generations.

These collaborative conservation and stewardship efforts depend on accurate, timely, and reliable data. Although the National Wetlands Inventory and National Resources Inventory provide a base of information for this purpose, an integrated National, regional, and local information system would allow for a real-time base of information. In the future, when state and Federal agencies are able to share geographic information systems (GIS) for wetlands, policy officials and managers at all levels will have the real-time information they need to make decisions in support of the President's wetlands conservation goal.

The lessons learned during development of these first two reports will be invaluable for future efforts. Clearly, Federal agencies have improved how they track progress toward the President's wetlands goal. Knowledge gained through this year's effort will be applied to future efforts.



*Wetland habitat in Lower Drift Creek, Oregon. (NOAA)*

# Appendix A.

## Methodology and Definitions

### Data Call to the Agencies

The data call for wetland performance and budget data went to the Departments of Agriculture, Army, Commerce, the Interior, and Transportation and to the Environmental Protection Agency. A Working Group developed interagency guidance based on lessons learned last year. The guidance increased the consistency and accuracy of the estimates developed, and projected estimates in the first report were adjusted using actual results as they became available.

### Reporting Period

Performance and funding data for programs covered the following time periods:

- FY 2005 enacted budget and performance results
- FY 2006 enacted budget and estimated performance results
- FY 2007 President's requested budget and estimated performance results based on the President's requested funding levels.

To assess progress for the second year since the President's April 2004 announcement, half of the reported achievements for FY 2005 were combined with half of the planned accomplishments for FY 2006.

### Year Performance and Budget Data Reported

Performance data is reported in the year the project is completed, land acquired, or easement purchased. However, funding is reported in the year it is appropriated. For example, funding for a multiyear wetland improvement project would be reported in FY 2006 and FY 2007 when funding is appropriated, but the number of acres improved would appear on the performance data worksheet in FY 2008 and FY 2009 as the accomplishments are realized.

### Scope of Funding Included in the Report

Wetland activities funded by both discretionary and mandatory funds are included. Discretionary funds are con-

trolled by appropriation acts, and mandatory funds are controlled by laws other than appropriations acts (e.g., Coastal Wetlands Planning, Protection, and Restoration Act funds and funds collected from the sale of Duck Stamps). All appropriated funds are considered to be discretionary funds.

### Wetlands only

Programs that perform both wetland activities and non-wetland activities reported funding and performance related only to the wetland component, not their entire program. For example, when land is purchased for waterfowl management it includes both wetlands and associated upland nesting cover. These upland acres were deducted from the acres reported as contributing towards the President's wetland goal, and the cost of these acres was deducted from the funds expended for the project. The number of acres of wetlands contributed by a program towards the President's wetland goal will be smaller than the number of habitat acres reported in other budget documents because the habitat acres typically include upland buffer strips, associated upland cover, and nesting islands.

### Eradication and abatement activities in wetlands

The first year an invasive plant or animal is eradicated or its population abated, the acreage will be reported as a gain in quality under rehabilitation. Additional eradication or abatement work on the same area is considered to be maintenance and not counted in the rehabilitation category.



*Waterfowl on the Arctic National Wildlife Refuge, Fairbanks, Alaska (FWS)*

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## Winter flooding of agricultural lands

Whether this acreage is counted depends on whether (1) the land is wetland or upland before the flooding and (2) whether the land is being newly flooded or the land is within a footprint that has been flooded in past winters. If the field is upland before being artificially flooded during the winter and upland after the water is removed in the spring, the acres are not counted. If the field is a farmed wetland before the flooding and this is the first year the field has been flooded, the acres are counted. Subsequent years of winter flooding are considered management and are not counted. The acreage will be reported as an improvement in quality through enhancement, because adding winter water results in the heightening, intensification, or improvement of one or more selected functions and associated values. Enhancement is undertaken for a purpose such as water quality improvement, floodwater retention, or wildlife habitat. Farmed wetlands are defined as areas where the soil surface has been mechanically or physically altered for production of crops, but hydrophytes will become established if farming is discontinued.

## Definitions of Goal Areas

In 2000, the White House Wetlands Working Group (WHWWG)—composed of representatives from all major Federal agencies involved in wetland work—agreed to use wetland terminology and definitions that had been developed during the mid-1990s. Information was provided by the participating agencies using terminology similar to that previously developed by the White House Wetlands Working Group and the same terminology used in the first report in 2005.

### To “restore or create” wetlands results in a gain of wetland acres and includes:

- Creation of wetlands that did not previously exist on an upland or deepwater site. These actions are referred to as “establishment” by the WHWWG.
- Restoration of a former wetland to its natural/historic function and resulting value. Typically, such a former wetland had been drained for some purpose. These actions are known as “re-establishment” by the WHWWG.

### To “improve” wetlands results in a gain of wetland functions or quality, rather than additional acreage, and includes:

- Repair of the natural/historic functions and associated values of a degraded wetland. The WHWWG refers to



*Mangrove restoration at Pelican Island National Wildlife Refuge, Vero Beach, Florida (FWS)*

these actions as “rehabilitation” of wetlands. Rehabilitation results in a gain in wetland quality.

- Heightening, intensification, or improvement of one or more selected functions and associated values. The WHWWG called these types of actions “enhancement.” Enhancement is undertaken for a purpose such as water quality improvement, flood water retention, or wildlife habitat. Enhancement results in the gain of selected wetland functions and associated values but may also lead to a decline in other wetland functions and values.

### To “protect” wetlands includes:

- Acquisition of land or easements of at least 30 years duration.

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## Activities Excluded from Acreage Counted Toward the President's Goal

### Only United States accomplishments

Due to the migratory nature of birds, some programs work to restore, improve, and protect wetlands in Canada, Mexico, and the Caribbean. InterNational portions of programs were not included in the data reported.

### Cyclical work

Work carried out to sustain wetlands, *e.g.*, habitat maintenance on a National Wildlife Refuge to maximize wetland habitat values are not counted toward the President's goal. Cyclic water-level management and other cyclic wetland activities are used to mimic naturally occurring flood regimes for the benefit of wildlife. In FY 2006, those management activity accomplishments are expected to be 27,780 acres of forested wetlands and similar habitats, as well as 148,297 moist soil acres managed; with water-level manipulation being achieved on 841,820 acres of water impoundments. Only new activities on a footprint of wetlands not previously manipulated for increased value were counted in the "improved" category as rehabilitation or an enhancement.



*Sportsmen are required to purchase a Duck Stamp to hunt waterfowl. The funds from sales to hunters and environmentalist are used to purchase Waterfowl Production Areas. Although WPAs and National Wildlife Refuges account for less than two percent of the landscape in the Prairie Pothole Region states, they are responsible for producing nearly 23 percent of the area's waterfowl. The Maynard Reece Waterfowl Production Area was named after the record five time winner of the Federal Duck Stamp Contest. Artist submits hand drawn pictures of birds amid their natural habitat. The winning picture is used for the Duck Stamp.*

### Uplands work

Many programs carry out activities in upland areas that are crucial to the health and sustainability of wetlands. These upland acres were not counted toward the President's wetland goal.

### Maintenance activities

Periodic additional work involves the manipulation of the physical, chemical, or biological characteristics critical to maintaining the existing quality. Cessation of maintenance activities triggers loss in wetland quality. Maintenance includes activities to mimic a natural regime and repair of water control structures, fences, or structural protection. Maintenance activities do not result in an increase in wetland acreage or quality.

### Management activities

Effective wetland management is critical to maintaining wildlife and plant populations. An example of a management activity is the control of water levels in a restored wetland. Annual winter flooding of agricultural lands is also considered a management activity and not counted toward the President's wetland goal.

### Mitigation

Wetlands created or improved as mitigation for the loss or degradation of other wetland values are not counted. The rehabilitation of wetlands at former hazardous waste sites are considered to be compensatory mitigation.

### Wetland Activities that Maintain the Nation's Wetland Base

Many important wetland activities are not counted toward meeting the President's goal because they are focused on maintaining or managing the Nation's wetland base and do not add acres, increase wetland quality, or fall within the definition of "protect." Many agencies spend more funds maintaining and managing the existing wetland base than on making additions to the base. The base is critically important, because wetland gains can only be built on a stable foundation.



*Canada geese at the Turnbull National Wildlife Refuge, Cheney, Wash. (FWS)*

Maintenance and management activities are essential to maintain healthy wetlands and existing wildlife and plant populations. Also, programs that mitigate for wetland losses are not counted as contributing to the new wetland goal because they maintain the Nation's wetland base. Examples of these types of programs are Federal Highway Administration programs that mitigate the impacts of highways on wetlands, Clean Water Act provisions that require the mitigation of permitted wetland losses, and the Natural Resources Damage Assessment and Restoration Program, which restores and improves wetlands at former hazardous waste sites. Agencies were asked to report separately on programs that support the President's goals through wetland conservation, research, and assessment. The programs that help maintain the wetland base included in the following appendices are not exhaustive, but do represent the major activities that support the President's wetlands goal. See Appendix B for further discussion.

### **Correcting for Over-Reporting of Acreage**

More and more programs are participating in cooperative conservation partnerships. They have proven to be

effective and efficient mechanisms to leverage resources and expertise. Many programs work cooperatively with both internal and external Federal partners as well as non-Federal partners. One partner may provide materials and equipment, another labor, another technical assistance, and yet another land. For example, a 100-acre project with four partners could be reported by each of the partners, and could appear to be 400 acres when combined. In some cases, one partner may not be aware that a landowner is working with multiple partners. These partnerships result in over-reporting of performance. To correct for this "double-counting," Partnership Worksheets were provided. Programs were asked to identify partnership groups separately on the worksheets.

Acres accomplished with Federal partner A were to be reported separately from acres accomplished with Federal partners A and B; separately from partners A, B, and C; and separately from partners A, B, and D. Accomplishments with non-Federal partners were to be aggregated. Approximately half of the reported acreage was accounted for on the Partnership Worksheets. Some agencies do not collect partnership data, and of those that do, most collect this data to the level of detail necessary to make refined adjustments for double-counting.



*FWS and BLM Wetland Restoration Project, Wood River, Ore. (FWS)*

Although more of the performance data was accounted for this year on the Partnership Worksheets, the quantity and quality was not sufficient to make adjustments to individual program accomplishments. Therefore, an overarching correction was necessary to avoid over-reporting the acres created or restored, improved, and protected. To calculate this double-counting adjustment, all the acreage reported as accomplished through partnerships, including non-Federal partnerships, were summed by category. The calculation assumed two Federal partners were involved in situations where double-counting took place. Half of the acreage total accomplished through partnerships by category was subtracted from the raw total, by category. Because reliable partnership data only exist for actual results, the FY 2005 acreage correction was used as a model, and FY 2006 and FY 2007 anticipated performance was reduced to account for potential over-reporting in those fiscal years. Accordingly, adjusted acreage totals will always be smaller than the sum of the raw data.

### **Moving Toward a Performance Measurement and Tracking System**

This document reflects the lessons learned in developing the 2005 report. The estimates reported last year were adjusted as actual results became available. Over-reporting due to partnerships remains a significant concern. The agencies will work on the double-counting problem during the next year, particularly to determine whether the problem can be solved by refining existing numeric databases or instead will require the use of geographic information system (GIS) technology.

The use of GIS technology to track wetland programs and their contribution toward the National goal would simplify the problem of adjusting for double-counting. Agencies would need



*Commercial fishing on Humboldt Bay, California. (FWS)*

to provide access to their geospatially referenced project area boundaries or reference point locations through an internet connection. This approach would have the additional advantage of allowing the information to be overlaid on a digital map of the United States. As project data are input and displayed on a National map, a picture will emerge of how restoration projects are meeting priority needs. This would allow policy makers to direct future activities to the areas of highest concern. The maps would facilitate the development of monitoring programs to ensure wetlands are restored, improved, and protected and that they provide the intended functions and values.

Tracking systems require agreement on common performance measures and definitions. They assess whether the restoration and enhancement projects quantitatively and qualitatively meet National goals. The President noted this need in his 2004 Earth Day announcement by committing the Federal government to “gain further experience and develop useful protocols for measuring wetland outcomes.” The Federal agencies have made good progress in developing a procedure to track wetland accomplishments.



# Appendix B.

## Maintaining the Wetland Base

Federal agencies engage in various actions that help maintain the existing base of wetlands. The President's goal helps sharpen focus on these activities. A policy of having an "overall increase" of wetlands must be built on a strong foundation of "no net loss." Key programs that contribute to that base, but outside the President's initiative, fall into the following categories:

- Managing wetlands;
- Cooperative conservation;
- Regulation and mitigation; and
- Support activities.

## Managing Wetlands

Approximately 13 percent of the Nation's current base of wetlands is managed by Federal agencies. Many units of the National Wildlife Refuge System were established for their wetland values, and FWS spends approximately \$25 million annually to actively manage over 1.1 million acres of wetlands. Wetland management activities include creating desired conditions through the use of canals, levees, water control structures, and pumps. Cyclical water level and management activities—including mechanical disturbance, prescribed burning, or chemical treatment—also are used to produce native wildlife foods in wetlands. Other Federal agencies managing wetlands include the National Park Service, USDA Forest Service, Bureau of Land Management, National Oceanic and Atmospheric Administration (NOAA), Bureau of Reclamation, Bureau of Indian Affairs, and Department of Defense. All of these wetlands are being conserved for sustainable benefits.

## Cooperative Conservation

Seventy-four percent of the land in the United States is privately owned. To better conserve privately owned wetlands, the Federal government relies on voluntary, incentive-based conservation programs. For example, technical and financial assistance provided by the NRCS and the FWS help private landowners apply needed conservation techniques on their land. When private

landowners use these programs to restore, protect, and improve wetlands on their property, they serve as stewards of our environment. Other cooperative conservation efforts include:

## Public–private partnerships

The success of Federal actions to encourage and partner with non-Federal parties—state and local governments, Indian tribes, and nongovernmental entities—increases opportunities to make progress through cooperative endeavors. Recent trends are encouraging. For example, through the Corporate Wetlands Restoration Partnership, some 200 private firms and 100 nongovernmental organizations are working with Federal agencies to implement wetland projects (see <http://www.coastalamerica.gov/text/curp.html>). The number of partnerships is projected to increase in the future. The coordinated use of public–private efforts focusing on priority wetlands opportunities should yield major ecological benefits. Another example of successful public–private partnerships are the FWS Joint Ventures. Joint Ventures partnerships (JVs) were formed to implement the North American Waterfowl Management Plan (NAWMP). They are self-directed partnerships involving Federal, state, and local governments; corporations; and a wide range of nongovernmental conservation organizations. JVs have proven to be successful tools for developing cooperative conservation efforts to protect waterfowl and other bird habitat. The 17 current JVs address multiple local, regional, and continental goals for sustaining migratory bird



*Cypress wetland, Cypress Creek National Wildlife Refuge, Ullin, Ill. (FWS)*

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populations by developing scientifically based habitat projects that benefit waterfowl and other migratory bird populations.

### Technical assistance

Most Federal agencies involved with wetland activities provide Federal, state, and local partners with technical (biological, engineering, hydrological, etc.) expertise to support various development, conservation, and restoration projects across the country. These programs offer technical assistance to help conserve, restore, and protect a variety of fish and wildlife and their habitats. Among the laws providing a foundation for technical assistance and conservation partnerships are the Fish and Wildlife Coordination Act, National Environmental Policy Act, Clean Water Act, Federal Power Act, Estuary Restoration Act, and Environmental Restoration Act.

## Regulation and Mitigation

### Water quality

An important aspect of the President's Wetlands Initiative is its continued emphasis on the goal of "no net loss" of wetlands by existing programs that regulate certain activities in wetlands and other waters. Section 404 of the Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands, and is jointly administered by the USACE and EPA. The USACE has primary responsi-

bility for day-to-day permitting of activities in jurisdictional "waters of the United States," a broad category of aquatic resources that includes wetlands. A comprehensive permit review requires applicants to first avoid and then minimize impacts, and finally replace wetland functions lost through compensatory mitigation. Regulated activities under this program include fills for development, water resource projects (such as dams and levees), and infrastructure development (such as highways and airports). During the past two years, more than 170,000 permit applications were processed requiring applicants to avoid impacts to more than 18,000 acres of wetlands, and maintaining a ratio of more than two acres of mitigation for every acre of permitted impacts to wetlands. In addition, the USACE has developed new performance standards that increase the emphasis on field evaluations of mitigation sites. The USACE also is providing field guidance to improve mitigation success through interagency efforts associated with the National Wetlands Mitigation Action Plan, and promulgating a joint rule with EPA that proposes integrating the watershed approach in mitigation planning.

### Farmland

The Wetland Conservation ("Swampbuster") provision established in the 1985 Farm Bill, and amended in the 1990 Farm Bill, requires all agricultural producers to protect the wetlands on the farms they own or operate if they wish to be eligible for certain USDA Farm program benefits. Producers are not eligible if they have planted an agricultural commodity on a wetland that was converted by drainage, leveling, or any other means after December 23, 1985, or if they have converted a wetland for the purpose of agricultural commodity production, or for making such production possible, after November 28, 1990. Through the Conservation Technical Assistance (CTA) of NRCS, the agency makes wetland determinations, develops wetland mitigation and restoration plans, and administers other Swampbuster-related provisions.

### Transportation

Under Federal Aid Highway legislation, state transportation agencies may use National Highway System and Surface



*The John Heinz NWR at Tinicum is located in Philadelphia and Delaware Counties, Pennsylvania about 1 mile from Philadelphia International Airport. The refuge was established by an act of Congress in 1972 to protect the largest remaining freshwater tidal marsh in Pennsylvania;*

Transportation Program funds to finance wetland and natural habitat conservation planning and implementation, as well as compensatory mitigation and restoration projects that offset unavoidable losses from transportation projects. The Department of Transportation (DOT) has a goal of 1½-to-one wetland acre mitigation; under the Federal Aid Highway Program it has achieved over 42,000 acres of wetland mitigation since 1996, with mitigation exceeding acres impacted by over 26,000 acres. The 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users requires that metropolitan and statewide plans reflect environmental mitigation and coordination with resource agencies. The Federal Highway Administration also funds research on wetlands mitigation in connection with highways, and wetland mitigation is an eligible project cost for Federal transit and airport assistance.



*Choctaw National Wildlife Refuge, Jackson, Ala.*

### **Support Activities Inventory**

The FWS strategically maps the nation's wetlands and deepwater habitats to gather information on their characteristics, extent, and status and trends through the National Wetlands Inventory (NWI). As part of the President's Wetlands Initiative, the FWS completed an updated national wetlands status and trends report in 2005. There are about 107.7 million acres of wetlands in the conterminous United States. Between 1998 and 2004, there was an estimated gain in wetlands acreage of 191,750 acres, or about 32,000 acres per year. The net gain in wetlands acreage was attributed to an increase in freshwater ponds, conversion of agricultural lands or former agricultural lands that had been idled, in combination with wetland restorations. Freshwater wetland losses to silviculture and to urban and rural development offset some acreage gains. The report did not document or address changes in wetlands quality. There is additional work to be done to ensure that the nation's wetlands base is sustained and provides the necessary functions, diversity, and structure to improve the quality of our wetland resources as outlined in the President's 2004 message.

The NRCS conducts the National Resources Inventory (NRI), also a scientifically based statistical survey of the Nation's natural resources that provides updated information

on the status, condition, and trends of land, soil, water, and related resources on the Nation's non-Federal land. The NRI is unique in that it is a Nationally consistent database constructed specifically to estimate five-, ten-, and 15-year trends for natural resources. The NRI process has reported a gain of 263,000 acres of wetlands from 1997 to 2003, an average annual increase of 44,000 acres.

### **Monitoring and Evaluation**

When actions are taken to restore or enhance natural resources or ecosystems, a considerable amount of time may pass before the full effects are evident. For this reason, the responsible Federal agencies monitor the targeted wetlands to measure and track progress. Results from monitoring are useful for evaluating the effectiveness of the actions taken; in some cases, management goals or actions to meet them may be modified. In addition, the Federal government provides both financial and technical assistance to states and tribes to help them monitor their wetland conservation work.

### **Research and Education**

Federal agencies also are engaged in research to better understand wetlands, wetland plants, and their responses to targeted actions. Among the most prominent programs are the National Wetlands Research Center (U.S. Geological Survey), Engineer Research and Development Center (USACE), Plant Materials Centers (NRCS), and the Center for Forested Wetlands Research (U.S. Forest Service).



# Appendix C.

# United States Department of Agriculture

**Table C-1. USDA Programs Supporting the President's Wetlands Goal in FY 2007. Funding (millions of dollars)**

<b>Agency</b>	<b>Program</b>	<b>Restore or create</b>	<b>Improve</b>	<b>Protect</b>	<b>Total wetlands funding for goal FY 2007</b>	<b>Difference from FY2006</b>
<b>FSA</b>	Conservation Reserve Program	13.00	2.60	0	15.60	2.40
<b>NRCS</b>	Conservation Technical Assistance Program	2.20	37.10	0	39.30	0.00
<b>NRCS</b>	Environmental Quality Incentives Program	0.01	0.11	0	0.12	0.00
<b>NRCS</b>	Farm and Ranchlands Protection Program	0.00	0.00	7	7.00	0.00
<b>NRCS</b>	Grasslands Reserve Program	0.00	0.00	0	0.10	0.00
<b>NRCS</b>	Wetlands Reserve Program	105.00	9.00	206	320.00	111.50
<b>NRCS</b>	Wildlife Habitat Incentives Program	0.40	1.00	0	1.40	0.00
<b>Totals</b>		<b>120.61</b>	<b>49.81</b>	<b>213.10</b>	<b>383.52</b>	<b>113.90</b>

**Table C-2. USDA Programs Supporting the President's Wetlands Goal in FY 2007. Planned Accomplishments (in acres).**

Agency	Program	Restore or create	Improve	Protect	Total wetlands FY 2007	Difference from FY 2006
FSA	Conservation Reserve Program	40,000	10,000	0	50,000	23,000
NRCS	Conservation Technical Assistance Program	2,200	49,100	0	51,300	0
NRCS	Environmental Quality Incentives Program	1,000	0	0	1,000	0
NRCS	Farm and Ranchlands Protection Program	0	0	7,000	7,000	0
NRCS	Grasslands Reserve Program	0	0	1,500	1,500	0
NRCS	Wetlands Reserve Program	173,400	14,000	128,000	315,400	28,400
NRCS	Wildlife Habitat Incentives Program	3,000	685	0	3,685	0
<b>Total</b>		<b>219,600</b>	<b>73,785</b>	<b>136,500</b>	<b>429,885</b>	<b>51,400</b>

## USDA Programs Supporting the President's Wetlands Goal

### Farm Service Agency (FSA)

**Conservation Reserve Program (CRP):** Originally authorized in 1985 and re-authorized through 2007. Establishes a permanent cover on eligible acreage of environmental sensitive lands (including cropped and prior converted wetlands) through long-term rental agreements. Currently, 2.3 million wetland acres, including upland buffers, have been restored and are being maintained under 10 and 15-year contracts with annual rental payments of \$126 million. The 2002 Farm Bill authorized that, at any one time, up to 39.2 million acres may be enrolled in CRP during 2002 through

2007, an increase from 36.4 million acres authorized to be enrolled through 2002.

<http://www.fsa.usda.gov/dafp/cepd/crp.htm>

### Natural Resources Conservation Service (NRCS)

**Conservation Technical Assistance Program:** Technical assistance program that has helped landowners protect and conserve 477,000 acres to protect water quality and improve habitat, including the restoration and enhancement of wetlands.  
<http://www.nrcs.usda.gov/programs/cta>

**Environmental Quality Incentives Program (EQIP):** Voluntary conservation program that promotes agricultural production and environmental quality as compatible National goals. Through EQIP, farmers and ranchers may receive

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financial and technical help to install and maintain conservation practices that enhance soil, water, and related natural resources, including wetlands. The program has restored 29,369 acres of wetlands and an additional 146,769 acres have been enhanced or improved since the program was established in 1996. The 2002 Farm Bill authorized \$400 million for FY 2002, \$700 million for FY 2003, \$1 billion for FY 2004, \$1.2 billion in both FY 2005 and FY 2006, and \$1.3 billion in FY 2007.

*<http://www.nrcs.usda.gov/programs/eqip>*

**The Farm and Ranchlands Protection Program:**

Provides matching funds to help purchase development rights to keep productive farm and rangeland in agricultural uses for the purpose of protecting topsoil by limiting conversion to nonagricultural uses of land.

*<http://www.nrcs.usda.gov/programs/frpp>*

**Grassland Reserve Program:** A voluntary program offering landowners the opportunity to protect, restore, and enhance grasslands on their property. The program will conserve vulnerable grasslands from conversion to cropland or other uses and conserve valuable grasslands by helping maintain viable ranching operations. The program is jointly administered by NRCS and FSA. NRCS has lead responsibility on technical issues and easement administration. FSA has lead responsibility for rental agreement administration and financial activities. In fiscal year 2005, the agencies processed 7,412 GRP applications encompassing 4,970,628 acres. Of these totals, 1,500 acres of wetlands were protected by farmers and ranchers using common management practices to maintain the viability of the grassland acreage.

*<http://www.nrcs.usda.gov/programs/grp>*

**Wetlands Reserve Program:** Voluntary program that assists landowners with restoring and protecting wetlands through conservation easements and cost-share agreements. Since 1992, 1,074,245 wetland and associated upland acres have been enrolled in the program. The 2002 Farm Bill requires, to the maximum extent practicable, an additional 250,000 acres to be enrolled in the program each year, for a total program enrollment of 2,275,000 acres by the end of 2007. Total program enrollment at the end of FY 2003 neared 1.5 million wetland acres and associated upland acres.

*<http://www.nrcs.usda.gov/programs/wrp>*

**Wildlife Habitat Incentives Program (WHIP):** WHIP is a voluntary program that provides technical and financial assistance to enable eligible participants to develop habitat for upland wildlife, wetland wildlife, threatened and endangered species, fish, and other types of wildlife in an environmentally beneficial and cost-effective manner. The purpose of the program is to create high-quality wildlife habitats that support wildlife populations of local, state, and National significance. In FY 2005 through 2007, approximately 11,100 acres of wetlands will have been protected, restored, developed, or enhanced under WHIP.

*<http://www.nrcs.usda.gov/Programs/wbip/>*

**Programs that Maintain the Wetland Base**

**Plant Materials Program:** Focuses on development of plants and technology to help conserve natural resources, including wetland plants. There are currently 26 Plant Materials Centers (PMC) located across the country. Each PMC develops vegetative solutions to natural resource problems and issues. In the wetlands arena, PMCs have selected plants for restoration work as well as for nutrient filtering in constructed wetlands. The PMCs also develop the technology to successfully propagate, establish, and manage plant materials in wetland settings. In FY 2005, PMCs were working on over 250 studies to further the technology of vegetation in wetlands. This included technology to protect and restore coastal marshes, restore or enhance wetlands, protect shorelines of wetlands, and enhance wetlands for wildlife uses.

*<http://plant-materials.nrcs.usda.gov>*

**National Resources Inventory (NRI):** The NRI serves as the Federal government's principal source of information on the status, condition, and trends of soil, water, and related resources on private lands in the United States. The NRI provides trends and analysis about the distribution and loss of wetlands and other resource categories on non-Federal lands. The NRI provides not only overall estimates of change in resource conditions but also the dynamics of the changes. Between 1977 and 1997, the NRI was conducted every five years, but began a transition to an annual inventory process in 1999. FY 2006 funding request is \$6.6 million.

*<http://www.nrcs.usda.gov/technical/nri>*



# Appendix D.

## Department of Commerce

### National Oceanic & Atmospheric Administration

**Table D-1. NOAA Programs Supporting the President's Wetlands Goal in FY 2007. Funding (millions of dollars)**

Agency	Program	Restore or Create	Improve	Protect	Total Wetlands funding for goal FY 07	Difference from FY2006
NOAA	Fisheries Habitat Restoration	0.842	13.544	0.000	14.386	-11.544
NOAA	Great Lakes Restoration Program	0.000	1.500	0.000	1.500	1.500
<b>Total</b>		<b>0.842</b>	<b>15.044</b>	<b>0.000</b>	<b>15.886</b>	<b>-10.044</b>

**Table D-2. NOAA Programs Supporting the President's Wetlands Goal in FY 2007. Planned Accomplishments (in acres)**

Agency	Program	Restore or create	Improve	Protect	Total wetlands funding for goal FY 07	Difference from FY 2006
NOAA	Fisheries Habitat Restoration	1.000	3.500	0.000	4.500	0.00
NOAA	Great Lakes Restoration Program	0.000	0.075	0.000	0.075	0.08
<b>Total</b>		<b>1.000</b>	<b>3.575</b>	<b>0.000</b>	<b>4.575</b>	<b>0.08</b>

#### NOAA Programs Supporting the President's Wetlands Goal

**Community-based Restoration Program (CRP):** The CRP applies a grassroots approach to restoration by actively engaging community members in on-the-ground restoration of coastal fishery habitats around the Nation. The CRP embraces cooperative conservation by establishing partnerships that collaboratively restore NOAA trust resources, improving environmental quality and strengthening stewardship within local communities. FY 2007 funding request is \$13 million. [http://www.nmfs.noaa.gov/habitat/restoration/projects\\_programs/crp/index.html](http://www.nmfs.noaa.gov/habitat/restoration/projects_programs/crp/index.html)

**Great Lakes Habitat Restoration Program (GLHRP):** Although the President's FY 2006 request included \$1.5 million to initiate the GLHRP, action by Congress did not include this funding. In FY 2007, NOAA will establish a cross-NOAA Great Lakes Habitat Restoration Program to coordinate habitat restoration and protection efforts. Taking into account the priority needs identified by the Great Lakes Interagency Task Force, NOAA will focus its restoration and protection to support ongoing efforts at watersheds within Great Lakes Areas of Concern (AOC). FY 2007 funding request is \$1.5 million. [http://www.corporateservices.noaa.gov/%7enbo/07bluebook\\_highlights.html](http://www.corporateservices.noaa.gov/%7enbo/07bluebook_highlights.html)

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## Programs that Maintain the Wetland Base

### National Estuarine Research Reserve

**System (NERRS):** NERRS is a network of protected areas established for long-term research, education, and stewardship. This partnership program between NOAA and the coastal states protects more than 1 million acres of estuarine land and water, which provides essential habitat for wildlife; offers educational opportunities for students, teachers, and the public; and serves as living laboratories for scientists. FY 2007 funding request is \$16.8 million.  
<http://nerrs.noaa.gov>

**Coastal Zone Management Program (CZM):** The Coastal Zone Management (CZM) program is a voluntary Federal–state partnership dedicated to comprehensive management of the Nation’s coastal resources. State CZM programs contain provisions for the protection of estuaries, coastal wetlands, and other natural resources. Funding supports implementation of state CZM programs, including numerous state and local coastal habitat protection and restoration projects. FY 2007 funding request is \$66.1 million.  
<http://www.ocrm.nos.noaa.gov/czm>

**Coastal and Estuarine Land Conservation Program (CELCP):** The CELCP was established to protect coastal and estuarine lands considered important for their ecological, conservation, recreational, historical, or aesthetic values, giving priority to lands that have significant ecological values and that can be effectively managed and protected. The program provides funding to state and local governments to acquire such lands to ensure they are permanently conserved for the benefit of future generations.  
<http://www.ocrm.nos.noaa.gov/landconservation.html>

**Pacific Coastal Salmon Recovery Fund (PCSRF):** Congress established the PCSRF to contribute to the restoration and conservation of Pacific salmon and steelhead populations



*Volunteers haul trash at the March 2006 Anacostia Watershed Trash Cleanup on the Watts branch of the Anacostia River, co-sponsored by NOAA. The Watts branch is one of the most environmentally degraded subwatersheds in the Washington, D.C. region.*

and their habitats. The states of Washington, Oregon, California, Idaho, and Alaska and the Pacific Coastal and Columbia River tribes receive congressional PCSRF appropriations from NOAA’s National Marine Fisheries Service each year. The fund supplements existing state, tribal, and local programs to foster development of Federal/state/tribal/local partnerships in salmon and steelhead recovery and conservation. The President’s FY 2007 request for the fund was \$67 million.  
<http://nwr.nmfs.noaa.gov/salmon-recovery-planning/pcsrf/>

**National Estuaries Restoration Inventory (NERI):** NERI was created to track estuary habitat restoration projects across the Nation. The purpose of the inventory is to provide information on restoration projects in order to improve restoration methods, as well as to track acreage restored toward the million-acre goal of the Estuary Restoration Act.  
<http://neri.noaa.gov>

**Damage Assessment, Remediation, and Restoration Program (DARRP):** As a natural resource trustee, NOAA acts on behalf of the public to restore resources injured by oil spills, releases of other hazardous substances, and vessel groundings. DARRP collaborates with other Federal, state, and tribal natural resource trustees in assessing and quantifying injuries to natural resources, seeking damages for those injuries, implementing restoration actions, and monitoring progress to ensure restoration goals are met. FY 2007 funding request is \$8.9 million.  
<http://response.restoration.noaa.gov>

# Appendix E.

## Department of the Army

### U.S. Army Corps of Engineers Civil Works

**Table E-1. USACE programs supporting the President's Wetland Goal in FY 2007. Funding (millions of dollars)**

Agency	Program	Restore or create	Improve	Protect	Total wetlands funding for goal FY 2007	Difference from FY 2006
USACE Civil Works	Aquatic Ecosystem Restoration Program	59.6	238.4	0	298	-155

*Includes all non-regulatory programs directed at restoration, improvement, or protection of aquatic resources. Includes final funding for completions in 2007 and funds for projects completing in subsequent years. Excludes funds for mitigation, regulatory, and CWPPRA. Funding distributed in proportion to FY 2005 and 2006 acreage.*

**Table E-2. USACE programs supporting the President's Wetland Goal in FY 2007. Accomplishments (in acres)**

Agency	Program	Restore or create	Improve	Protect	Total FY 2007	Difference from FY 2006
USACE Civil Works	Aquatic Ecosystem Restoration Program	500	813,167	0	813,667	797,659

*Includes all non-regulatory programs directed at restoration, improvement, or protection of aquatic resources. Construction completion expected in FY 2007. The large increase in acreage is due to the completion of Davis Pond Diversion Structure, Louisiana. Funds provided in previous years as well as FY 2007.*

#### USACE Projects Supporting the President's Wetland Goal

**Aquatic Ecosystem Restoration:** The USACE has numerous study, project-specific, and programmatic authorities for implementing aquatic ecosystem restoration projects. In addition, activities contributing to the President's goal may occur on the 12 million acres of water and land managed by the USACE for other purposes, such as flood damage reduction, navigation, and recreation. For example, dredged material is used to create, restore, or improve wetland habitat as part of routine maintenance dredging of Federal channels.

The data in the tables above represent a subset of the total USACE commitment to achieving the President's goals. Because most USACE restoration projects take several years to complete, the funds appropriated in any one fiscal year have a minimal correlation to the number of acres that count toward the President's goal in that fiscal year. Projects are included in the

budget based on their effectiveness in addressing significant regional or National aquatic ecological problems. The aquatic ecosystem studies and projects proposed by the USACE for funding in FY 2007 include the following examples (the large number of projects preclude a comprehensive list within this document):

#### **Comprehensive Everglades Restoration Plan (CERP):**

The primary and overarching purpose of CERP is to restore the South Florida ecosystem, which includes the Everglades. The plan provides the framework and guidance to restore, protect, and preserve the water resources of the greater Everglades ecosystem. CERP has been described as the world's largest ecosystem restoration effort, and includes restoring natural flows of water, water quality, and more natural hydro-periods within the remaining natural areas. The plan is intended to ensure a sustainable South Florida by restoring the ecosystem, ensuring clean and reliable water supplies, and providing flood protection. <http://www.evergladesplan.org>

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**Louisiana Coastal Area, LA Ecosystem Restoration:** In 1998, the State of Louisiana and the Federal agencies charged with restoring and protecting Louisiana's valuable coastal wetlands adopted a new coastal restoration plan, Coast 2050: Toward a Sustainable Coastal Louisiana. The *Coast 2050* report became the basis of the LCA, which was completed in 2004 and recommended a \$1.9 billion Near-Term Plan to restore Louisiana's coast.

<http://www.mvn.usace.army.mil/prj/lca/>

**Upper Mississippi River Restoration:** Originally authorized in 1986 but significantly modified in 1999, this program provides for planning, construction, and evaluation of measures for fish and wildlife habitat rehabilitation. Multiple habitat projects are helping to revitalize the side channels and to restore island, aquatic, and riparian habitat in the Upper Mississippi River. The program also includes funds for the collection of project and systemic baseline data and monitoring.

<http://www.mvr.usace.army.mil/EMP/default.htm>

## Programs that Maintain the Wetland Base

**U.S. Army Engineer Research and Development Center (ERDC):** Within the Environmental Laboratory, the Wetlands and Coastal Ecology group conducts field and laboratory investigations on biotic and abiotic resources in wetlands and coastal systems and develops products/systems supporting assessment, restoration, and management of wetlands and coastal ecosystems. Examples of wetlands

research for FY 2007 include the development of improved standards, techniques, and guidelines for the planning, design, and construction of USACE wetland restoration and creation projects; completion of a GIS-based decision support system for prioritizing candidate wetlands restoration sites with the greatest potential for success; and exploration of innovative plant harvesting/installation methods for the large-scale restoration of submerged aquatic vegetation (SAV) ecosystems in the Chesapeake Bay. In addition, state-of-the-art tools and methods for wetlands restoration will be integrated to forecast physical, chemical, and biological responses to water resource management activities and to manage these resources within a watershed-scale perspective. Approximately \$3 million is included in the FY 2007 budget for wetlands research.

<http://el.erc.usace.army.mil/org.cfm?Code=EE-W>

**Regulatory Clean Water Act 404 Program:** The USACE manages the Nation's wetlands through a regulatory program requiring permits for the discharge of dredged and fill material into jurisdictional waters of the United States. In a typical year the USACE receives permit requests to fill about 25,000 acres of jurisdictional waters. Of these, about 5,000 acres are not permitted and, with respect to the 20,000 acres that are permitted, the USACE requires mitigation of more than 2 acres for each permitted acre lost. FY 2007 funding request is \$173 million.

<http://www.usace.army.mil/inet/functions/cw/cecwo/reg>

# Appendix F.

## Department of the Interior

**Table F-1. DOI Programs Supporting the President's Wetlands Goal in FY 2007. Funding (millions of dollars)**

Agency	Program	Restore or create	Improve	Protect	Total Wetlands funding for goal FY 2007	Difference from FY 2006
BLM	Land Acquisition	8.373	0.000	0.000	8.373	0.00
BLM	Oregon and California Grant Lands	3.749	2.885	0.031	6.664	2.92
BOR	Wildlife Habitat Augmentation Program (SUM)	0.000	0.420	0.000	0.420	-3.44
NPS	NPS exotic plant management teams	0.000	1.225	0.000	1.225	0.00
USFWS	Coastal Program	0.791	0.000	7.789	8.580	-0.06
USFWS	Fish and Wildlife Management Assistance	0.000	0.500	0.000	0.500	0.20
USFWS	Landowner Incentive Program	0.000	0.000	0.100	0.100	0.00
USFWS	National Coastal Wetlands Grant Program (mandatory CWPRA funds)	0.642	0.000	5.000	5.642	0.00
USFWS	National Wildlife Refuge System	3.829	4.396	28.479	36.704	0.26
USFWS	National Wildlife Refuge System (mandatory Migatory Bird Fund)	0.000	0.000	14.080	14.080	0.24
USFWS	North American Wetlands Conservation Fund appropriated	2.065	0.998	16.832	19.894	1.17
USFWS	North American Wetlands Conservation Fund (non-appropriated)	2.403	1.162	19.591	23.156	1.21
USFWS	North American Waterfowl Management Plan - Joint Ventures	0.214	0.400	0.000	0.614	-0.09
USFWS	Partners for Fish and Wildlife Program	17.910	3.447	0.029	21.385	-3.94
	Other DOI Programs*	0.000	0.130	0.000	0.130	-0.04
<b>Total</b>		<b>39.975</b>	<b>15.562</b>	<b>91.930</b>	<b>147.467</b>	<b>-1.568</b>

*\*Includes BLM's National Fish and Wildlife Foundation and Yuma East Wetlands Riparian Restoration Project, Arizona.*

**Table F-2. DOI Programs Supporting the President's Wetlands Goal in FY 2007. Planned Accomplishments (in acres)**

Agency	Program	Restore or create	Improve	Protect	Total Wetlands funding for goal FY2007	Difference from FY2006
BLM	Land Acquisition	0	0	3131	3131	-895
BLM	Oregon and California Grant Lands	0	22531	1915	24446	-7468
BOR	Wildlife Habitat Augmentation Program (SUM)	0	475	0	475	-2204
NPS	NPS exotic plant management teams	0	2793	0	2793	0
USFWS	Coastal Program	3500	0	6500	10000	-358
USFWS	Fish and Wildlife Management Assistance	0	15000	0	15000	12900
USFWS	Landowner Incentive Program	0	0	0	0	-88
USFWS	National Coastal Wetlands Grant Program (mandatory CWPPRA funds)	158	0	4528	4686	0
USFWS	National Wildlife Refuge System	48704	107284	12639	168627	1041
USFWS	National Wildlife Refuge System (mandatory Duck Stamp funds)	0	0	33200	33200	400
USFWS	North American Wetlands Conservation Fund appropriated	34760	68897	258952	362609	114696
USFWS	North American Wetlands Conservation Fund (mandatory CWPPRA funds)	43011	85252	320423	448686	141922
USFWS	North American Waterfowl Management Plan - Joint Ventures	5134	16000	0	21134	-5064
USFWS	Partners for Fish and Wildlife Program	27000	0	0	27000	-759
	Other DOI Programs*	0	340	0	340	296
<b>Total</b>		<b>162,267</b>	<b>318,572</b>	<b>641,288</b>	<b>1,122,127</b>	<b>254,419</b>

*\*Includes BLM's National Fish and Wildlife Foundation and Yuma East Wetlands Riparian Restoration Project, Arizona.*

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## DOI Programs Supporting the President's Wetlands Goal

**Land and Water Conservation Fund (LWCF) Wetland Acquisitions Program:** The program is focused on consolidating land ownership and conserving resource values within 2,300 units, which compose the Bureau's Special Management Areas. Acquisition—through exchange, purchase, and donation—is an important component of the BLM's land management strategy. BLM acquires land and easements in land when in the public interest and consistent with publicly approved land use plans. Wetlands, in concert with other important resource values in these Special Recreation Management Areas, are an important factor in developing purchase, donation, and exchange initiatives.

<http://www.blm.gov/nbp/what/lands/realty/exchange.htm>

**BLM Management of Lands and Resources/Oregon and California Grant Lands:** The BLM uses these appropriations to address a wide variety of natural resource management needs. These activities frequently include on-the-ground projects that conserve, protect, and restore wetlands. Funding to protect, manage, and reforest the re-vested Oregon and California Railroad grant lands is also used for projects that directly restore and protect wetlands. Funding made available for wetlands-related conservation activities depend on annual funding levels and competing resource priorities within BLM.

<http://www.blm.gov/nbp/what/>

**Wildlife Habitat Augmentation Program:** The Program's purpose is to implement projects that protect, enhance, and restore riparian, wetlands, and associated habitats within the watersheds of Reclamation's California Central Valley Project. The CVP consists of a system of 18 dams and reservoirs, canals, power plants, and other facilities located mainly in the Sacramento and San Joaquin valleys. The CVP manages about 9 million acre-feet of water for urban, industrial, agricultural, and environmental uses; produces electrical power; and provides flood protection, navigation, fish and wildlife, recreation, and water quality benefits.

<http://www.usbr.gov/mp/cvp.html>

**NPS Exotic Plant Management Team:** A new weapon to combat exotic plant species was launched by the National Park Service in 2000. Called the Exotic Plant Management Team (EPMT), the new capability was modeled after the coordinated rapid response approach used in wildland firefighting. The first test of the EPMT concept was conducted in 1997 at Lake Mead National Recreation Area (Nevada and Arizona) and served

park units throughout the Southwest. Its success led to a request to fund the establishment of four EPMTs in other parts of the country.

[http://www2.nature.nps.gov/YearInReview/yir2000/pages/01\\_confluence/01\\_01\\_drees.html](http://www2.nature.nps.gov/YearInReview/yir2000/pages/01_confluence/01_01_drees.html)

**FWS Coastal Program:** The Coastal Program works in 18 specific coastal communities to improve the health of watersheds for fish, wildlife, and people by building partnerships; identifying, evaluating, and mapping important habitats; restoring habitats; and providing technical assistance and financial support to help protect important coastal habitats. Since 1994, the program has restored 112,000 acres of coastal wetlands, 26,000 acres of coastal uplands, and over 1,100 miles of coastal streamside habitat. It has also helped protect 1.33 million acres of coastal habitat.

<http://www.fws.gov/coastal/CoastalProgram>

**Fish and Wildlife Management Assistance:** Delivers scientific information and on-the-ground projects that support cooperative efforts to conserve America's fisheries and wildlife resources. FWMA conducts on-the-ground conservation activities, including assessing the condition of habitats; restoring stream and wetland habitats; restoring fish passage; and controlling aquatic nuisance species through physical, chemical, and biological means.

<http://fisheries.fws.gov/FWSMA/mamain.htm>

**Landowner Incentive Program:** This program provides grants to state and tribal conservation agencies to help landowners restore habitats of listed, proposed, candidate, or other species determined to be at risk on private and tribal lands. Many of these species occur in wetlands environments, and states and tribes focus some of their efforts accordingly on wetlands habitats as appropriate. These efforts may range from providing technical assistance and developing wildlife management plans for these species and their habitats, performing actual habitat manipulation as appropriate, to acquiring conservation easements or other forms of protection on wetlands.

<http://federalaid.fws.gov/lip/lip.html>

**National Coastal Wetlands Grant Program (CWWPRA Funds):** Since 1992 the program has protected 130,000 acres of wetlands and associated uplands along the coasts and Great Lakes through Federal cost-share grants.

<http://www.fws.gov/coastal/CoastalGrants>

**National Wildlife Refuge System:** About one-third of the 96-million-acre National Wildlife Refuge System consists of wetlands, not including the tundra of Alaska or open, marine environments. The FWS has programs to protect, restore, rehabilitate, enhance, and conduct research on these wetlands. The Refuge System manages wetlands to enhance their value for migratory waterfowl and shorebirds; threatened and endangered species; and a myriad of native fish, wildlife, and plants. The wetland restoration and conservation programs of the Refuge System protect the biodiversity and environmental health of these habitats across diverse landscapes, while providing wildlife-dependent recreational opportunities for the American public. <http://www.fws.gov/refuges/>

**FWS North American Wetlands Conservation Act Program:** Supports voluntary public-private partnerships to conserve North American wetlands ecosystems. This program provides matching grants to public and private groups and agencies for wetlands restoration and protection in the United States, Canada, and Mexico. Over 14.6 million acres of wetlands and associated uplands have been affected by protection, restoration, or enhancement activities since 1991. <http://birdhabitat.fws.gov/NAWCA/grants.htm>

**FWS North American Waterfowl Management Plan - Joint Ventures:** This tri-National strategic plan fosters the creation of partnerships between state and Federal governments, tribes, corporations, private organizations, and individu-

als to cooperate in the planning, funding, and implementation of projects to conserve and enhance wetland habitat in high-priority "joint venture" regions. The plan calls for 16.1 million acres of wetlands and associated uplands to be protected and 12.1 million acres to be restored or enhanced. <http://www.fws.gov/birdhabitat/NAWMP/index.shtml>

**FWS Partners for Fish and Wildlife Program:** This voluntary program, begun in 1987, works with landowners to restore wetlands on private lands using cooperative agreements. The FWS has entered into over 35,000 agreements with partners. The program has restored 722,500 acres of wetlands, over 1.57 million acres of uplands, and over 5,900 miles of riparian and in-stream habitat. The FWS also provides technical assistance to other Federal agencies under this program. <http://partners.fws.gov>

### Programs that Maintain the Wetland Base

**FWS National Wildlife Refuge System:** Cyclic water-level management and other wetland activities, used in most cases to mimic naturally occurring flood regimes for the benefit of wildlife, were accomplished in FY 2005 on 55,236 acres of forested wetlands and similar habitats, with 131,452 acres managed for moist soils and 812,785 acres receiving other water-level manipulation. In FY 2006, those management activity accomplishments are expected to be 27,780 acres of forested wetlands and similar habitats, as well as 148,297 moist soil acres managed; with water-level manipulation being achieved on 841,820 acres of water impoundments. <http://www.fws.gov/refuges/>

**FWS National Wetlands Inventory:** *The goal* of the National Wetlands Inventory is to produce information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats in order to promote the understanding and conservation of these resources. Federal, state, Tribes, and local agencies; academic institutions; Congress; and the private sector use this information and digital maps to guide natural resource planning, management, and project development. The wetland data are available over the internet. Wet-



*Mon Luis Island Marsh Restoration Project, Mobile Bay, Ala. (NOAA Restoration Center)*

lands status and trend data and reports provide contemporary information for decision-making and for wetlands policy formulation and assessment. FY 2007 funding request is \$4.7 million.

<http://wetlands.fws.gov>

**FWS Natural Resource Damage Assessment and Restoration Program:** The Division of Environmental Quality provide approximately \$1.5 million in toxicology, ecology, and habitat restoration expertise to EPA and other Federal and state partners to minimize impacts to wetlands during the cleanup of contaminated areas. Division makes substantial contributions to maintaining the base of wetland acres as well as restoring and improving wetlands at former hazardous waste sites and areas impacted by oil and chemical spills.

<http://contaminants.fws.gov/Issues/Restoration.cfm>

### U.S. Geological Survey (USGS)

The USGS conducts research and provides scientific information to support wetlands restoration and creation, and to provide wetland resource managers the tools to effectively improve and protect coastal, forested, and freshwater wetlands. USGS wetlands science addresses priorities in understanding wetland structure, dynamics, functions, and interactions with the surrounding landscape; responses to natural and anthropogenic stressors; role of wetland functions in a socioeconomic perspective; and the support tools to help managers identify and achieve desired wetland conditions in restoration, creation, and rehabilitation activities. USGS wetlands research is primarily focused in the following regions:

**Prairie Pothole Region/Great Plains:** Research in this region expands the ecological understanding of processes that influence wetland functions and values in agriculture landscapes. Research on global climate change, sediment and nutrient dynamics, the effectiveness of wetland restoration and enhancement for flood storage and wildlife habitat, and the potential of prairie pothole wetlands to sequester carbon is also being addressed. FY 2006 Funding: \$0.377 million.

<http://www.npwrc.usgs.gov/info/factsheet/wetlands.htm>



*Wetland constructed for migrating waterfowl on the Eastern shore of Maryland, near Wicomico, Md. (NRCS)*

**Great Lakes:** In this region, the effects of Great Lakes water-level fluctuations on wetlands are being researched, in addition to global climate change studies of wetlands that focus on interactions between climate change, lake levels, groundwater hydrology, and wetland response. This research provides scientific information to support the restoration, conservation, and management of wetlands. FY 2006 funding: \$0.841 million.

<http://www.glsc.usgs.gov>

**Gulf Coast:** Hurricanes Katrina and Rita have placed a high priority on research, spatial analyses, predictive modeling, technology development, and information synthesis and outreach related to the impacts to the Nation's critical Gulf Coast coastal and freshwater wetlands and habitats. USGS wetlands science in this region provides scientific information that resource managers and planners need to stabilize, restore, rehabilitate, and manage wetlands, including seagrass beds, inland grass beds, coastal saltwater and freshwater marshes, and forested wetlands. In addition, global climate change studies in the Lower Mississippi River Valley focus on riverine and coastal wetland response to CO<sub>2</sub> levels and sea level rise. FY 2006 funding: \$6.638 million.

<http://www.nwrc.usgs.gov>

**Atlantic Coast:** USGS conducts research and provides scientific information on restoration, enhancement, and creation of coastal and estuarine wetlands. Global climate change studies of wetlands focus on wetland response to sea level rise and wetland management. FY 2006 funding: \$2.376 million.

<http://www.pwrc.usgs.gov/wetlands/>



# Appendix G.

# Department of Transportation

## Federal Highway Administration Programs

### Summary

Under the Federal-aid highway legislation (Title 23, United States Code, Highways), state transportation agencies may use National Highway System and Surface Transportation Program funds to finance wetland and natural habitat conservation planning and implementation, as well as compensatory mitigation and restoration projects that offset unavoidable losses from transportation projects. The Department of Transportation/Federal Highway Administration has a goal of 1.5-to-one wetland acre mitigation. Under the Federal-aid Highway Program, FHWA has achieved over 42,000 acres of wetland mitigation since 1996, with the mitigation amount exceeding the amount impacted by over 24,000 acres. Through the Federal Highway Administration, DOT also funds research on wetlands mitigation in connection with highways.

### Eligibility

In 1980, the Federal Highway Administration (FHWA) issued 23 CFR Part 777, Mitigation of Impacts to Privately Owned Wetlands, which gave sponsors of Federally assisted highway projects the flexibility to use Federal-aid funds to mitigate impacts to wetlands. The regulation was updated in 2000 to include more recent legislative, regulatory, and policy developments. The regulation specifies that funds eligible for mitigation and enhancement apply to all projects carried out under the Federal-Aid Highway program.

limit. But the Federal government does not direct program expenditures under the annual limit; instead, the states determine how and where the funds are spent based on levels allocated to them by formula each year. Therefore, the states determine what portion of their total allocated funding authority will go to finance wetland mitigation and enhancement. The Federal government provides projections that estimate and provide recommendations only on the total annual program obligation limits, not on specific authorizations for wetland mitigation and enhancement.

### Performance

As a measure of performance under the FHWA's net gain policy and commitments made under the Clean Water Action Plan, the agency monitors annual wetland loss and gain under the Federal-aid highway programs Nationwide. Monitoring began in FY 1996. On a program-wide basis, the FY 2005 figures indicate that Federal-aid highway projects provided 3.3 acres of compensatory wetland mitigation for each acre of impact. Data collected by FHWA over the past 10 years indicate that, Nationwide, Federal-aid highway programs have achieved a 160 percent gain in wetland acreage (2.6:1 gain/loss ratio). In terms of acres, Federal-aid highway programs produced a total net gain of 24,533 acres of wetlands Nationwide between 1996 and 2005.

Costs of wetland mitigation have increased several-fold during the past 25 years. Costs of mitigation were estimated in 1995 as approximately \$16,000 per acre of mitigation Nationwide, based on available data obtained from 1992 to 1994. This results in an estimated total cost from 1996 to 1999 for all

Fiscal Years 1996-2005	Acres of Compensatory Wetland Mitigation	Acres of Wetland Impacts	Mitigation Ratio / Percent increase	Acreage Gain
Totals	42,119	16,051	2.6:1 / 160percent	26,068

### Funding

Since Federal-aid highway programs operate under contract authority implemented through the states, total annual expenditures of Federal assistance occur at the discretion of the states within obligation limits established by Congress for each program. The total of all expenditures each year for a given program must be at or below the congressional obligation

Federally assisted highway programs of approximately \$50 million to \$80 million per year for replacement of wetlands (in pre-1995 dollars). A GAO report to the Transportation Subcommittee on Highway Planning (August 1994) quotes data from 1992 for wetlands costs from 37 states. Average annual costs reported for 1988 to 1992 were \$79 million.

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## Research and other cooperative efforts to support wetlands goal

The FHWA coordinates wetland programs and research initiatives with other Federal agencies, including the EPA and DOI. FHWA wetlands research is not identified separately. The FHWA, EPA, and the USACE implemented guidance on how the TEA-21 preference on the use of mitigation banks can be exercised under the Section 404, Clean Water Act permitting process, one of the first actions completed under the National Wetlands Mitigation Action Plan.

## Planning

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), enacted in 2005, requires metropolitan and statewide transportation (highway and transit) plans to include a discussion of potential environmental mitigation activities and potential areas to carry out these activities, developed in consultation with Federal, State and tribal wildlife, land management and regulatory agencies. In implementing this provision, states and metropolitan planning organizations are expected to plan for wetland mitigation and consult with resource agencies and the USACE.

## Federal Aviation and Transit Programs

The programs of the Federal Transit Administration (FTA) provide Federal funding for wetland mitigation related to assisted transit projects as part of project costs. As noted above, under SAFETEA-LU, transportation plans must address environmental mitigation.

Wetland mitigation related to airport projects receiving Federal assistance under Federal Aviation Administration (FAA) programs is an eligible project expense. In 1996, FAA issued a Wetlands Banking Mitigation Strategy to provide guidance to ensure that Federally assisted airport projects and FAA projects effectively and efficiently meet Section 404 permit requirements and environmental responsibilities. This document provides a framework for the FAA to mitigate unavoidable impacts before they occur by purchasing credits from a wetlands bank. The use of wetlands mitigation banking is voluntary, and is considered on a project-by-project basis. If chosen as an option for an airport project, the airport sponsor may recover the cost of purchasing wetland bank credits from Federal Airport Improvement Program funding. In July 2003, FAA signed an inter-agency memorandum of agreement that addresses wetland mitigation and restoration projects near airports and ways to reduce aircraft-wildlife strikes and maintain aviation safety.



*Sandhill Cranes (gurus canadensis) at the Desoto National Wildlife Refuge, Missouri Valley, Iowa.*  
(FWS)

# Appendix H.

# Environmental Protection Agency

**Table H-1. EPA programs supporting the President's Wetland Goal in FY 2007.  
Funding (millions of dollars)**

Agency	Program	Restore or create	Improve	Protect	Total Wetlands funding for goal FY2007	Difference from FY2006
EPA	Fire Star Program	0.010	0.240	0.000	0.250	0.000
EPA	National Estuary Program	0.959	4.764	2.677	8.400	-5.600
EPA	Nonpoint Source Management Program	2.225	1.832	0.000	4.057	0.000
<b>Totals</b>		3.194	6.836	2.677	12.707	-5.600

**Table H-2. EPA programs supporting the President's Wetland Goal in FY 2007.  
Planned Accomplishments (in acres)**

Agency	Program	Restore or create	Improve	Protect	Total Wetlands funding for goal FY 2007	Difference from FY2006
EPA	Fire Star Program	0.350	8.855	0.000	9.205	
EPA	National Estuary Program	2.886	14.358	8.070	25.314	-16.88
EPA	Nonpoint Source Management Program	0.210	0.175	0.000	0.385	0.00
<b>Totals</b>		3.446	23.388	8.070	34.904	-16.88

### EPA Programs Supporting the President's Wetland Goal

**National Estuary Program (NEP):** This program works to restore and protect these sensitive and vital ecosystems. The NEP provides funding and technical assistance to citizens, governments, businesses, researchers, and organizations in local communities to create and implement plans they develop collectively. These plans address problems facing their estuaries, such as excess nutrients, pathogens, toxic chemicals, introduced species, overfishing, and habitat loss and degrada-

tion. With its partners, the NEP works to safeguard the health of some of our Nation's most productive natural resources and transfer the lessons learned to other watersheds.

<http://www.epa.gov/owow/estuaries>

**Clean Water Act Section 319 Program:** Under section 319, states, territories, and Indian tribes receive grant money that supports a wide variety of activities, including technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and monitoring to assess the success of specific nonpoint source implementation projects,

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some of which include wetland restoration projects.

*<http://www.epa.gov/owow/nps/cwact.html>*

**Five Star Challenge Grants Program:** The EPA and its partners—National Fish and Wildlife Federation, National Association of Counties (NACo), and Wildlife Habitat Council—have helped catalyze over 350 projects in 49 states, the District of Columbia, and U.S. Virgin Islands. Each year, 50 to 60 grants of \$5,000 to \$20,000 are awarded. The purpose of the Five Star Restoration Program is to support community-based efforts to restore wetlands, river streams/corridors, and coastal habitat; build diverse partnerships within the community; and foster local stewardship of resources through outreach.

*<http://www.epa.gov/owow/wetlands/restore/5star>*

## **Programs that Maintain the Wetland Base**

**Wetlands Grants Program:** The EPA has annually provided \$15 million to states, local governments, tribes, and non-governmental organizations to strengthen non-Federal regulatory and non-regulatory wetlands programs. FY 2006 funding request is \$20 million.

*<http://www.epa.gov/owow/wetlands>*

**Clean Water Act (WCA) Section 404 Program:** The EPA and the USACE share regulatory responsibility pursuant to CWA section 404. EPA and the USACE establish the regulations and policies for implementation of the program, including development and implementation of the Section 404(b)(1) guidelines. The guidelines establish the substantive environmental criteria used to evaluate applications for permits to discharge under section 404. FY 2006 funding request is \$20.4 million.

*<http://www.epa.gov/owow/wetlands/>*

# Appendix I.

## Coastal Wetlands Planning, Protection, and Restoration Act

**Table I-1. CWPPRA funding supporting the President's Wetland Goal in FY 2007 (millions of dollars)**

Agency	Restore or create	Improve	Protect	Total	Difference from FY 2006
CWPPRA	0	63.060	0	63.060	5.005

**Table I-2. Potential CWPPRA Acres by Agency for FY 2007**

Agency	Restore or create	Improve	Protect	Total	Difference from FY 2006
EPA	7	0	6	13	0
FWS	299	428	33	760	-17,903
NMFS	581	713	32	1,326	338
NRCS	19	4,753	48	4,820	-47,158
USACE	157	2,325	50	2,532	2,516
<b>CWPPRA Total</b>	1,063	8,219	169	9,451	-62,206

The Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) is funded by the Aquatic Resources Trust Fund (Wallop-Breaux fund), which was passed in 1990 and is authorized until 2019. The fund is created from excise taxes on fishing equipment and on motorboat and small engine fuels. Funds are distributed to the Louisiana Coastal Wetlands Conservation and Restoration Task Force, North American Wetlands Conservation Act Program, and the National Wetlands Conservation Grant Program at rates of 70 percent, 15 percent, and 15 percent, respectively. The Louisiana CWPPRA accomplishments are presented in this appendix. The other CWPPRA accomplishments are presented in DOI Appendix F under the appropriate Fish and Wildlife Program areas.

The CWPPRA funding distributed to the Louisiana Coastal Wetlands Conservation and Restoration Task Force is used to

design and construct projects to preserve and restore Louisiana's coastal landscape. The Louisiana portion of CWPPRA is provided on average \$50 million per year. The USACE administers the funding and tracks project status of all CWPPRA projects. With the USACE as chair, a task force consisting of NOAA's National Marine Fisheries Service, U.S. Fish and Wildlife Service, Natural Resources Conservation Service, Environmental Protection Agency, and the State of Louisiana (the non-Federal sponsor) manages the program. Currently, the program has 138 approved projects, of which 67 are complete and 16 are under construction.

[http://www.mvn.usace.army.mil/pd/cwppra\\_mission.htm](http://www.mvn.usace.army.mil/pd/cwppra_mission.htm)

A map of Louisiana restoration sites is available at [http://lacoast.gov/maps/coastal\\_la\\_2005\\_restoration\\_projects.pdf](http://lacoast.gov/maps/coastal_la_2005_restoration_projects.pdf)

# Acronyms

AOC	Areas of Concern, Great Lakes, NOAA	LCA	Louisiana Coastal Area Environmental Restoration
BLM	Bureau of Land Management, DOI		
CELCP	Coastal and Estuarine Land Conservation Program, NOAA	LWCF	Land and Water Conservation Fund
CERP	Comprehensive Everglades Restoration Plan	MDC	Missouri Department of Conservation
Corps	U.S. Army Corps of Engineers	NAWCA	North American Wetlands Conservation Act, DOI/FWS
CPRD	Coastal Protection and Restoration Division, NOAA	NEP	National Estuary Program, EPA
CRP	Conservation Reserve Program, USDA/FSA	NERI	National Estuaries Restoration Inventory, NOAA
CRP	Community-based Restoration Program, NOAA	NERRS	National Estuarine Research Reserve System, NOAA
CTA	Conservation Technical Program, USDA/NRCS	NOAA	National Oceanic and Atmospheric Administration
CWA	Clean Water Act	NPS	National Park Service, DOI
CWPPRA	Coastal Wetlands Planning, Protection and Restoration Act	NRCS	Natural Resources Conservation Service, USDA
CZMP	Coastal Zone Management Program, NOAA	NRI	National Resources Inventory, USDA/NRCS
DARP	Damage Assessment and Restoration Program, NOAA	NRPP-NRM	Natural Resource Preservation Program - Natural Resource Management, DOI/NPS
DOI	Department of the Interior	NWI	National Wetlands Inventory, DOI/FWS
DOT	Department of Transportation	NWRS	National Wildlife Refuge System, DOI/FWS
EPA	Environmental Protection Agency	PCSRF	Pacific Coast Salmon Recovery Fund, NOAA
EPMT	Exotic Plant Management Team, DOI/NPS	PMC	Plant Materials Centers, USDA/NRCS
EQIP	Environmental Quality Incentives Program, USDA/NRCS	USACE	U.S. Army Corps of Engineers
ERDC	Engineer Research and Development Centers, U.S. Army	USDA	U.S. Department of Agriculture
FAA	Federal Aviation Administration, DOT	USFS	U.S. Forest Service
FHWA	Federal Highway Administration, DOT	USGS	U.S. Geological Survey
FRPP	Farm and Ranchlands Protection Program, USDA/NRCS	WHIP	Wildlife Habitat Incentives Program, USDA/NRCS
FSA	Farm Service Agency, USDA	WHWWG	White House Wetlands Working Group
FTA	Federal Transit Administration, DOT	WRD	Water Resources Division Competitive funding, DOI/NPS
FWS	Fish and Wildlife Service, DOI	WRP	Wetlands Reserve Program, USDA/NRCS
GAO	Government Accountability Office, Congress		
GIS	Geographic Information System		

