

# PRESIDENT CLINTON

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# PARKS FOR TOMORROW



*A PLAN TO RESTORE AND PRESERVE  
AMERICA'S NATIONAL PARKS*

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APRIL 22, 1996

## *FORWARD*

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Our National Parks are places of wonder, recreation and enjoyment for all Americans. The Clinton Administration's "Parks for Tomorrow" is a comprehensive plan for restoring and preserving our National Park system.

Our "crown jewel" parks, like Yellowstone and Yosemite, are the destination point for millions of American families for their annual vacations. Our historical parks, national seashores and other units of the park system are extensions of America's backyards, hosting countless family day outings and school class trips.

Soaring visitation levels approaching 300 million annually have accelerated wear on park roads, buildings and landscapes. The Clinton Administration's plan, "Parks for Tomorrow," will protect and rebuild America's park system.

The plan includes more than 20 different actions to be implemented through either legislative proposals or Presidential directives. Following is a complete explanation of the President's proposal, which includes: *Executive Actions, New Initiatives* and *Action Plan on Pending Legislation*.

## *EXECUTIVE ACTIONS*

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### **AIRCRAFT OVERFLIGHTS**

The noise of sightseeing aircraft at low altitudes over national parks is a problem of significant proportions to the millions of visitors who spend their vacations in these magnificent places. While commercial sightseeing aircraft is the only way to see parks for some visitors, there are 30-40 parks facing various types of overflight problems, including Grand Canyon National Park where substantial restoration of natural quiet is mandated by law, parks in Hawaii, and many in the intermountain west.

- ➔ **ACTION:** Secretary Pena, in cooperation with Secretary Babbitt, will build upon recent cooperative efforts between the Departments of Transportation and Interior by issuing proposed regulations to place appropriate limits on the noise caused by low-flying sightseeing aircraft overflights over the Grand Canyon National Park, completing rule-making by the end of 1996 and completing "the substantial restoration of natural quiet" within 12 years. Regulations will also be developed to manage overflights over other priority parks, including Rocky Mountain National Park.

### **HISTORIC PRESERVATION**

For fiscal years 1994-97, the National Park Service (NPS) estimates a \$470 million backlog in rehabilitation and restoration of thousands of historic structures and cultural landscapes in the national parks.

- ➔ **ACTION:** Secretary Babbitt will report to the President within six months on options outside of the traditional appropriations process for preserving historic park structures. Such options should include the possibilities for partnerships with businesses, associations, and individuals in the private sector.

### **ROAD AND TRANSPORTATION SYSTEMS**

The number of vehicles on park road systems is increasing at such a rate that roads are deteriorating faster than the NPS can maintain them. Too many pot holes, broken guard rails, deteriorating road beds, and simple overcrowding can make for bad vacations.

- ➔ **ACTION:** The President is directing Secretary Babbitt, in cooperation with Secretary Pena, to develop a plan for a comprehensive effort to improve public transportation in the national parks. This plan will include design of pilot programs in the Grand Canyon, Zion and Yosemite National Parks.

## **NATIONAL PARK FOUNDATION (NPF)**

Congress created the National Park Foundation in 1967 to receive gifts and make disbursements to benefit the parks, but left in doubt its ability to solicit donations and other fundraising techniques to support the parks. The Foundation has expressed interest in various options to enhance its effectiveness in providing appropriate private support for the national parks.

- ➔ **ACTION:** The President is directing Secretary Babbitt to prepare within 30 days a specific proposal to invigorate the National Park Foundation's important role in fostering public-private partnerships.

## **COOPERATIVE AGREEMENT AUTHORITY**

Gives the NPS clearer authority to enter into contracts and agreements to share talent, gear, and ideas with local governments and entities to preserve and maintain parks.

- ➔ **ACTION:** The President is directing Secretary Babbitt to prepare a legislative proposal to permanently extend cooperative agreement authority.

### **WILDERNESS IN THE PARKS**

The fact that wilderness exists in America is a modern miracle, due in large measure to the foresight of citizen leaders earlier in this century, like Aldo Leopold and Howard Zahniser, Bob Marshall and key Members of Congress in the 1960s. The National Park Service, and Presidents Nixon, Ford and Carter recommended wilderness designations in 17 national parks, covering some 5 million acres, which the Congress has never seriously considered. They include such well known places as Yellowstone, Glacier, Grand Teton, Great Smoky Mountains, Zion, Bryce Canyon, and Canyonlands National Parks.

- ➡ **ACTION:** The President urges Congress to act on previous park wilderness recommendations and directs Secretary Babbitt to work with Congress to make any technical changes to these proposals during the legislative process.

### **POINT REYES NATIONAL SEASHORE EXPANSION**

In 1995, the National Park Service completed a study that recommended expanding the boundary of the Point Reyes National Seashore by 38,000 acres to protect the viewsheds of the park. Recognizing the benefits from continued private ownership of the large cattle ranches within the proposed expansion area, the study proposed only acquiring partial interests in land through voluntary conservation easements that would limit the type and amount of development that could take place on the property, while allowing existing and future ranching operations to continue. This consensual approach would protect both the interest of the public users of the area, and of the private owners of the lands.

- ➡ **ACTION:** The President directs Secretary Babbitt to work with Congress to prepare and pass legislation that would allow the National Park Service to protect the scenic vistas surrounding Point Reyes National Seashore. In addition, the Secretary will use existing authority to make up to make minor boundary adjustments to the Park and use up to \$1 million to acquire easements within the revised boundaries.

### **REAUTHORIZATION OF THE HISTORIC PRESERVATION FUND**

Grants administered by the National Park Service to state and local governments and Indian Tribes from the Historic Preservation Fund (HPF), will assist every state and many cities, counties and localities with the preservation of local historic properties, which are not owned or operated by the federal government.

- ➡ **ACTION:** The President directs Secretary Babbitt to prepare a legislative proposal to reauthorize the Historic Preservation Fund through 2005.

## *ACTION PLAN FOR PENDING LEGISLATION*

### **NATIONAL PARK SERVICE 1997 BUDGET**

This is an increase of \$181 million over the estimated amount for FY 1996, which includes critical increases to continue the restoration of the Everglades (the most threatened ecosystem in the country), to begin the restoration of the native salmon runs of the Elwha River in Olympic National Park, and increases in park operating budgets to provide better visitor services and protection of cultural and natural resources.

- ➔ **ACTION:** The President calls on Congress to enact the FY 1997 budget for the National Park Service fully and on time.

### **FEE REFORM**

The National Park Service budget alone cannot provide adequate funds to maintain the parks for visitors. Currently, there are numerous limitations and prohibitions on fee collections in the parks that need revision. Some of these restrictions should be lifted, while keeping park entrance fees low and retaining the current cap on fees for the elderly and free entrance for children.

- ➔ **ACTION:** The President calls on Congress to pass the NPS fee legislation that supports the Administration's 1997 Budget, which would remove inappropriate restrictions and return 80 percent of revenue to the parks.

### **CONCESSIONS REFORM**

Private companies enjoy the privilege of operating the hotels, restaurants, gift shops, boat and horseback tours, and other park visitor services, under contract to the National Park Service. Over \$650 million in gross receipts in 1994 were generated by 652 of these "concessioners," but they paid only a tiny fraction of this to the NPS for the privilege, and very little of it remains with the NPS to improve the parks. The 30-year-old Concessions Policy Act, which governs their operations in the parks is obsolete and needs reform to increase competition.

- ➔ **ACTION:** The President calls on Congress to pass S. 309 (Bennett/Bumpers) with the Administration's amendments.

## **NATIONAL HERITAGE AREAS SYSTEM AND RELATED LANDS**

There are many beautiful natural and cultural places across America which are significant and should be restored or preserved, but cannot and should not be turned over to the federal government. These places can often be best protected and most wisely used if they are under local management and have local leadership and decision-making about their care, with assistance from the National Park Service.

- ➡ **ACTION:** The President calls on Congress to pass the Administration's heritage initiative, which authorizes the Park Service to provide technical assistance and small grants to state and local heritage areas.

## **PRESIDIO**

Across America, as more and more people live their lives in urban areas, open space in our cities is increasingly in short supply. In October 1994, the Presidio of San Francisco became part of the National Park System when it was transferred from the Department of Defense. A bill, H.R. 1296 (Pelosi), is moving through Congress to create a Presidio Trust. The Trust will manage the property and reduce its cost to the federal government by leasing many of the buildings found on the Presidio while preserving historic structures and ensuring the continued preservation of the scenic beauty and natural character of the area.

- ➡ **ACTION:** The President calls on Congress to protect this unique resource by passing legislation with the Administration's amendments.

## **STERLING FOREST**

New York is facing a stark choice – either make major expenditures on chemical treatment of water, or protect the remaining natural watershed which lies just outside New York City. This 18,000-acre tract in New York State, known as the Sterling Forest, is critical to the water supply and open space needs of the millions of Americans who reside within 50 miles.

- ➡ **ACTION:** The President calls on Congress to pass S. 223 (Bradley), a bill to authorize the NPS to participate in the acquisition of the Sterling Forest, sharing in the cost to the extent that it will protect the federal interest in the Appalachian Trail.

## OLD FAITHFUL PROTECTION ACT

One of the best known icons of the national parks is *Old Faithful*, the steam geyser of Yellowstone. What is not well known is that the geothermal "plumbing" system that supplies the water and heat to the geysers, hot springs, mud pots and other features of Yellowstone extends well outside the boundary of the park, and threatened with development that could divert or disrupt the delicate system controlling the surface activity. Legislation is necessary to ensure true protection.

- ➡ ACTION: The President calls on Congress to pass H.R. 723, the Old Faithful Protection Act (Williams)

## MINOR BOUNDARY ADJUSTMENTS

Park boundaries are set in law when a park is established, but often prove to have been drawn by Congress without all relevant information, with the result that over time the NPS must go back to Congress for amendments to law to fix boundary problems. This is often an unnecessary and burdensome process.

- ➡ ACTION: The President calls on Congress to pass generic legislation authorizing minor boundary adjustment.

## MANAGEMENT OF MUSEUM PROPERTIES

The National Park Service preserves many millions of historic objects - including some well-known ones, like the Liberty Bell, George Washington's wooden dentures and Thomas Edison's phonograph, as well as many others. The National Park Service needs authority to manage museum properties in the same professional manner that museums do.

- ➡ ACTION: The President calls on Congress to pass H.R. 694 as reported by the Senate Energy and Natural Resources Committee.

## HOUSING AND LEASING

If the National Park Service is to continue to attract the "best and the brightest" young people to work for that agency, it needs to provide safe and sound housing for them in isolated locations where no other housing is available. The housing stock is old and deteriorating and in many cases is unsafe.

- ➡ ACTION: Congress should pass legislation submitted by the Administration in May 1995 addressing housing and leasing for the National Park Service.



A COMPREHENSIVE PLAN  
FOR THE RESTORATION  
OF THE EVERGLADES

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U.S. DEPARTMENT OF THE INTERIOR  
JANUARY 19, 1996

# A COMPREHENSIVE PLAN FOR THE RESTORATION OF THE EVERGLADES

## Preface

One of the most significant environmental initiatives of this Administration has been the restoration of the Everglades and the South Florida ecosystem. This vast region, home to over 6 million Americans, seven of the ten fastest-growing metropolitan areas in the country, a huge tourism industry and a large agricultural economy, is also one of the world's most unique environmental treasures.

Water flowing from the Kissimmee River to Florida Bay today traverses an ecosystem shaped and reshaped over the last 100 years to accommodate the ever-growing needs of agriculture and the population of South Florida. Although the physical changes were begun in the 1880s, the most profound alterations to the natural flow of water through the system were the result of the Central and Southern Florida (C&SF) Project. Authorized by Congress in 1948 and completed by the mid-1960s, the C&SF construction projects responded to uncontrolled drainage threatening what was considered an infinite fresh water supply, inadequate flood control in wet years, huge muck fires in dry glades, and salt-water intrusion. The primary flood control and water delivery system now comprises about 1,000 miles of levees and canals, 150 water control structures, and 16 major pump stations. One set of problems has given way to a new set of equally critical problems that forebode the final collapse of what remains of the natural system and major ramifications for the population and economy of the region.

In early 1993, this Administration began its efforts on behalf of the Everglades by directing the Army Corps of Engineers (Corps) to initiate a comprehensive review of the C&SF Project (C&SF Restudy), and by convening a Federal Interagency Task Force chaired by the Department of the Interior to coordinate ongoing restoration efforts and to guide the Corps in its C&SF Restudy.

Also in 1993, the Departments of the Interior and Justice reached a tentative agreement with the sugar industry to resolve ongoing litigation over contamination of the Everglades by polluted runoff from sugar fields in the Everglades Agricultural Area (EAA) between Lake Okeechobee and the Everglades. The settlement provided for land acquisition and construction of "Stormwater Treatment Areas" over a ten-year period at an estimated cost of \$700 million. The agreement requires the sugar industry to contribute up to \$312 million towards acquisition and construction costs, thereby setting an important precedent for cost-sharing by that industry. The litigation settlement was ratified and given added legal force by the Everglades Forever Act, enacted by the Florida Legislature and signed by Governor Lawton Chiles in April, 1994.

Beginning with the FY 1994 budget, the Administration began seeking additional funding for Everglades restoration projects. For FY 1995 and FY 1996, the Task Force has structured "cross cut" budgets so that the ten Federal agencies represented could present to the Congress a coordinated

and enhanced budget request. In FY 1995, this coordinated funding approach yielded \$90 million for authorized restoration, land acquisition, and scientific research efforts.

In November 1994, the Corps completed the reconnaissance phase of the C&SF Restudy when it published its Reconnaissance Report, which sets forth restoration issues and six alternative plans for consideration by local communities and the participating agencies. In 1995, the Corps began the feasibility phase of the C&SF Restudy when it published its "Project Study Plan" adding more detail and setting the stage for selection of a preferred alternative as the benchmark for a full feasibility study. On a parallel course, in 1994, Governor Lawton Chiles appointed the Governor's Commission for a Sustainable South Florida in part to work with the Federal Task Force. The Governor's Commission has been considering the six alternatives proposed by the Corps in its Review Study with the objective of recommending a preferred alternative to the Task Force and the Corps by summer, 1996.

All of these efforts are quickly converging toward an inevitable conclusion: that the time is at hand for a comprehensive, long-term plan for Everglades restoration. Even with detailed feasibility studies still to be done, the framework for restoration and the designs for the major projects for land acquisition, water storage, and restored hydrology are quite clear. It has been nearly fifty years since the start of the CS&F Project. That legislation, even with intervening amendments, is no longer adequate or responsive to the task at hand. It is time to make to the Congress a comprehensive legislative proposal to authorize and guide restoration efforts. The rapid decline of the Everglades, the crisis in Florida Bay, the pressures and demands of urbanization, and the important insights provided by an accelerated research effort all call for a major new piece of authorizing legislation.

This paper presents a Comprehensive Plan for the Restoration of the Everglades that is comparable in magnitude and scope to the massive changes that the C&SF Project brought to the landscape of South Florida earlier this century.

The plan set forth in this paper was prepared by the Department of the Interior reflecting ideas that have been discussed with some individual members of the Interagency Task Force and in consultation with the State of Florida. It has not, however, been reviewed or approved by any of those agencies and the opinions expressed are solely those of the Department of the Interior. Nonetheless, it is our belief that many, if not most, of the ideas discussed herein will draw the concurrence of many of the participants in this unprecedented effort, reflecting the many areas of consensus that have emerged over the last three years.

### Summary

The emerging consensus regarding this plan includes two basic elements. At the very core is the urgent need to reestablish the natural hydrologic connections that once led water southward from the headwaters of the Kissimmee River to Lake Okeechobee, where it seasonally overflowed the southern

shores and flowed in sheets through the expanse of sawgrass marsh and various other communities, subtly sloping 20 feet over the 100 miles to Florida Bay. While a complete return to natural conditions is not possible, scientific studies show that it will be possible to mimic natural hydroperiods by reconfiguring the water delivery systems to retain much of the water that is now drained out of the system into the Atlantic Ocean from Lake Okeechobee by way of the Caloosahatchee River and five canals that cut through the EAA.

Closely related, and essential to water management, is the acquisition or protection of key parcels of land that are at present outside public ownership, principally in the EAA, on the fringes of the Everglades system, and within Everglades National Park and Big Cypress National Preserve.

The Comprehensive Plan for the Restoration of the Everglades consists of four elements:

1. Federal legislative authority for the plan and related restoration activities;
2. Accelerated land acquisition;
3. Increased scientific research to guide restoration efforts; and
4. Sources of Federal, State, and private sector funding.

What follows is a brief summary of those four elements, which are then discussed in more detail in the main document.

#### **I. Federal Legislative Authority: The Everglades/Florida Bay Restoration Act of 1996**

There are a number of distinct but interrelated Federal legislative authorizations necessary to implement the Comprehensive Plan. The Everglades/Florida Bay Restoration Act of 1996 would include the following elements:

- Authority for the Corps to proceed with restoration planning and projects consistent with the conceptual plan being developed in the Corps Restudy.
- Adoption of new cost-sharing principles, including equal Federal-State cost share for public funding and an appropriate private sector cost share for restoration projects.
- Institutionalization of the existing Federal-State partnership.
- Authority for additional funding sources.

## **II. Land Acquisition**

Based on the restoration plan authorized in the new legislation proposed above, as well as land acquisition backlogs from existing projects, the inventory of land acquisition needs should be prioritized and acquisition should be accelerated. The Talisman property in the EAA, Stormwater Treatment Area I East (STA 1E), and the East Everglades expansion of the Everglades National Park are three critical areas that deserve priority attention. Significant new storage areas must be created in the southern band of the EAA by taking at least 100,000 additional acres out of sugar production. This acreage, when added to land already in public ownership and planned filtration marshes which together comprise 93,000 acres, will create a giant water retention and "spreading" area from which sheet flow can be released into the Everglades at traditional seasonal intervals, replicating the historic flow patterns. New Water Preserve Areas between the Everglades and urban areas must also be acquired to serve as water management buffers. Then, a funding budget should be developed to ensure a reliable, long-term stream of revenue to meet these needs.

## **III. Accelerate and Increase Scientific Modeling and Research**

There exists a significant gap in our scientific knowledge about the ecological and water management needs of the South Florida ecosystem. The only way to avoid future train wrecks is to invest today in scientific research. By Executive Order (initially) and through the Everglades/Florida Bay Restoration Act of 1996, the Administration should direct that the highest-priority modeling and scientific research work necessary to develop detailed criteria for restoration projects be given precedence by all government agencies, and that an interdepartmental federal steering committee be authorized to develop coordinated budgets for research agencies. Additional investment in modeling and research should be made in this fiscal year and in the FY 1997 President's Budget.

## **IV. Funding For Accelerated Restoration**

The Plan will require new funding initiatives, including both a significant down payment by the Administration and a financial contribution by the Sugar Industry.

The time is now to "kickstart" these ambitious restoration efforts, which will take at least ten to fifteen years to complete. The Plan recommends an additional \$ 100-150 million a year in the FY 1997 President's Budget, over and above the approximately \$ 97 million likely to be enacted in FY 1996. The additional funding will integrate and accelerate hydrologic and biologic research, continue land acquisition at the State and Federal level, and improve water delivery structures.

In addition to a revised Federal-State cost sharing formula, legislation should establish cost sharing to be borne by the sugar industry. As part of a budget to ensure a reliable, long-term stream of revenue to meet these needs, Florida sugar cane growers who have benefitted and continue to benefit from public investment in flood control and irrigation works, and from the sugar price support program, should be required to make a fair contribution as part of a "partial subsidy recapture"

program to reduce federal and state outlays for land acquisition. To keep federal involvement in this effort to a minimum, land acquired by this program will be managed by the State in support of ecosystem goals. Alternative approaches to cost sharing are discussed in more detail in the body of this paper.

# A COMPREHENSIVE PLAN FOR THE RESTORATION OF THE EVERGLADES

## Introduction

In the Spring of 1993 the Administration directed the Corps to reexamine its C&SF Project.<sup>1</sup> The purpose of this comprehensive review study (C&SF Restudy) was to determine the feasibility of structural or operational modifications to the project essential to restoration of the Everglades and Florida Bay ecosystems while providing for other water related needs including urban water supplies. As part of its study process, the Corps sought and received input from the Task Force<sup>2</sup> regarding the restoration objectives of this study. The Corps published its Reconnaissance Report for the C&SF Restudy in November, 1994. In 1995 the Corps followed up with a Project Study Plan adding more detail and setting the stage for selection of a preferred alternative as the benchmark for the feasibility phase of the C&SF Restudy.

In an effort to obtain the broadest possible input for the selection of a preferred alternative in a short period of time, last summer the Task Force requested the Governor's Commission for a Sustainable South Florida<sup>3</sup> to develop a comprehensive state position on Everglades restoration that balances

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<sup>1</sup> The CS&F Project is a multi-billion public works project that provides flood control, water control, and water supply to South Florida, which stretches from Orlando to Florida Bay. In 1992, Congress directed the Corps to conduct a restudy to determine if the CS&F Project should be modified "due to significantly changed physical, biological, demographic, or economic conditions, with particular reference to modifying the project or its operation for improving the quality of the environment, improving protection of the aquifer, and improving the integrity, capability, and conservation of urban water supplies affected by the project or its operation." Water Resources Development Act of 1992, Section 309(l) (P.L. 102-580).

<sup>2</sup> The Federal Interagency Task Force, named the South Florida Ecosystem Restoration Task Force, was established by the Clinton Administration in September 1993 to provide leadership and coordination among the Federal agencies involved in the south Florida region. The Task Force was established through an interagency agreement "to coordinate the development of consistent policies, strategies, plans, programs, and priorities for addressing the environmental concerns of the South Florida ecosystem." The Task Force was originally composed solely of the federal agencies who were signatories to the agreement and includes the Assistant Secretaries of the Department of the Interior (which chairs the group), the Department of the Army, the Department of Agriculture, the Department of Commerce, the Department of Transportation, the Federal Highway Administration, the Department of Justice, and the Environmental Protection Agency. However, in 1995, the membership of the Task Force was expanded to include state agencies and the Miccosukee and Seminole tribes.

<sup>3</sup> In March 1994, Florida Governor Lawton Chiles established the Governor's Commission for a Sustainable South Florida to develop recommendations and public support for regaining a healthy Everglades ecosystem with a sustainable economy and quality communities. The Commission is composed of 40 members representing a broad array of interests, including Federal, state, and local agencies, county and city elected officials, business, agricultural, public interest, and environmental organizations, and members of the Florida Legislature.

economic, environmental, and social needs which could serve as a conceptual alternative for the Restudy. The Commission presented this conceptual alternative, described as the "conceptual plan," to the Task Force in January 1996 and has begun to work with the Corps for incorporation into the feasibility phase of the Restudy.

The Comprehensive Plan for the Restoration of the Everglades consists of the following four elements:

#### **I. Federal Legislative Authority: The Everglades/Florida Bay Restoration Act of 1996**

One of the principle features of the strategy would be Congressional authorization for key restoration projects. This legislation would include the following features:

Authorize construction of the conceptual plan. The single most important feature of the legislation would be the authorization of the conceptual plan which is currently taking shape. This would provide authorization to various Federal agencies to design and build projects critical to restoration. The conceptual plan would integrate the restoration efforts in the Kissimmee River and Everglades National Park by retaining more water in Lake Okeechobee for short periods, providing greater conveyance and storage in the EAA, creating a more natural hydroperiod in the Water Conservation Areas, and establishing buffer zones known as Water Preserve Areas.

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This conceptual plan would include the entire Everglades watershed and Florida Bay. The major components of the plan include a variety of projects already under construction, previously authorized projects which need to be modified and a set of new project proposals that are emerging from the C&SF Restudy. Those projects already under construction, are the critical restoration components at the northern and southern ends of the ecosystem and include the Kissimmee River Restoration, Modified Water Deliveries to Everglades National Park, and the C-111 project. The Kissimmee Project will restore storage and more natural water level fluctuations in the upper basin lakes which will then provide flows to the river. The Modified Water Delivery project will acquire the East Everglades addition to the Everglades National Park and adjust the water control structures to the north to provide natural flows to the newly acquired land. The C-111 Project modifies the flood control structures adjacent to the eastern part of the Park to provide natural hydroperiods there. These three ongoing projects form the critical restoration components at the northern and southern ends of the ecosystem and are integrated into the comprehensive ecosystem restoration effort by the conceptual plan.

With respect to the restoration of the central section of the Everglades, the conceptual plan recommends the following: (1) Revise water management strategies for lake Okeechobee to allow higher water levels in the lake. This has the advantage of reducing the "surge releases" of water to tide which damage estuaries while providing storage for later release to the Everglades. (2) Increase capability to convey water from the lake to the Water Conservation Areas and provide for significant new storage in the Everglades Agricultural Area (EAA) (See Map). This will allow the hydraulic reconnection of Lake Okeechobee to the remaining remnants of the Everglades. (3) Improve the capability to manage the Water Conservation Areas to more closely mimic the natural hydroperiod of the historic Everglades. This could reduce water recharge capacity for the urban supply wellfields of Southeast Florida. Therefore, a key component would be the acquisition of Water Preserve Areas (See map) along the eastern boundary of the Everglades which would help replace urban water supplies.

By authorizing the conceptual plan, allowing for some flexibility as the details associated with individual projects under the plan undergo normal environmental and Corps analysis, we can substantially reduce even further the time period for its implementation. Authorization of the conceptual plan also allows projects which are ready to go forward without waiting until all projects associated with the plan have been approved, thus providing additional efficiencies by allowing the Corps and others to determine the impact those projects may have on other projects still being considered.

Authorize the C-111 and C-51 Corps projects. Two existing Corps projects key to restoration need new authorization. The first of these is the C-111 project. The C-111 basin is near the bottom of the existing C&SF Project and provides flood protection to agriculture in south Dade County and water supplies to Taylor Slough and the eastern panhandle of the Everglades National Park. Because agriculture needs stable water levels during the growing season while the Park needs levels which fluctuate, the C-111 Project would modify the existing system to meet both of these competing needs. The project will require the acquisition of some lands in the Frog Pond and Rocky Glades agricultural area, most of which is in agricultural production. The extent of land acquisition is still being studied. The existing C-111 project authorization requires the local sponsor, the South Florida Water Management District (SFWMD), to acquire all lands and provide 20% of construction costs. Under this cost sharing authority, the apportionment of total project costs would be about 59% Federal and 41% SFWMD, though the State share may be significantly increased if the land appraisal is found to underestimate land costs. At the request of the local sponsor, the Corps has proposed legislation which would authorize modification of the cost share for the project to 50/50 for all public funding of costs.

The second needed authorization is for the C-51 Project which is designed to provide flood protection for the West Palm Beach basin and recapture drainage water that historically flowed to the Everglades but is currently sent to tide. As a part of the settlement of the Everglades litigation, the Federal Government agreed to a C-51 design which would provide restoration benefits in addition to flood control benefits. As a restoration project, it will also provide marsh filtration of runoff from the EAA and the western C-51 basin through STA 1E. This will increase available water for the Loxahatchee National Wildlife Refuge and Everglades National Park and improve the quality of the water to standards suitable for discharge to the Everglades.

Specify a 50/50 cost share between the Federal Government and the State of Florida for the public funding share of the entire project. The legislation would establish a single 50/50 public cost share between the Federal Government and the State of Florida for the entire ecosystem restoration plan. The original Central & South Florida Project in 1948 included as its cost share the requirement that the local sponsor would be responsible for 20% of construction costs and 100% of all land, easements and rights of way as well as all operation and maintenance costs. This imposed a greater burden on the local sponsor than was the traditional share nationwide. In 1968, the underlying philosophy for cost-share in the Everglades was shifted for new projects to one based on the percentage of benefits of the project received by Federal or local landowners. The cost for operation and maintenance also

shifted to a 60/40 federal/local cost share. Other changes have imposed still other cost share formulas in the ecosystem, including 75/25 for projects providing fish and wildlife enhancement and 50/50 for the Kissimmee Project. If all expenditures for Federal and nonfederal projects were totaled for South Florida restoration, the Federal share would currently only be about 35% despite the fact that its land holdings are greater than that figure would justify. It is generally agreed that the integrated restoration plan should have a single cost share formula whereby the public costs associated with all restoration projects, including construction and land acquisition, should be borne evenly by the State and Federal Government. The cost-share provisions of the legislation should also include a private sector cost share as discussed in Part IV of this paper.

Institutionalize the South Florida Ecosystem Task Force. The legislation would include an entity modeled after the existing South Florida Ecosystem Task Force, responsible for the long-term planning and implementation of the restoration of the South Florida ecosystem. As envisioned, this entity would include representatives of the Federal, State, local and Tribal governments and would provide the necessary partnership to develop coordinated designs and action plans for successful restoration. The entity would also provide oversight to State and Federal programs affecting Everglades restoration. The legislation would also establish an advisory body to this entity modeled after the existing Governor's Commission for a Sustainable South Florida which would include representatives from a wide variety of interests.

Maintaining a sustainable ecosystem in South Florida requires a coordinated regional approach to planning and management that transcends political boundaries and narrow agency jurisdictions. The governance and planning for South Florida involves 16 county governments, 122 municipalities, two tribal governments, numerous special districts, six Metropolitan Planning Organizations, five Regional Planning Councils, the South Florida Water Management District, five major state environmental and planning agencies, and 11 Federal agencies. The ultimate success of efforts to restore the South Florida ecosystem will hinge on the ability of Federal, State, regional, local, and Tribal governments to work together with an unprecedented level of partnership.

Establish an Everglades Partnership to help facilitate a broad research coordination effort to include Federal and state scientists, universities, and stakeholders. The legislation would also establish an entity, the Everglades Partnership, a consortium of public and private institutions and individuals dedicated to working cooperatively in restoring and maintaining the Everglades and the South Florida ecosystem at sustainable levels. As envisioned, it would be organized as a not-for-profit corporation and its partners, consisting of public and private universities, Federal, State, regional, local and Tribal representatives, environmental groups, and economic stakeholders, would coordinate technical support and services to the governing entity described above and its advisory body. The Partnership would promote cooperation in research, management, information sharing, and policy making among the parties involved.

Funding sources. While federal funding is a critical component of ecosystem restoration, it is important to examine ways to expand available funding resources beyond direct federal

appropriations. The legislative proposal would include the following features: First, it would allow the seven units of the National Park and National Wildlife Refuge system the ability to collect and retain 100% of all the entrance fee revenues collected at the unit. Currently these revenues serve as offsetting receipts to the federal government and are not spent at the unit in which they collected but are deposited in the Federal Treasury. With annual visitation at parks and refuges in excess of 1.2 million, this proposal would allow an additional \$1 million annually to be spent in the region on improved conservation and ecosystem management purposes at federal parks and refuges. Second, the legislation would authorize the sale of a commemorative series of coins and stamps. This has the ability to generate between \$3-5 million in sales revenue and would raise the public awareness of this conservation effort. Third, the proposed Partnership should be authorized to engage in national fundraising efforts similar to the efforts conducted for the Statue of Liberty and Ellis Island restoration, which raised in excess of \$400 million and resulted in the establishment of an endowment fund which yields \$1 million on an annual basis.

## II. Land Acquisition

The acquisition of land is key to the restoration of the South Florida ecosystem. In some cases, land acquisition must be accelerated to keep pace with project construction to modify current delivery of water through portions of the system. Most land acquisition needs are associated with water quantity and water quality issues the resolution of which has gained broad consensus. As the conceptual plan has evolved, the purposes for which land is needed have emerged into three major categories: (1) protection and restoration of habitat and wetlands; (2) water storage; and (3) dynamic water storage. All three provide additional benefits to water quality.

Land For Water Storage In The Everglades Agricultural Area. The most critical physical constraint in restoring the Everglades is a shortage of areas for water storage. Flood control was provided by a network of canals which quickly drained stormwater and released it "to tide". This drainage system has been so successful that a region that receives an annual average rainfall of over 50 inches a year is now facing a projected water supply crisis in dry years. The solution to both the restoration and water supply problem reduces to the need for significant additional storage in the system. These storage areas can serve multiple benefits to restoration of the ecosystem including the release of water to the Everglades in a manner that more closely mimics natural flows, avoiding the need to send fresh water to tide with its resultant impact on estuaries, allowing better management of water levels in and around Lake Okeechobee, and providing opportunities to filter water from the EAA and thus improve the quality of the water which flows into the Everglades.

A critical area in which to restore this storage is in the southern band of the EAA. This area would provide important water management flexibility and is generally the area most affected by soil subsidence. While the final land requirements will not be known until after detailed engineering analysis has been completed, the preliminary requirement estimate is between 100,000 and 150,000 acres. The acquisition of these lands would be authorized in the new legislation. An important portion of this area is the Talisman property.

Water storage is also the key component of the C-51 project and STA 1E. C-51 is one of the major drainage canals of the C&SF Project in Palm Beach County. STA 1E is intended to provide storage at the western end of the canal which would retain stormwater, provide marsh filtration for runoff from the EAA, and allow for its "natural" release westward into the central Everglades and the Loxahatchee National Wildlife Refuge.

Land For Habitat And Wetlands Protection And Restoration In The East Everglades, Kissimmee River Basin, And Big Cypress National Preserve. Several projects are designed to rehydrate wetlands which have served as habitat for various species, including over 20 percent of the 68 federally listed threatened and endangered species in the South Florida ecosystem, which over time have been degraded by a system that was designed to provide drainage. These projects include lands in the Kissimmee flood plain, the east Everglades expansion of Everglades National Park, and certain additions to Big Cypress National Preserve. The park expansion acquires the eastern half of Shark Slough, the principal natural hydrologic feature in Everglades National Park. The previous park boundary cut through the center of the slough and flood control drainage to the east seriously affects the natural ground and surface water flows in the park. This diversion of natural flow is cited as the primary cause of the environmental problems in Florida Bay.

Land For Dynamic Storage - Water Preserve Areas. There is also consensus for the need for lands affording opportunities for dynamic storage, which allows management of a more natural flow of water. This is particularly critical in the central part of the system where the emerging conceptual plan proposes land acquisition for a linear Water Preserve Area along the east margin of the Everglades which would capture water currently discharged to tide, store and treat it for release to augment environmental and urban needs, help reestablish natural hydro patterns, and serve as a buffer for the Everglades from westward development.

An additional example of dynamic storage is associated with the transition lands east of Everglades National Park. Taylor Slough is the second largest slough in Everglades National Park and the primary source of fresh water to the Eastern portion of Florida Bay. A plan to modify the C-111 project and restore the natural hydrology to Taylor Slough was approved in 1994 and construction began in 1995. The lands required for this project are agricultural lands commonly known as the "Frog Pond" and the "Rocky Glades." Portions of a third area, locally called the "8 ½ square mile area," would be acquired to connect these lands with the Water Preserve Area mentioned above. Like the Water Preserve Area to the north, these lands provide a transition zone for dynamic storage and are essential to the restoration of natural flows to the lower end of the Everglades system and to Florida Bay.

### **III. Accelerate and Increase Scientific Modeling and Research**

The Plan must be underpinned by solid and timely research. Restoration of a natural system, especially one as complex and massive as South Florida, requires a substantial amount of research-based information. That information must lead to an understanding of how the natural system

originally functioned and in what ways it is now impaired. The success of restoration rests upon well-informed choices of restoration alternatives.

As a practical means of approaching such a complex system, a conceptual understanding of the system has been developed, resolved into fundamental relationships and then refined into predictive relationships. As expected, these exercises have pinpointed critical studies or data which are missing. Data collection for refinement of predictive models must be timely to evaluate project designs and, importantly, operational schedules for those projects. Over the last few years substantial progress has been made, but the availability of adequate tools for project evaluation has lagged behind proposed engineering solutions for the decline of Everglades, Florida Bay, and other South Florida habitats.

Many basic areas need additional and accelerated research. New studies on periphyton (algal mat) dynamics, soil accretion/subsidence, paleoecology (to assemble assessments of conditions in the original Everglades) are examples which have been identified by the Interagency Science Sub-Group of the Task Force. This group has produced a Scientific Priorities and Gap Analysis Program Report in 1995 which identified projects that had no planned funding. The following areas of research emphasis are considered fundamentally important to implementing the Comprehensive Restoration Plan.

Hydrological Modeling. South Florida has seen significant progress in hydrological modeling, from both state and federal efforts, producing sophisticated models of water relationships. Such models track water balances and movements via the present management of the C&SF Project. Funding for refinement and extension of these models to cover freshwater relationships in Florida Bay--a complicated, expensive but necessary effort.

Ecological Modeling. New approaches such as the National Biological Service's Across Trophic Levels System Simulation (ATLSS) Model have provided a sound theoretical framework for evaluating all trophic levels, including populations of invertebrates and fishes, as well as individual responses of top consumers and predators in a complex landscape. This approach directly links with the water management model output to provide simulation of plant and animal community (and key species, including endangered species) response to the results of water restoration project alternatives.

Florida Bay. There is also clear recognition that these models must be extended to include Florida Bay, and that the acquisition of key data in Florida Bay be accelerated so models will be available to test alternatives, which are intended to restore system function in upland freshwater habitats, can also be evaluated for their merit in restoring and protecting Florida Bay.

Non-native/exotic Plants and Animals. The Everglades and other habitats of South Florida are susceptible to enormous pressure from the invasions of exotic plants and animals. Exotic weed species such as Melaleuca and Brazilian Pepper are but two important and successful invaders (of

126 plant species listed as invasive) of natural Everglades communities. Exotic plants will overwhelm any restoration attempt if not controlled. The "biological wildfire" in South Florida must be addressed. The present small and overmatched research programs must be augmented by this Plan with a commitment to developing new techniques for manual and chemical control plus a major commitment to a bold and farsighted biocontrol initiative. Part of this effort will be implementation of the promising biocontrols available for Melaleuca and Brazilian Pepper.

Water Quality Improvement Technology. Water to be reintroduced into the Everglades from peripheral areas must meet high water quality standards to restore Everglades habitat. New methods for cleanup of large volumes of water must be developed. In the Frog Pond area, for example, experiments with artificial wetland or algal mat-based cleanup systems must begin soon if the C-111 project is to meet water quality standards in Taylor Slough upon completion.

Monitoring. There is also a broad endorsement among scientists and managers in South Florida of an adaptive management approach--simply the realization that not all variables can be foreseen and predicted--but also that action cannot be delayed until certainty is assured. Prudent actions must be taken by management to preserve and sustain the natural resources of South Florida, followed by close tracking of the results so that course corrections can be made.

Iterations of management action, observation, evaluation and refinement depend upon strong, targeted, and coordinated monitoring programs. Monitoring programs must be designed and coordinated with data needs of hydrological and ecological models. Presently progress is being made to coordinate federal and state monitoring programs.

Because of the mobility of wading birds especially, the entire system must be monitored simultaneously to be effective. For example National Park Service's Systematic Reconnaissance Flight program has produced a 10-year multi-agency data base that lead to our understanding of the importance of spatial heterogeneity to the survival of wading birds, alligators and other animals characteristic of the harsh Everglades environment.

#### **IV. Funding For Accelerated Restoration**

A Comprehensive Plan for the Restoration of the Everglades must include at least four interrelated funding issues: (1) maintenance of ongoing efforts by Federal and state agencies under existing project authority; (2) a down payment on the Comprehensive Restoration Plan; (3) establishing a 50/50 State-Federal cost share for public funding or restoration projects; and (4) instituting a cost-share for the sugar industry for restoration projects.

Make A Significant Down Payment On Accelerated Restoration. Adequate funding is critical to support Everglades renewal. Subsequent to establishing the Task Force, this Administration submitted budget requests to the Congress that increased, by approximately 33 percent over FY 1994 levels, Federal funding for ecosystem restoration efforts in ten federal agencies (see Table 1). Most

recently, the likely enacted FY 1996 level includes \$97 million for improved management and conservation of national parks, national wildlife refuges and marine sanctuaries located in the region; enhanced hydrologic and biologic research; continued land protection at both the state and federal level; and improved water delivery structures. These funding increases were synchronized among ten federal agencies working together to understand the problems confronting ecosystem restoration and begin the necessary research and planning and land acquisition to effect improvements in the current system.

While overall funding for ecosystem restoration increased during the past two years, additional funding is required. The upcoming FY 1997 President's Budget presents an opportunity to restate this Administration's commitment to the environment by proposing a major federal investment in the region. Such an investment will build upon this Administration's accomplishments and accelerate current restoration efforts.

Given that the Federal share of land acquisition programs and structural modifications for water delivery systems are currently projected under the Comprehensive Plan for the Restoration of the Everglades requires a minimum Federal investment of at least \$1 billion, it is not unrealistic to propose an FY 1997 initiative in the range of \$100-150 million per year for the next five years over and above current funding levels to accelerate programs and infrastructure improvements necessary to accomplish these goals. At this enhanced level, Federal support for acquisition of additional project land requirements as described earlier would be funded. The amount of Federal funds which would be used for land acquisition in the EAA, East Everglades, or the Water Preserve Areas, would depend upon the formula adopted for cost share by the sugar industry.

First, of the \$100-150 million in proposed additional funding, approximately \$20-30 million per year should be invested in hydrologic modeling and other research as discussed earlier. Second, approximately \$40-60 million should accelerate existing water delivery infrastructure projects, such as the Kissimmee River restoration, the Modified Water Deliveries and the C-51 project. The balance of approximately \$40-60 million will fund land protection efforts by the state and the Federal Government.

Cost-sharing. The need to specify a 50/50 cost share between the Federal Government and the State of Florida for the public funding share of restoration projects has already been discussed. The sugar industry should also provide an appropriate cost share for these projects. The sugar industry in South Florida receives tremendous Federal benefits through the Federal sugar program and through the massive water management system built and maintained by the Army Corps of Engineers. Under a series of complex measures in the sugar program, sugar farmers receive financial support through Federal regulation of sugar prices and through price support loans and production adjustment programs by the Federal Government. In addition, the Florida sugar growers in the EAA, along with

the urban dwellers of South Florida, are the primary beneficiaries of the CS&F Project.<sup>5</sup>

The industry is sharing the costs of the phosphorus clean-up through the State of Florida's Everglades Forever Act.<sup>6</sup> However, presently, there is no accounting of the enormous Federal benefits conferred on the Florida sugar industry through the sugar program and the CS&F Project relative to the direct negative impact that the industry is having on the Everglades.

To balance the ledger, the sugar industry should be required to be a cost share partner in future Everglades restoration projects.<sup>7</sup> The appropriate level of industry cost sharing could be set in a number of ways. It could be calculated as a percentage of the overall costs of the entire comprehensive restoration projects, with corresponding reduction in the Federal and State cost share. Alternatively, the sugar industry share could be calculated as a percentage of project land acquisition costs, reflecting more closely a Congressional pattern of emphasizing local responsibility for the land acquisition costs in project finance. Another alternative would be to require that sugar pay 100% of the cost of acquisition of the project lands within the EAA, including the Talisman lands. In this alternative, the sugar industry would effectively finance retirement of its own lands for the purpose of reestablishing a flowway and water storage connection between Lake Okeechobee and the Everglades.

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"The occurrence of surface water in the [EAA] is now a direct result of the construction of the numerous conveyance and drainage canals. The primary canals consist of the Miami, the North New River, the Hillsborough, and the West Palm Beach Canals which traverse the area north-south, and the Bolles and Cross Canals extend east-west. Water levels and flows are stringently manipulated in the canals to achieve optimum crop growth." CS&F Project Reconnaissance Report Comprehensive Review Study, p.37 (November 1994).

6

Under the Everglades Forever Act, agricultural interests must contribute between \$224 and \$320 million over twenty years to assist in the cost of a \$700 million State program (a) to reduce the amount of chemical pollution in the agricultural discharge and (b) to clean up the existing damage caused by this discharge. Chapter 373.4592 Florida Statutes.

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This nexus is especially strong for restoration projects by the Corps under the CS&F Project. It is clear that these restoration projects will necessarily involve reforming the CS&F Project to rehabilitate structures and operations that historically operated to the sugar industry's advantage at the expense of the Everglades. According to the Corps:

As a result of land use and water management practices during the past 100 years in southern Florida, defining characteristics of the regional wetlands either have been lost or have been substantially altered. It is the premise of this Review Study that an understanding of these defining characteristics, and the factors which caused their loss or alteration, provides focus for setting restoration goals and priorities for the southern Florida wetlands. While it is true that the pre-drainage wetlands can not be fully restored, a successful restoration program will be one that recovers to the extent possible these defining characteristics of the former system. Achievement of this goal should result in the recovery of ecologically viable systems that functionally resemble the pre-drainage Everglades and its inter-related systems. C&SF Project Reconnaissance Report Comprehensive Review Study at EX-2.

One possible vehicle to obtain the industry cost share is through the marketing assessment in the sugar program. Under the current sugar program, the U.S. Department of Agriculture (USDA) gives sugar processors loans at a rate of 18 cents per pound.<sup>4</sup> Under these non-recourse loans, the refined sugar is the only collateral for the loan. If the sugar interests can get a better price than 18 cents on the market, they repay the loan. If the processors cannot get any better than 18 cents, the processors default on the loan and USDA gets the sugar. For each loan it issues, USDA imposes a marketing assessment fee on every pound of sugar marketed (i.e. refined) by the processor. (The marketing assessment fee is like a loan origination fee on a home mortgage loan.) Under the current sugar program, the marketing assessment fee for sugarcane (it is different for sugar beets) is 1.1% of the loan rate of 18 cents per pound. In FY 1994, the marketing assessment fee on sugar in the EAA generated approximately \$7 million. Nationally, in FY 1994, the marketing assessment fee generated \$30 million (including sugarcane and sugar beets). The funds generated by the marketing assessment are intended to cover the administrative costs of the Farm Bill and these funds go into the General Treasury. If the reauthorized sugar program contains a marketing assessment, this assessment could be increased to provide funds for land acquisition. This vehicle is consistent with a proposal introduced by Senators Bob Graham and Connie Mack of Florida.

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<sup>4</sup> The sugar program expires in 1996 and is scheduled to be renewed during the present legislative session, possibly as a part of a Reconciliation Bill. The Agricultural Act of 1949, 7 USC Section 1446g.

**SOUTH FLORIDA ECOSYSTEM RESTORATION INITIATIVE**  
(agency funding in thousands of dollars)

Agency	1993 Enacted	1994 Enacted	1995 Enacted	1996 Estimate
Department of Agriculture:				
Agricultural Research Service	2,814	3,033	2,092	2,092
Natural Resources Conservation Service	1,900	1,900	2,900	3,435
Subtotal, DOA	4,714	4,933	4,992	5,527
Army Corps of Engineers**	15,234	15,758	15,800	5,766
National Oceanic and Atmospheric Administration	10,947	12,051	14,823	14,049
Department of the Interior:				
Bureau of Indian Affairs	0	0	399	399
Fish and Wildlife Service	6,175	4,350	5,848	7,179
National Biological Service	0	654	1,154	2,654
National Park Service	28,105	21,263	33,929	41,679
United States Geological Survey	2,000	2,000	5,800	10,000
Subtotal, DCI	36,280	28,267	47,131	61,911
Environmental Protection Agency	4,769	5,803	7,166	10,044
<b>Total, South Florida Ecosystem Restoration</b>	<b>71,944</b>	<b>66,812</b>	<b>89,911</b>	<b>97,297</b>

## Notes:

- \* Absent final FY 1996 action for all agencies, the FY 1996 level is an estimate of likely enacted amounts.  
 \*\* Corps of Engineers funding reflects annual appropriations, but not carryover from prior years.