

# RESTORING AMERICA'S WILDLIFE LEGACY

Resolving the National Wildlife Refuge System Funding Crisis, 2001 Update



A report by

**CARE**

Cooperative Alliance for Refuge Enhancement

## About This Report

This report is a collaborative effort of the Cooperative Alliance for Refuge Enhancement (CARE), a coalition of the 20 conservation and recreation groups listed below. CARE was organized in 1996 to educate Congress and the American people about the National Wildlife Refuge System with goal of having the system adequately funded and poised to meet its mandated mission of wildlife conservation and habitat protection by its 100th anniversary in 2003. This document presents CARE's latest funding recommendations in light of recent legislative successes and recreation and refuge visitation trends that present new opportunities and challenges for the Refuge System. For more specific examples of how funding shortfalls have affected refuges, see *Shortchanging America's Wildlife*, a companion report highlighting a dozen different refuges. To obtain a copy write to CARE, c/o Wildlife Management Institute, 1101 14th Street, NW, Washington, D.C. 20005.

### **Cooperative Alliance for Refuge Enhancement (CARE)**

American Birding Association  
American Fisheries Society  
American Sportfishing Association  
Assateague Coastal Trust  
Congressional Sportsmen's Foundation  
Defenders of Wildlife  
Ducks Unlimited, Inc.  
International Association of Fish and Wildlife Agencies  
Izaak Walton League of America  
National Audubon Society  
National Rifle Association of America  
National Wildlife Federation  
National Wildlife Refuge Association  
Safari Club International  
The Wildlife Society  
The Wilderness Society  
Trout Unlimited  
Wildlife Forever  
Wildlife Legislative Fund of America  
Wildlife Management Institute

**Cover:** Black-necked stilts, Humboldt Bay NWR, by Tupper Blake/USFWS

## INTRODUCTION

In 1903, President Theodore Roosevelt was informed about a tiny island of nesting brown pelicans that were in jeopardy due to market hunting. He asked his aide if he had the power to declare the island a sanctuary for the brown pelican. His aide responded that there was nothing



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*"I so declare it."*

that said he could not. "Well then," said Roosevelt, "I so declare it." From that defining moment, the Refuge System has grown to more than 535 refuges in all 50 states and most U.S. territories. This system of lands protects virtually every ecosystem found in the United States. Tundras, deserts, forests, rivers, marshes, prairie potholes, swamps, mountains, prairies, estuaries, coral reefs and

more than 700 species of birds and 1,000 species of fish, 220 mammals, 250 reptiles and amphibians and nearly 260 threatened or endangered species are under the Refuge System's canopy of protection. On March 14, 2003, the 94-million acre Refuge System will complete its first century of service to the American people. Despite its critical role in conserving America's wildlife, habitat and ecosystems, this amazing system of lands is in trouble as it approaches this milestone. Habitat destruction and deterioration, human development, pollution and invasive exotic species pose significant threats to refuge lands. Serious shortfalls in staff and funding continue to limit the ability of refuges to conserve wildlife and provide recreation and education to local communities. Many refuges have no staff, no visitor facilities, no signs or brochures to educate visitors and no means to care for the wildlife populations they are entrusted to protect.

In 1996, a diverse group of conservation and recreation organizations formed the Cooperative

Alliance for Refuge Enhancement (CARE) to address this grave situation. CARE has been advocating for increased operations and maintenance funding for the Refuge System — America's best kept wildlife conservation secret — ever since.

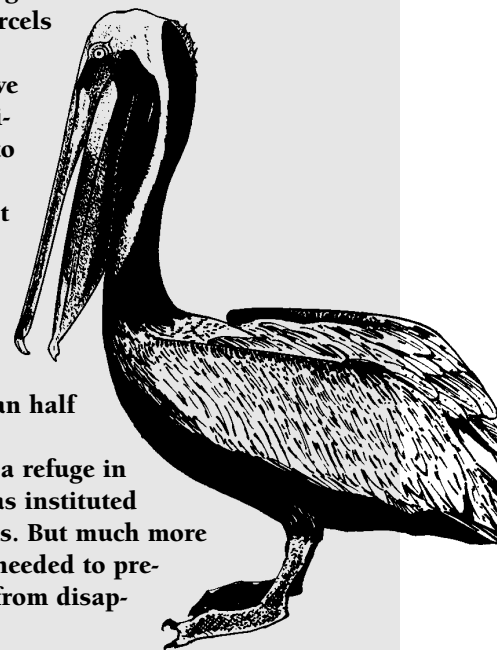
Since 1996, Congress has responded by providing modest funding increases for each fiscal year. While these increases have helped relieve the most critical needs, additional funds are still needed. Indeed, as detailed in these pages, refuge operations and annual maintenance funding must be increased significantly if the Refuge System is to meet its wildlife conservation mission.

With the support of the Administration and Congress, however, CARE believes the National Wildlife Refuge System can be poised to meet its mission and the conservation challenges and opportunities of the 21st century. And there could be no more fitting tribute to this vitally important network of land than to have them sufficiently funded and fully functioning by the 100th anniversary of the Refuge System in 2003.

**P**elican Island, our nation's first national wildlife refuge, is an example of what a refuge can do with a little funding. To address the development that is encroaching on the mainland side

of the island, the refuge purchased several parcels of land, which it is restoring to productive wildlife habitat condition. If the refuge is to be fully protected, much more land must be acquired.

To deal with the rising sea levels eating away at the edges of Pelican Island — now less than half the size it was when Roosevelt declared it a refuge in 1903 — the refuge has instituted erosion control efforts. But much more extensive efforts are needed to prevent our first refuge from disappearing completely.



## A TREASURED BUT BURDENED SYSTEM

The National Wildlife Refuge System comprises 538 refuges and 94 million acres of the most biologically diverse lands in America. In every state and most U.S. territories and island possessions, the Refuge System protects key habitats for migratory birds, endangered species, fish and resident wildlife.

Managed by the U.S. Fish and Wildlife Service, an agency within the Department of the Interior, the Refuge System is the only network of national lands established specifically to conserve fish and wildlife.

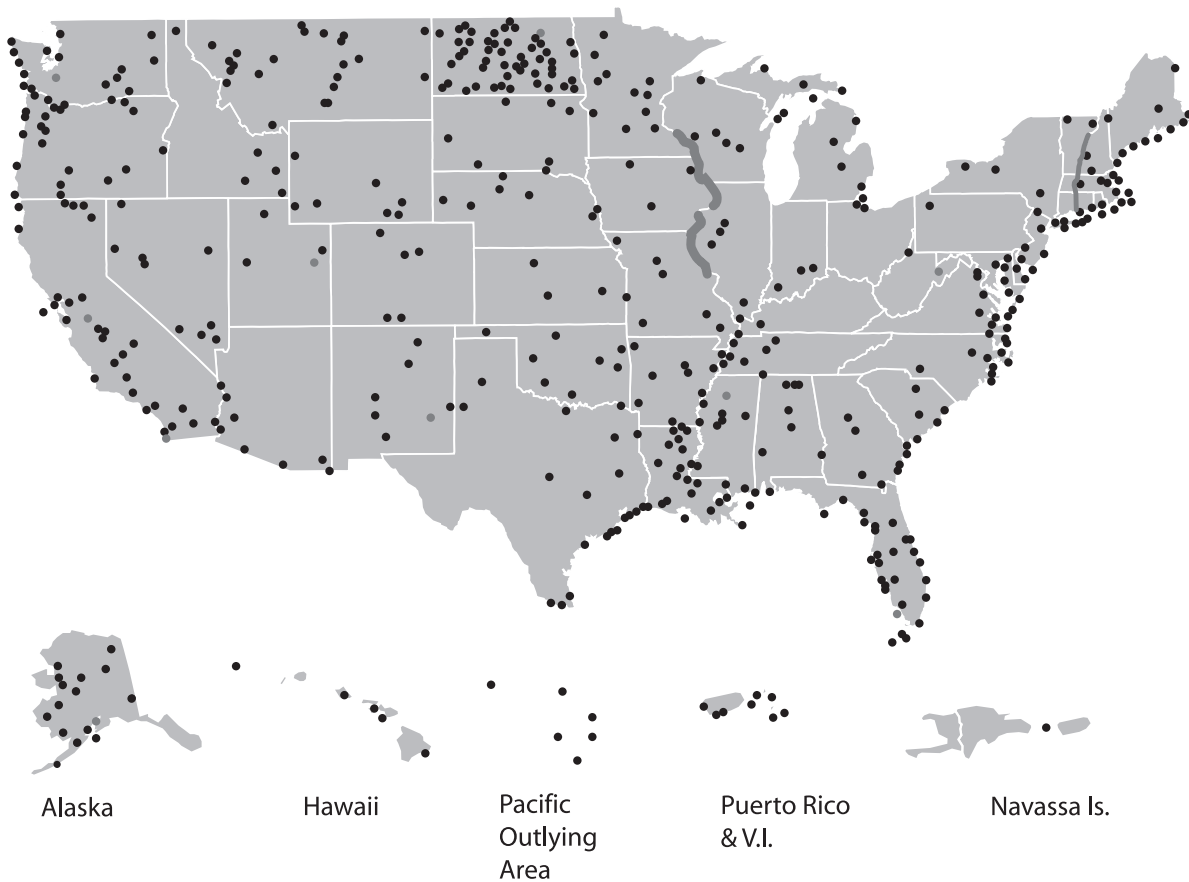
Our national wildlife refuges protect key stopovers for the millions of migratory birds — waterfowl, songbirds, raptors and shorebirds that traverse the continent each spring and fall. Refuges also are at the core of recovery efforts for nearly 260 endangered and threatened animals and plants — from Key deer to whooping cranes, Lange's metalmark butterflies to Ash Meadows blazing-stars.

With a national wildlife refuge within an hour's drive of most American homes, the Refuge System provides exceptional opportunities for wildlife-related recreation and environmental education. In 2000, more than 36 million anglers, hunters, birdwatchers, photographers and students took advantage of the recreational and educational opportunities available on refuge lands.

Severe funding and staffing shortfalls have led to the decline of refuge habitats and wildlife populations and put popular wildlife-dependent recreation programs at risk.

Aging facilities and equipment, invasive exotic species, human encroachment, pollution, inadequate water supplies and other problems plague many refuges, making it nearly impossible to meet their conservation mission. Management programs to help recover endangered species, restore damaged habitats and address threats to water quality and other problems go unmet on an alarming

### The National Wildlife Refuge System



number of refuges. Most refuges operate with minimal staffing, and approximately 200 refuges have no staff on-site.

The Refuge System is severely constrained in its efforts to survey, inventory and monitor fish, wildlife and plant populations. Population declines and disease problems on refuges are often not adequately documented. Control of invasive plants and wildlife is hindered by the shortage of refuge biologists.

Active management of habitat on national wildlife refuges often is deferred due to the lack of staff and resources. While refuge habitats may appear to be productive to the casual observer, they are often low quality and support less than optimum wildlife populations. In many cases, intensive manipulation and active management are needed to restore these habitats and ensure that wildlife populations are abundant and healthy. However, these activities cannot be carried out without adequate resources.

Funding shortfalls on refuges also hinder the Refuge System's ability to serve people. A broad array of activities including environmental educa-

tion, wildlife-dependent recreation, public outreach, comprehensive conservation planning, coordination with states and tribes, law enforcement programs and recruiting and training dedicated volunteers are affected by funding shortfalls. Three out of four refuge visitors have no contact with refuge staff, receive no brochures, maps or other basic information, and find only marginal facilities to support their chosen activity on the refuge.

Many of the refuge facilities are severely deteriorated. The Refuge System maintains an infrastructure of facilities worth more than \$7 billion, but thousands of roads, buildings, water control structures, vehicles and public facilities are substandard and require constant maintenance attention. In 2001, the Refuge System had an \$831 million backlog of unmet maintenance needs impacting wildlife populations and services to the public. The cost of these repairs grows exponentially the longer they are deferred.

In addition to these unmet needs, the Refuge System has been charged with many new responsibilities and presented with new opportunities in recent years. All come with attendant costs.

## NEW RESPONSIBILITIES AND OPPORTUNITIES

In 1997, CARE released a plan of action calling for modest but steady investments in the Refuge System's operations and maintenance budget to get the system on track toward fulfilling its conservation mission by its 100th anniversary in 2003. Since then, several developments have prompted CARE to reevaluate the needs of the Refuge System, recalculate the funding needed to meet those identified needs and issue an updated plan in 1999 and now again in 2001.

These developments included passage of the National Wildlife Refuge System Improvement Act of 1997, the National Wildlife Refuge System Volunteer and Community Partnership Enhancement Act of 1998, and the National Wildlife Refuge System Centennial Act of 2000; the release of *Fulfilling the Promise*, a vision document for the Refuge System; and increased visitation and visibility of national wildlife refuges.

Each of these developments has brought new responsibilities and opportunities that will influence how the Refuge System meets its mission in the coming decades.

### **The National Wildlife Refuge System Improvement Act of 1997**

The National Wildlife Refuge System Improvement Act spells out the "wildlife first" conservation mission of the Refuge System. The House report accompanying the bill stated, "the fundamental mission of our Refuge System is wildlife conservation; wildlife and wildlife conservation must come first."

This law requires each refuge to develop a comprehensive conservation plan detailing how it will meet its "wildlife first" mission for the next 15 years. These plans must include provisions for conserving and monitoring the biological diversity, integrity and environmental health of the refuge. They must establish compatibility standards for assessing proposed uses of refuge lands. And to assure that priority public uses are accommodated, the public must be involved in each stage of the development of the plans.

Many refuges have completed their plans. Unless there are adequate funds to implement them, however, these plans will be little more than paper promises.

**The National Wildlife Refuge System Volunteer and Community Partnership Enhancement Act of 1998**

The Volunteer and Community Partnership Act gives the Refuge System funding authorities and mechanisms to invite citizens to become more involved in the Refuge System's wildlife conservation mission. More than 200 local "friends groups" currently are organized to assist the Refuge System in strengthening wildlife conservation and public service programs. At present, volunteers outnumber refuge employees by a ratio of 10 to 1. While volunteers are a critical element to implementing many programs, they can only do so much.

**"Fulfilling the Promise," 1998**

Refuge System employees and conservation partners collaborated to produce *Fulfilling the Promise*, a vision document for the Refuge System. This document sets a broad and ambitious direction for the system in fulfilling its conservation mission while providing more opportunities for the millions of people who enjoy refuges each year.

**The National Wildlife Refuge System Centennial Act of 2000**

Congress recognized the 100th anniversary of the Refuge System as an opportunity for celebration

and commemoration by passing the National Wildlife Refuge System Centennial Act of 2000. The act calls for the Secretary of the Interior to appoint a Centennial Commission, comprised of prominent citizens and members of Congress, to guide the centennial celebration and build support and awareness for the Refuge System. This legislation also calls on the U.S. Fish and Wildlife Service to develop a long-term plan to address the highest priority operations, maintenance and construction needs of the Refuge System. The plan will focus on addressing the Refuge System's maintenance backlog and develop a visionary, operational plan to meet the current and future needs of the Refuge System. It is scheduled for release by March 2002.

**Increased Visitation and Visibility**

In addition to legislative and administrative changes, the Refuge System has also experienced a major increase in visitation. Increased visitation increases the visibility of the system and generates new support for it, but also requires additional commitment of staff time for visitor services and law enforcement.

Most of these additional costs are currently unbudgeted and must be taken from existing programs, which further undermines the financial resources available to meet other refuge needs.

**NEW FUNDING CHALLENGES**

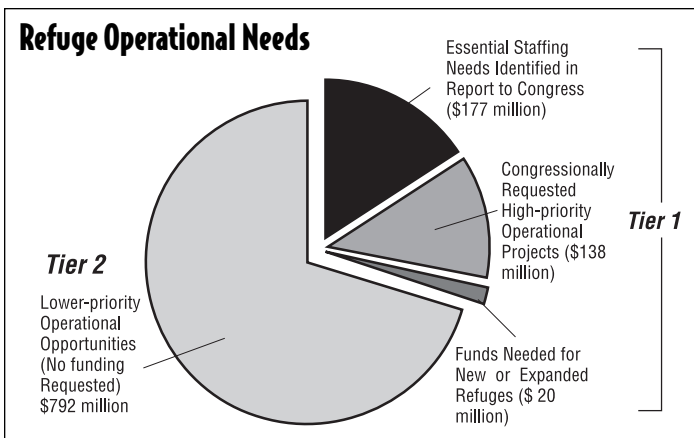
If the Refuge System is to succeed in meeting its new responsibilities and opportunities and fulfilling its promise to the American people, new

funding is vital. Substantial funding increases for staff and other operational needs and for maintaining equipment and facilities must come in the form of appropriations allocated to "Refuge Operations and Maintenance," a part of the U.S. Fish and Wildlife Service's resource management account.

**Tracking Needs**

A sophisticated computer database has been developed to track Refuge System needs on a project-by-project basis. Refuge managers and field staff assess their needs and send specific project descriptions to these databases.

The Refuge Operations Needs System (RONS) tracks operational needs, and the progress made toward addressing them. Unfortunately, funding shortfalls have caused many missed opportunities. At



the direction of Congress, the Refuge System has prioritized these operational needs into two tiers. The highest priority projects include essential staffing needs, projects critical to the Refuge System's mission and projects for new refuges and refuge expansion. These "tier-one" project funding needs total \$335 million. Other important project opportunities are contained in "tier-two" of the RONS database and total an additional \$792 million.

The Maintenance Management System (MMS) tracks the maintenance needs of refuges and the progress made toward addressing them. Funding shortfalls have also created a backlog of deferred maintenance projects in the Refuge System. This backlog affects the ability of refuges to protect wildlife and serve the public. The fiscal year 2000 maintenance backlog amounts to \$831 million's worth of deferred projects. The Refuge System has prioritized these deferred projects using a five-year planning process developed and coordinated by the Department of the Interior. The Refuge System is working to improve these databases by implementing an innovative "condition assessment" program that will systematically examine the condition of all its facilities and equipment.

**Boosting Operations**

Most of the Refuge System's operations budget funds the staff necessary to take care of daily land management, habitat restoration, research, monitoring, public use and planning activities. Without staff, including maintenance workers, this work simply cannot be done.

Shortfalls in staff are the most critical problem facing the Refuge System. For most refuges, discretionary funding for wildlife management and public use projects is nearly nonexistent after salaries are deducted. Congress recognized this serious problem and requested an analysis of essential staffing vacancies. The analysis identified 1,350 high priority-staffing vacancies critical to meeting the Refuge System's mission.

Operations projects fall into one of three budget categories that correspond to goals set forth in the Refuge System's mission: **Protect Wildlife, Improve Habitat, Serve People**. The Protect Wildlife budget is crucial to the Refuge System's ability to carry out its mandated "wildlife first" mission. The Improve Habitat budget is crucial to meeting the Refuge System Improvement Act's mandate to maintain the health and integrity of the refuge lands. Without healthy and diverse habitat, there can be no wildlife.

The Serve People portion of the budget is the

key to meeting the Refuge System Improvement Act's requirement that the Refuge System provide compatible wildlife-dependent recreation, such as hunting, fishing, wildlife observation, photography, and environmental education, as priority uses of the Refuge System. The conservation planning mandated by the Refuge Improvement Act is also covered by this budget category as is implementation of the Refuge System Volunteer and Community Enhancement Partnership Act.

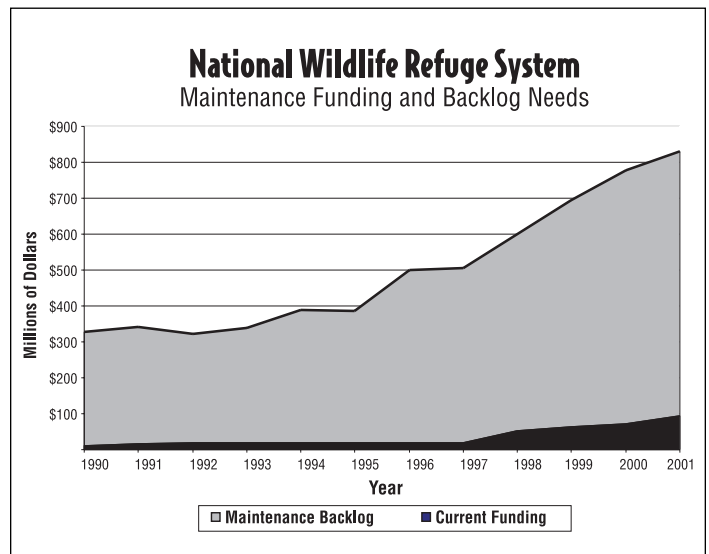
The chart on the next page summarizes the impacts funding shortfalls have on refuges and illustrates just how challenging it has been for the Refuge System to fulfill its mission.

**Keeping Up With Maintenance**

Refuge System maintenance funding is used to repair, replace or demolish dilapidated facilities on refuges, to perform annual preventive maintenance, and to repair and replace equipment. Permanent staff and salary costs for maintenance personnel are not paid out of the maintenance account. Funding goes to projects on the ground to prevent small annual projects from degenerating and being added to the backlog.

Maintenance funding is divided into three categories: annual maintenance, equipment replacement and deferred maintenance. These categories of funding are coordinated to maximize the reduction of the maintenance backlog. CARE does not differentiate among them, because our goal is to insure that the overall maintenance funding is adequate. Then the backlog can be reduced, while providing for adequate preventive maintenance and the replacement of equipment.

Annual maintenance is used to keep small



**IMPACTS OF OPERATIONS AND MAINTENANCE  
FUNDING SHORTFALLS ON REFUGES**

Budget Category	Impacts
<p><b>OPERATIONS</b></p>	<ul style="list-style-type: none"> <li>• Hindered ability to carry out the provisions of the Refuge System Improvement Act of 1997. Refuge managers currently cannot conduct surveys, monitor or inventory the vast array of fish, wildlife and plants that inhabit refuge lands as directed by the act. Without this basic biological understanding of plant and animal communities, many other programs cannot be initiated.</li> <li>• Lost opportunities to restore populations of endangered species or to enhance populations of seriously declining species to prevent the need for listing as threatened or endangered.</li> <li>• Inadequate attention given to addressing the protection of refuge water rights and air quality or taking steps to investigate, monitor and clean contamination from hazardous substances, landfill/dump sites, unexploded military ordinance and leaking underground storage tanks.</li> <li>• Lack of the intensive efforts needed to eliminate invasive non-native plants. Exotic plants are one of the leading threats to wildlife habitat, often transforming entire ecosystems into unproductive habitat for native species.</li> <li>• Failure to restore or properly manage habitat. Restoration is desperately needed on more than one million acres of degraded wetlands, forest, desert, grassland and other habitats. Management efforts, such as controlling water levels to sustain wetlands and aquatic habitats, are often deficient.</li> <li>• Limited educational and recreational opportunities. Incomplete planning efforts and lack of staff make it difficult to initiate and manage programs for the public.</li> <li>• Unrealized potential for collaborating with local communities and refuge neighbors. As a result many communities may be missing out on the social, cultural, environmental and economic benefits refuges can provide.</li> <li>• Failure to recruit, train or supervise volunteers and take full advantage of their willingness to help as mandated by the Refuge Volunteer and Community Partnership Enhancement Act. Volunteers contribute greatly to the operations, maintenance, public education, research and other Refuge System programs.</li> </ul>
<p><b>MAINTENANCE</b></p>	<ul style="list-style-type: none"> <li>• Diminished habitat productivity. Inadequate management of plant communities results in less than optimum wildlife population levels and missed recreational opportunities.</li> <li>• Diminished visitor experiences. Interpretive displays, trails and wildlife viewing platforms in need of work often must be closed to the public.</li> <li>• Diminished capacity to carry out refuge management activities. Deteriorated or otherwise inadequate vehicles and equipment constrain all phases of refuge management from inventory and monitoring to ensuring employee and public safety.</li> </ul>

maintenance problems from being deferred and added to the maintenance backlog. Equipment replacement funds are used to replace equipment on a regular schedule. Prior to 2001, equipment was replaced only when it had broken down completely or had outlived its useful life and became expensive to maintain. Deferred maintenance funds are used to address larger maintenance problems that have been neglected for many years due to funding shortfalls.

Recognizing the Refuge System's dire condition, Congress has provided modest but significant funding increases each year from 1998 to 2001 for operational and maintenance needs. These funding increases have been tremendously helpful in achieving the on-the-ground results.

CARE has reported on these accomplishments in its annual accountability reports. These reports have shown that the funding increases are being effectively used as Congress intended. However, as described in these pages, the Refuge System contin-

ues to have large unmet operational needs and an increasing maintenance backlog.

Although recent increases have enabled the Refuge System to begin to address the backlog of maintenance needs, an \$831 million backlog remains. The rate of growth of the backlog has slowed significantly in the last few years. In fiscal year 2000, the backlog grew by approximately 7 percent as compared to more than 20 percent just a few years before. This is a positive sign, but the fact remains that the backlog is still growing.

Additionally, the Refuge System has been able to accomplish numerous maintenance projects through the Transportation Equity Act (TEA 21). TEA 21 funding totaled \$20 million a year for a five-year period. However, this act needs to be reauthorized in 2003. Title V maintenance funding of \$18 million in fiscal year 1998 and Title VIII maintenance funding of \$19 million in fiscal year 2001 provided additional funds to address backlogged maintenance projects.

## CONCLUSION

The last major infusion of revenue into the Refuge System was from the Bicentennial Land Heritage Program, which ran from 1977 to 1981. The Refuge System's centennial offers a unique opportunity for a similar scale of effort to create a strong and vibrant Refuge System.

Based on a thorough review of the needs and opportunities facing the Refuge System, CARE has concluded that sizeable increases are necessary. CARE recommends:

Operations .....	\$560 million per year
Maintenance.....	\$140 million per year
<b>Total .....</b>	<b>\$700 million per year</b>

These increases are justified for several reasons:

- The National Wildlife Refuge System Improvement Act of 1997 assigned additional responsibilities and requirements to the Refuge System, including increased biological monitoring, assessments, public use and comprehensive conservation planning.
- The essential staffing report requested by

Congress for the Refuge System identified 1,350 additional positions needed within the system at a cost of \$177 million.

- Projects identified as critical to fulfilling the mission of the Refuge System under the two-tiered project prioritization process requested by Congress will cost an estimated \$138 million.
- Numerous new refuges have been added to the Refuge System, many at the direction of Congress rather than planned by the Refuge System. The additional operations and maintenance costs for these new or expanded refuges are estimated to be \$20 million.
- Industry recommends that organizations invest two to four percent of a property's value in annual maintenance. A two-percent investment in annual maintenance for the Refuge System's more than \$7 billion in real property will cost \$140 million.
- Refuge visitation increased from 29.6 million people in 1996 to 36.5 million people in 2000

and is expected to exceed 42 million before 2003. These increases in visitation are projected to cost the Refuge System an additional \$82 million over 1996 levels by 2003.

- Inflation, as calculated by the consumer price index (CPI), would require the 1996 CARE funding targets to be increased by \$66 million in order to maintain the anticipated level of purchasing power in fiscal year 2003.
- The Refuge System has acquired military base closure properties that have come with enormous costs for demolition and management. The current maintenance demolition costs for these bases are conservatively estimated to be more than \$69 million.

To put the needs of the Refuge System in perspective, the National Park Service has nearly \$16 per acre to operate and maintain its lands and facilities. In contrast, the Refuge System's operational and maintenance budget is a little more than \$3 per acre.

CARE's funding goal would bring this to a modest \$7.45 per acre.

In keeping with CARE's commitment to

a modest program, the new request for \$700 million is derived from: the fiscal year 2001 base of \$300 million; tier 1, the top 30 percent of the current RONS database, and a target of two percent of the value of the real property for annual maintenance. No money has been requested to offset inflation or to cover costs related to increased refuge visitation.

The recommended funding increases are sizeable, but conservative in keeping with efforts to balance federal budgets and reduce taxes.

Increases for the Refuge System should be viewed as an investment in the future of a unique national treasure. This treasure will only increase in value over time if given proper attention. Refuge lands provide a major contribution to wildlife conservation in this country and the world, while also providing a high quality opportunity for more than 36 million Americans to enjoy wildlife in the outdoors.

Refuges are the foundation for wildlife and bio-

diversity conservation and wildlife-dependent activities that extend well beyond refuge boundaries. Investing in the National Wildlife Refuge System is investing in our environment, our communities, our future and our natural heritage.

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