

# North American Waterfowl Management Plan



*1998 United States Progress Report*

## Introduction

In the early 1980s, North America's waterfowl populations were plummeting. An extended drought and the on-going degradation and loss of wetlands across the continent were taking their toll. For example, the northern pintail population crashed by 61 percent from numbers recorded in the 1970s. Likewise, American wigeon fell by 41 percent, green-winged teal by 33 percent, and mallards by 52 percent.

Concerned scientists and citizens in Canada and the United States rallied to reverse the downward spiral of their shared resource. With support from their federal governments, they developed an international plan for restoring waterfowl

populations to levels recorded in the 1970s—*The North American Waterfowl Management Plan*. Canada and the United States signed the Plan in 1986 and Mexico signed in 1994, when the Plan was updated. The Plan calls for public-private partnerships, called joint ventures, to advance biologically based, landscape-level conservation of wetlands and associated uplands habitat throughout North America.

This progress report highlights conservation activities of U.S. habitat and species joint ventures during 1998. It is testimony to the commitment of joint ventures to conserve the wetland ecosystems critical to waterfowl survival. But as you will see, the benefits of their work extend beyond waterfowl to all wetland-associated species.

Accomplishment tables seen in this report contain data from the International Tracking System, a database used to record habitat accomplishments and financial contributions of partners. Joint venture coordinators edit and add data to the Tracking System on an on-going basis. Hence, adding 1998 accomplishments to the cumulative totals seen in the 1997 report will not equal the cumulative totals given in the 1998 report.

While most Plan partners work diligently to report the necessary data to their joint venture coordinator, many accomplishments are not reported. Therefore, the magnitude of on-the-ground conservation work achieved by Plan partners is not fully reflected in this report.

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*cover photo: Gary Kramer, U.S. Fish and Wildlife Service*

## National Perspective

The year 1998 was indeed an exciting and productive one for the North American Waterfowl Management Plan and its many partners. Like the dozen years of waterfowl conservation achieved under the Plan since 1986, there are dozens of accomplishments to tout this year as well. For starters, in 1998, Plan partners protected some 33,500 more acres and restored nearly 1,300 more acres of habitat than in 1997.

Partners also continued to be involved in updating the Plan. The 1986 document calls for periodic updates to the Plan so that it will remain relevant and applicable in an ever-changing world. In addition, the North American Wetlands Conservation Act, amended in 1994, directs the U.S.

Secretary of the Interior to collaborate with his counterparts in Canada and Mexico to produce a 1998 update to the Plan. In accordance with the language of the original Plan and Act—and after 2 years of extensive consultation, drafting, and editing among the Plan Committee and partners throughout the three countries—the 1998 update to the Plan is near completion. The Committee expects *Expanding the Vision* to be signed by each country in early 1999 and ready for distribution by late spring.

The 1998 update challenges Plan partners to expand the scope of waterfowl conservation as they approach the next century. It offers three visions for the future, calling for a strengthened biological foundation for the Plan; a landscape approach to waterfowl conservation that also takes broader social and economic

factors into consideration; and broader partnerships that include other bird conservation initiatives and professional sectors other than wildlife and natural resource management. Many joint ventures have already begun to embrace and implement these visions on the ground, helping to make the expanded vision of the Plan a reality.

Many other endeavors continued to mature and flourish in 1998. The Adaptive Management and Assessment Team fine-tuned its form and function, working closely with joint ventures to improve and strengthen the biology of waterfowl conservation under the Plan. Likewise, up and coming joint ventures like the San Francisco Bay Joint Venture and the Sea Duck Joint Venture continued to solidify their contacts, partnership frameworks,

and implementation plans. Both joint ventures are expected to be endorsed by the Committee in 1999.

This year, the International Tracking System (ITS) has undergone significant database restructuring, which will continue into 1999. Joint Venture Coordinators and Plan partners are interested in refining and simplifying the method by which partners report habitat accomplishments and financial contributions. The Upper Mississippi River-Great Lakes Region and Pacific Coast Joint Ventures have already begun to implement the new reporting methods, which are reflected in this report. In addition, this will be the first year that the Black Duck Joint Venture is submitting data on partner contributions, both annual and cumulative.

Plan partners look forward to the opportunities of 1999 that will take them into the next millennium with the populations and habitats of both waterfowl and other wetland-dependent wildlife in better shape than ever before!



*Young Brown Pelicans/John Turner, U.S. Fish and Wildlife Service*

## Atlantic Coast Joint Venture

In many respects, 1998 was a banner year for the Atlantic Coast Joint Venture. On the administrative front, the Joint Venture filled two important assistant coordinator positions, reassembled the Joint Venture Technical Committee, and began the revision of its Implementation Plan.

The states of Delaware, Georgia, Maryland, South Carolina, and Virginia, the U.S. Fish and Wildlife Service's Regional Offices 4 and 5 and North American Waterfowl and Wetlands Office, and the U.S. Forest Service combined resources to help fund a newly established assistant coordinator position in the Southeast. State funds were matched by a grant from the National Fish and Wildlife Foundation.

Craig Watson, a wildlife biologist with the Forest Service, was selected to fill this position and is stationed at the Forest Service's Center for Forested Wetland Research in Charleston, South Carolina. Chuck Hayes was hired in August to fill the vacant assistant coordinator position in the Northeast, and is co-located with the Fish and Wildlife Service's Rhode Island Refuge Complex and Southern New England/New York Bight Coastal Program.

Joint Venture funds were leveraged with partner contributions to accomplish numerous projects in 10 states, including seven on national wildlife refuges and four on private lands. Cooperative agreements were established or maintained with eight partner agencies or organizations: Ducks Unlimited, Inc., The Nature Conservancy,

the Wildlife Management Institute, the Ashley River Conservation Coalition, the Biological Resources Division of U.S. Geological Survey, the National Oceanic and Atmospheric Administration, SWAMP (Save Wetlands And Manage Pests), and Cornell University.

Nine Joint Venture projects were approved under the North American Wetlands Conservation Act, including the first two Act projects to take place in Connecticut. Federal grants of \$6,044,655 were matched by \$14,251,904 in non-Federal partner funds to protect, restore and/or enhance 11,385 acres.

## Partner Contributions

	1998	Cumulative
Federal	\$20,364,005	\$251,881,369
State/Local	\$ 244,941	\$ 33,027,189
Private Organizations	\$ 137,000	\$ 39,729,506
Individuals	\$ 72,735	\$ 3,135,368

## Habitat Accomplishments

	1998 Acres	Cumulative Acres	Objectives
Protected	15,916	371,536	945,000
Restored	278	49,780	88,050
Enhanced	5,011	526,935 <sup>1</sup>	121,740

1. Enhancement accomplishments in 1994 include 400,000 acres under a 30-year timber management plan.



*Bog Turtle/U.S. Fish and Wildlife Service*

## Black Duck Joint Venture

In 1998, Black Duck Joint Venture partners conducted aerial surveys of breeding waterfowl pairs from Ontario eastward to Newfoundland. Four crews in fixed-wing aircraft surveyed line transects from strata 50 through 69, linking observations with global positioning systems. Helicopter surveys of 25 square kilometer plots were conducted in Ontario, Québec, and the Atlantic provinces to assess habitat-related changes in regional black duck densities. Black duck numbers generally increased this spring, both range-wide and regionally.

New banding reference areas continue to be the focus for a redesigned banding program. Maintaining established stations with a history of productive black duck banding is important for obtaining survival data, but it must also be cost-effective. In 1998, more than 31,000 ducks were banded, including some 5,700 black ducks. Banding data improves our understanding of the role that harvest plays in the dynamics of black duck populations and continues to be the primary source of information for population models.

Joint Venture partners completed field work on two research projects in Canada, involving a landscape level evaluation of breeding black ducks' habitat use and a

long-term assessment of beaver pond management in Ontario.

Ongoing black duck studies in the United States focus on changes in their winter distribution, abundance, and body condition. The Georgia Cooperative Wildlife Research Unit has been contracted to review, assemble, and integrate key databases into models to test hypotheses. These hypotheses explore over-harvest, competition with mallards, and quality and quantity of breeding and wintering habitats as possible limiting factors in the black duck population. A final report will be available in early 1999.



### Partner Contributions

	1998	Cumulative
Federal	\$487,300	\$6,121,161
State/Local	\$123,500	\$1,190,000
Private Organization	\$ 76,660	\$ 714,667

### Project Expenditures (U.S. Funds)

	1998	Cumulative
Surveys	\$299,300	\$3,926,650
Banding	\$190,000	\$1,784,100
Research	\$157,400	\$1,859,867
Communications	\$ 3,300	\$ 140,400



*Black Duck/Glen Smart, U.S. Fish and Wildlife Service*

## Central Valley Habitat Joint Venture

This 10-year anniversary of the Central Valley Habitat Joint Venture was a landmark year for habitat accomplishments. Partners celebrated the restoration of the West Bear Creek Unit of San Luis National Wildlife Refuge—the largest endeavor of its kind in the West.

They also toasted the signing of the Central Valley Project Improvement Act's Refuge Water Supply document. A guaranteed water supply is crucial to the success of public and private wetlands in the Central Valley. This 1998 document guarantees water to parched public and private refuges even during critically dry years.

Two of the largest multi-partner North American Wetlands Conservation Act projects in the Joint Venture's history are currently nearing completion. Partners in the Grasslands Ecological Area Enhancement and Restoration Project have enhanced and restored 30,625 acres and protected an additional 397 acres through fee-title acquisition. These lands provide habitat for 22 Federally listed or proposed species, priority waterfowl, and many species of other migratory birds.

Partners in the North Central Valley Wetland Habitat Project have protected 7,745 acres of wetlands and associated riparian and upland habitat, restored wetland hydrology on 6,603 acres of agricultural land, and enhanced a total of 7,762 acres of public and private wetlands.

These areas provide important foraging habitat for waterfowl, especially the greater sandhill crane—a State-listed threatened species.

The Joint Venture kicked off a monitoring and evaluation program this year to adaptively plan, implement, and evaluate its activities on the landscape. In particular, partners wish to assess the effects of their accomplishments in wetland habitat improvements throughout the Central Valley. Concurrently, partners are reviewing and updating the Implementation Plan to address waterfowl and wetland needs into the next century.

## Partner Contributions

	1998	Cumulative
Federal	\$2,424,503	\$135,590,359
State/Local	\$ 829,299	\$ 73,446,036
Private Organizations	\$ 386,383	\$ 15,518,859
Individuals	\$1,094,509	\$ 5,907,373

## Habitat Accomplishments

	1998 Acres	Cumulative Acres	Objectives
Protected	618	75,004	80,000
Restored	5,552	45,821	120,000
Enhanced	22,292	Not Reported <sup>1</sup>	735,000

1. The Central Valley Habitat Joint Venture is currently revising the protocols for reporting cumulative enhancement accomplishments.



Wood Ducks/David K. Rosen, Wildside Photography

## Gulf Coast Joint Venture

A significant change occurred in the organization of the Gulf Coast Joint Venture in 1998. A full-time Biological Team Leader position was established to guide and coordinate the Joint Venture's efforts to improve and expand its biological planning, assessment, and research activities. In establishing the position, the Joint Venture recognized the need to strengthen the biological foundation of its wetland habitat objectives, habitat conservation strategies, and waterfowl population objectives. This strengthening is crucial for making biologically based resource decisions.

This year's organizational change helped the Joint Venture to direct its energy towards updating the implementation plans for all six of its initiative areas. During the year, a "scoping" meeting was held with each initiative area team to identify the underlying data and key biological assumptions or predictions of their implementation strategy(ies). This update process is expected to near completion by early 2000.

The Joint Venture continues to be an active voice on behalf of waterfowl management issues and migratory bird conservation concerns. Partners worked tirelessly in 1998 to provide input on the development of a generic amendment to "Fishery Management Plans of the Gulf of Mexico" that would address essential fish habitat.

The Joint Venture also responded to the changes being proposed to Federal migratory bird baiting regulations which would involve new guidance for hunting over manipulated natural vegetation.

The North American Wetlands Conservation Act continued to play a key role in enabling partners to conserve wetland habitat for the future. Four Joint Venture projects involving nearly 3,000 acres were approved in 1998 for funding under the Act. These included the Pontchartrain Wetlands II/Bayou Sauvage project in Louisiana and Phase I/The Katy Prairie Initiative, Austin's Woods/Brazoria NWR Complex, and Aransas Refuge Wetlands projects in Texas.

## Partner Contributions

	1998	Cumulative
Federal	\$ 15,612	\$80,070,971
State/Local	\$ 2,739	\$43,467,855
Private Organizations	\$160,047	\$10,823,248
Individuals	\$ 63,148	\$ 1,273,476

## Habitat Accomplishments

	1998 Acres	Cumulative Acres	Objectives
Protected	1,653	223,679	689,000
Restored	1,238	45,571	104,000
Enhanced	12,335	672,818	958,000



## Intermountain West Joint Venture

The partnership concept continues to prosper within the Intermountain West Joint Venture. The future looks bright as interest continues to expand in forming large-project partnerships to affect significant wetland ecosystems across the Joint Venture. In every year since the Joint Venture began, more partnerships have formed around more wetland conservation projects than the previous year, and 1998 was no exception.

In 1998, the Teton River Basin Wetlands Conservation Project in east-central Idaho, the Great Salt Lake Wetlands Project in Utah, and the Beaverhead Wetland Protection Project in southwestern

Montana all received funding from the North American Wetlands Conservation Act Standard Grants Program. In addition, the Hyatt Wetland Acquisition Project in Boise, Idaho was also awarded funding from the Act Small Grants Program. These projects increased cumulative acreage for Act projects within the Joint Venture by nearly 50 percent and raised cumulative expended project funds to over \$22.5 million since 1995.

With technical assistance from PacifiCorp (a western public utility and Joint Venture Management Board member), the Board produced an outreach video narrated by former Senator Alan Simpson of Wyoming. Board members will use this video as a tool to invite potential corporate and other business partners to participate in Joint Venture projects.

Partners established a Technical Committee to provide biologically based recommendations to the Board regarding wetland ecosystem conservation actions within the Joint Venture area. The Committee will also recommend a biological planning approach to assess the goals and objectives of the Joint Venture.

Membership on the Board continues to evolve as new members join its ranks and as changes occur among existing representatives. In 1998, the Joint Venture welcomed new members from the Rocky Mountain Elk Foundation, Barrick Goldstrike Mining of Elko, Nevada, and the State Divisions of Wildlife from Colorado and Utah.

## Partner Contributions

	1998	Cumulative
Federal	\$395,721	\$6,537,261
State/Local	\$ 79,487	\$3,965,734
Private Organizations	\$ 26,509	\$1,507,862
Individuals	\$134,193	\$2,274,689

## Habitat Accomplishments

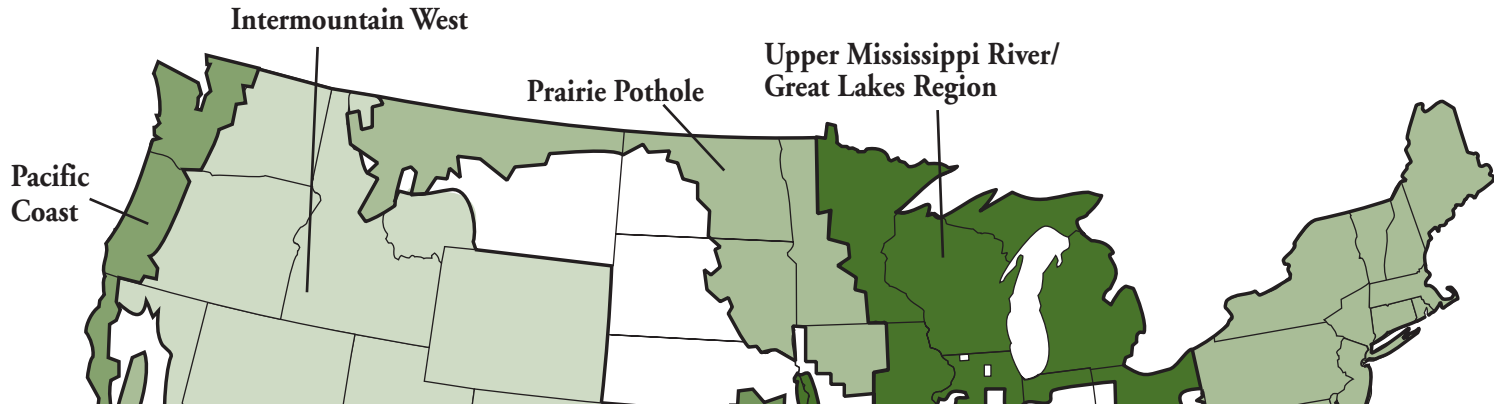
	1998 Acres	Cumulative Acres	Objectives
Protected	708	8,394	1,500,000
Restored	1,748	27,471	500,000 <sup>1</sup>
Enhanced	1,291	47,491	500,000 <sup>1</sup>

1. Habitat improvement objectives are assumed to represent restoration and enhancement at a 1:1 ratio.

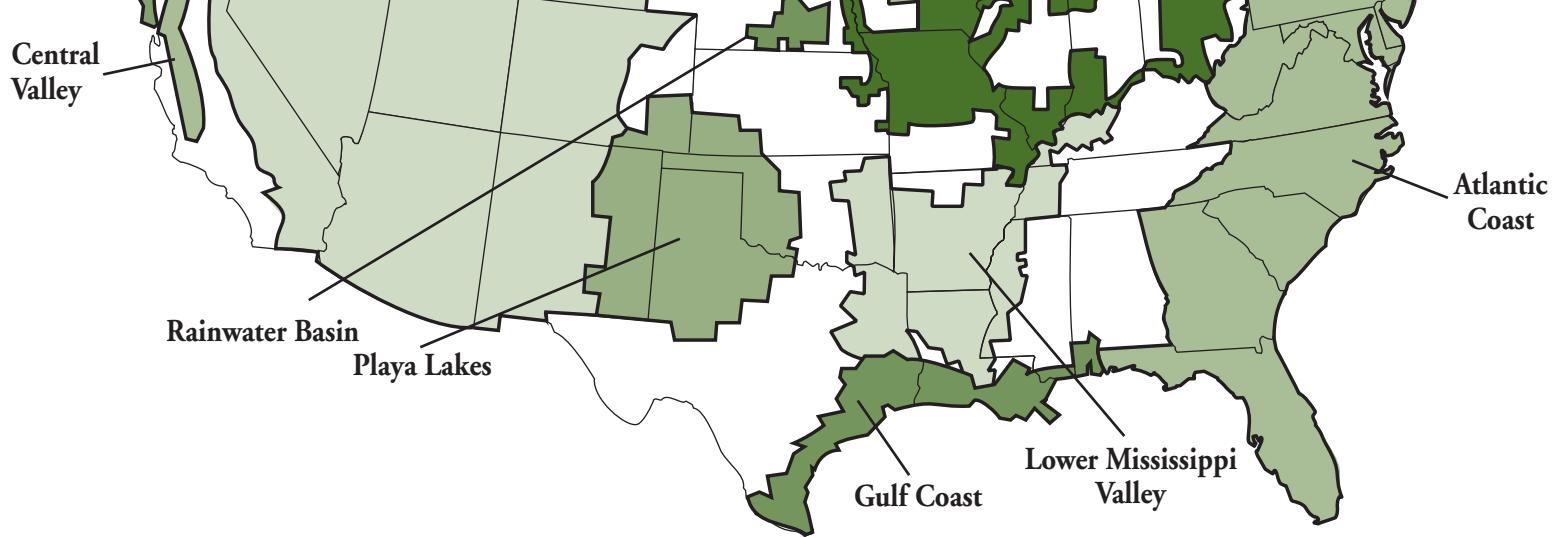


Cinnamon Teal/Gary R. Zahm

# U.S. Habitat Joint Venture Areas







## Lower Mississippi Valley Joint Venture

Instituting a partnership approach to the implementation of the U.S. Department of Agriculture's Wetlands Reserve Program (WRP) has given a big boost to forested wetlands restoration in the Lower Mississippi River Valley. Since the WRP's inception in 1992, Lower Mississippi Valley Joint Venture partners in Arkansas, Louisiana, Kentucky, Mississippi, and Tennessee have placed more than 250,000 acres under permanent protection through conservation easements. The majority of these acres are in the three southernmost states. In 1998 alone, Joint Venture partners reforested over 15,000 acres in

Arkansas, Louisiana, and Mississippi through WRP easements. Over time, the magnitude of the restoration effort this year began to overwhelm the limited staff of the Natural Resources Conservation Service (NRCS) in charge of implementing the WRP. Realizing the importance of the program to waterfowl and other wetland wildlife, Ducks Unlimited, Delta Wildlife Foundation, and the U.S. Fish and Wildlife Service entered into cooperative agreements with NRCS to assist in developing and installing wetland restoration plans on the enrolled easements.

Almost all of these lands were once forested wetlands, but have been cleared and drained for agriculture since the late 1950's. A minimum of 70 percent of the easements will be reforested with native

bottomland hardwood species, including bald cypress, green ash, and various oaks. Up to 30 percent of the acreage can be restored to non-forested wetlands, such as moist-soil areas. Levees, berms, ditch plugs, water control structures, and other features can be installed to restore wetland hydrology to pre-drainage conditions wherever necessary.

When these Joint Venture restoration actions are added to the others occurring through the North American Wetlands Conservation Act, Partners for Fish and Wildlife, and on state and Federal refuges, one can begin to appreciate the extent to which the Delta's landscape is being improved for the new millennium.

## Partner Contributions

	1998	Cumulative
Federal	\$4,084,534	\$131,460,815
State/Local	\$1,216,818	\$ 23,348,911
Private Organizations	\$ 664,535	\$ 9,117,043
Individuals	\$ 24,161	\$ 5,577,649

## Habitat Accomplishments

	1998 Acres	Cumulative Acres	Objectives
Protected	0	364,044	473,000
Restored	20,786	193,107	864,000
Enhanced	4,012	194,450	1,182,000



*Black Bear/R.I. Bridges, U.S. Fish and Wildlife Service*

## Pacific Coast Joint Venture

In 1998, three Pacific Coast Joint Venture projects were approved for North American Wetlands Conservation Act funding. Through these projects, partners will restore 8,000 acres within the Columbia River floodplain and 1,200 acres along California's north coast, and also purchase and restore an industrial area on the Olympic Peninsula's otherwise pristine Sequim Bay.

State partners received six national Coastal Wetlands conservation grants, which they will use to purchase over 2,000 acres of estuarine and riverine habitat important to migratory birds and critical to the Northwest's declining anadromous fish populations.

Ongoing evaluation and monitoring projects involve investigating *spartina* and red canary grass removal, prioritizing estuarine protection in Puget Sound using a Geographic Information System (GIS), and studying waterfowl feeding in relation to agricultural and inland shorebird habitat preferences.

The Washington State Steering Committee sponsored a workshop to provide information to legislators on the threat of invasive *spartina* in northwest estuaries. Washington and Oregon State Committees printed and mailed newsletters to 30,000 subscribers, highlighting partner accomplishments and providing information on conservation programs. These quarterly newsletters are cost-shared among the U.S. Fish and Wildlife Service, states, and Ducks Unlimited, Inc.

Joint Venture partners also supported the annual 5-day Coastal Wetland Institute for Teachers program and are funding an international brant monitoring program. This new program will provide optics and computers to middle schools from Alaska's Izembek Bay to Baja, Mexico—enabling them to communicate with each other through the Internet as the birds migrate through these areas.

Since 1991, the Joint Venture has accomplished 85 percent of its habitat protection objectives set forth by the Plan. Looking to the future, the Joint Venture will be revising its objectives to reflect the needs of all wetland-dependent migratory bird species, in accordance with the 1998 update to the Plan. This should significantly increase Joint Venture habitat targets for the next 8 years.

## Partner Contributions

	1998	Cumulative
Federal	\$ 8,103,305	\$84,054,817
State/Local	\$15,607,888	\$92,913,002
Private Organizations	\$30,316,891	\$41,537,387
Individuals	\$ 791,123	\$ 5,550,934

## Habitat Accomplishments

	1998 Acres	Cumulative Acres	Objectives
Protected	7,365	88,638	116,000
Restored	3,005	8,245	21,000
Enhanced	1,643	7,645	22,000



*Harlequin Duck/Glen Smart, U.S. Fish and Wildlife Service*

## Playa Lakes Joint Venture

The year 1998 brought new partners, important projects, and a renewed focus to the Playa Lakes Joint Venture.

With financial contributions by partner Phillips Petroleum Company, the Joint Venture participated in the Partners for Fish and Wildlife Federal program and developed a strong alliance with Texas landowners. In the intensively cultivated High Plains, landowners continued to voluntarily restore their playas and upland vegetation with assistance from Joint Venture partners. Cumulatively, their efforts protect playa basins across the landscape.

The U.S. Forest Service allocated Challenge Cost-Share Federal Grants

Program funds to restore and enhance wetlands on National Grasslands in the Joint Venture region, after an assessment had been conducted by Ducks Unlimited, Inc., and other partners.

The Colorado Wetlands Initiative continues to thrive with the development of the southern Colorado Playa Lakes focus area. This year the Joint Venture also expanded its boundary northward to include the Arikaree and Republican Rivers project areas and a corresponding area in northwestern Kansas.

The Tierra y Montes Soil and Water Conservation District and the Natural Resources Conservation Service continue to be a driving force in riparian and wetlands restoration in northeastern New Mexico. Their work along the Gallinas,

Sapello, Mora, and Pecos drainages will benefit migratory birds, other wildlife, and the surrounding communities. In southeastern New Mexico, a complex of projects are underway involving the creation of shallow impoundments and moist soil units on Federal and State lands. In one such project, the Chaves County Road Department joined a partnership to construct an 80-acre impoundment on the Dexter National Fish Hatchery.

The Texas Playa Lakes Education Center has been established at Texas Tech University. The Joint Venture is pleased to now be able to loan educational material and teacher guides to educators. These resources are available from state wildlife agencies and the U.S. Fish and Wildlife Service.

## Partner Contributions

	1998	Cumulative
Federal	\$114,001	\$2,527,690
State/Local	\$ 35,072	\$5,105,565
Private Organizations	\$ 73,924	\$ 666,005
Individuals	\$ 51,000	\$ 959,532

## Habitat Accomplishments

	1998 Acres	Cumulative Acres	Objectives
Protected	704	17,303	51,000
Restored	519	10,954	10,000
Enhanced	7,261	13,586	25,000



*American Wigeon/A.A. Allen, U.S. Fish and Wildlife Service*

## Prairie Pothole Joint Venture

The prairies became drier in 1998, with a population of breeding ducks estimated to be 39.1 million—or approximately 7 million less than in the record-high year of 1997. During dry conditions, the wetland/grassland protection and restoration activities of the Prairie Pothole Joint Venture partners become increasingly critical to successful waterfowl production.

Joint Venture partners are working to increase perpetual grassland easements in the Missouri Coteau, where ducks, birds and other wildlife are abundant and the threat of habitat being converted to cropland is high. Grassland easements allow grazing but limit haying to protect birds during the nesting season. They also help maintain grassland cover, provide cash

income to landowners, are voluntary, and keep the land in private hands.

Partners completed a shorebird ecology and management workshop with participation from Canada and Mexico, initiated a Northern Great Plains Shorebird Working Group to help develop the National Shorebird Plan, and produced the video “The Amazing Journey of the Migrating Shorebirds.” New information on shorebirds in the prairies is accessible on the Internet at [www.mesc.usgs.gov/shorebirds](http://www.mesc.usgs.gov/shorebirds). Partners also produced the video “The Prairie Pothole Region: Changes and Choices.”

The Northern Tallgrass Prairie Bird Conservation Plan was completed and the Mid-Grass Plan is being reviewed. Joint Venture partners are also participating in

the development of the North American Bird Conservation Initiative. Partners held a biological planning workshop that involved an in-depth exchange of research, planning, and evaluation information with the Lower Mississippi Valley Joint Venture. Coordination with other bird initiatives and joint venture evaluation and monitoring were also discussed.

Partners continued to create maps for waterfowl breeding pair distribution, upland cover in the Dakotas, and the National Wetlands Inventory in Montana.

Sand Lake National Wildlife Refuge was named a Wetland of International Importance—the 16th in the United States but the first in the Prairie Pothole Joint Venture!



## Partner Contributions

	1998	Cumulative
Federal	\$3,518,243	\$76,737,021
State/Local	\$ 540,964	\$36,665,612
Private Organizations	\$ 905,402	\$22,900,098
Individuals	\$ 374,621	\$ 2,554,609

## Habitat Accomplishments

	1998 Acres	Cumulative Acres	Objectives
Protected	29,113	518,434	1,892,000
Restored	17,799	177,875	745,000
Enhanced	45,678	522,832	3,670,000



*Lesser Scaup/Glen Smart, U.S. Fish and Wildlife Service.*

## Rainwater Basin Joint Venture

Recognizing the importance and value of their perspective, in 1998 the Rainwater Basin Joint Venture Management Board welcomed two new members from the farming community. This reflects the Joint Venture's efforts and commitment to integrate wetland restoration and management into a landscape dominated by agricultural activity. The Joint Venture's emphasis on watershed planning continued to bring the rural community into the wetland restoration and management arena.

Partners continued developing Rainwater Basin Geographic Information Compact Discs, which will make digital data such as

aerial photos, soil information, pre-development topographic maps, public and private land information, the National Wetland Inventory, and more, available in the field. These CDs will provide data critical to making informed on-site decisions and evaluating bioengineering projects.

The U.S. Bureau of Reclamation is conducting a planning study within the Joint Venture region for the restoration and enhancement of publicly owned basins. The goal is to improve their function as sustainable habitat for waterfowl and other migratory birds. The Joint Venture awaits the resulting land-use cover for the entire Rainwater Basin landscape, which will enable bioengineering teams to target and restore wetland hydrology on a watershed basis.

Joint Venture partners began developing its Evaluation and Monitoring Plan this year, and expect to begin collecting information soon to move its restoration and management activities into a truly proactive phase.

Partnerships continue to evolve, mature, and expand as the Joint Venture increases the complexity of its objectives. For example, partners recently helped a small town acquire and restore a 70-acre wetland. The educational, recreational, and aesthetic benefits of the wetland will enhance the quality of the surrounding rural community. This type of successful cooperative effort helps strengthen the credibility of the North American Waterfowl Management Plan's model of integrated, interdisciplinary, and inclusive partnerships that are mutually beneficial.

## Partner Contributions

	1998	Cumulative
Federal	\$26,637	\$3,712,424
State/Local	\$17,990	\$ 560,784
Private Organizations	\$56,810	\$ 375,579
Individuals	\$ 1,679	\$ 42,383

## Habitat Accomplishments

	1998 Acres	Cumulative Acres	Objectives
Protected	318	15,355	50,000
Restored	425	4,628	30,000
Enhanced	0	1,024	8,000



## Upper Mississippi River/ Great Lakes Region Joint Venture

The Upper Mississippi River-Great Lakes Region Joint Venture updated its Implementation Plan in 1998, expanding partnerships into 10 upper Midwest states and revising its habitat and population objectives to include migrating waterfowl and non-game migratory birds. Due in large part to conservation activities associated with projects funded through the North American Wetlands Conservation Act, Joint Venture partners were able to conserve over 60,000 acres of habitat in 1998.

This year, 15 Joint Venture projects received funding through the Act's Standard (11) and Small (4) Grants Program for a total of more than \$8 million. Many of these grants will support subsequent phases of complex or landscape-level projects, including Wisconsin's Northwest Pothole and Southeast Coastal Habitat initiatives, Indiana's Grand Kankakee Marsh and Southwest Four Rivers projects, and Minnesota's Heron Lake and Red Lake restoration projects.

The Joint Venture also received \$28 million in matching funds from partners in the 15 projects, enabling an additional 32,000 acres of habitat to be protected, restored, and enhanced for the benefit of waterfowl and other wildlife.

With these funded projects came several exciting new partnerships this year. Pheasants Forever is leading the Prairie Wetland Heritage Conservation Initiative, a consortium of partners in 36 southwestern Minnesota counties who will acquire and restore prairie wetland/grassland complexes. Federal, Tribal, state and local governments and nonprofit groups are collaborating in the Superior Coastal Wetland Initiative to protect sensitive coastal wetlands along Wisconsin's Lake Superior shoreline.

In Michigan, the partners of the Saginaw Bay Wetland Initiative, led by Ducks Unlimited, Inc., will protect and restore wetlands and uplands in the 60-mile linear corridor of the Saginaw Bay watershed.

## Partner Contributions

	1998	Cumulative
Federal	\$1,233,480	\$21,884,884
State/Local	\$ 107,542	\$29,045,161
Private Organizations	\$ 138,086	\$ 7,406,987
Individuals	\$ 112,192	\$ 1,346,863

## Habitat Accomplishments

	1998 Acres	Cumulative Acres
Protected	48,407	115,485
Restored	19,011	79,014
Enhanced	59,887	150,248

1. Total habitat objectives = 758,572 acres.



*Mallard/Wyman Meinzer, U.S. Fish and Wildlife Service*

## Arctic Goose Joint Venture

In 1998, the Arctic Goose Joint Venture Goose Habitat Working Group completed the *Greater Snow Goose Report*, to be released in February 1999. The report details extensive population changes, the impacts on their natural habitats, farmlands, and other populations, and also makes recommendations for management actions.

This year, the Joint Venture approved the Technical Committee's document, *Science Needs for the Management of Lesser Snow Goose Populations*. The document provides the framework for wildlife agencies to monitor their success in reducing over-abundant lesser snow goose populations. Three priority actions identified in the document include the photo inventorying,

banding, and harvest monitoring of the colonies. Partners have already completed the photo inventory in the Central Arctic and have expanded banding efforts into several key areas.

The Joint Venture continued to support the Hudson Bay Project, which investigates the impacts of the abundant lesser snow goose populations on ecosystem processes. Partners used resulting information to develop the report *Arctic Ecosystems In Peril* and will continue to apply project findings to future management actions.

Following the analyses of the Joint Venture-coordinated Dark Goose Science Program, the Mississippi and Central Flyway Councils developed and completed their combined *White-Fronted Goose Management Plan* this year. Partners

expanded the Queen Maud Gulf banding program and have continued the Alaskan white-fronted goose collaring and monitoring program, due to concern over anticipated changes in regulations and populations, respectively.

The partners continued to study the breeding distribution and productivity of the Atlantic population of Canada geese—a population in such serious decline that their hunting season still remains closed in the Atlantic Flyway.

In 1998, the Joint Venture also funded a program to provide information on black brant in the Pacific Flyway. The initial phase of the program involved monitoring marked birds to study their distribution, movements, and habitat use.

### Total Habitat Joint Venture Contributions

	1998	Cumulative
Federal	\$40,280,041	\$ 794,457,611
State/Local	\$18,682,740	\$ 341,545,849
Private Organizations	\$32,865,587	\$ 149,582,574
Individuals	\$ 2,719,361	\$ 28,622,876
Total	\$94,547,729	\$1,314,208,910

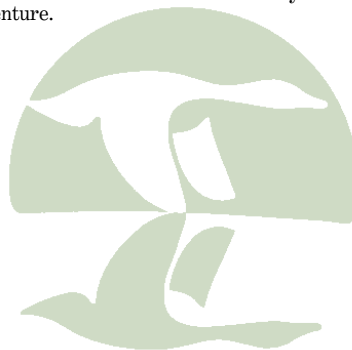
### Total Habitat Accomplishments

	1998 Acres	Cumulative Acres
Protected	104,802	1,797,872
Restored	70,361	642,466
Enhanced	159,410	2,137,029

1. The cumulative enhancement figure does not include accomplishments within the Central Valley Habitat Joint Venture.

### Total Species Joint Venture Contributions

	1998	Cumulative
Federal	\$487,300	\$6,121,161
State/Local	\$123,500	\$1,190,000
Private Organization	\$ 76,660	\$ 714,667



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North American Waterfowl & Wetlands Office  
4401 N. Fairfax Drive, Suite 110  
Arlington, VA 22203**

**Arctic Goose Joint Venture  
U.S. Fish and Wildlife Service  
4401 N. Fairfax Drive, Suite 634  
Arlington, VA 22203**

**Atlantic Coast Joint Venture  
U.S. Fish and Wildlife Service  
300 Westgate Center Drive  
Hadley, MA 01035-9589**

**Black Duck Joint Venture  
Patuxent Research Center  
12100 Beech Forest Drive  
Laurel, MD 20708**

**Central Valley Habitat Joint Venture  
U.S. Bureau of Reclamation  
2800 Cottage Way, MP152  
Sacramento, CA 95825**

**Gulf Coast Joint Venture  
U.S. Fish and Wildlife Service  
500 Gold Avenue, SW, Room 5504  
Albuquerque, NM 87102**

**Intermountain West Joint Venture  
U.S. Forest Service  
145 East 1300 South, Suite 404  
Lincoln Plaza Center  
Salt Lake City, UT 84115**

**Lower Mississippi Valley Joint Venture  
U.S. Fish and Wildlife Service  
2524 South Frontage Road, Suite C  
Vicksburg, MS 39180**

**Pacific Coast Joint Venture  
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9317 NE Highway 99, Suite D  
Vancouver, WA 98665**

**Playa Lakes Joint Venture  
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**Prairie Pothole Joint Venture  
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P.O. Box 25486  
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**Rainwater Basin Joint Venture  
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**Upper Mississippi River/  
Great Lakes Region Joint Venture  
U.S. Fish and Wildlife Service  
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