

who live in North America. The change of seasons would somehow not be the same if there were no geese flying in V-formation to herald the departure of summer and the arrival of spring. Many people enjoy watching ducklings in a pond, while others look forward to autumn when they can hunt waterfowl with good companions and well-trained dogs. Even those who do not often see waterfowl like to know they are out there, somewhere, following their ancient migrations from north to south and back again.

But in our modern world, this precious natural heritage needs human help to survive and flourish. Numbers of some of the most popular duck species are significantly lower than 10 years ago. Millions of acres of wetlands and other vital habitat for ducks and geese have already been lost. More are being destroyed each year.

There is still time to save North America's waterfowl in all its abundance and diversity—if we start now.

U.S. and Canadian wildlife biologists have outlined what needs to be done



in a new, far-reaching document: The North American Waterfowl Management Plan.

This historic agreement between the United States and Canada sets forth a course of action for both countries to take between now and the year 2000 to assure the continued survival of abundant populations of ducks, geese, and swans.

Secretary of the Interior Donald P. Hodel and Environment Minister Thomas McMillan signed the North American Plan on May 14, 1986, on behalf of the United States and Canada respectively. But putting the plan into effect will require more than the continuing efforts by the Federal governments of these two nations. What is needed is strong commitment, creativity, and hard work by regional and local governments, private organizations, businesses, and individual citizens—hunters and nonhunters alike. The North American Waterfowl Management Plan can be the beginning of a historic conservation success story, if everyone who cares about waterfowl pitches in to make it work.

SNOW GEESE DAVEMENKE/USFWS



WHAT THE NORTH AMERICAN WATERFOWN **MANAGEMENT PLAN** DOES

MALLARD DUCKS



The North American Waterfowl Management Plan provides a broad framework for waterfowl management and conservation efforts in the United States and Canada through the year 2000. The plan:

- Sets goals for duck, goose, and swan populations;
- Identifies habitat conservation needs in specific regions of the continent:
- Recommends measures for resolving problems of international concern.

The plan outlines the scope of the work to be done on a continental basis, and provides broad guidelines for habitat protection and management actions. Each country, State, Province, Territory, and waterfowl "flyway"

(administrative units composed of Federal, State, and Provincial representatives) will need to establish specific plans for habitat preservation and management in their respective jurisdictions.

The plan's success also will require the participation of private organizations and individuals who want to help conserve waterfowl.

The North American Plan focuses on the value of maintaining enough high-quality habitat to ensure the abundance of North American ducks, geese, and swans. It does not change the processes used in either country to set waterfowl hunting regulations or to fund waterfowl conservation programs.



WATERFOWL POPULATION GOALS

SUNRISE ROBERT SHALLENBERGER / USEWS



Waterfowl migrate between northern nesting grounds and southern wintering grounds each year. In their passing, they generate several billion dollars in direct expenditures by birdwatchers, hunters, naturalists, and others. These revenues benefit hotels, restaurants, gas stations, outdoor guides, book and magazine sales, clothing, recreational vehicles and equipment, and other sectors of the economy.

To maintain these economic benefits—as well as for aesthetic reasons—waterfowl populations must be large enough to continue to provide enjoyment for millions of people. But how many waterfowl are needed?

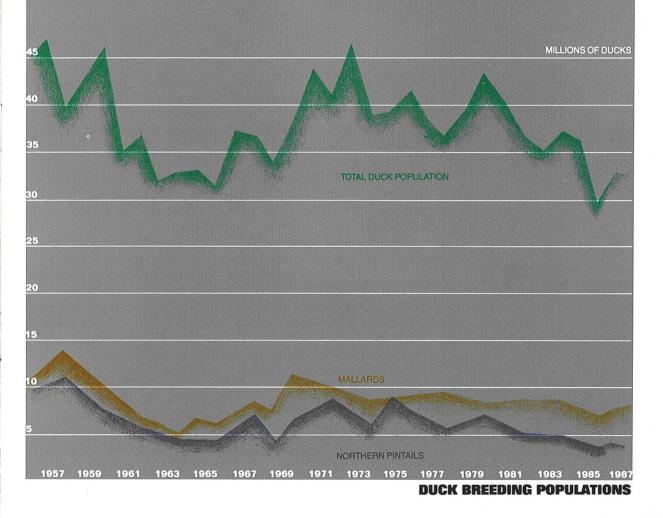
The North American Plan establishes population goals for

the 32 populations of ducks, geese, and swans regularly shared by the United States and Canada. For ducks, these goals are based on average continental duck populations from 1970-79. Thus, the North American Plan calls for a total breeding duck population index of about 62 million. producing an average annual fall flight of about 100 million ducks. Population goals for individual species such as mallards and black ducks are also established.

Present numbers of many duck species are significantly below the goals established in the North American Plan. The breeding population index for the 10 most common ducks in surveyed areas in 1986 was only 31 million (compared to a goal of 36 million established

in the plan for these species), and the projected fall flight was only 73 million. Reduced numbers of individual species such as mallards, black ducks, and pintails are of special concern.

The plan also establishes goals for goose, brant, and swan populations. These goals are based on wintering population indices of these birds. Most of these species are at or near their goals, but several—the cackling and dusky Canada goose, the Pacific white-fronted goose, and the Pacific brant—have been declining and need special attention. The goal of the North American Plan is to maintain current numbers for most goose, brant, and swan populations and to restore those that are declining.



HABITAT GOALS

HABITAT DESTRUCTION



Loss of habitat is the most serious threat facing North America's waterfowl. Each year in the United States, nearly half a million acres of wetlands are destroyed, mostly by agriculture but also by urban and industrial development. These wetlands—small potholes in the northern prairies, coastal marshes, vast southern bottomland hardwood swamps, and others—are essential for breeding, migrating, and wintering waterfowl. In the United States more than half the wetlands that existed in colonial times have been destroyed.

Major losses of wetlands are also occurring in prime waterfowl nesting areas of Canada. As much as 40 percent of the wetlands have been lost in some areas. In addition, recent studies in Alberta, Saskatchewan, and Manitoba show that an average of 59 percent of the prairie pothole basins and up to 79 percent of the wetland plants around the pothole edges are affected by farming each year.

Intensive agriculture has also resulted in soil erosion, water quality degradation, siltation, and chemical contamination. Wetland drainage and other poor soil management practices have increased salinization. The result is that the quality of many remaining waterfowl habitat areas has been diminished.

In addition to wetland losses, remnant tracts of native grasslands—the most important nesting habitat of prairie mallards and pintails—are

being lost at the rate of 2 percent annually. In the last decade, one-third of the remaining grasslands in the north central states, once maintained as pastures, have been converted to cropland. In Canada, only about 12 percent of the original natural grasslands remain.

Losses of upland nesting cover have concentrated ducks and their predators in remaining patches of suitable habitat. As a result, in much of the prairie pothole region where most ducks breed, nest success is too low to maintain or build some waterfowl populations even in years of favorable water conditions.

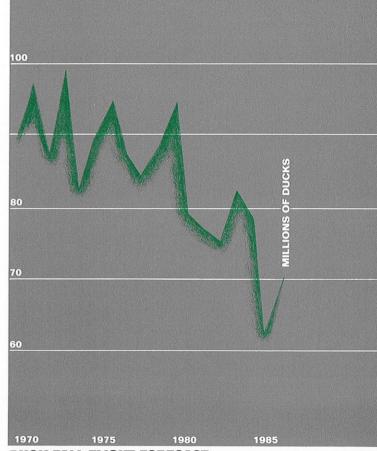
Habitat loss is also of concern in areas used by waterfowl for rest-stops during

migration and for wintering. Waterfowl concentrate more during molting, migration, and wintering than during the nesting season, so habitat loss or degradation or outbreaks of disease on critical concentration areas such as marshes, deltas, or coastal bays and estuaries can be serious. Important migration and wintering habitat areas have been lost to agriculture, industry, and other land uses, and the quality of much of the remaining habitat has decreased substantially.

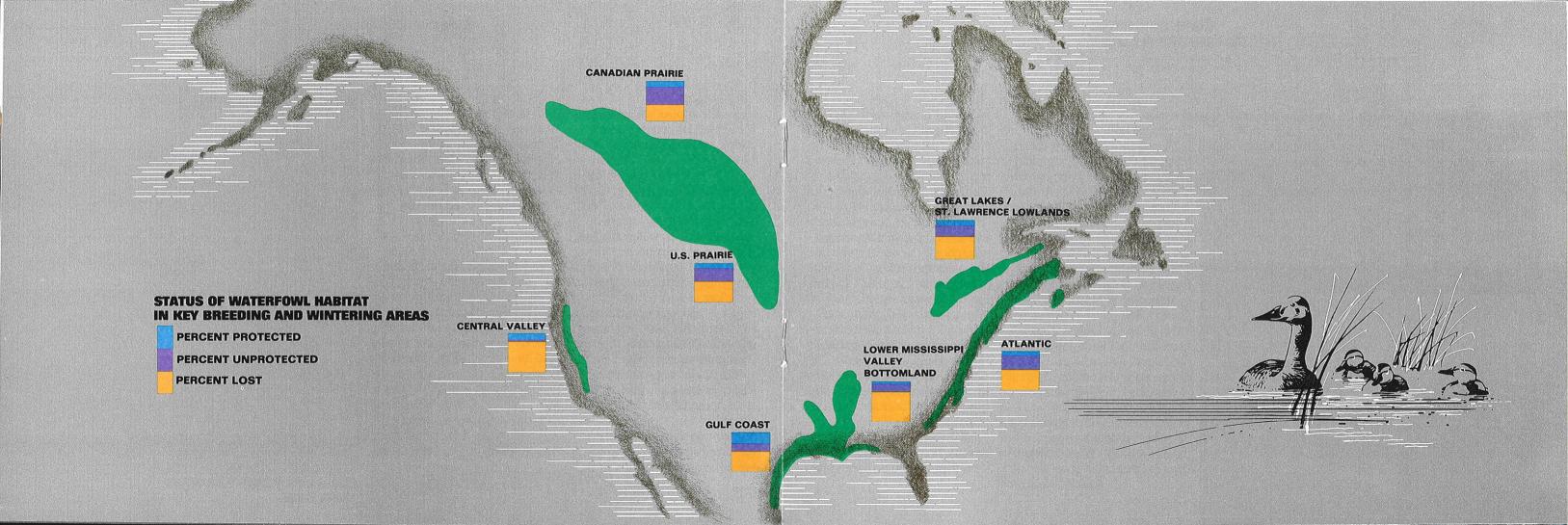
The North American Plan identifies key waterfowl habitat areas and calls for their conservation and protection. The aim of this continental habitat program is to ensure the preservation of enough

high quality waterfowl habitat to sustain waterfowl populations at the levels identified in the plan, and to maintain their current distribution across North America

This means enough habitat to support 62 million breeding ducks and a fall flight of more than 100 million ducks, as well as more than 6 million overwintering geese. To achieve this, the plan establishes habitat goals for various regions of the country and for individual species of concern.



DUCK FALL FLIGHT FORECAST 1969-1986



WAYS OF SAVING WATERFOWL HABITAT

CYPRESS SWAMP



Both the United States and Canada already have extensive systems of wildlife refuges, waterfowl management areas, and migratory bird sanctuaries. These are habitat areas that have been acquired by Federal, State, Provincial, or Territorial governments and set aside as public lands. Many are managed for waterfowl conservation.

In the United States, more than 3.5 million acres of waterfowl habitat have been preserved since the 1930's through the "Duck Stamp" program. Under this program, waterfowl hunters are required to purchase Federal "Duck Stamps" each year before hunting migratory waterfowl. Many stamp collectors and nonhunting conservationists

also purchase these colorful revenue stamps.

Money collected through the program goes to the Migratory Bird Conservation Fund, which is used by the U.S. Fish and Wildlife Service to acquire waterfowl habitat for the National Wildlife Refuge System. In recent years, about \$15 million annually has been raised for waterfowl conservation through Duck Stamp sales.

Since 1961, Congress has provided additional funding to the Migratory Bird Conservation Fund for wetlands acquisition. In 1986, Congress passed the Emergency Wetlands Resources Act which gradually increases the price of the Duck Stamp over the next 10 years. This

increased funding will speed wetland preservation.

Many States also set aside habitat in waterfowl management areas, and some States have instituted their own Duck Stamp programs.

The Canadian Government established the first waterfowl sanctuary in North America at Last Mountain Lake, Saskatchewan, in 1887. Canada has since established a total of 99 migratory bird sanctuaries of over 27 million acres. Most Provincial governments also have wetland conservation agreements with private interests that contribute toward goals in the North American Plan.

Vital waterfowl habitat areas are still being destroyed faster than they can be acquired and preserved, however. New and more creative programs are needed to halt the destruction of waterfowl habitat-programs that are quicker and less costly than acquisition by Federal, State, or Provincial governments.

The North American Plan recommends going directly to those who can do the most good for waterfowl—farmers and ranchers on whose lands millions of waterfowl nest. Financial incentives may be needed to encourage these landowners to manage their lands for waterfowl production. In addition, improved soil, water, and wetland conservation efforts can help improve the productivity of the land for both waterfowl and farm crops.

Private organizations will play a vital part in conserving waterfowl habitat. Already, organizations such as Ducks Unlimited and Wildlife Habitat Canada have restored millions of acres of waterfowl habitat. Additional efforts by these and other organizations, as well as joint ventures by governments and private organizations, should be encouraged to preserve or enhance waterfowl habitats

Public agencies can help, too. Existing public natural resource lands should be managed to increase their capability to support and produce waterfowl. Planning for public works projects should include measures to prevent or make up for destruction or degradation of waterfowl habitats.



PAYING FOR THE NORTH AMERICAN PLAN

MALLARD DUCKLINGS



Costs of putting the North American Plan into effect greatly exceed the levels currently budgeted for waterfowl management by the Federal governments of the United States and Canada. Large governmental budget increases are unlikely in the near future.

Therefore, private organizations and individuals who enjoy waterfowl must make significant contributions through both direct funding for projects and voluntary, cooperative efforts. The financial participation of private conservation organizations such as Ducks Unlimited, Wildlife Habitat Canada, and others is critical to the success of the North American Waterfowl Management Plan.

WHAT DOES THE PLAN MEAN FOR WATERFOWL HUNTERS?

The North American plan does not change or replace the systems currently used in the United States and Canada for setting annual waterfowl hunting regulations. Each country has well-established procedures for dealing with annual regulations that involve State, Provincial, and public participation. No change in this process is suggested by the North American Plan.

Overall, everyone who hunts waterfowl has an interest in seeing that the North American Plan becomes a success and not just a summary of good intentions. Waterfowl hunters already know that many popular duck species are in trouble. This situation will only worsen over the next few decades if the destruction of waterfowl habitat is allowed to continue at current rates.



WHAT ABOUT OTHER WILDLIFE?

AMERICAN AVOCET RODNEY F, KREY/USFWS



The North American Plan is specifically designed to benefit waterfowl. But those who do not hunt, or who are concerned about other species of fish and wildlife, also have an interest in this plan.

Wetlands are important nesting and foraging grounds for birds, small mammals, and invertebrates; spawning areas for many important fish and shellfish; and habitat for unique vegetation. They also serve as storage areas for floodwater; buffers to storms, erosion, and sedimentation; and filters for pollution and other types of contamination in the environment.

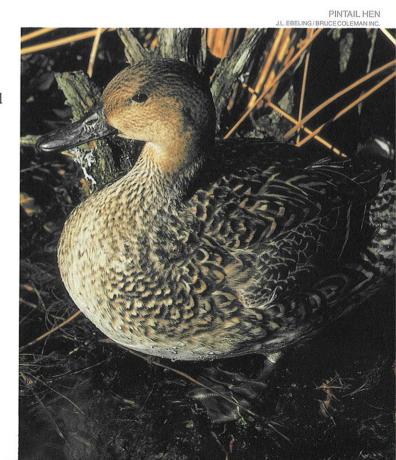
Thus, everyone who enjoys fish and wildlife can benefit from the habitat conservation measures outlined in the North American Waterfowl Management Plan.

PUTTING THE PLAN INTO EFFECT

While the North American Plan has thus far been agreed to only by the United States and Canada, both countries hope to make it a truly continental plan by encouraging the participation of Mexico. Many waterfowl populations winter in Mexico, and the involvement of our southern neighbor is vital to sustain waterfowl habitat and populations. All three nations must work to convert the international objectives of the plan into successful operations "on the ground," where the birds are.

Work has already begun. A North American Waterfowl Management Plan Committee has been established to monitor and update the plan, coordinate current work, and review new proposals and joint 17 ventures. Smaller "joint venture" groups are being formed for specific tasks. The first joint ventures will deal with improvement of waterfowl habitat in prairie Canada, monitoring the status and health of Arctic nesting geese, and cooperative efforts to address declining black duck populations.

Where do we go from here? The answer is really up to everyone who cares about North America's waterfowl. For more information refer to the back panel of this brochure, or contact the U.S. Fish and Wildlife Service, or the Canadian Wildlife Service.



HABITAT CONSERVATION GOALS



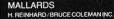


- Restore mallard and pintail breeding habitat in the midcontinent region to 1970-79 levels by protecting and improving 3.6 million additional acres in Canada and 1.1 million additional acres in the U.S. for duck production.
- Protect 686,000 additional acres of mallard and pintail migration and wintering habitat in the lower Mississippi River-Gulf Coast region.
- Protect and restore 80,000 additional acres of wintering habitat for pintails and other waterfowl in the Central Valley of California.
- Protect 60,000 additional acres of breeding and migration habitat in the Great Lakes-St. Lawrence lowlands in Canada and 10,000 additional acres in the United States for black ducks and other waterfowl.
- Protect 50,000 and 10,000 additional acres on the east coast of the United States and Canada, respectively, for black duck migration and wintering habitat.
- Increase the carrying capacity of habitat already acquired for migratory waterfowl.

WHAT YOU CAN DO TO HELP

- If you farm or ranch, ask your agricultural extension agent, State or Provincial wildlife agency, or nearest Fish and Wildlife Service or Canadian Wildlife Service office for information on land management practices that preserve wetlands and benefit wildlife.
- Buy Federal Duck Stamps, whether you hunt waterfowl or not. The money buys wetlands for the National Wildlife Refuge System. You can also buy State Duck Stamps.
- Buy the Wildlife Habitat Conservation Stamp in Canada to help preserve wetlands.
- Support habitat conservation efforts by private organizations.
- Help educate your children and other young people in your community about respecting and conserving wildlife and wildlife habitat.
- Support or organize private-citizen efforts to conserve unprotected wetlands in your area.







Your support is needed to fulfill the North American Waterfowl Management Plan. Contributions may be sent to the National Fish and Wildlife Foundation, Room 2626, Department of the Interior, 18th and C Streets NW, Washington, DC 20240 in the U.S., and in Canada to Wildlife Habitat Canada, Suite 301, 1704 Carling Avenue, Ottawa, Ontario, Canada K2A 1C7.







Environment Canada

Canadian Wildlife Service