

**Implementation of the Ramsar Convention in general,  
and of the Ramsar Strategic Plan 1997-2002 in particular,  
during the period since the National Report prepared in 1995  
for Ramsar COP6 and 30 June 1998**

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Contracting Party: **United States**

Designated Ramsar Administrative Authority

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## **Ramsar Strategic Plan - General Objective 1**

### **To progress towards universal membership of the Convention.**

#### **1.1 Describe any actions your government has taken (such as hosting regional or subregional meetings/consultations, working cooperatively with neighboring countries on transfrontier wetland sites) to encourage others to join the Convention.**

The United States government provided funding to support two regional interns to assist Secretariat Technical Officers for Africa and the Neotropics. The interns assisted with implementation activities for the Strategic Plan in their respective regions.

Under the Wetlands for the Future Grants Program, a Ramsar Secretariat publication entitled *The Convention on Wetlands (Ramsar, Iran, 1971): A special publication for the Small Island Developing States*, @ was produced and disseminated throughout the neotropics.

The U.S. Fish and Wildlife Service provided funding for participant attendance at two annual meetings of the Society of Caribbean Ornithology at which presentations regarding Convention membership was provided

The Service provided financial and technical assistance for the International Workshop on Wetland Management held earlier this year in Costa Rica. This activity was scheduled to coincide with the application of the Management Guidance Procedure in Palo Verde, Guanacaste, Costa Rica. The workshop was sponsored by SINAC (Costa Rica's National System of Protected Areas) and OTS (Organization for Tropical Studies) and had the participation of Ramsar Bureau experts.

Through the North American Waterfowl Conservation Act, workshops have been held in Mexico to both train local communities in the sustainable management of wetland resources and also enhance their awareness of the ecological significance of wetland functions. Given the partnership model of implementation, individual farmers and ranchers as well as any membership organizations to which they may belong are integral elements of these projects.

In February 1998, the Service supported the Ramsar Southern Africa Sub-Regional meeting held in Pretoria, South Africa. The meeting provided a forum for information on the implementation of the Convention, to identify priority actions for strengthening the application of Ramsar in Southern Africa, and strengthen cooperation between countries of the sub-region.

## Ramsar Strategic Plan - General Objective 2

### To achieve the wise use of wetlands by implementing and further developing the Ramsar Wise Use Guidelines.

#### 2.1 Has a National Wetland Policy/Strategy/Action Plan been developed, or is one being developed or planned for the near future? Yes

*In the 1996-1999 triennial Ramsar actions emphasize wetland conservation in the context of land planning and water resources management. The U.S. Government Clean Water Action Plan integrates wetland conservation into Ageographic-based planning programs, including the watershed approach, and other planning programs that address coastal resources, habitat, floodplains and river corridors, and management of water resources and public lands. @ At least 36 federal agencies, to varying degrees, conducted wetlands-related activities during 1990-1999. These activities included acquiring, regulating, restoring, enhancing, mapping, inventorying, delineating, and conducting research related to wetlands. Six agencies-- the Army Corps of Engineers, the Department of Agriculture=s Farm Service Agency and the Natural Resources Conservation Service, the Department of the Interior=s Fish and Wildlife Service, the Department of Commerce=s National Oceanic and Atmospheric Administration, and the Environmental Protection Agency -- were the primary agencies involved in and responsible for implementing wetlands-related programs.*

#### a. What are/will be its main features?

In 1998, the President of the United States announced a major new Clean Water Initiative to speed the restoration of the Nation=s waterways. The Clean Water Action Plan (CWAP) forms the core of this Clean Water Initiative. The CWAP is an interagency effort. It emphasizes four key tools for achieving clean water goals: a watershed approach, strong federal and state standards, natural resource stewardship, and informed citizens and officials. The watershed approach is the key to setting priorities and taking action to clean up rivers, lakes, and coastal waters. Effective federal and state standards will protect public health, prevent polluted runoff, and ensure accountability. Stewardship allows agencies to apply their collective resources and technical expertise to State and local watershed restoration and protection. Providing information to the public, governments, and others about the health of watersheds and safety of beaches, drinking water, and fish forms the foundation of a sound and accountable water quality program. The CWAP consists of 111 key action items. Those that apply specifically to wetlands include efforts to:

- C avoid wetland losses
- C review mitigation effectiveness and accountability
- C increase the acres of wetlands restored per year
- C develop a single wetlands status and trends report from the Federal

- government
- C issue technical guidance on restoration, creation, and enhancement of wetland functions
- C develop an interagency tracking system
- C improve access to information
- C provide technical and/or financial assistance to integrate habitat considerations into planning programs.

The Plan reaffirms the administration's commitment to conserve wetland resources. It embraces an interim goal of no overall net loss of the Nation's remaining wetlands resource base, and calls for a long-term goal of increasing the quality and quantity of the Nation's wetlands: 100,000 acres (40,470 ha) per year by the year 2005, as well as the restoration of 25,000 miles (40,000 km) of stream corridors in public lands.

To attain the long-term goal of increasing the quality and quantity of the Nation's wetlands, the Plan promotes the restoration of damaged wetland areas through voluntary, non-regulatory programs. A key element of the Action Plan is a new cooperative approach to watershed protection in which state, tribal, federal and local governments, and the public identify watersheds with critical management needs and then work together to focus resources and implement effective strategies to solve problems.

**b. Was it, or is it, intended that the Policy/Strategy/Action Plan be adopted by the whole of Government, the Minister responsible for Ramsar matters or through some other process. Please describe.**

The Department of Agriculture and the Environmental Protection Agency were directed to lead efforts with other federal agencies and the public to develop the Clean Water Action Plan (CWAP). The CWAP was adopted by Federal agencies with responsibility for protection and restoration of the Nation's waters; these are the 36 agencies within the Department of Commerce, Department of Defense, Department of Energy, Department of the Interior, Department of Justice, Department of Transportation, and the Tennessee Valley Authority. These agencies have embraced the CWAP and will continue to work with each other, state and local governments, and the public to implement the key action items of the CWAP.

The Plan calls for federal agencies to work together and apply their collective resources under their existing mandates and authorities to restore and protect the water resources of the Nation. It supports the empowerment of local communities at the watershed level to improve water quality and enhance stewardship of natural resources. A National Watershed Forum will monitor the implementation of the initiatives contained in the Plan. The Plan provides an opportunity for federal agencies to incorporate wetland/watershed/water quality goals in their Governmental Performance and Results Act process. The GPA process measures the performance of government agencies based on defined milestones and measures.

Although the CWAP proposes new actions to strengthen efforts to restore and protect water resources, it also attempts to build on the foundation of existing clean water programs. The CWAP relies on existing frameworks, programs, and mechanisms by enhancing these and making them more effective. These programs include the Clean Water Act, the Coastal Zone Management Act, the 1985, 1990, and 1996 Farm Bills, the Interagency Working Group on Federal Wetlands Policy, the National Wildlife Refuge System Administration Act, North American Wetlands Conservation Act, and the Rivers and Harbors Act.

**c. How does it relate/will it relate to other national environmental/ conservation planning initiatives (e.g., National Environmental Action Plans, National Biodiversity Action Plans, National Conservation Strategies)?**

The Clean Water Action Plan is a blueprint for the restoration of water quality throughout the United States. Water quality is an excellent index of Watershed management, if a basin is properly managed for water, then it is also likely that it will be properly managed in other ways. Water is an excellent monitoring mechanism to monitor the sustainable utilization of whole landscapes.

**2.2 If a policy is in place, how much progress has been made in its implementation, and what are the major difficulties being encountered in doing so?**

The CWAP was presented to the public on February 14, 1998. Since that time, ten interagency Action Teams have been created. Each Action Team has been assigned a set of related key action items to address. The Action Teams are coordinating activities between the federal, state, and local agencies and the public to develop the means for implementing the key action items. Several of the key action items have specific deadlines identified for accomplishing their goals. The deadlines for some of the key action items have come up very quickly and the Action Teams have met frequently and focused on particular key action items in order to meet those deadlines. Developing an implementation strategy in such a short time period has created some difficulties with ensuring interagency coordination and consistency. In addition, each federal, state, and local agency is charged with a different mission that must be taken into consideration. Nonetheless, the members of the Action Teams continue to move forward and to work together to resolve issues and to incorporate all interests.

**2.3 If a Policy/Strategy/Action Plan is in place, is the responsibility for implementing it with:**

- a. a single Government Ministry,**
- b. a committee drawn from several Ministries, or**
- c. a cross-sectoral committee?**

**Please provide details.**

The Clean Water Action Plan (CWAP) will be implemented by multiple federal and state agencies in cooperation with non-federal, private landowners. The federal agencies involved in the implementation of the CWAP include the Department of Agriculture, Department of Commerce, Department of Defense, Department of Energy, Department of the Interior, Department of Justice, Department of Transportation, Environmental Protection Agency, and the Tennessee Valley Authority.

Implementation of the Clean Water Action Plan and Executive Orders 11990 and 13089 are the responsibility of each of the federal natural resources conservation and environmental agencies. These agencies utilize their programs and resources to protect and enhance wetland ecosystems. In addition, these agencies work with states, tribes, and others to implement wetland protection and restoration actions throughout the United States.

**2.4 For countries with Federal systems of Government, are there Wetland Policies/Strategies/Plans in place, being developed or planned for the provincial/state or regional levels of Government? Yes/No  
If yes, please give details.**

The United States continues to promote, develop, and support governance systems for achieving integrated water management and large scale restoration involving federal, state, local, tribal governments and the general public. The Chesapeake Bay Program is a successful example of a working regional partnership to manage the nation=s largest estuary, with its 64,000 square mile (166,000 km<sup>2</sup>) watershed and the 1.5 million acres (607,000 ha) of wetlands [including the Chesapeake Bay Estuarine Complex Ramsar site]. In 1996 the Chesapeake Bay Executive Council adopted the *Local Government Participation Action Plan* and the *Priorities for Action for Land, Growth and Stewardship in the Chesapeake Bay Region* which address land use management, growth and development, stream corridor protection, and infrastructure improvements. A 1996 riparian forest buffers initiative furthers the Bay Program=s commitment to improving water quality and enhancing habitat with the goal of increasing riparian buffers on 2,010 miles (3,216 km of stream and shorelines) in the watershed by 2010. The Program is committed to performing a status and trends survey of its wetlands every five years. This information will be used to guide the management actions necessary to achieve a Ano-net-loss@ of wetlands in the short term, and ultimately a Anet gain@ of wetlands across the watershed.

**2.6 Describe the efforts made in your country to have wetlands considered in integrated land/water and coastal zone planning and management processes at the following levels:**

**a. national**

The U.S. Fish and Wildlife Service's land acquisition process is vital to the conservation of wetlands in the U.S. It is authorized by the Migratory Bird Conservation Act, the Endangered Species Act, the Fish and Wildlife Act of 1956, and the Emergency Wetlands Resources Act of 1986. Funding is authorized by the Migratory Bird Hunting and Conservation Stamp Act, the Wetlands Loan Act, and the Land and Water Conservation Fund Act. Federal Duck Stamp purchases generate revenues that enable the purchase of wetlands for inclusion in the National Wildlife Refuge System and import duties on firearms and ammunition.

In addition, the Pittman-Robertson Federal Aid in Wildlife Restoration Act and the Sport Fish Restoration Act provides funding for specific management plans and restoration projects by state fish and wildlife agencies. Such projects include improvement of aquatic habitats for certain warm water species of fish, while others may stress land acquisition and construction of fishing/hunting areas for the public.

The Service's Coastal Program identifies important coastal wetlands resource problems and solutions, seeks partnerships to carry out on-the-ground conservation projects, and encourages public action in 11 of the Nation's highest priority coastal areas. Five of the eleven sites include Ramsar wetlands. In the past 3 years, this program and its partners have restored over 26,000 acres (10,522 hectares) and protected an additional 56,000 acres (22,662 hectares) of coastal habitats. In addition, the Service manages coastal wetland habitats on over 150 National Wildlife Refuges.

The Coastal Zone Management Act of 1972 established a voluntary National Coastal Zone Management (CZM) Program. This voluntary partnership between the federal government and U.S. coastal states and territories is authorized to:

- C Preserve, protect, develop, and where possible, restore and enhance the resources of the Nation's coastal zone for this and succeeding generations;
- C Encourage and assist the states to exercise effectively their responsibilities in the coastal zone to achieve wise use of land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic, and esthetic values as well as the needs for compatible economic development;
- C Encourage the preparation of special area management plans to provide increased specificity in protecting significant natural resources, reasonable coastal-dependent economic growth, improved protection of life and property in hazardous areas and improved predictability in governmental decision-making;
- C Encourage the participation, cooperation, and coordination of the public, federal, state, local, interstate and regional agencies, and governments affecting the coastal zone.

The 1985 Food Security Act, as amended, requires U. S. Department of Agriculture participants, if they wish to maintain eligibility, to implement conservation actions on highly erodible lands and to not manipulate or convert wetlands without an

exemption. These conservation requirements have resulted in significant decreases in agricultural wetland losses, and large reductions in soil erosion from cropland, which has helped improve water quality.

In addition, the Executive Order on Coral Reef Protection (E.O. 13089) directs all federal agencies to use their programs and authorities to protect and enhance coral reefs, and ensure that any action that they authorize, fund, or carry out will not degrade the condition of these systems. The Executive Order also establishes a Coral Reef Task Force, co-chaired by the Secretary of the Interior, the Administrator of the National Oceanic and Atmospheric Administration (NOAA). The Task Force members will include (but not be limited to) the Administrator of the Environmental Protection Agency (EPA), the Attorney General, the Secretary of Interior, the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Defense, the Secretary of State, the Secretary of Transportation, the Director of the National Science Foundation, the Administrator of the Agency for International Development (AID), and the Administrator of the National Aeronautics and Space Administration (NASA). This Task Force will oversee the implementation of the policy and federal agency responsibilities set forth in the order, and will guide and support activities under the U.S. Coral Reef Initiative (CRI). The CRI is an existing partnership between federal agencies and state, territorial, commonwealth, and local governments and commercial interests to design and implement additional management, education, monitoring, research and restoration efforts. The Task Force will work in cooperation with state, territorial, commonwealth, and local governments and agencies, nongovernmental organizations, the scientific community, and commercial interests.

The Executive Order on Coral Reef Protection directs the Secretary of State and the Administrator of the Agency for International Development to work with the Task Force to implement similar conservation, restoration and monitoring actions worldwide.

#### **b. provincial**

Under a competitive application program, the Service awards Coastal Wetlands Conservation Grants each year to coastal states for the acquisition, restoration, or enhancement of coastal wetlands and tidelands. Since the first grants were given out in 1992, 24 States and 1 U.S. Territory have been awarded \$53 million to protect and/or restore 63,000 acres of coastal wetlands and submerged habitats.

#### **c. local**

The Fish and Wildlife Service's Partners for Fish and Wildlife Program works at the local level with private landowners to incorporate wetland restoration into locally led conservation plans. During 1996-1998, landowners in partnership with the Service will have voluntarily restored approximately 120,000 acres (48,562 hectares) of

wetlands on private lands.

The 1985 Food Security Act, as amended, has encouraged local planning and action by watershed to identify and prioritize needed conservation to address concerns and opportunities. The Natural Resources Conservation Service's programs work at the local level with private landowners to voluntarily conserve and restore wetlands and riparian areas as part of natural resource planning. Since 1990, landowners have enrolled over 670,000 acres in the Wetland Reserve Program, most of which are for wetland restoration. In addition, over 90,000 additional acres have been enrolled in the Emergency Wetland Reserve Program, in response to flood damage on private lands. Also, in fiscal year 1998 alone, about 12,000 additional acres of wetland creation or enhancement have been enrolled in the Wildlife Habitat Improvement Program, along with about 8,000 acres of restored riparian buffer along streams and water bodies.

**2.7 Have there been any publications produced, or practices documented, which could assist other countries to promote and improve the application of the Ramsar Wise Use of Wetlands Guidelines? Yes**  
**If Yes, please provide details and copies.**

The North American Waterfowl and Wetlands Office publishes *Waterfowl 2000* which is a 30-page educational newsletter regarding the progress of the North American Waterfowl Management Plan in the field. It is a collection of articles, letters and photographs sent by members of the various joint ventures across the U.S., Canada, and Mexico that document their successes and obstacles in implementing this Plan.

**2.8 Noting COP6 Recommendation 6.14 relating to toxic chemicals and pollution, please advise of the actions taken since then to remedy and to prevent pollution impacts affecting Ramsar sites and other wetlands@ (Operative paragraph 9).**

C Investigations are conducted on and off refuge lands to evaluate the presence, nature, extent, and effects of environmental contaminants to wetlands. These investigations may lead to recommendations for cleanup of hazardous materials affecting wetlands on refuge lands as appropriate. In addition, refuges are implementing Integrated Pest Management (IPM). One of the objectives of IPM is to minimize the use of toxic pesticides, particularly those that might reach wetland or aquatic habitats. Ongoing contaminant investigations are being conducted on several of the National Wildlife Refuges included on or nearby the wetlands identified on the Ramsar list. These include studies to determine the baseline condition of refuge water, air, and soil while investigating potential sources of contamination, both on and off the refuge, if detected. Sources of contamination include landfills, dumps, abandoned buildings, industries, military establishments, and agricultural runoff. More specific studies are being conducted to identify the

effects of these sources and their contaminants, such as, polychlorinated biphenyls (PCBs), polynuclear aromatic hydrocarbons (PAHs), pesticides, and fertilizers on wetlands and the wildlife that depend on them.

- C Service staff work with representatives from EPA and state agencies to develop oil spill and prevention and response plans for sensitive areas, including wetlands. When resources are damaged by a spill, the Service documents the natural resource damage and seeks funding and action to restore the lost resources.
- C Cooperative international investigations between the U.S. Fish and Wildlife Service and Mexico and the U.S. Fish and Wildlife Service and Canada, are currently underway to determine the effects of selenium and mercury on waterfowl species. Through partnerships, such as these, the Service will continue to investigate and identify the sources and effects of contaminants on wildlife and wetland health. The knowledge gained will be used to correct, modify, and prevent future injury to wetlands through pollution source control and habitat management.
- C The Clean Water Act provides that discharges from point sources have permits that limits the discharge as necessary to meet the water quality standards for the receiving waters. Applicants for federal permits or licenses must provide a state certification that the proposed activity will not violate applicable water quality standards. The Act further defines the liability for discharges of oil and hazardous substances and the role of the federal government in clean-up operations.
- C The Environmental Protection Agency (EPA) works with states to increase the number and dollar amount of loans made through the Clean Water Act revolving loan fund programs for priority projects that prevent polluted runoff. The EPA also is developing a strategy to establish criteria for assessing nutrient overenrichment problems. Specifically they are developing numerical ranges for acceptable levels of nutrients based on the type of water body and the region of the country in which it is located.
- C The Clean Water Action Plan addresses the expansion of storm water runoff from cities and construction sites. Storm water runoff is one of the leading remaining causes of water pollution in the U.S. The EPA will publish final regulations in 1999 regarding Phase II of the storm water program, considering public comments on the proposal. It will work with states, tribes, municipalities and the regulated community to implement the control measures. The EPA also is working to reduce the enrichment of surface waters as a result of nutrient loading from animal feeding operations (AFO=s). Research, technical assistance, voluntary installation of best management practices, and educational programs have contributed significant progress, but have not adequately addressed the scope of the environmental impacts. The Clean Water Action Plan directs the development of a unified national strategy to minimize the environmental and public health impacts of AFO=s.

C The NRCS Field Office Technical Guide and Engineering Handbooks contain standards and specifications for wetland restoration and management. In addition, the Federal Guide for Riparian Restoration is just being released.

**2.10 Is Environmental Impact Assessment for actions potentially impacting on wetlands required under legislation in your country? Yes**

The National Environmental Policy Act of 1969 (NEPA) requires that all federal agencies prepare detailed environmental impact statements for every federal action that can significantly affect the quality of the environment. NEPA also applies to projects implemented by the states under federal grants. The Fish and Wildlife Coordination Act (1958) requires that federal and state wildlife agencies be consulted to determine what measures are necessary to prevent the loss or damage to wildlife resources. NEPA has helped to increase the weight of the recommendations made under the Fish and Wildlife Coordination Act. The Clean Water Act regulations establish procedures for permitting certain activities in wetlands. Permit applicants typically seek to avoid or minimize impacts on wetlands. Where these are unavoidable forms of mitigation such as enhancement, restoration, creation or replacement are employed to offset losses.

**2.11 Is wetland restoration and rehabilitation considered a priority in your country? Yes**

**If Yes, describe the actions that have been taken to identify wetlands in need of these actions and to mobilise resources for restoration or rehabilitation.**

Wetland restoration and rehabilitation are a priority in the United States, as demonstrated by the numerous policy initiatives and programs that have been created. One of the key goals of the current Clean Water Action Plan (CWAP), announced in early 1998, is to achieve a net gain of 100,000 acres (40,468 hectares) of wetlands per year by 2005, primarily through accelerating wetland restoration efforts of several federal agencies. These efforts include restoration activities under the U.S. Department of Interior's Fish and Wildlife Service's North American Wetland Conservation Act/ North American Waterfowl Management Plan, and the Coastal Program, the U.S. Department of Agriculture's Wetland Reserve and Conservation Reserve Programs, the U.S. Army Corps of Engineers Environmental Restoration programs, the Natural Resources Conservation Service's programs, among many others. Non-federal programs also play a vital part in wetland restoration in the United States.

C From 1996-1998, an estimated 120,000 acres (48,562 hectares) of wetlands will have been restored on private lands through the Service's Partners for Fish and Wildlife Program. This program emphasizes partnerships with other government agencies, private conservation organizations, corporations, and local civic groups to provide financial and technical assistance to private landowners voluntarily participating in restoring wetlands on their property.

More than 50 percent of the funds used for on-the-ground wetland restoration are derived from non-Federal sources through the strong partnerships that are forged through this program.

- C The United States has undertaken a massive restoration effort of the Everglades. Restoration of this 60-mile (96 km) by 300 mile (480 km) watershed is the largest ecosystem restoration ever undertaken in the United States and is one of the Administration=s highest priorities. In partnership with the state of Florida and tribal and local governments, the Administration is working to improve water quality, restore natural hydropatterns, and reduce the loss of water from the watershed to meet the needs of the environment and the economy. In December 1996 the South Florida management District and the Department of Interior entered into an agreement for the expenditure of the first installment of the \$200 million provided for Everglades Restoration in the 1996 Farm Bill. Lands purchased with these funds serve as critical water storage and other restoration purposes, including re-hydration of the Everglades.
  
- C In early 1998, federal, state, and local officials unveiled the **Coast 2050 Initiative**, a cooperative effort between Louisiana=s Coastal Conservation Task Force, the Louisiana Wetland Conservation and Restoration Authority, and coastal parishes. Together, these agencies will work together to resolve Louisiana=s growing wetland and coastal land loss problems. Coast 2050 will develop a *A...technically-sound strategic plan to sustain coastal resources and provide integrated multiple use approach to ecosystem management.* @ Coast 2050's goal is to develop a technically sound strategic plan within 18 months.
  
- C Since its inception, Coast 2050 has held multiple meetings across coastal Louisiana, gathering input from coastal residents, business, and industry. The information gathered will be used to formulate the strategic plan. The coastal wetlands of Louisiana are being lost at an alarming rate of 20,000 - 25,000 acres per year [over 100 km<sup>2</sup>/yr] due to natural deltaic processes of erosion and subsidence greatly compounded by the effects of human activities. This loss is of particular concern because these wetlands directly or indirectly support one of the Nation=s largest concentrations of coastal fish and wildlife resources. Studies have shown that if the loss of the coastal marshes is not curtailed, the Gulf of Mexico may advance inland as much as 33 miles (53 km). Considering the present rate of loss, by the year 2050 Louisiana will have lost more than 1 million acres of wetlands (4,000 km<sup>2</sup>), an area larger than the state of Rhode Island. (For comparison, Trinidad and Tobago has a land area of 5130 km<sup>2</sup>.) The Coastal Wetlands Planning, Protection and Restoration Act of 1990 allots approximately \$35 million annually for work in Louisiana (this legislation funds wetland enhancement projects nationwide). The state of Louisiana contributes another 25% toward the cost

of project construction.

- C Recognizing the importance of waterfowl and the wetlands that support them, and the need for international cooperation to help restore and conserve this resource, the U.S. Government implements a North American Waterfowl Management Plan to restore waterfowl populations in North America through habitat protection, restoration, and enhancement carried out through numerous partnerships called A Joint Ventures.@ The Plan initially was signed in 1986 by the Canadian Minister of the Environment and the Secretary of the Interior of the U.S. In 1994, Mexico joined the U.S./Canada partnership following the 1994 update of the Plan.

Last year, consultations were conducted in the three signatory countries in preparation for the Plan=s 1998 update. The 1998 Update will recognize the tremendous legacy of partner accomplishments, and present a vision for the next 15-year phase. That vision will have Plan partners collaborate with other migratory bird initiatives and forge broader alliances. The update document will be finalized and signed by the three governments in 1998. As of March 1998, 3 million acres (1.2 million ha) of wetlands have been protected and 3.1 million acres (1.25 million ha) have been restored or enhanced in North America. In 1997, the number of ducks in the surveyed areas was 42.7 million, up from 36.1 in the 1970's. Populations for 8 of the 10 principal duck species are now above Plan goals. Over 10 million acres (4 million ha) of wetlands in Mexico have directly or indirectly benefited from projects sponsored by the Plan.

- C A vital piece of legislation, the 1997 National Wildlife Refuge System Improvement Act continues the tradition of watershed conservation. In Section 4(a) of the Act, the Secretary of the Interior was directed by Congress to Aassist in the maintenance of adequate quantities and qualities of water to fulfill the mission of the System and the needs of each refuge.@ Refuges enhance and improve the Nation=s water quality through riparian and wetland restoration, contaminant assessment and cleanup, coastal, and coral reef initiatives. In 1997, 65,202 acres (26,386 hectares) of wetlands were restored on refuge lands, 957 acres (387 hectares) of refuge deepwater habitat were restored, along with 22 miles (35 km) of rivers. For 1998, an estimated 188,000 acres (76,081 hectares) of habitat will be restored and 3.3 million acres (1.3 million hectares) enhanced.
- C The Natural Resources Conservation Service=s programs work at the local level with private landowners to voluntarily conserve and restore wetlands and riparian areas as part of natural resource planning. Since 1990, landowners throughout the United States and Territories have enrolled over 670,000 acres in the Wetland Reserve Program, most of which are for wetland restoration. These acres are protected by permanent or 30 year

easements, or by long-term agreements. In addition, over 90,000 additional acres have been enrolled in permanent easements in the Emergency Wetland Reserve Program, in response to flood damage on private lands. Also, in fiscal year 1998 alone, about 12,000 additional acres of wetland creation or enhancement have been enrolled in the Wildlife Habitat Improvement Program, along with about 8,000 acres of restored riparian buffer acres. The Conservation Reserve Program, another U. S. Department of Agriculture program with private landowners, provides a variety of wildlife habitats through the establishment of long-term permanent vegetation on just over 30,000,000 acres of marginal cropland.

**2.12 Describe what actions have been taken to encourage active and informed participation of local communities, including indigenous people, and in particular women, in the conservation and wise use of wetlands. (refer to Actions 2.7.1-4 in the Strategic Plan).**

National Wildlife Refuges boast millions of visitors each year. Refuge visitation from foreign countries has shown a steady increase over the years. In numerous discussions with foreign visitors, Ramsar designations were a primary destination point on their vacation itinerary. Significant gains to the local economy accrue from both domestic and foreign ecotourism. Visitors come for a variety of purposes including bird watching, photography and environmental education. Both on a national and regional level, the role of the refuge is promoted by annual activities such as National Wildlife Refuge Week in October and the celebration of International Migratory Bird Day in May. Refuges engage the general public and partners in a variety of ways on the national and local level. These include dialogue with refuge Friends groups, Volunteer Associations and the Cooperative Alliance for Refuge Enhancement. Refuges have signed collaborative Memoranda of Understanding with groups particularly interested in wetland conservation like the National Audubon Society and the Western Hemisphere Shorebird Reserve Network. Native Americans often are involved with refuges particularly related to the fishery resources on refuge lands. To foster the relationship, the Service has hired regional Native American liaisons to work directly with tribal governments.

The Clean Water Action Plan encourages states, tribes, and local governments to take the lead in assessing, restoring and protecting their water resources. The federal government will provide much of the funding, including small grants to local communities. With approximately 75% of the Nation's remaining wetlands in the lower 48 States located on privately owned property, it is clear that cooperation with the private sector in the implementation of wetland conservation and restoration activities is critical.

States, tribes, regional, and local governments are becoming more interested and active in comprehensive wetlands protection through the authorities granted to them in existing legislation. One of the ways state and tribal governments can strengthen

their roles in wetlands protection is to "assume" permitting authority under the Clean Water Act, Section 404 program. This means that states or tribes have the authority to issue Section 404 permits. This program regulates the discharge of dredged and fill material in wetlands and other waters. To date, Michigan and New Jersey have assumed such authority, and several states and tribes are working toward this end.

Other options available to states and tribes to strengthen their roles in wetlands protection include:

- C undertaking comprehensive State Wetland Conservation Plans
- C obtaining State Program General Permits from the Corps for discharges of dredged and fill material in wetlands
- C developing wetland water quality standards
- C applying the Clean Water Act Section 401 Water Quality Certification program more specifically to wetlands
- C incorporating wetlands protection into other State and Tribal water programs

Regional and local participation in wetland protection can also be strengthened through comprehensive resource planning that targets specific geographic areas. Examples of such areas are river corridors for which governments and communities have identified many objectives for their use. Regional and local governments can also protect watersheds and identify in advance suitable and unsuitable sites for discharges.

The 1985 Food Security Act, as amended, encourages increased community involvement through locally led conservation following watershed boundaries. The Act recognizes that local people, working in cooperation, are the best to identify problems and opportunities, and to plan for and carry out actions that will be acceptable to landowners. These planning efforts typically involve all natural resources, but also include social and economic considerations. The Act goes further in specifically encouraging indigenous people, limited resource farmers, and women to become involved in all aspects of these area-planning efforts.

The U.S. Government supported the First and Third International Workshops on the **AInvolvement of Local and Indigenous People in Wetland Management.** These workshops stem from Recommendation 6.3 of the Parties attending the Brisbane Ramsar Conference. Discussion of the case studies selected as part of the workshops will be the basis for a special session of COP7.

**2.13 Describe what actions have been taken to Aencourage involvement of the private sector in the conservation and wise use of wetlands@ (refer to Actions 2.8.1-4 in the Strategic Plan).**

Over the last 3 years, the Service has participated in 5 national workshops sponsored by the Wildlife Habitat Council, whose theme was AWorking With Wetlands and

Wildlife.@ The goal of the workshops was to educate corporate and other private entities on the functions and values of wetlands, as well as some of the regulatory and incentive-based programs addressing wetland conservation. The Service has also been an active participant in a number of national workshops and conferences that focus on wetland conservation and private sector involvement, such as the annual Terrene Institute Wetland Conference held in May, and the Environmental Law Institute=s annual National Wetlands Awards. The Service continues to administer a number of programs that encourage involvement of the private sector in the conservation and wise use of wetlands. These include the Partners for Fish and Wildlife Program and various components of the Service=s Coastal Program.

Numerous programs encourage involvement of the private sector in the conservation and wise use of wetlands. The North American Waterfowl Management Plan is based on partnerships, called Joint Ventures, which involve federal, state, provincial, tribal, and local governments, businesses, conservation groups and individual citizens. Joint ventures develop Implementation Plans focused on areas of concern identified in the Plan. There are 10 Joint Ventures in the U.S. and 2 in Canada.

The Wetlands Reserve Program (WRP) of the U.S. Department of Agriculture is a voluntary program to restore and protect wetlands on private property. It provides landowners an opportunity to receive financial incentives to enhance wetlands in exchange for retiring marginal agricultural land. Landowners that participate may sell a conservation easement or enter into a cost-share restoration agreement with the U.S. Department of Agriculture to restore and protect wetlands. The landowner voluntarily limits future use of the land, yet retains ownership. The owner may lease the land for hunting, fishing and some recreational activities that do not require developing the land.

**Has this included a review of fiscal measures (taxation arrangements, etc.) to identify and remove disincentives and introduce incentives for wetlands conservation and wise use?**

Congress took steps, beginning in the mid-1980's to reduce federal financial incentives that led to aquatic ecosystem degradation. The 1986 Water Resources Development Act (P.L. 99-662) placed major cost burdens on the beneficiaries of water projects. The Swampbuster program of the 1985 Food Security Act eliminated U.S. Department of Agriculture benefits in many circumstances where farmers cleared and drained wetlands for crop production. The Internal Revenue Service Tax Code was amended to alter the tax treatment of agricultural drainage expenses in wetlands.

On April 2, 1998, Senate Bill 1907 was introduced in the U.S. Congress. The bill would provide significant tax credits to landowners willing to restore and protect wetlands on agricultural lands. It is not known at this time what the chances are for passage of this bill. While details need to be worked out and the intended scope of

eligible wetlands is unclear, the Service supports the general intent of the bill.

Changes in economic incentive programs have contributed to a substantial retardation in the rate of loss of wetlands per year, and a substantial reduction in the loss of free-flowing rivers and natural lakes due to construction of dams, levees, and water diversion structures.

### **Ramsar Strategic Plan - General Objective 3**

#### **To raise awareness of wetland values and functions throughout the world and at all levels**

**3.1 Is there a government-run national programme for Education and Public Awareness in your country which focuses on, or includes, wetlands? Yes/No? If yes, what are the priority actions under this programme and who are the target groups? (Refer also to question 9.4)**

Each federal agency encourages wetland conservation awareness through its public education programs. Large amounts of information are posted on the web pages of federal and state agencies. Under the Clean Water Initiative federal agencies will create a new Internet-based Water Information Network to provide consolidated information on water and watershed programs and services.

In April 1996, the U.S. Department of State held a Working Together for Wetlands@ Conference to celebrate 25 years of the Ramsar Convention. The participants explored specific wetlands issues, programs, and problems such as: Strategies for Educating People about Wetlands, Federal-State Partnerships for Wetlands, International Linkages, Forging Innovative Approaches, Wetland Restoration, Public-Private Partnerships, and Ramsar in the United States.

Many federal agencies co-sponsor the annual American Wetlands Month Conference (AWM Conference). This conference builds upon the 1996 Working Together for Wetlands meeting. Held in May 1997 and April 1998, the AWM conferences have become the most prominent forum to discuss issues related to community-based conservation in the nation. Participants learn how to work more effectively within their communities and how to take advantage of the diversity of government programs available for wetland management and restoration, as well as the tools and knowledge available within the private sector.

The U.S. Fish and Wildlife Service's Western Hemisphere Program in partnership with the Rainforest Alliance's Conservation Media Center supports a Public Outreach Skills Workshop for NGOs That Are Active in Wetlands Conservation@ in Costa Rica. It is expected that this workshop will contribute to enhanced media coverage of wetland issues in Costa Rica.

Internationally, the Service provided financial and technical assistance for the International Workshop on Wetland Management held earlier this year in Costa Rica. This activity was scheduled to coincide with the application of the Management Guidance Procedure in Palo Verde, Guanacaste, Costa Rica. The workshop was sponsored by SINAC (Costa Rica's National System of Protected Areas) and OTS (Organization for Tropical Studies); Ramsar Bureau experts also participated.

Through the North American Waterfowl Conservation Act, workshops have been held in Mexico to both train local communities in the sustainable management of wetland resources and to enhance their awareness of the ecological significance of wetland functions. Given the partnership model of implementation, individual farmers and ranchers -- as well as any membership organizations to which they may belong -- are integral elements of these projects.

In February 1998, the Service supported the Ramsar Southern Africa Sub-Regional meeting held in Pretoria, South Africa. The meeting provided a forum for information on the implementation of the Convention, to identify priority actions for strengthening the application of Ramsar in Southern Africa, and strengthen cooperation between countries of the sub-region.

**3.2 Describe the steps taken to have wetlands issues and Ramsar's Wise Use principles included as part of the curricula of educational institutions. Has this been at all levels of education (primary, secondary, tertiary and adult)? Please give details.**

The U.S. Fish and Wildlife Service's Chesapeake Bay Field Office initiated a program in the state of Maryland designed to give students hands-on experience in restoring, creating or enhancing wetlands, forests and grassland meadows on school grounds. This program focuses on naturalization projects and not on traditional backyard projects such as butterfly gardens, bird feeders, etc. The goal of the project is to challenge students to utilize mathematics, science, reading, writing, decision making and critical thinking skills in a practical application that benefits local and migratory wildlife. Students are challenged to plan, design and monitor these projects. The new habitats are used for instruction as outdoor laboratories and are available for student investigation and discovery. As of June 1997 approximately 80 projects were completed and 30 acres (12 hectares) of unused school lawn converted to meadows, forests or wetlands. Several thousand students have been involved with these projects.

Many National Wildlife Refuges (NWR) offer structured educational programs for students. The San Francisco Bay NWR, for example, provides the following programs: Wetland Round-Up and trekking the Refuge field trips, and a Seabird Education Restoration Project off site.

The Wetland Round-Up field trip allows educators and youth professionals to design and conduct their own field trips after attending a field trip orientation workshop and receiving the Salt Marsh Manual, an Educator=s Guide, to use as their curriculum guide. In small groups students rotate through a series of learning stations. Usually parents from the class or organization guide the studies in hands-on activities at each station. The Refuge Environmental Education staff, interns and volunteers conduct the opening and closing sessions for the whole group, provide field trip equipment set-up and during the beginning of the field trip the intern helps the educator with supervision.

The Trekking the Refuge field trip allows the educator to pick up the requested activity packs, conduct all hand-on activities in the field and return the packs at the end of the field trip. Pre and Post field trip classroom activities and related check-out materials (slide show, video, posters, etc.) Are provided for the educator. This type of field trip allows the Refuge to accommodate an additional 35 students with a minimum of increase of staff time. Pilot testing for this program began in 1996; it is currently in operation through assisted funding from the Environmental Protection Agency.

In the fall of 1996, the seabird restoration program for elementary and middle school children focused on efforts to restore a common murre breeding colony to Devil=s Slide Rock in California. Students learned about seabirds of the Central California coast, reasons for their decline, restoration efforts, and evaluation of the project.

The U.S. Government continued funding of the Wetlands for the Future Initiative. This program has supported more than 35 projects in 13 countries within the Neotropical region. Projects supported national and regional coordination meetings of wetland managers, training, and information transfer. In October 1997, the three sponsoring organizations (U.S. Fish and Wildlife Service, the U.S. Department of State and the Ramsar Secretariat) signed a Memorandum of Agreement extending the Wetlands for the Future Initiative for the period 1998-2000.

The U.S. Fish and Wildlife Service=s Western Hemisphere Program continued to strengthen capacity building in resource management by supporting a network of five training programs in Argentina, Brazil, Costa Rica, and Venezuela as well as three Protected Areas Manager Training Courses. Graduates of these programs are already engaged in wetland conservation activities throughout the region.

In December 1997, the Service in cooperation with the National Park Service and National Oceanic and Atmospheric Administration, hosted a Conference to Develop a Marine Protected Area Network in the Wider Caribbean. Participants visited Everglades National Park, Florida Keys National Marine Sanctuary, John Pennekamp Coral Reef State Park and Biscayne National Park to observe management approaches in these areas.

In collaboration with Mexico's SEMARNAP, the Service supported the production of a Wetlands Training Manual for Mexico (Manual para el Manejo y la Conservación de Humedales en México) as well as two 13-day training workshops on identification, planning, management, and conservation of wetlands in which the manual was field tested.

At the request of Profauna (Venezuela) the Service's Western Hemisphere Program supported a Wetlands Workshop for Profauna's staff. The 5-day workshop focused on the management of waterfowl populations. Participants included technical staff from Profauna, students from the Universidad Nacional de los Llanos Occidentales, FUDENA, U.S. Fish and Wildlife Service, University of Mississippi, University of New York (Syracuse) and North Carolina State University. Some 30 Venezuelans participated in the workshop.

#### **Ramsar Strategic Plan - General Objective 4**

**To reinforce the capacity of institutions in each Contracting Party to achieve conservation and wise use of wetlands.**

- 4.1 Describe the mechanisms in place, or being introduced, to increase cooperation between the various institutions responsible for actions which can have an impact on the conservation and wise use of wetlands. If one of the mechanisms is a National Ramsar/Wetlands Committee, please describe its composition, functions and *modus operandi*.**

An integral part of the North American Waterfowl Management Plan are the partnerships that were created -- called joint ventures -- between various non-profit, non-governmental and private organizations across Canada and the United States. These joint ventures help to promote and ensure the type of cooperation needed to successfully conserve and manage waterfowl populations *and* their wetland habitat. There are currently ten joint ventures committed primarily to advancing the conservation of wetland habitat, as well as two that focus on researching and monitoring populations of particular wetland species such as arctic geese and black ducks. In Mexico, public and private organizations have created *patronatos* to achieve their country's primary objective: to conserve, maintain and increase the wild flora and fauna of Mexico's wetland ecosystems. They have identified 32 sites as national priority wetland habitats thus far.

- 4.2 Of the following, indicate which have been undertaken:**

**a. a review to identify the training needs of institutions and individuals concerned with the conservation and wise use of wetlands Yes/No? If yes, please indicate the major findings of the review.**

No review has been undertaken. However, federal agencies recognize the importance of providing training at federal, state, tribal, local levels and to citizens to provide access to tools needed for collaborative watershed work.

**b. a review to identify training opportunities for these people both within your country and in other countries. Yes**

There are many excellent training programs that cover ecological, social and organizational principles. Others focus on community capacity building.

**c. the development of training modules or a training programme specifically for wetland managers. If yes, please give details.**

The U.S. Fish and Wildlife Service's National Conservation Training Center coordinates with the Forest Service, the National Park Service, Bureau of Land Management and state fish and wildlife agencies to deliver training courses for conservation professionals. The U.S. Geological Survey National Wetlands Research Center also offers courses pertaining to mapping, vegetation, photo-interpretation, remote sensing and GIS. Among the numerous courses offered by these organizations are:

- Wetland Classification Training
- Wetland Restoration and Enhancement
- Hydric Soils for Wetland Delineation
- Wetland Plant Identification
- Wetland Regulatory Program
- Hydrogeomorphic (HGM) Approach to Wetland Functional Assessments
- An Approach to Ecosystem Conservation
- Introduction to GIS for Conservation Professionals
- Introduction to GPS for Natural Resources Assessments and Surveys
- Wetland Remote Sensing and Mapping
- Wetland Photo Interpretation
- Identification of Wetland Tree Species
- Oil Spill Response
- Shorebird Ecology and Management
- Waterfowl Disease Workshop
- Waterfowl Ecology and Management;
- Shorebird Ecology and Management.

The U.S. Corp of Engineers has also developed a Multimedia Package (in CD-ROM) for instruction on Hydric Soils (The HydricSoils Disc).

**Ramsar Strategic Plan - General Objective 5**

**To ensure the conservation of all sites included in the List of Wetlands of International Importance (Ramsar List).**

- 5.1 Of the Ramsar sites in your country, how many have formal management plans:**
- a. being prepared?**
  - b. fully prepared?**
  - c. being implemented?**

**Please indicate in the attached table of Ramsar sites which sites these are and what category they fall into.**

The National Wildlife Refuge System Improvement Act of 1997 states that The Secretary shall -- (1) propose a comprehensive conservation plan for each refuge or related complex of refuges...in the System.@ During plan development, a review of any existing special designations like Wetlands of International Importance and the potential for any designations is conducted. All Ramsar sites that are National Wildlife Refuges are in the process of preparing management plans. Those remaining Ramsar sites either have implemented management plans or are preparing them.

- 5.2 Of the management plans referred to above, which ones have included a monitoring scheme or programme to allow changes in ecological character to be detected? Please indicate this in the attached table of Ramsar sites also.**

Cache River National Wildlife Refuge has developed one of the first and most thorough management plans incorporating the Ramsar concept.

- 5.3 Has there been a change in the ecological character (either positive or negative) at any of your Ramsar sites or is this likely to occur in the near future?**

The United States has undertaken a massive restoration effort of the Everglades. Restoration of this 60-mile (96 km) by 300 mile (480 km) watershed is the largest ecosystem restoration ever undertaken in the United States, and is one of the Administration=s highest priorities. In partnership with the state of Florida and tribal and local governments, the Administration is working to improve water quality, restore natural hydro patterns, and reduce the loss of water from the watershed to meet the needs of the environment and the economy. In December 1996 the South Florida management District and the Department of Interior entered into an agreement for the expenditure of the first installment of the \$200 million provided for Everglades Restoration in the 1996 Farm Bill. Lands purchased with these funds serve as critical water storage and other restoration purposes, including re-hydration of the Everglades.

### **Ramsar Strategic Plan - General Objective 6**

**To designate for the Ramsar List those wetlands which meet the Convention=s criteria, especially wetland types still under-represented in the List and transfrontier wetlands.**

**6.1 Has a national inventory of wetlands been prepared for your country? Yes  
Where a national inventory exists please provide details of when it was  
finalized, where it is kept and what information it contains.**

Yes, the National Wetlands Inventory Project was established in 1975 by the U.S. Fish and Wildlife Service, an agency of the Government of the United States, to generate scientific information on the characteristics and extent of the Nation=s wetlands. This information is developed in two stages: 1) the creation of detailed wetland maps, and 2) work on historical and current wetland status and trends.

The objectives of the National Wetlands Inventory are to develop and disseminate information on the characteristics of the wetlands and to produce topical wetland maps that accurately represent these valuable resources. To accomplish these objectives, the National Wetlands Inventory is producing a standardized series of wetland maps for the United States, special map products, state and regional wetland reports, status and trends reports, and a national digital database.

Since 1979, the National Wetlands Inventory (NWI) has produced wetland maps for 88 percent of the conterminous United States, 30 percent of Alaska, all of Hawaii, Puerto Rico, the U.S. Virgin Islands and all of the U.S. Pacific Insular Areas. The National Wetlands Inventory established a digital database in 1981 to complement the production of hardcopy maps. Since that time the digital database has grown to contain digital vector data for more than 22,000 1:24,000 scale quadrangle maps. Since July 1994, wetlands map data have been available in digital form, free of charge on the Internet (<http://www.fws.nwi.gov>). Wetland map products, status information, metadata and software tools to convert the DLG3-Optional data to ARC coverages and manipulate the wetland codes can be found at this Internet site. Lists of wetland plants, status and trends information, educational resources along with links to other sources of information about wetlands are also available.

Wetland hardcopy maps are distributed through 34 state run distribution centers and are also available through the U.S. Geological Survey Map Sales Office(s).

Reproducible map copies are stored as part of the national map collection at the National Archives. Maps may also be viewed on microfiche at each of 552 facilities in the National Map Depository Library System. Ecological Services Field Offices of the Service maintain hardcopy maps for their specific region of the country. Master copies, digital data files, the digital database administrator

and Internet webmaster for the National Wetlands Inventory are located at the National Wetlands Inventory Center in St. Petersburg, Florida.

Congressional mandates require NWI to produce status and trends reports to Congress at ten-year intervals. In 1982 the NWI produced the first comprehensive and statistically valid estimate of the Nation's wetlands, and in 1990 produced the first update. Future national updates are scheduled for 2000, 2010 and 2020.

A necessary prerequisite to achieve wetland goals is ensuring that a reliable system is in place to collect and analyze data on losses and gains in the Nation's wetlands. Representatives of the Fish and Wildlife Service and the Natural Resources Conservation Service, working with the White House Wetlands Working Group, have been developing a plan to use existing inventory and data collection systems to support a single status and trends report. The National Wetlands Inventory of the Fish and Wildlife Service will continue its wetland status and trends studies, maintaining a 40-year database on wetland change in the conterminous United States.

**6.2 Does there exist a list or directory of important wetlands for your country or region? No**

No, with the exception of the Ramsar sites, the United States does not maintain a single list or directory of important wetlands. A ranking based upon these a-priori categorizations have been deemed unworkable. Assessing the functional value of every wetland in the country would be a far more complicated task. Wetlands in general are considered vital areas that constitute a productive and invaluable public resource. However, within the United States there are directories of national sites that include National Wildlife Refuges, National Parks, National Forests, Wild and Scenic Rivers, Wilderness Areas, National Recreation Areas, Historic Preservation Sites, as well as sites of non-governmental organizations including Audubon Wildlife Sanctuaries, Nature Conservancy Preserves and private research areas. Many of these sites include important wetland resources (such as the Okefenokee Swamp and Everglades National Park) as well as other types of wildlife habitats and cultural resources.

**6.3 If it is known, please provide an estimate of the area of wetlands in your country at present and any information on rates of loss or conversion to other activities.**

**If this information is available, please indicate what definition of wetland was used.**

The U.S. Fish and Wildlife Service is currently updating its estimates of wetlands status and trends. Although work is still in progress, the following

information can be provided as preliminary findings: there are an estimated 100.9 million acres (40.9 million ha) of wetlands remaining in the conterminous United States. Ninety-five percent of the remaining wetlands are inland freshwater wetlands. Five percent are intertidal estuarine wetlands. Freshwater forested wetlands make up the single largest category.

Although wetland area continues to diminish within the conterminous United States, preliminary results indicate the rate of decline has slowed. Between 1985 and 1995 the estimated average annual net loss of wetland area was 117,000 acres (47,370 ha). This rate of loss is 60 percent lower than the loss rate reported for the period between the mid-1970s and the mid-1980s.

The U.S. Fish and Wildlife Service uses the Cowardin Wetland Classification System (Cowardin, et al., 1979, Classification of Wetlands and Deepwater Habitats in the United States) for its inventory and monitoring purposes. The Federal Geographic Data Committee adopted this system as the national standard in December 1996 for these purposes.

### **Freshwater Wetlands (Palustrine)**

There are an estimated 95.8 million acres (38.8 million ha) of freshwater wetlands of various types remaining in the conterminous United States, including 47.9 million acres (19.4 million ha) of forested wetlands; 25.0 million acres (10.1 million ha) of freshwater emergents; and 17.1 million acres (6.9 million ha) of freshwater shrub wetlands. There are also 5.2 million acres (2.1 million ha) of freshwater ponds and 600,000 acres (243,000 ha) of other freshwater wetland types.

This study indicates a decline of almost 5 percent in forested wetland area in the 10 years between 1985 and 1995. Freshwater emergent area also declined with a net loss of nearly 870,000 acres (352,200 ha). Freshwater ponds continue to increase in area, up nearly 14 percent in 10 years. Contributions to the pond category are believed to come from beaver activities, developments such as water retention ponds and small residential lakes, as well as water replacement to some historic wetlands through restoration activities.

While the declining loss rate may reflect successful educational, regulatory, conservation and restoration policies, several other important findings of this study include:

- C For the first time in our Nation's history there are estimated to be fewer than 50 million acres (20.0 million ha) of freshwater forested wetlands in the conterminous U.S.
  
- C There are more than 20 million acres (8.1 million ha) of deepwater lakes and reservoirs (excluding the U.S. portion of the Great Lakes).

C The area covered by open water ponds now equals the area occupied by all estuarine wetlands in the conterminous U.S.

Approximately 15,000 acres (6,000 ha) of freshwater ponds were created in urban areas. Restoration or creation of other wetland types in urban settings was statistically insignificant.

### **Intertidal Wetlands (Estuarine and Marine)**

Estuarine vegetated wetlands, composed of estuarine emergents and shrubs, make up 89 percent of the total intertidal wetland area. Non-vegetated estuarine and marine wetlands, including beaches, flats and shoals, composed 11 percent of all intertidal wetlands or 577,100 acres (233,600 ha).

Estuarine emergent wetlands (salt marsh) experienced the largest change -- 32,000 acres (13,000 ha) -- of any intertidal wetland type. The conversion of estuarine emergents to estuarine shrub wetlands represented the most prevalent reason for the decline in estuarine emergents (about 16,000 acres or 6,500 ha). Another 7,400 acres (3,000 ha) of estuarine salt marshes were lost to open water erosion.

Upland land uses, including development outside of established urban communities, accounted for 42 percent of the changes to estuarine vegetated wetlands. Loss to upland land use represented the largest single reason for the decline in vegetated estuarine wetlands.

Non-vegetated coastal wetlands increased in area by an estimated 8,800 acres (3,560 ha). Intertidal wetland area continued to decline through 1995, although the rate of decline has slowed considerably. Estuarine vegetated wetlands are declining, while estuarine and marine non-vegetated wetland types have increased over time.

**Wetlands Definition:** In general terms, wetlands are lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. The single feature that most wetlands share is soil or substrate that is at least periodically saturated with or covered by water. The water creates severe physiological problems for all plants and animals except those that are adapted for life in water or in saturated soil.

Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification wetlands must have one or more of the following three attributes: (1) the land supports predominantly

hydrophytes, at least periodically; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year.

The term wetland includes a variety of areas that fall into one of five categories: (1) areas with hydrophytes and hydric soils, such as those commonly known as marshes, swamps, and bogs; (2) areas without hydrophytes but with hydric soils--for example, flats where drastic fluctuation in water level, wave action, turbidity, or high concentration of salts may prevent the growth of hydrophytes; (3) areas with hydrophytes but nonhydric soils, such as margins of impoundments or excavations where hydrophytes have become established but hydric soils have not yet developed; (4) areas without soils but with hydrophytes such as the seaweed-covered portions of rocky shores; and (5) wetlands without soil and without hydrophytes, such as gravel beaches or rocky shores without vegetation.

### **Marine System**

The Marine System consists of the open ocean overlying the continental shelf and its associated high-energy coastline. Marine habitats are exposed to the waves and currents of the open ocean; the water regimes are determined primarily by the ebb and flow of oceanic tides. Salinities exceed 30 parts per thousand, with little or no dilution except outside the mouths of estuaries. Shallow coastal indentations or bays without appreciable freshwater inflow, and coasts with exposed rocky islands that provide the mainland with little or no shelter from wind and waves, are also considered part of the Marine System because they generally support typical marine biota.

### **Estuarine System**

The Estuarine System consists of deepwater tidal habitats and adjacent tidal wetlands that are usually semi-enclosed by land but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of seawater. Offshore areas with typical estuarine plants and animals, such as red mangroves (*Rhizophora mangle*) and eastern oysters (*Crassostrea virginica*), are also included in the Estuarine System.

### **Palustrine System**

The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, farmed wetlands,

and all such wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.5 parts per thousand. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 Ha (20 acres); (2) active wave formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2 meters at low water; and (4) salinity due to ocean derived salts less than 0.5 parts per thousand.

### **Deepwater Habitats**

Wetlands and deepwater habitats are defined separately because the term wetland does not include deep permanent water bodies. For the purposes of conducting status and trends studies, Riverine and Lacustrine are considered deepwater habitats. Elements of Marine or Estuarine systems can be wetland or deepwater. Palustrine includes only wetland habitats.

Deepwater Habitats are permanently flooded land lying below the deepwater of wetlands. Deepwater habitats include environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live, whether or not they are attached to the substrate. As in wetlands, the dominant plants are hydrophytes; however, the substrates are considered nonsoil because the water is too deep to support emergent vegetation.

### **Riverine System**

The Riverine System includes deepwater habitats contained within a channel, with the exception of habitats with water containing ocean-derived salts in excess of 0.5 parts per thousand. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

### **Lacustrine System**

The Lacustrine System includes deepwater habitats with all of the following characteristics: (1) situated in a topographic depression or a dammed river channel; (2) lacking trees, shrubs, persistent emergents, emergent mosses or lichens with greater than 30 percent coverage; (3) total area exceeding 8 ha (20 acres). Similar wetland and deepwater habitats totalling less than 8 ha are also included in the Lacustrine System if an active, wave-formed or bedrock shoreline feature makes up all or part of the boundary, or if the water depth in the deepest part of the basin exceeds 2 m (6.6 feet) at low water.

## **6.4 Have any actions been taken in response to the COP6 Resolutions and**

**Recommendations that Contracting Parties should give priority to listing Wetlands of International Importance which:**

- a. meet the criteria for fish habitat (Resolution VI.2),**
  - b. meet the 1% criterion for waterbird populations using data provided by the International Waterfowl Census (Resolution VI.4),**
  - c. are subterranean karst or cave wetland systems (Resolution VI.5),**
  - d. are peatland ecosystems (Recommendation 6.1)**
  - e. are coral reefs and associated systems (Recommendation 6.7)**
  - f. are under-represented wetland types (which apart from d. and e. above include mangroves and sea grass beds) (Strategic Plan Action 6.2.3)**
- If yes, please describe these actions.**

In 1998, the United States designated its 16th Ramsar site. Located near Columbia, South Dakota, the 22,000 acre (8,903 hectare) Sand Lake National Wildlife Refuge was established in 1935 as a refuge and breeding ground for migratory birds and other wildlife. Sand Lake is the only Ramsar site within the Prairie Pothole region of the United States. A large freshwater cattail marsh, it provides critical nesting and staging habitat for many different bird species. The number of migrating waterfowl using the large wetland complex often exceeds 20,000 and includes such birds as mallards, wood ducks and Canada geese. Sand Lake is also an important habitat for reptiles, amphibians, fish, and mammals.

Also in 1998, Bolinas Lagoon, on the south end of California's Point Reyes peninsula, was designated as the 17th Ramsar Site in the U.S. The Lagoon is a critical staging ground and stopover for migratory birds. As the first wetland on the Pacific Flyway in the lower 48 states, the 1,100 acre (445 hectare) site's open water, mudflat, and marsh provide productive and diverse habitat for marine fishes, mammals, and waterbirds.

## **Ramsar Strategic Plan - General Objective 7**

**To mobilize international cooperation and financial assistance for wetland conservation and wise use in collaboration with other conventions and agencies, both governmental and non-governmental.**

- 7.1 Briefly describe any bilateral or multilateral activities that have been taken, are under way, or are planned for the management of transfrontier wetlands or their watersheds/catchments (Refer also to 6.6 and 6.7).**

The North American Waterfowl Management Plan fully supports this General Objective. The Plan is an excellent example of a highly successful framework to provide for coordinated, shared wetland resources conservation, at a regional level. The magnitude of the on-the-ground conservation work achieved by the Plan is

notable and its success verifiable in terms of enhanced capacity within the three countries to manage wetland resources at local levels and in the increased waterfowl populations that are being recorded.

**7.4 Is your country cooperating as part of any bilateral or multilateral activities directed at the conservation of migratory wetland species? Yes**  
**If yes, please provide details.**

As part of the North American Waterfowl Management Plan, the U.S. has been cooperating with Canada and Mexico in multilateral activities directed at the conservation of migratory wetland species. Both wintering and breeding ground habitat of these migratory species are the focus of conservation efforts. In addition, the actual populations of migratory species are closely inventoried and monitored to better understand their ecological requirements in each country at every stage of their migration. The Service works with the Western Hemisphere Shorebird Reserve Network (WHSRN) to conserve, identify and protect key sites for shorebird migration routes throughout North and Latin America. For example, 20 National Wildlife Refuges are designated WHSRN sites and many others are in the nomination process.

The Fish and Wildlife Service participates in the International Important Birding Areas (IBA) program coordinated by Birdlife International. Over a dozen refuges are designated as IBAs, these areas are recognized for their importance to global populations of bird species and high concentrations. Many IBAs are significant wetland areas and managed accordingly.

The Pan American Convention [Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (1940)]. Under this treaty, the U.S. government and 22 countries agreed to take certain actions to protect and preserve in their natural habitat representatives of all species and genera of their native flora and fauna, including migratory birds, and to prevent the threatened extinction of any given species.

The Migratory Bird Treaty with Canada [Convention Between the United States and Great Britain (for Canada) for the Protection of Migratory Birds (1916)] adopted a uniform system of protection for certain species of birds that migrate between the U.S. and Canada. A protocol updating the treaty and allowing for subsistence hunting was signed by both countries in 1995.

The Migratory Bird and Game Mammal Treaty with Mexico [Convention between the United States of America and the United Mexican States for the Protection of Migratory Birds and Game Mammals (1936)] adopted a system for the protection of certain migratory species in the U.S. and Mexico and allows for the rational use of certain migratory birds. A protocol with Mexico conforming this treaty with the Canada protocol was signed by both countries in 1997.

The U.S.-Japan Convention for the Protection of Migratory Birds and Birds in Danger of Extinction, and their Environment (1974) promotes the cooperation for the management, protection and prevention of extinction of certain birds that migrate between the United States and Japan. Each country agrees to take measures necessary to carry out the purposes of the Convention. The taking of birds or their products is allowed by Eskimos, Indians, and the indigenous peoples of the Trust Territories of the Pacific Islands for their own food and clothing.

The Migratory Bird Treaty with Russia [Convention Between the United States of America and Russia Concerning the Conservation of Migratory Birds and Their Environment (1976)] provides for the protection of bird species that migrate between the United States and Russia, or that occur in either country and have common flyways, breeding, wintering or moulting areas. The treaty also encourages actions to identify and protect important habitats against pollution, alteration or degradation, and to cooperate in measures to protect migratory birds in danger of extinction.

Activities for the implementation of the Western Hemisphere Convention involve the Service in numerous migratory bird conservation actions throughout Latin America and the Caribbean.

Activities in Asia and the Near East under the mandate of these and other treaties emphasize preservation of biodiversity through numerous activities, including migratory bird conservation. These activities are funded through the Foreign Assistance Act and Special Foreign Currency Program. The FWS cooperates with the Agency for International Development and U.S. embassies abroad to administer programs associated with these grants. An active cooperative project with Russia involves cooperative research on migratory birds, field research, training of refuge managers and law enforcement.

**7.6 Does your government make an annual budgetary allocation to support the conservation and wise use of wetlands within your country? Yes  
If yes, is this a specific allocation to a wetlands programme or as part of a larger environment or natural resource management budget?**

Six agencies -- the Army Corps of Engineers, the Department of Agriculture's Farm Service Agency and the Natural Resources Conservation Service, the Department of the Interior's Fish and Wildlife Service, the Department of Commerce's National Oceanic and Atmospheric Administration, and the Environmental Protection Agency -- account for more than 70 percent of the funding and 65 percent of the staffing associated each year with implementing wetlands-related activities. Another 30 agencies' wetlands-related activities are generally limited to (1) monitoring or stewardship activities or (2) avoiding and mitigating potential impacts to wetlands from their own projects and activities.

**7.7 If your country has a development assistance programme, does it include funds earmarked for wetland conservation and wise use in other countries?**

**Yes If yes, please give details.**

The U.S. government supports programs and projects around the world (USAID and other government agencies) to address human resources development, watershed, coastal zone, and coral reef management and conservation issues. These activities support the implementation of the Convention's goals in numerous ways.

**7.8 Is there a formal process in place for consultation between the Ramsar Administrative Authority and the development assistance programme in your country, where one exists? Yes/No. If yes, what is that process.**

No, there may be need for one. However, such consultations can be conducted informally.

**Ramsar Strategic Plan - General Objective 8**

**To provide the Convention with the required institutional mechanisms and resources.**

**8.1 Has your government made voluntary financial contributions, other than the invoiced contributions or to the Small Grants Fund, to further the work of the Convention globally? Yes/No. If yes, please provide details.**

1996 Voluntary contributions:	\$400,000 Core Budget
1997 Voluntary contributions:	\$445,000 Core Budget
	\$250,000 Wetlands for the Future
	\$ 55,000 Funds to support COP7 in Costa Rica
1998 Voluntary contributions:	\$468,225 Core Budget
	\$250,000 Wetlands for the Future
	\$131,775 Funds to support COP7 in Costa Rica

In addition, the U.S. government provided funding (\$60,000) to support two regional interns to assist Secretariat Technical Officers for Africa and the Neotropics. The interns assisted with implementation activities for the Strategic Plan in their respective regions. In addition, from August-November 1998, a Presidential Management Intern from the Environmental Protection Agency assisted the Ramsar Secretariat in various ways to promote Ramsar-related issues. The U.S. Fish and Wildlife Service provided funding for the intern.

**Optional section - Participation of non-government organizations in the implementation of the Convention**

**These are optional** questions relating to cooperation with and involvement of non-government organizations in the implementation of the Convention.

At COP6 some 42 NGOs made the ABrisbane NGO pledge of support for the Ramsar Convention@. The Standing Committee agreed that for COP7 there should be an effort made to gauge the level and type of cooperation which is occurring between government Administrative Authorities and the national and international NGOs with an interest in wetlands issues.

In this **optional** section of the National Report, you are asked to describe the nature of the cooperation and relationship with any other international, regional, national and provincial NGOs operating within your country.

**9.1 Approximately how many NGOs have wetlands as part of their regular Abusiness@ in your country?  
Please break this down between international, regional and national/provincial organizations.**

There are many NGOs in the U.S. that address wetlands and wetland issues on a regular basis. Many of these are strong advocates of wetland restoration and conservation; they also promote the need to educate the public on the multiple functions that wetlands perform. International NGOs include the World Wildlife Fund and Ducks Unlimited. National NGOs include the National Audubon Society, the National Wildlife Federation, the Wildlife Management Institute, the Natural Resources Defense Council, The Nature Conservancy, the National Association of Conservation Districts, the Association of State Wetlands Managers, the Wildlife Habitat Council, the Conservation Treaty Support Fund, and the Sierra Club, to name several. There are also NGOs that address wetlands from the standpoint of how wetland regulations and policies affect the rights of private landowners and commercial enterprise. These include the National Homebuilders Association, the American Farm Bureau, Competitive Enterprise Institute, and the National Wetlands Coalition. Many of the organizations mentioned above have strong regional, state, and/or local chapters as well.

**9.2 Is there a regular forum or mechanism through which these NGOs express their views on wetland conservation and Ramsar implementation:  
a. to each other? Yes  
b. to the government? Yes  
If yes in either case, please give details.**

A National Ramsar Committee was re-established in 1996 to give NGOs the opportunity to provide views to the federal agencies involved in the implementation of the Convention in the United States. The U.S. National Ramsar Committee

consists of representatives of World Wildlife Fund-US, Ducks Unlimited, Inc., the Sierra Club, the Association of State Wetland Managers, the Conservation Treaty Support Fund, the Caddo Lake Institute, the Terrene Institute and the American Bird Conservancy. USG officials are invited to attend their meetings as observers.

**9.3 Does your government include one or more NGO representatives on its official delegation to Ramsar COPs? Yes**

**9.4 Do any of the NGOs run programmes aimed at Education and Public Awareness about wetlands in your country? Yes/No. If yes, please give details (Refer also to question 3.1).**

C Ducks Unlimited, a North American NGO with more than 60 years of experience in wetland conservation carried out wetland conservation and restoration activities in the U.S., Canada and Mexico. This included conservation projects at 25 Ramsar sites in these three countries. Ducks Unlimited has pledged to continue supporting Ramsar activities with funds, expertise, wetland restoration, land acquisition, education and similar activities.

C At its inception in May 1991, American Wetlands Month has inspired creative projects across the nation by civic groups. Since 1997, the Terrene Institute, in partnership with federal agencies, private corporations and other groups organize a national wetlands conference, and produce materials for celebrations in schools and communities throughout the nation. The Terrene Institute also assembles an information packet that includes video tapes, posters, a newsletter, buttons, stickers, brochures and a comic book.

C The Caddo Lake Institute implements a Scholar=s Program at the Caddo Lake Ramsar Site, which seeks to improve the wetlands science and surveillance skills of local people and the educational infrastructure using the Ramsar Convention as a framework. The Institute recognizes that training educators is a highly effective way of translating complex technical issues for use by non-technical users in the process of decision making. During 1997 and 1998, the Caddo Lake Institute received funding (\$400,000) from the Department of the Interior in support of the Scholar=s Program.

C Project Water Education for Teachers (WET) is an interdisciplinary, supplementary water education program for educators. Public and private school teachers, 4-H leader, science methods instructors, Boy and Girl Scout leaders, and other group leaders find the WET resources and services valuable for classroom use. WET resources are for learners of all ages, although primary emphasis is given to providing teaching aids for kindergarten through grade 12 teachers. The goal of Project WET is to facilitate and promote awareness, appreciation and knowledge of water resources through the development and dissemination of classroom-ready teaching aids. Special emphasis is given to strengthening

students= understanding of the importance of water to all water users (e.g., farmers, ranchers, recreationists, towns, fish, wildlife, power, industry) and to the belief that wise water management is essential to future social and economic welfare and prosperity. Like other successful natural resource education programs, Project WET emphasizes teaching students *how to think, not what to think*.

C Through the National Wildlife Federation=s Backyard Wildlife/Schoolyard Habitat program, individuals, families, and educators may learn how to provide a habitat for wildlife at home, work, school, or ever their place of worship. Wildlife gardeners also learn the importance of water conservation, and how to grow native plants, make compost, use chemical-free pest treatments, and many other environmentally responsible practices. Currently there are 20,000 certified backyard habitats. The Campus Ecology program, which promotes the Agreening of college campuses,@ has worked with over 1,300 colleges. Campus Ecology evolved into a full-service, regionally based program that helps campus leaders -- students, staff, faculty, and administrators -- develop and sustain campus programs that foster ecological understanding in and out of the classroom. Animal Tracks, another classroom-related program, is an environmental education program for elementary and middle schoolteachers and students. The Animal Tracks activity guide, children=s workbook, and Aaction packs@ teach about environmental issues using multi-disciplinary hands-on activities on a variety of different wildlife topics, including wetlands.

C The Conservation Treaty Support Fund provides direct support to the major intergovernmental treaties, which conserve wild natural resources for their own sake and the benefit of people. It promotes awareness and understanding of conservation treaties and their goals, to enhance public support, compliance, and funding. The CTSF provides educational and informative products and raises funds for grants to treaty projects, working closely with like-minded public and private organizations.

**9.6 Describe the themes of the Convention (refer to General Objectives 1-8 of the Strategic Plan) where you perceive the national/provincial NGOs to be most active.**

Education and Public Awareness  
Wise Use of Wetlands

**Final comments:**

**10.1 General comments on implementation of the Ramsar Strategic Plan.**

**10.2 Observations concerning the functioning of, relations with, and services provided**

by:

- a. The Ramsar Standing Committee
- b. The Ramsar Scientific and Technical Review Panel
- c. The Ramsar Bureau
- d. The Ramsar NGO partners

**10.3 Any other general observations and/or recommendations for the future.**

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