

# Canadian *HabitatMatters* 2010 Annual Report

Wildlife Habitat Canada celebrated its 25<sup>th</sup> Anniversary in 2009. As a national, non-profit charitable organization, its grant program is funded primarily by those who purchase a Habitat Conservation Stamp to validate their federal Migratory Game Bird Hunting Permits. Since 1985, Wildlife Habitat Canada has invested over \$60 million in support of over 1,500 conservation projects on private and public lands across Canada. The majority of these projects are beneficial to American hunters by supporting migratory waterfowl. For more information about Wildlife Habitat Canada please visit [www.whc.org](http://www.whc.org).



Along the Edgewater – American Wigeon, from the 2011 Canadian Wildlife Habitat Conservation Stamp Series, Wildlife Habitat Canada.

Artist: W. Allan Hancock,  
Comox Valley, British Columbia

## CONTENT:

National  
Overview **2**

Habitat  
Joint Ventures **4**

Species  
Joint Ventures **12**

Natural Areas  
Conservation  
Program **15**

Contacts **16**

**T**he North American Waterfowl Management Plan (NAWMP) is a tri-national partnership among Canada, the United States and Mexico. Responding to declines in waterfowl populations and a shared responsibility for migratory species, the NAWMP was designed to sustain abundant waterfowl populations across the continent.

Guided by sound science, landscape-scale planning, and a common goal, public and private partnerships called joint ventures formed to deliver this mission. In Canada, habitat joint venture partners work to secure, enhance, manage, and influence wetlands and associated upland habitats to provide waterfowl with staging, nesting, feeding, and brood-rearing habitats. Research conducted by the species joint ventures furthers scientific understanding that is necessary to effectively manage certain priority waterfowl species. The accomplishments of these joint ventures are due in large part to the ongoing support of partners in the United States: federal and state governments, non-government agencies, and individuals. In particular, funding received under the 1989 *North American Wetlands Conservation Act* has been key to the success and longevity of the Canadian program.

The benefits derived from Canadian activities carried out under the NAWMP partnership extend well beyond waterfowl conservation. NAWMP accomplishments support other migratory bird species and contribute to the continental goals of the North American Bird Conservation Initiative (NABCI). Wetland ecosystems provide important habitat for a myriad of wildlife species, from aquatic invertebrates to large mammals, some of which are species at risk; wetland conservation thus contributes to maintaining the world's biological diversity. In addition, many other ecological goods and services are provided: improved water quality and supply, flood and erosion control, carbon sinks that help mitigate climate change, and an array of recreational opportunities. Healthy and abundant wetland ecosystems are the key to a healthy planet today and for future generations.



North American Waterfowl  
Management Plan  
Plan nord-américain de  
gestion de la sauvagine  
Plan de Manejo de Aves  
Acuáticas Norteamérica

# National Overview

On the eve of celebrating its 25th anniversary, the NAWMP partnership has successfully secured 9.9 million acres across Canada. These accomplishments have provided many benefits that extend well beyond waterfowl to other wildlife and to people.

The importance of Canadian habitat to North American waterfowl and migratory bird populations is clear. The Canadian prairies and Western boreal forest support over 70 percent of the mid-continent's breeding ducks (USFWS-CWS survey data). Eastern Canada supports the majority of the continent's breeding American Black Ducks and many other waterfowl species of importance to the Atlantic and Mississippi Flyways. The Pacific Coast Joint Venture provides wintering habitat for over one million waterfowl and the Canadian Intermountain Joint Venture provides breeding habitat for many species including the majority of the global population of Barrow's Goldeneye. Canadian habitat joint ventures must continue to strive to conserve sufficient wetland and upland habitat to support the NAWMP population goals for North America's waterfowl.

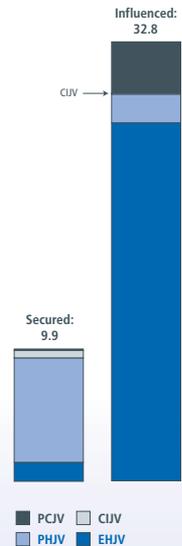
Over the past two decades, understanding of the relationships between habitat conditions and breeding waterfowl populations has increased substantially, based on the scientific undertakings of NAWMP partners. It has been determined that the habitat conservation needs are much greater than initially thought at the outset of the NAWMP in 1986. Across the continent, partners are also faced with the reality of continued loss and degradation of critical waterfowl habitats.

Sound science has led to the development of more accurate planning tools. These new tools are currently being employed to set new habitat objectives. For example, the Prairie Habitat Joint Venture has identified a need to conserve an additional 16 million acres by 2023 (PHJV Implementation Plan, 2009), while seeking policy reform to ensure that the 54 million acres of existing natural habitat remains intact. The commitment of Canadian joint venture partners toward habitat protection and conservation has, and will, influence important wetland and landscape policies that will ensure ongoing conservation and protection of our critical habitat resources.

Based on information currently available, over the next 20 years Canadian joint ventures will collectively need to conserve well in excess of the 16 million acres of habitat currently identified for the PHJV alone in order to attain NAWMP population goals. Ongoing funding at a minimum of current levels, plus inflationary costs, will be critical to achieving these goals. Additionally, all partners will seek mechanisms to halt continued wetland and associated upland habitat loss, and conserve existing habitat through policy and non-traditional programs. Success is required on many fronts for the NAWMP to succeed.

While Canadian NAWMP partners are proud of the significant accomplishments made to date, more remains to be done; continued and expanded support will be critical for continued success.

## Habitat Joint Venture Accomplishments 1986-2010 (millions of acres)



## Habitat Joint Venture Expenditures 1986-2010

\$1.4 Billion (\$CAD)



<sup>1</sup> Coordination, communication, and evaluation activities

### Terminology used in this report

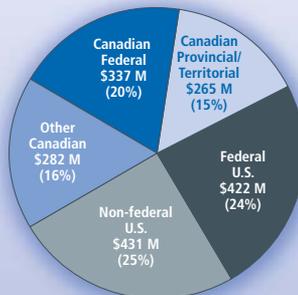
**Securement**  
The protection of wetland and/or upland habitat through land title transfer or binding long-term (minimum 10-year) legal agreements with a landowner.

**Enhancement**  
Actions carried out on secured wetland and/or upland habitats to increase their carrying capacity for wetland-associated migratory birds and other wildlife.

**Management**  
Activities conducted on secured wetland and/or upland habitats to manage and maintain their carrying capacity for wetland-associated migratory birds and other wildlife.

**Influence**  
Direct actions taken by landowners, land managers, or conservation agencies that protect or enhance wetland or associated upland habitats without legal or binding agreements. These direct actions result in applied land use changes.

## Total Contributions<sup>1</sup> (\$CAD) in support of the NAWMP<sup>2</sup> in Canada (1986-2010)



<sup>1</sup> Cash and in-kind  
<sup>2</sup> Habitat and species joint ventures and Western Boreal Forest

Since the inception of the North American Waterfowl Management Plan in 1986, Canadian partners have made significant progress toward achieving the original habitat and population goals. However, issues such as climate change, human population growth, competing land-use pressures, increasing demand for energy and natural resources are placing greater pressure on Canada's wetland ecosystems and the species that depend on them. In the face of these challenges the need to conserve more wetlands and associated uplands is greater than ever.

Canada's habitat joint ventures are meeting this challenge by continuously assessing their habitat and species goals and conservation actions guided by sound science. These goals and actions are outlined in implementation plans. The Prairie Habitat Joint Venture (PHJV) and Eastern Habitat Joint Venture (EHJV) are implementing their 2007-2012 plan and will begin working on their next 5 year plans shortly; the Canadian Intermountain Joint Venture (CIJV) is operating under its 2010-2015 plan; and a new Pacific Coast Joint Venture (PCJV) implementation plan is under development and will be completed in spring 2011 (currently, the PCJV is operating under a strategic plan created in 2005). Funding obtained under the 1989 *North American Wetlands Conservation Act*, and from non-federal partners in the United States as well as Canada, are critical to achieving these goals and implementing a robust and successful wetland and waterfowl conservation program.

National-level activities strengthened NAWMP programs and partnerships in 2010. The North American Wetlands Conservation Council (Canada) (NAWCC (Canada)), responsible for overseeing and implementing NAWMP in Canada, provides national leadership in wetlands, waterfowl and wetland dependent species conservation. NAWCC (Canada) celebrated its 20<sup>th</sup> year by finalizing a 10-year Strategic Plan (2010-2020) which includes the following goals:

- Canadians recognize the value of wetlands;
- Canadian wetlands and associated upland habitats are identified, conserved, and restored;
- Wetland dependent species are conserved in accordance with the goals of NAWMP and other conservation plans; and,
- Partnerships are maintained and appropriate governance and resources are employed to achieve the NAWMP and other conservation plan goals.

Field trip during the joint meeting of the Canada-United States North American Wetlands Conservation Councils. Neepawa, Manitoba. July 2010.

Elizabeth Roberts,  
Environment Canada



NAWCC (Canada's) vision: Canada has abundant and resilient wetlands, waterfowl and other wetland dependent species that are sustained and valued.

Partnerships are an important aspect of the continental NAWMP program. Canada Night 2010, a quadrennial recognition event, was held in September during the 100<sup>th</sup> Annual Meeting of the Association of Fish and Wildlife Agencies. This special reception, which attracted hundreds of American and Canadian NAWMP/NAWCA partners, was an opportunity to acknowledge the invaluable contributions of United States partners that supported wetland and waterfowl conservation work in Canada over the previous four years.

In July 2010, Canada proudly hosted a joint U.S./Canada meeting of the North American Wetlands Conservation Council in Winnipeg, Manitoba. Highlights of this meeting included the joint session, where topics of mutual interest were discussed: the use of easements to achieve conservation objectives, an overview of

### Conserving Wetland Biodiversity

The United Nations declared 2010 as the International Year of Biodiversity to bring greater attention to the importance of biodiversity and efforts to reduce the current rates of biodiversity loss. Canada was the first industrialized country to ratify the Convention on Biological Diversity in 1992. Since then, Canada has made substantial investments and efforts to halt its loss. The *Canadian Biodiversity: Ecosystem Status and Trends 2010* report is the first assessment of Canada's biodiversity from an ecosystem perspective. It reports that internationally significant wetlands in Canada remain healthy and many of Canada's vast wetlands and coastal ecosystems are healthy and provide billions of dollars in ecosystem services annually. Canada's accomplishments achieved under the North American Waterfowl Management Plan, a result of international cooperation and partnerships, have contributed to the conservation of millions of acres of wetland ecosystems, the most biologically diverse ecosystems on Earth.

boreal conservation initiatives across Canada, and how U.S.-based Landscape Conservation Cooperatives are working to address climate change. A field trip, attended by members of both Councils, served to educate participants on the diverse prairie wetlands types, wetland issues in Manitoba, and the many stewardship activities employed to conserve Manitoba wetlands.

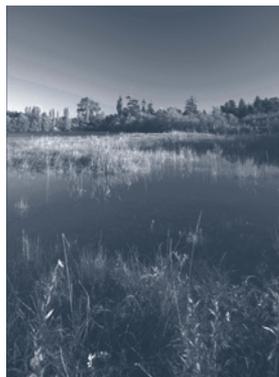
This edition of *Canadian Habitat Matters* highlights Canada's NAWMP accomplishments for 2010. These accomplishments would not have been possible without the effort and support provided by all partners in the United States and Canada.





Trumpeter Swans and Mallard feeding on ryegrass cover crop.

David Bradbeer, Delta Farmland and Wildlife Trust



Campbell River Estuary.

Tim Ennis,

Nature Conservancy of Canada

# Habitat Joint Ventures

## Pacific Coast Joint Venture

[www.pcjv.org](http://www.pcjv.org)

In the Canadian portion of the international Pacific Coast Joint Venture (PCJV) there are more than 440 ecologically important estuaries; the tidal wetlands and floodplains within these estuaries provide a rich food source and habitat for hundreds of thousands of migrating and overwintering waterfowl. Because of this, estuaries and the habitats they contain are a major focus of PCJV conservation work.

### Conserving Estuaries for Waterfowl Habitat

Many floodplains within the coastal estuaries are privately owned; as a result, areas that were historically high marsh wetlands in the floodplains are now agricultural lands. These modified landscapes can provide a significant source of energy for migrating and wintering waterfowl. However, loss of food crops and natural vegetation due to urban expansion, agriculture intensification, and forestry practices are major threats to wintering waterfowl in the PCJV. Therefore, these floodplains and tidal wetland areas are a priority habitat for conservation by PCJV partners.

In 2010, Ducks Unlimited Canada (DUC) and the Nature Conservancy of Canada (NCC), along with other PCJV partners, worked to secure tidal estuary habitat through acquisitions and conservation covenants (easements), supported by NAWCA, U.S. non-federal, and Canadian funds. In one project, DUC and the Comox Valley Regional District purchased 65 hectares (161 acres) of river floodplain and

### FAST FACTS

**Scope:** The British Columbia (BC) portion of the PCJV includes 21.9 million hectares (54 million acres) of landscape, 45.8 million hectares (113.2 million acres) of seascape, and 30,285 kilometres (19,000 miles) of shoreline. The PCJV is an international joint venture that includes BC, Alaska, Washington, Oregon, California, and Hawaii. Bird Conservation Region (BCR) 5 is in the Canadian portion, while BCRs 1-4 and 67 lie in the United States portion. (For map of Bird Conservation Regions, see <http://www.nabci-us.org/map.html>.)

**Major Habitat Types:** The BC coast is a complex of inlets, bays, islands, straits, and fjords rising to a diversity of near-shore, intertidal, and forested habitats. Estuarine, tidal and freshwater wetlands are key waterfowl habitats.

**Key Waterfowl Species:** Over 1.2 million waterfowl consisting of 38 species winter along BC's coastline, and another 400,000 in its estuaries. Key species include: Wrangell Island Snow Goose (approximately 67,000, almost half the total population); the Pacific Coast's Trumpeter Swans (8,000, half the total population); American Wigeon; Cackling Goose; and the Western High Arctic Brant.

### Interesting Facts:

- The first PCJV Implementation Plan for the Canadian portion of the joint venture, focusing on wetlands and associated species, will be finalized in 2011. It will be updated to include "all birds" in 2012.
- Estuaries make up less than 0.15 percent of the entire PCJV area, yet they provide a critical food source for migrating and wintering waterfowl.

wetland upstream of Oyster River estuary along Vancouver Island's east coast, a high priority area. This acquisition helps protect the surrounding watershed and retain a valuable stretch of wildlife habitat.

DUC also secured Shelter Point Farm—adjacent to the Oyster River Estuary—through a conservation covenant granted by the Evans family. Long recognized for its tremendous value to migrating waterfowl such as Trumpeter Swan, Mallard, American Wigeon, Canada Goose, Lesser Scaup, and Brant, as well as other wildlife, Shelter Point Farm provides valuable feeding opportunities and resting sites for migratory water birds. The conservation covenant ensures the continued production of traditional agricultural

crops, such as vegetables, grasses, and grains, and prevents changes that would decrease its value as wildlife habitat. This farm (144 hectares; 357 acres) is one of the largest intact pieces of farmland on Vancouver Island.

The NCC continued with its wetland and estuary restoration work at the mouth of the Campbell River on Vancouver Island in 2010. This multi-property project now includes the Ocean Blue property, which is undergoing a transformation from degraded industrial site to a restored estuary ecosystem, similar to the neighbouring lands and waters previously restored by NCC and its many partners.

**American Wigeon.**  
Ducks Unlimited Canada



**Aerial view, Ducks Unlimited Canada Oyster River project.**  
Ducks Unlimited Canada



PCJV partners BSC, EC, and DUC are also contributing long-term data and expertise to post-doctoral research funded by the SeaDoc Society. This study combines data from across Washington State and BC that are used to assess regional trends in coastal and marine birds, including approximately 30 waterfowl species, across the Salish Sea. The data will also be used to assess key threats across species and guilds. This research will support the NAWMP goals by identifying processes key to the recovery and conservation of declining waterfowl in a region that supports internationally significant populations of many waterfowl species during winter and staging periods.

These projects showcase the partnerships and the variety of activities undertaken by the PCJV to help move towards reaching the NAWMP goals to sustain healthy waterfowl populations and the habitats that support them.

*For more information, contact Tasha Sargent, Pacific Coast Joint Venture Canadian Coordinator, (604) 940-4703; tasha.sargent@ec.gc.ca.*

**Agricultural Land Stewardship on the South Coast**

Canadian partners continue to add value to the North American Waterfowl Management Plan (NAWMP) in Canada through other means as well. In 2010, PCJV partner Environment Canada (EC) supported the Agricultural Stewardship Program of the Delta Farmland and Wildlife Trust (DFWT). The DFWT is a consortium of local farmers and wildlife conservation organizations that promotes activities such as maintaining cover crops, grassland set-asides, and hedgerows, to support wintering and migrating waterfowl. Identified as a priority by the PCJV, this long-standing stewardship program supports waterfowl conservation in British Columbia's (BC) south coast. Normally funded through an endowment created by the expansion of the Vancouver International Airport, the recent world-wide recession reduced revenues for operating costs. EC contributed funding to offset the reduced revenues to allow this important work to continue.

**Long-term Monitoring Data Supports Conservation Planning and Assessment**

PCJV partners Bird Studies Canada (BSC), EC, and DUC are combining resources to prepare long-term datasets to inform the development of the PCJV Implementation Plan. These partners have been aligning long-term bird monitoring data from the BC Coastal Waterbird Survey with provincial shorezone habitat data. As a result, habitat association models will be developed for non-breeding populations of approximately 60 coastal and marine birds, including 30 waterfowl species.

The PCJV is also collaborating with the Sea Duck Joint Venture to integrate the habitat needs of 11 internationally significant species of sea ducks in the models. When complete, these species-habitat models will directly support the NAWMP goals by prioritizing key habitats, which will be used to inform land acquisition and management activities. In addition, the models will enable an initial assessment of the relative importance of un-surveyed areas of the BC coast that will inform future survey and conservation efforts.

**Contributions (\$CAD)**

	2010	Total (1986-2010)
U.S. Federal	1,450,976	23,133,940
U.S. Non-Federal	580,243	21,621,431
Canadian	6,828,136	139,143,342
Countries other than Canada or the U.S.		6,500
<b>Total</b>	<b>8,859,355</b>	<b>183,898,713</b>

**Accomplishments (Acres)\***

	2010**	Total (1986-2010)
Secured	2,449	115,535
Enhanced	20	91,290
Managed	***	92,348
Influenced	5,388	3,868,230

\* Secured, enhanced and managed acres are not additive. Acres are first secured, may then be enhanced and are subsequently placed under management. Influenced acres are mutually exclusive of secured, enhanced and managed acres.

\*\* 2010 acres reported correspond to period acres.

\*\*\* All existing acres shown are managed each year.



#### Great Blue Heron.

Bruce Harrison,  
Ducks Unlimited Canada



## Canadian Intermountain Joint Venture

[www.cjiv.ca](http://www.cjiv.ca)

The Canadian Intermountain Joint Venture (CIJV) is one of the most ecologically diverse regions in Canada, with the elevation rising from 200 meters (650 ft) to over 4,000 meters (13,000 ft) above sea level. This creates a tremendous diversity of habitat types, including desert, grasslands, shrub-steppe, riparian, wetlands, dry and moist coniferous forests, and alpine tundra. The most productive wetlands are found in fertile floodplain valley bottoms and grassland plateaus at mid and low elevations, the same areas under pressure from development and other land uses. This means working with partners such as landowners and local governments is a necessary strategy for effective conservation.

### Stewardship in the CIJV

Stewardship plays an important role in conserving the CIJV's interior wetlands and associated uplands, particularly within British Columbia's (BC) ranching community. CIJV partner Grasslands Conservation Council of BC (GCC) developed the Grassland Monitoring Manual, which provides ranchers with an easy-to-use tool to monitor their grasslands, in order to improve the condition of native grasslands and the wetlands that are associated with them. They also held workshops on grassland monitoring for ranchers in the Okanagan, Thompson, and Cariboo regions in 2010. Improving cattle-grazing practices is recognized by the CIJV as being key to wetland health in the arid grasslands of BC, which are very important to many species of nesting waterfowl, such as Mallard and Blue-winged Teal. Both priority areas identified by the CIJV—

the Cariboo-Chilcotin and Okanagan—are within grassland ecosystems that have experienced nesting habitat degradation due to poor grazing practices.

Ducks Unlimited Canada (DUC) used NAWCA, U.S. non-federal matching funds, and Canadian contributions, to continue their work on rangeland stewardship and management with ranchers and First Nations in the Cariboo-Chilcotin in 2010. This area is an important breeding area for many CIJV priority species, particularly Barrow's Goldeneye. Community members—including ranchers and First Nations—realized that working together could provide economic benefits to the people, wildlife and waterfowl of the area. DUC partnered with these members and other funders to install or improve fencing around many of the extensive natural wetlands on provincial Crown land within the ranchlands, and to install a water control structure that influences wetlands on private lands. In total, 834 hectares (2,060 acres) of wetlands and 4,308 hectares (10,645 acres) of upland for nesting waterfowl were secured through conservation agreements.

### Enhancing and Managing Properties for Waterfowl Habitat

Nature Conservancy of Canada (NCC) staff and volunteers engaged in a number of enhancement and management activities in 2010, on previously secured properties. The critical wetland and riparian areas of Tatlayoko Ranch, Skinner Meadows (both recipients of NAWCA funds), and other U.S. non-federal match-funded sites were managed to sustain and enhance habitat for migratory waterfowl. In the Tatlayoko Valley, NCC's bird banding program is yielding useful inventory information. The Kootenay River Ranch, secured in part by NAWCA funding, provided the perfect opportunity to "test drive" the new provincial government wetland assessment tool, used to assess and track wetland conditions over time, including impacts from invasive species, cattle damage, and changes in hydrology. In the Ogive Nature Sanctuary, a richly productive wetland property in the Cariboo region, a fencing project was implemented to prevent neighbouring range cattle incursions.

### Innovative Policy for Wetland Conservation

CIJV partners also used innovative policy approaches to successfully conserve habitat and raise funds for acquisition and stewardship of wetlands. CIJV partner South Okanagan-Similkameen Conservation Program (SOSCP) responded to high development pressure and soaring land prices by partnering with local governments to build capacity to protect ecological values and create consistent environmental planning. The SOSCP and its local government partners worked together to hire a shared environmental planner in several communities to direct development to less sensitive areas and protect the grasslands, wetlands, and riparian areas which are home to a large proportion of CIJV priority species. For example, the community of Summerland placed nearly 2,000 hectares (5,000 acres) of land under a permit designation which requires careful consideration of the wetland, grassland, and riparian ecological values during the development application and approval process.

The SOSCP is also in the process of creating a Biodiversity Conservation Strategy for the region to identify important habitat and create a regional framework with land-use decision-makers and stakeholders for the protection of biodiversity, including waterfowl habitat. To the south, SOSCP is linking to Washington's state-wide habitat connectivity analysis and Biodiversity Conservation Strategy; to the north, SOSCP's sister organization, the Okanagan



**Wetland protected through fencing in the Chilcotin region.**  
Ducks Unlimited Canada

**Ogilvie Nature Sanctuary.**  
Bruce Harrison,  
Ducks Unlimited Canada

**FAST FACTS**

**Scope:** The CIJV encompasses 50 million hectares (123.5 million acres); it covers the central/southern interior of British Columbia and the eastern Rocky Mountain portion of Alberta, and includes Bird Conservation Regions 9 and 10.

**Major Habitat Types:** The CIJV has a tremendously diverse landscape, from valley-bottom to mountain-top; grasslands, dry and moist coniferous forests, extensive riparian areas and wetlands, alpine tundra and even pocket desert make for a rich diversity in bird habitat. Sixty-three percent of the CIJV is forested, five percent is covered by lakes and wetlands and less than one percent is native grassland. Some key wetland types include forested lakes and wetlands, grassland marshes, saline ponds, and fens.

**Key Waterfowl Species:** Twenty-four species of waterfowl breed in the CIJV with an estimated population of 1.45 million birds, representing 70 percent of the provincial waterfowl breeding population. The CIJV supports 20-25 percent of the world's breeding population of Barrow's Goldeneye (60,000), over 15 percent of the continental breeding population of Hooded Mergansers (more than 80,000), and five percent of the continental breeding population of Ruddy Ducks (54,000).

**Interesting Facts:**

- The first CIJV Implementation Plan, endorsed by the NAWMP Committee in August 2010, focuses on wetlands and associated species; once Bird Conservation Region planning is complete, the implementation plan will widen the focus to "all-birds".
- The CIJV goal for waterfowl is to maintain the current breeding population of 1.45 million birds, which is assumed to reflect near-historic (i.e. 1970s) levels for most species and habitats, except in some agricultural lands and urban areas.

Collaborative Conservation Program, is extending this work into the north and central Okanagan. The result will be a coordinated, basin-wide landscape conservation approach that will address an important breeding waterfowl migration corridor between the arid areas of the Great Basin and the interior grasslands of British Columbia.

The Columbia Valley Local Conservation Fund program is another new and innovative policy approach that provides funding for conservation through taxation. The first projects were funded in 2010 by the East Kootenay Conservation Program (EKCP). Selected projects included protection and enhancement of water quality, riparian area

restoration, invasive weed control, and an ecological goods and services demonstration project. Funds are raised through a tax levy—brought in by municipal referendum in 2008—of \$20 per parcel of land in a section of the Upper Columbia Valley that includes Canada's most recently designated Ramsar Wetland of International Importance, the Columbia Wetlands. The fund raises \$230,000 a year for conservation activities; funds are available year-round for acquisition projects by EKCP partners, which include important wetland, riparian, and upland habitat.

The CIJV's large and diverse partnership uses funds from a variety of Canadian sources to further the North American Waterfowl Management Plan's goal of

maintaining or restoring 1970s populations of waterfowl in North America. As these examples have shown, work within the CIJV includes both direct programs that secure and restore key breeding habitats for priority species and indirect programs such as stewardship that support wetland management. Decision-support and policy tools are also used to support local government's efforts to conserve, restore and manage wetlands and associated ecosystems. These approaches are a cost-effective way to benefit waterfowl populations at a joint venture scale when acquisition is not a viable option.

For more information, contact Tasha Sargent, Canadian Intermountain Joint Venture Coordinator, (604) 940-4703; tasha.sargent@dec.gc.ca.

**Contributions (\$CAD)**

	2010	Total (1986-2010)
U.S. Federal	1,150,169	8,303,879
U.S. Non-Federal	407,965	7,722,112
Canadian	655,504	24,776,568
<b>Total</b>	<b>2,213,638</b>	<b>40,802,559</b>

**Accomplishments (Acres)\***

	2010**	Total (1986-2010)
Secured	11,535	551,271
Enhanced	9,489	141,235
Managed	***	536,691
Influenced	—	50,743

\* Secured, enhanced and managed acres are not additive. Acres are first secured, may then be enhanced and are subsequently placed under management. Influenced acres are mutually exclusive of secured, enhanced and managed acres.

\*\* 2010 acres reported correspond to period acres.

\*\*\* All existing acres shown are managed each year.

**DUC Biologist looking at wetlands in BC's central interior.**

Bruce Harrison,  
Ducks Unlimited Canada



Northern Shoveler.  
Ducks Unlimited Canada



The Ronско Project in  
the Vermilion River  
Watershed, Alberta.  
Ducks Unlimited Canada

## Prairie Habitat Joint Venture (includes the Western Boreal Forest)

[www.phjv.ca](http://www.phjv.ca)

The Prairie Habitat Joint Venture (PHJV), which includes the Western Boreal Forest, is the largest Canadian program under the North American Waterfowl Management Plan (NAWMP), and is a long standing example of success in conservation of wetlands and waterfowl habitats. The PHJV celebrates 23 years of tremendous achievements, which would not have been possible without the long-term commitment and support by numerous funding partners—in particular, its U.S. partners—and the innovative programs developed by its many Canadian partners.

### Alberta's Vermilion Watershed at the Leading Edge

In the agricultural landscapes of east-central Alberta, the Vermilion River Watershed Management Project is a cutting-edge prototype for watershed planning under Alberta's Water for Life strategy. Water for Life emphasizes stakeholder engagement, informed place-based management, and plans that balance environmental, social and economic needs.

Under the Strategy, each of Alberta's major river basins has a multi-stakeholder Watershed Planning and Advisory Council (WPAC) empowered to develop a watershed management plan. The North Saskatchewan Watershed Alliance leads this initiative for the North Saskatchewan River Basin, of which the Vermilion River watershed is a part.

The Vermilion River watershed was selected because of a convergence of interests. The North Saskatchewan Watershed Alliance recognized the Vermilion River watershed as being highly altered (i.e., drained and cleared). The Alberta NAWMP Partnership sought a trial project in one of the key NAWMP program areas whereby wetland protection and restoration would be achieved through watershed planning. In addition, a coalition of municipalities was already working on local water management issues in that area.

This project has opened the door to research opportunities to support watershed planning and to become a template for future plans in other sub-basins. Dr. John Pomeroy and his research team at the Centre for Hydrology at the University of Saskatchewan are applying the new and innovative Cold Regions Hydrological Model, one specific to the prairies' unique climate and hydrology. Their model also includes a wetland module, which can measure the cumulative effects of wetland drainage, wetland restoration, and changes in land use.

The Prairie Habitat Joint Venture is very optimistic about the broad application of the model throughout Prairie Canada.

### Restoring Waterfowl Habitat in Saskatchewan

Restoring uplands and wetlands in Saskatchewan is a critical part of achieving the objectives of the NAWMP. The Saskatchewan NAWMP Implementation Plan 2001-2026 includes habitat restoration objectives of over 56,000 wetland restorations, 1.01 million hectares (2.5 million acres) of newly seeded pasture, 650,000 hectares (1.6 million acres) of new hayland, and 23,000 hectares (57,000 acres) of newly planted cover.

The NAWMP partners are now working toward achieving these objectives through direct programs, which includes all work undertaken directly with landowners, as well as through government policy efforts.

### FAST FACTS

**Scope:** The PHJV encompasses 64.1 million hectares (158.4 million acres) in the traditional area of prairie and aspen parklands. It includes Alberta, Saskatchewan, Manitoba, and the Peace-Parkland Region of British Columbia and covers Bird Conservation Region 11. Administratively, the Western Boreal Forest falls under the purview of the PHJV and includes parts of British Columbia, Alberta, Saskatchewan, Manitoba, the Yukon and the Northwest Territories.

**Major Habitat Types:** The PHJV comprises ecoregions of prairie and aspen parkland with wetland habitats ranging from small potholes and sloughs to larger lake, marsh, and bog systems. The Western Boreal Forest encompasses wetland types within the ecoregions of Boreal Plains, Taiga Plains, Taiga Cordillera and Boreal Cordillera.

**Key Waterfowl Species:** In the PHJV, notable waterfowl species include Mallard, Gadwall, American Wigeon, Green-winged Teal, Blue-winged Teal, Cinnamon Teal, Northern Shoveler, Northern Pintail, Redhead, Canvasback, Ruddy Duck, Wood Duck, Lesser Scaup, Ring-necked Duck, Common Goldeneye, Bufflehead, Merganser (Common and Red-breasted), and White-winged Scoter. Canada Geese breed in the PHJV prairie and aspen parklands.

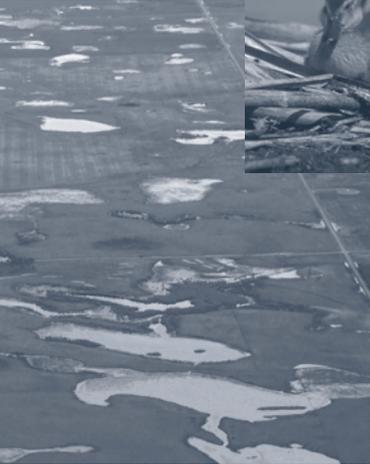
Western Boreal Forest species include Mallard, American Wigeon, Green-winged Teal, Blue-winged Teal, Cinnamon Teal, Northern Shoveler, Northern Pintail, Redhead, Canvasback, Ruddy duck, Scaup (Greater and Lesser), Ring-necked Duck, Goldeneye (Common and Barrow's), Bufflehead, Merganser (Common and Red-breasted), Scoter (White-winged and Surf), Long-tailed Duck, Great White-fronted Geese, and Canada Geese.

### Interesting Facts:

- The mix of wetland and associated habitats secured by PHJV partners in the prairies and parklands of western Canada are used by over 200 species of waterfowl, waterbirds, shorebirds, and landbirds during nesting and/or migration.
- Canada's boreal forest contains more wetland area than any other major ecosystem in the world and sustains the highest diversity of breeding bird species of any forest region on the continent.



**Northern Pintail brood.**  
Ducks Unlimited Canada



**Restored wetland in the Upper Assiniboine River NAWMP landscape, Manitoba.**

Ducks Unlimited Canada



One innovative program is a forage conversion program that includes an incentive for wetland restoration. The program is offered primarily in the Upper Assiniboine and Conjuging Creek PHJV priority landscapes, which have a history of wetland drainage. The program involves two main partners, Viterra, a key agricultural grain and fertilizer retailer and distributor, and the local watershed group, the Assiniboine Watershed Stewardship Association.

An incentive payment of \$20 per acre is offered to landowners to plant forage—\$10 from Ducks Unlimited Canada (DUC) and \$10 from Viterra—and an additional \$250 per acre for each wetland restoration project. The seeded uplands and restored wetlands are protected through a 10-year conservation agreement with each cooperating landowner. The Assiniboine Watershed Stewardship Association helps deliver the program through various promotional activities with local landowners.

### Wetlands and Water Quality in Manitoba

In Manitoba, the innovative Wetland Restoration Incentive Program (WRIP) is being offered in partnership with Ducks Unlimited Canada (DUC) and Manitoba Habitat Heritage Corporation.

Landowners who agree to restore wetlands under WRIP are required to sign a conservation agreement which will secure the restored wetlands in perpetuity. In addition to an easement payment, a one time ecological goods and services payment based on the property's acreage is also provided. This recognizes the ecological value of restored wetlands and helps to offset operational costs incurred by the landowner to retain the restored wetlands on their land.

WRIP is part of a larger Sustainable Agriculture Initiative, led by the Manitoba Department of Agriculture, Food and Rural Initiatives. This Initiative assists Manitoba's agricultural sector in remaining environmentally sustainable and will provide producers with payments of nearly \$2 million over a four-year period. By 2012, it is anticipated that over 1,012 hectares (2,500 acres) of lost wetlands will be restored and up to 150 producers will be involved.

### New Partnerships with Industry in Northeastern British Columbia

Northeastern British Columbia is an important area for migrating and breeding waterfowl and many other wetland-dependent birds. The area is comprised of the Taiga and Boreal Plains and the Boreal Cordillera Ecoregions and is one of the most heavily utilized migratory waterfowl corridors in North America. More than 20 waterfowl species use this area for either breeding or staging, including species of concern such as the Lesser Scaup, Northern Pintail, Trumpeter Swan, and White-winged Scoter.

Over the past few years, DUC's Western Boreal Program (WBP) has been developing a comprehensive wetland inventory throughout this area. This information, in combination with waterfowl surveys, is being used to develop waterfowl distribution products. Almost 6.9 million hectares (17 million acres) have been mapped, and the final phase of mapping is underway. Hydrodynamic and soil moisture maps also being developed from the wetland inventory will be used by resource development partners to identify key areas for protection. The comprehensive wetland inventory will facilitate conservation efforts of the WBP throughout this region.

With its rich petroleum deposits, this landscape is of interest to the energy sector. PHJV is partnering with industry leaders EnCana, Imperial Oil Resources, Devon Energy, and Suncor Energy to identify

important areas for protection and to negotiate agreements with industry to employ beneficial management practices (BMPs) that conserve wetlands and waterfowl habitat.

PHJV's inventory and mapping products in northeastern BC are essential for the evaluation and implementation of ecologically sustainable land use practices. Developing partnerships with leading energy companies will support improved inventory products, development of BMPs, and protection of key wetland ecosystems in the NAWMP priority areas.

These initiatives are just a few important highlights of the long-term partnership with industry.

For more information, contact Deanna Dixon, Prairie Habitat Joint Venture Coordinator, (780) 951-8652; deanna.dixon@ec.gc.ca.

### Prairie Habitat Joint Venture Contributions (\$CAD)

	2010	Total (1986-2010)
U.S. Federal	21,473,562	278,299,840
U.S. Non-Federal	5,209,017	268,681,069
Canadian	23,004,179	385,225,814
Countries other than Canada or the U.S.		59,744
<b>Total</b>	<b>49,686,758</b>	<b>932,266,467</b>

### Prairie Habitat Joint Venture Accomplishments (Acres)\*

	2010**	Total (1986-2010)
Secured	101,449	7,826,843
Enhanced	30,285	2,470,379
Managed	***	6,708,050
Influenced	1,233,536	2,143,719

### Western Boreal Forest Contributions (\$CAD)

	2010	Total (1986-2010)
U.S. Federal	1,299,013	21,625,653
U.S. Non-Federal	4,532,142	43,276,519
Canadian	1,810,202	34,121,802
<b>Total</b>	<b>7,641,357</b>	<b>99,023,974</b>

### Western Boreal Forest Accomplishments (Acres)\*

	2010**	Total (1986-2010)
Secured****	0	11,238,929
Enhanced	0	107
Managed	***	107
Influenced	8,542,440	40,343,925

\* Secured, enhanced and managed acres are not additive. Acres are first secured, may then be enhanced and are subsequently placed under management. Influenced acres are mutually exclusive of secured, enhanced and managed acres.

\*\* 2010 acres reported correspond to period acres.

\*\*\* All existing acres shown are managed each year.

\*\*\*\* Protected area securement in the WBF involves a process whereby targeted lands move through an Interim Protection period (5 years) to perpetual securement. There are currently over 40 million acres under Interim Protection.

# Eastern Habitat Joint Venture

The Eastern Habitat Joint Venture (EHJV) is a diverse partnership of government, national and local conservation organizations, business interests, and private individuals, dedicated to the conservation of wetlands, waterfowl, and other wetland-dependent species. This commitment is reflected in the \$70.9 million of Canadian contributions tracked in the first three years of the EHJV Implementation Plan (2007-2012), leveraging \$24.1 million invested by United States partners. This article highlights some of the 2010 activities across the partnership in which Canadian-funded projects added value to the North American Waterfowl Management Plan (NAWMP).



Aerial view of the enhancement project of Baie-du-Febvre, Quebec. Ducks Unlimited Canada



## FAST FACTS

**Scope:** The EHJV contains 315 million hectares (780 million acres) and spans the six provinces of Ontario, Quebec, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador, encompassing one-third of Canada's landmass. It includes six of twelve Canadian Bird Conservation Regions: 3, 7, 8, 12, 13 and 14.

**Major Habitat Types:** The EHJV supports 39 percent of Canada's wetlands, including more than 48 million hectares (120.8 million acres) of fresh and tidal wetlands. Important habitats include coastal bays and salt marshes, lakeshore marshes, floodplain wetlands, and boreal forest wetlands.

**Key Waterfowl Species:** Thirteen priority waterfowl species contribute to a significant portion of the continental populations, and an additional four species are provincially significant. Of the 13, a smaller number, including American Black Duck, Mallard, Ring-necked Duck, Common Goldeneye, Common Eider (3 races), Green-winged Teal, and Canada Geese (5 populations), are cornerstone species for the EHJV. The habitat within the EHJV supports 95 percent of the continental population of American Black Duck and 80 percent of the southern race of Common Eider. The Atlantic and north Atlantic populations of Canada Geese are important birds for hunters in the Atlantic flyway and breed exclusively within the EHJV.

### Interesting Facts:

- The EHJV was formalized in 1989 to coordinate the delivery of projects and programs that would meet the objectives of the North American Waterfowl Management Plan.
- With approximately two-thirds of the Canadian population residing within its boundaries, the impact on its natural capital is significant particularly in the southern higher population density areas. Historic and recent wetland loss has occurred primarily along the coasts (Maritime and Great Lakes), major river systems, and within the productive agricultural areas.

## Ontario

In November 2009, the Federal Economic Development Agency for southern Ontario (FedDev Ontario) announced a commitment of up to \$3 million for wetland renewal. Ducks Unlimited Canada (DUC) contributed \$1.3 million in matching funds secured through sources such as the EHJV partnership. This \$4.3 million total investment resulted in the rebuilding of high-value wetland projects on public and private lands that were both nearing the end of their design life and had agreements nearing the end of their term.

Through this rebuild program, DUC was able to implement vital infrastructure repairs to maintain, protect, and restore 58 significant wetlands totaling 473 hectares (1,168 acres) across southern Ontario. These included water control structures, beaver bafflers to deal with nuisance beavers, emergency water spillways, and dike restoration.

This agreement showcases the effectiveness of the NAWMP and the ability of DUC and the federal government to work together to maintain vitally important wetland ecosystems on the Ontario landscape for the benefit of waterfowl and other wetland-dependent species.

## Quebec

The Baie-du-Febvre/Nicolet-Sud, situated on the floodplain of Lac Saint-Pierre, is a site recognized in 2000 as a United Nations Educational, Scientific and Cultural Organization (UNESCO) Biosphere Reserve because of its ecological richness representative of the St. Lawrence River. Also designated as a Ramsar Wetland of International Importance, it is a primary migratory staging area for Canada Geese, Snow Geese, and dabbling ducks.

DUC began work in this predominantly agricultural landscape in the 1980s to develop managed and natural marshes for migratory waterfowl, and fish. Investment in the project exceeds \$1.3 million, with contributions of \$1 million from the Ministère des Ressources Naturelles et de la Faune and \$0.3 million from DUC/North American Wetlands Conservation Act (NAWCA). The 2010 restoration of a 65 hectare (160 acres) parcel included excavating a network of trenches and fish ponds to create a permanent marsh for waterfowl, and provisions for fish passage.

The project demonstrates the continuing commitment to the NAWMP and the aspirations of the local community through the partnership with the Société d'aménagement récréatif pour la conservation de l'environnement du lac Saint-Pierre (SARCEL), a nongovernment organization managing hunting, agriculture, and wetland/waterfowl education on site.

## Nova Scotia

The Musquodoboit Harbour and Outer Estuary is a complex system of coastal islands, active sand dunes, salt marshes, intertidal and subtidal mud/sand flats, and eel grass beds. Designated in 1987 as a Ramsar Wetland of International Importance, the site provides critical staging and wintering habitat for American Black Duck and Canada Geese and nesting and breeding habitat for the endangered Piping Plover.

At its designation, approximately 25 percent of the site was secured for conservation. Canadian partners have been increasing this percentage with the acquisition of coastal islands and accompanying intertidal lands. Canadian contributions through the federal Natural Areas Conservation Program, Nova Scotia Crown Share Land Legacy Trust, and private donations recently secured two key islands valued at \$1.3 million. These build on previous acquisitions partly secured with NAWCA and U.S. non-federal matching funds to increase the conservation holdings to 75 percent of the area's 2,160 hectares (5,300 acres).

The contributions of United States partners in the EHJV have increased resources to effectively manage land use for this important waterfowl area and provide for the long-term protection of the ecological integrity of the harbour and outer estuary.

Grindstone Island looking north towards Shepody Bay Ramsar Site and Western Hemisphere Shorebird Reserve, New Brunswick. Don Vall, Nature Trust of New Brunswick.



Musquodoboit Harbour Ramsar site with recent securing of Bayer's Island and adjoining salt marsh and intertidal land (foreground) and Goose Point Island (background), Nova Scotia.

Mike Dembeck, Nature Conservancy of Canada

## New Brunswick

An innovative partnership between the Nature Trust of New Brunswick, the Parish of Sackville, and the Anglican Diocese of Fredericton has secured the protection of the only island in Shepody Bay in the upper Bay of Fundy. After a number of years of negotiation and discussion, the Parish of Sackville entered into a 99-year conservation easement with the Nature Trust to create the 20 hectare (50 acre) Grindstone Island Nature Preserve. This is believed to be the first time an Anglican parish has entered into a co-management agreement with a third party for long-term environmental monitoring of the Church's property. The Preserve joins the adjacent portion of Shepody Bay protected by Environment Canada's Canadian Wildlife Service as the Shepody National Wildlife Area to become the most significant protected area in the upper Bay of Fundy.

Ecologically unique, Grindstone Island is a component of the Shepody Bay Important Bird Area, the Shepody Western Hemisphere Shorebird Reserve Network, and the Shepody Bay Ramsar Wetland of International Importance. A nesting location for Peregrine Falcon, it is also the site for the largest Great Blue Heron colony in New Brunswick and it supports a small colony of nesting Common Eider, breeding Herring Gull, Great Black Backed Gull, and Double-crested Cormorant.

## Prince Edward Island

The Canada-Prince Edward Island Agricultural Stewardship Program has become a dynamic program that is restoring wetlands on the agricultural landscape. DUC, the Prince Edward Island Department of Agriculture, Agriculture and Agri-Food Canada, Syngenta Crop Protection Canada, Inc., and Wildlife Habitat Canada are working very closely with landowners to restore and construct wetlands on their farms.

Under this program, over 12 hectares (30 acres) of wetlands have been restored and over 28 hectares (70 acres) of associated uplands have been protected with long term conservation agreements since 2009. Restoration helps combat the loss of wetlands in Prince Edward Island, and increases biodiversity, purifies ground water, and provides critical brood rearing habitat for species such as American Black Duck, Mallard, Green-winged Teal, Blue-winged Teal and Ring-necked Duck. Producers are recognizing the many benefits that come with having wetlands on their farms; their commitment is shown by the financial contribution they are required to make to the project, and by the increasing number of farmers wishing to participate every year. Working in partnership, their contribution is helping to realize the goals of the NAWMP.

## Newfoundland and Labrador

A key program for the EHVJ is the Municipal Habitat Stewardship Program delivered by the Newfoundland and Labrador Wildlife Division. Its goal is for towns to become more aware of the value of wildlife habitat, specifically wetlands for waterfowl, and to empower them to take actions to conserve these areas and their associated wildlife populations. Twenty-six municipalities have signed stewardship agreements since 1989 to protect wildlife habitat within their planning boundaries, securing 13,353 hectares (33,000 acres) and influencing over 162,000 hectares (400,000 acres).



NL Environment and Conservation Minister Charlene Johnson signing the Hawke's Bay Municipal Stewardship Agreement with Hawke's Bay Mayor Don Brown (right) and Councillor Lloyd Bennett (left) looking on.

Jason Foster, NL Wildlife Division

The small town of Hawke's Bay on Newfoundland's Great Northern Peninsula signed a Municipal Stewardship Agreement in 2008, securing 760 wetland, upland, and coastal hectares (1,880 acres) and influencing proposed development activity on 1,487 hectares (3,675 acres) within the town boundaries. Since then, implementation of the Habitat Conservation Plan by town staff included designing and delivering a wetland-themed educational summer day camp program in 2010 for local children, led by the Hawke's Bay's Salmon Interpretation Centre, with funds from Nalcor Energy.

The Town of Hawke's Bay, although relatively new to the municipal stewardship program and the EHVJ, is fast becoming a model stewardship community by conserving wetlands that will provide long-term benefits for their community and the broader NAWMP partnership.

For more information, contact Patricia Edwards, Eastern Habitat Joint Venture Coordinator, (506) 364-5085; patricia.edwards@ec.gc.ca.

## Contributions (\$CAD)

	2010	Total (1986-2010)
U.S. Federal	8,393,248	79,032,163
U.S. Non-Federal	3,253,618	76,321,931
Canadian	32,169,679	250,099,459
Total	43,816,545	405,453,553

## Accomplishments (Acres)\*

	2010**	Total (1986-2010)
Secured	45,345	1,425,324
Enhanced	15,882	585,740
Managed	***	1,168,233
Influenced	5,988,345	26,834,806

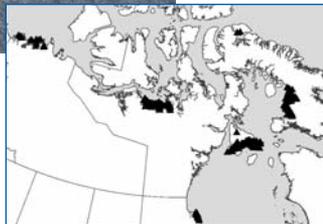
\* Secured, enhanced and managed acres are not additive. Acres are first secured, may then be enhanced and are subsequently placed under management. Influenced acres are mutually exclusive of secured, enhanced and managed acres.

\*\* 2010 acres reported correspond to period acres.

\*\*\* All existing acres shown are managed each year.

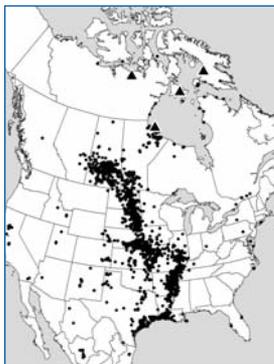


Snow Goose banding on Baffin Island with Dale Caswell, Steve Wendt and helicopter pilot.  
Dale Humberg



AGJV Canadian Arctic banding locations

Example: recoveries of AGJV banded birds: mid-continent Lesser Snow Geese, 2005-2009



# Species Joint Ventures

## Arctic Goose Joint Venture

[www.agjv.ca](http://www.agjv.ca)

### Arctic Goose Banding in Canada: Meeting Objectives of the North American Waterfowl Management Plan

The primary goal of the Arctic Goose Joint Venture (AGJV) is to foster research and monitoring of northern-nesting goose populations in North America in order to facilitate their management. One of the main tools used for population monitoring of Arctic-nesting geese is banding, which involves annual capture and marking of large numbers of birds with individually identifiable leg bands. Reports from hunters that subsequently encounter marked birds

provide information used to determine important staging and wintering areas, goose harvest distribution, population size, migration chronology, recovery and harvest rates, and annual survival rates of six species of Arctic geese.

The large size and extensive distribution of goose populations in remote areas makes many of them difficult to monitor using conventional survey techniques. Goose banding takes advantage of information provided through the volunteer work of hundreds of thousands of waterfowl hunters across North America. This involvement of the public is

critical to the successful management of goose populations, as is a cooperative approach to funding these efforts in the Canadian arctic. Arctic goose banding in Canada is funded by many partners through the AGJV, including the Canadian Wildlife Service and the Polar Continental Shelf Project of the federal government of Canada, the United States Fish and Wildlife Service, and more than 30 state and provincial agencies of the Atlantic, Mississippi, and Central Flyway Councils.

Banding of Arctic geese in Canada is a high priority of the AGJV, and is designed to ensure the long term sustainability of geese and their habitats. Much of the banding effort in northern Canada is currently focused on Lesser Snow Geese, some populations of which are considered to be overabundant. These data have been important for monitoring the impacts of increased harvest opportunities in Canada and the United States that are intended to stabilize or reduce numbers of light geese, and prevent further destruction of their foraging habitats on staging and nesting areas. In addition, samples of Atlantic Brant, Greater Snow Geese, White-fronted Geese, Ross's Geese, and Cackling Geese are marked each year for monitoring purposes. Arctic habitats are expected to be impacted more than most by the effects of

climate change, and geese are sensitive indicators of environmental quality. The long term support and commitment of partner agencies will ensure that conservation objectives for Arctic geese in Canada continue to be met.

For more information, contact  
*Deanna Dixon, Arctic Goose Joint Venture Coordinator,*  
(780) 951-8652;  
[deanna.dixon@ec.gc.ca](mailto:deanna.dixon@ec.gc.ca).

#### FAST FACTS

**Scope:** The Arctic Goose Joint Venture spans the entire continent and other circumpolar countries. It covers 924 million hectares (374 million acres) and encompasses Bird Conservation Regions 2, 3, 4, 6, 7, and 8.

**Species:** The AGJV includes seven species: Greater White-fronted, Emperor, Snow, Ross's, Brant, Cackling and Canada Geese. The seven species include 28 populations.

#### Interesting Facts:

- Over 1 million northern nesting geese were banded on their breeding grounds from 1989 to 2008.



Cackling Goose banding on Baffin Island.

Tim Moser

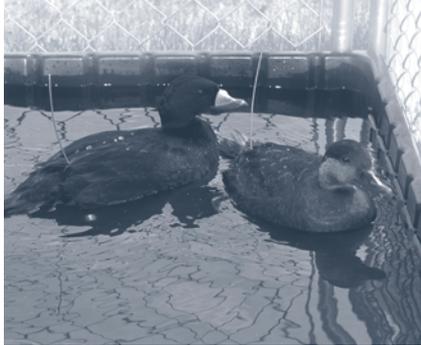
#### Contributions (\$CAD)\*

	2010	Total (1986-2010)
U.S. Federal	478,221	7,486,415
U.S. Non-Federal	277,613	8,739,868
Canadian	1,129,925	20,098,364
Countries other than Canada or the U.S.	17,046	140,544
Total	1,902,805	36,465,191

\* These contributions contain no NAWCA funding.

Black Scoter pair  
implanted with satellite  
transmitters in holding  
pen prior to release.

Matthew Perry, USGS



## Sea Duck Joint Venture

[www.seaduckjv.org](http://www.seaduckjv.org)

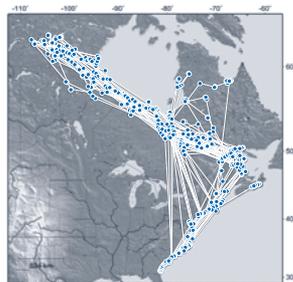
The mission of the Sea Duck Joint Venture (SDJV) is to "... promote the conservation of North American sea ducks through partnerships by providing greater knowledge and understanding for effective management." With the ratification of the SDJV Implementation Plan (2010-2013), the joint venture was able to more effectively prioritize and focus on species of highest conservation concern and issues of greatest importance. While extensive satellite telemetry studies have been conducted on sea duck species on the Pacific coast, relatively little is known about sea duck populations, other than eiders, in eastern North America. The SDJV has therefore adopted as its highest priority an expanded satellite telemetry study of Black, Surf and White-winged scoters, and the Long-tailed Duck.

The Atlantic and Great Lakes Sea Duck Migration Study is a large-scale satellite tracking program that will span multiple years and multiple sites in both Canada and the United States, and will engage multiple partners. One of the Canadian components

of this study, focusing on Black Scoters, is in the Baie des Chaleurs on the New Brunswick/Quebec border. This area is a major spring staging area for Atlantic Flyway Black Scoters migrating north from the east coast of the United States to breeding grounds in northern Canada.

In 2009 and 2010, 55 Black Scoters were marked and are now being tracked as part of the study. Preliminary results indicate that eastern Black Scoters follow a tight migration corridor from their wintering areas along the east coast of the United States to the Baie des Chaleurs, then toward James Bay to breeding sites in the Hudson Bay Lowlands and Northwest Territories. Six of 15 females initially tagged and tracked in 2009 returned to the same breeding location in 2010, suggesting high fidelity by female Black Scoters to breeding sites.

Information obtained to date provides valuable insight into the migration patterns of Black Scoters, challenging previous knowledge about breeding range for the species. The true potential of the Study and the satellite radios themselves will not be realized until late fall of 2011 when the ducks tagged in 2010 will have been implanted for one and one-half annual cycles. Progress of the Study can be followed at [www.wildlifetracking.org](http://www.wildlifetracking.org).



Annual migration pattern between southern wintering and northern breeding sites for female Black Scoters implanted and released in the Baie des Chaleurs, New Brunswick in 2009 and 2010.

The strength of the SDJV has been, and continues to be, based on collaborative efforts and pooling of resources for sea duck conservation. The success of the current telemetry program relies on the continued contributions by Environment Canada's Canadian Wildlife Service (Atlantic and Quebec regions), United States Fish and Wildlife Service, United States Geological Survey, New Brunswick Department of Natural Resources, state agencies, and NGOs.

For more information, contact Patricia Edwards, Sea Duck Joint Venture Canadian Coordinator, (506) 364-5085, [patricia.edwards@ec.gc.ca](mailto:patricia.edwards@ec.gc.ca), [sdjv.ca](http://sdjv.ca).

### FAST FACTS

**Scope:** The Sea Duck Joint Venture (SDJV) includes all of Canada and the United States.

**Species:** 15 species with 22 recognized populations of sea ducks are the focus of the SDJV: Common Eider, King Eider, Spectacled Eider, Steller's Eider, Black Scoter, White-winged Scoter, Surf Scoter, Barrow's Goldeneye, Common Goldeneye, Bufflehead, Long-tailed Duck, Harlequin Duck, Common Merganser, Red-breasted Merganser, and Hooded Merganser.

**Major Habitat Types:** Key habitats include coastal waters for migration and wintering, and boreal forest and tundra for nesting.

#### Interesting Facts:

- In 2010, the following satellite transmitters were deployed in Canada: 20 in Surf and White-winged Scoters in the St. Lawrence River estuary; 30 in King Eiders on their breeding grounds near Siksik Lake, Northwest Territories (NWT); 58 in Long-tailed Ducks at McKinley Bay, NWT; and 17 in Barrow's Goldeneye at Riske Creek, British Columbia.
- Successful surveys were completed on Banks Island and Tuktoyaktuk Peninsula, NWT, and Southampton Island and Coats Island, Nunavut, to obtain indices on abundance and distribution, and to evaluate population trends, of several Arctic-nesting migratory bird species.

### Contributions (\$CAD)\*

	2010	Total (1986-2010)
U.S. Federal	317,876	2,901,319
U.S. Non-Federal	158,972	493,368
Canadian	469,480	7,069,679
Total	946,328	10,464,366

\* These contributions contain no NAWCA funding.



Male Black Scoter in mist net, Baie des Chaleurs.

Scott Gilliland,  
Canadian Wildlife Service

**American Black Duck.**

© Sarah Hagey,  
Ontario Ministry  
of Natural Resources



## Black Duck Joint Venture

[www.blackduckjv.org](http://www.blackduckjv.org)

### American Black Duck Winter Banding

The Black Duck Joint Venture (BDJV) supports monitoring and research initiatives in North America that help sustain the American Black Duck population at levels desired for conservation and recreational purposes. Data from banding, breeding pair surveys, and the mid-winter survey are used to monitor harvest as well as the dynamics, structure, and distribution of the population. This helps guide American Black Duck management and conservation. With the development of an Adaptive Harvest

Management (AHM) Strategy and the revision of the North American Waterfowl Management Plan (NAWMP), it was recognized that information on seasonal survival rates was needed to improve American Black Duck harvest and habitat management. Consequently, a 5-year winter (or post season) banding project was initiated in the United States and Canada.



**American Black Ducks using a pond during winter.**

© Randy Hicks,  
Environment Canada

#### FAST FACTS

**Scope:** The Black Duck Joint Venture (BDJV) includes the Canadian provinces of Ontario, Quebec, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador, and fourteen eastern U.S. states.

**Species:** One species, the American Black Duck, is the focus of the BDJV. The American Black Duck population goal is 640,000. Currently the population is stable at approximately 495,800.

**Major Habitat Types:** Salt water marshes, brackish and freshwater impoundments, riverine and estuary marshes, woodland wetlands, shallow lakes, and boreal bogs are key habitats for American Black Ducks.

#### Interesting Facts:

- The BDJV was established in 1989 as the first species joint venture under the North American Waterfowl Management Plan to lead a coordinated monitoring, research, and communications program aimed at restoring the population to 640,000 breeding American Black Ducks.
- Since 1989, the BDJV and its partners have provided more than \$4.3 million to support research on American Black Duck ecology and management. Results from BDJV-supported research have been incorporated into a variety of management activities. For more details on all BDJV-funded research projects, visit <http://www.blackduckjv.org/>, and view "Bibliography of American Black Duck Ecology and Management".

Although Canada is at the northern edge of the winter range for American Black Ducks, many birds overwinter in Ontario, Quebec, New Brunswick, Nova Scotia, and Prince Edward Island. Banding in these provinces is important because survival rates likely differ for birds wintering in Canada and those wintering further south. As a result, harvest and habitat management decisions differ between Canada and the United States, and even among provinces.

During the winter of 2009-2010, 314 American Black Ducks were banded in Ontario, Prince Edward Island, and Nova Scotia by provincial wildlife agencies and the Canadian Wildlife Service. This represents approximately 16 percent of the total American Black Ducks banded during winter in Canada and the United

States. Although this number seems low, even limited band-return information is useful for determining harvest derivation, identifying important winter concentration areas, and helping focus research questions related to winter habitat carrying capacity and population regulation.

Wildlife agencies in Canada plan to band between 500 and 750 American Black Ducks in

winter 2010-2011, which is about 25 percent of the banding target number for this species in North America. Over the next three years, band return data will help determine linkages among the continental American Black Duck population, harvest, and habitat management. This important information is needed by both the BDJV and the NAWMP for setting and achieving conservation goals for the American Black Duck population.

For more information, contact *Brigitte Collins*, Black Duck Joint Venture Coordinator, (613) 949-8264, [brigitte.collins@ec.gc.ca](mailto:brigitte.collins@ec.gc.ca).

#### Contributions (\$CAD)\*

	2010	Total (1986-2010)
U.S. Federal	85,000	1,635,460
U.S. Non-Federal	133,143	4,392,593
Canadian	496,566	8,981,571
Total	714,709	15,009,624

\* These contributions contain no NAWFA funding.

#### Ducks in bait trap.

© Randy Hicks,  
Environment Canada



Focal area of Clarendon,  
Ottawa Valley.

Nature Conservancy of Canada

## Canada's Natural Areas Conservation Program *supports the* North American Waterfowl Management Plan

In 2007, habitat conservation took a giant step forward in Canada when the Government of Canada announced the creation of the Natural Areas Conservation Program (NACP). The NACP constitutes a \$225 million investment by the federal government to help environmental conservation organizations secure ecologically sensitive lands to help protect some of the country's diverse ecosystems, wildlife, and their habitat for future generations.

The Nature Conservancy of Canada (NCC) leads the NACP, and works in partnership with Ducks Unlimited Canada (DUC) and other qualified organizations, such as land trusts and nature conservancies, with the aim of conserving approximately 200,000 hectares (500,000 acres) of privately-owned ecologically-significant lands throughout southern Canada. These organizations, with the assistance of numerous donors and partners, match the federal contribution by at least 1:1; in many cases the match is greater, resulting in a sound and effective federal investment.

Support of the North American Waterfowl Management Plan (NAWMP) goals has been a part of the NACP from the beginning, with NAWMP priority areas recognized as NACP priority sites within the funding agreement. DUC targets the funds it receives under the NACP, as well as matching funds, towards NAWMP priority areas across the country, focusing on highest priority waterfowl habitats. In the first three years of the program, DUC secured 42,611 hectares (105,294 acres). Partners such as landowners, municipalities, provincial governments, and the U.S. Fish and Wildlife Service (through the *North American Wetlands Conservation Act*) also contributed to these projects.

The DUC Grams Project in Alberta exemplifies NACP support of NAWMP goals. The Grams Project is a 195 hectare (480 acre) parcel located just south of Edmonton in a landscape of extensive cropland interspersed with native pasture and wetlands, as well as large marshes and lakes that are heavily utilized by migrating waterfowl. The NACP and



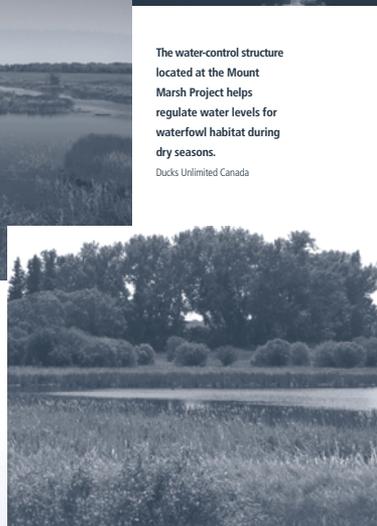
The water-control structure located at the Mount Marsh Project helps regulate water levels for waterfowl habitat during dry seasons.

Ducks Unlimited Canada

matching funds enabled DUC to protect and restore 24 hectares (60 acres), including 51 wetlands, and convert 121 hectares (298 acres) of cultivated land to nesting cover.

The Mount Marsh and Ararat Marsh Project on Gagetown Island in New Brunswick is another good example. Located in the fertile and biologically diverse riparian and wetland habitats of the Saint John River floodplain, these two important marshes are used as staging areas by up to 2,000 waterfowl each fall. DUC purchased the marshes under the NACP, and continues to actively manage them using water control structures to regulate water levels for waterfowl habitat during dry seasons.

A focus area for NCC under the NACP has been the Ottawa Valley Natural Area in Quebec. This area is home to more than 32 species at risk designated under legal protection status in Quebec and/or Canada. It is also a key area for waterfowl, being home to five species designated as priorities by the Eastern Habitat Joint Venture: Wood Duck, Mallard, American Black Duck, Canada Goose and Brant. The prioritization



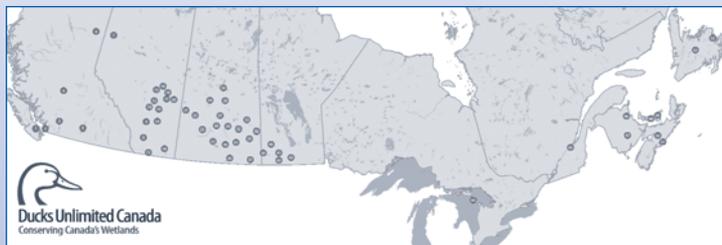
The Grams Project is representative of high-quality Alberta parkland habitat.

Ducks Unlimited Canada

of securement activities was done through the identification of biodiversity targets and scientific research by Canadian partners in conjunction with NCC or through the conservation blueprint of the St. Lawrence Valley directly made by NCC.

These are only three examples of the hundreds of land securement projects undertaken thus far in

NAWMP priority areas under the NACP. The NACP is a prime example of federal leadership in the conservation of wildlife habitat in Canada, leveraging matching funds and consolidating the efforts of many partners to enhance waterfowl populations by securing the diverse habitats on which they depend.



Ducks Unlimited Canada – Natural Areas Conservation Program Target Areas.

Ducks Unlimited Canada

For more information on the NACP, please visit:  
[http://science.natureconservancy.ca/federalprogram\\_en.html](http://science.natureconservancy.ca/federalprogram_en.html)

## Thank you to all our partners who supported the Canadian program by contributing in 2010:

### Canada

Acadia Centre for Estuarine Research  
Action Land Consultants (2001) Ltd.  
Advantage Oil & Gas Ltd.  
Agriculture and Agri-Food Canada-Prairie  
Farm Rehabilitation Administration  
Aquila Exploration Consultants Ltd.  
Alberta Environment  
Alberta Sport, Recreation,  
Parks & Wildlife Foundation  
Alberta Sustainable Resource Development  
Alberta-Pacific Forest Industries Inc.  
Amar Developments Ltd.  
Anderson Exploration Ltd.  
Apache Canada Ltd.  
ARC Resources Ltd.  
Assiniboine Watershed Stewardship  
Association  
Atco Electric Ltd.  
ATCO Structures & Logistics Ltd.  
Battle River Credit Union Ltd.  
Baytex Energy Ltd.  
BC Trust for Public Lands  
Beaverbrook Development Inc.  
Bonavista Petroleum Ltd.  
Boyd Petro Search  
British Columbia Cattlemen's Association  
British Columbia Conservation Foundation  
British Columbia Ministry of Environment  
British Columbia Waterfowl Society  
Calgary (City of)  
Cameron Development Corporation  
Camrose County  
Canada Capital Energy Corporation  
Canada Private  
Canadian Natural Resources Ltd.  
Canadian Pacific  
Canadian Parks and Wilderness Society  
Canadian Super Energy Inc.  
Carstairs (Town of)  
Cavelier Land Ltd.  
Cenovus Energy Inc.  
Central Global Resources, LLC  
Centrica Canada Limited  
Challenger Development Corporation  
Columbia Basin Trust  
Complete Land Services Ltd.  
ConocoPhillips Canada  
Creston Agri-Environmental Group Plan  
Cornwallis Headwaters Society  
Crescent Lake Grazing Coop Ltd.  
Crescent Point Resources  
Limited Partnership  
Crew Energy Inc.  
CrossAlta Gas Storage & Services Ltd.  
Culane Energy Corporation  
Delight Energy Corp.  
Delta Waterfowl Foundation  
Ducks Unlimited Canada  
Edmonton (City of)  
Edwards Land (Calgary) Ltd.  
Enbridge Pipelines Inc.  
EnCana Corporation  
EnerMark Inc.

Environment Canada –  
Atlantic Coastal Action Program  
Environment Canada –  
Canadian Wildlife Service  
Environment Canada – EcoAction 2000  
Environment Canada –  
Habitat Stewardship Program  
Evolvive Surface Strategies Inc.  
ExxonMobil Canada Energy  
Flagstaff (County of)  
Fondation de la Faune du Québec  
Forest Products Association of Canada  
Friends of Cornwallis River Society  
Gallean Energy Inc.  
Green Drop Ltd.  
Green-Cop Lands Ltd.  
Greenview No. 16 (Municipal District of)  
Interoceanic Conservation Trust Fund  
Habitat For Humanity  
Harvest Energy  
Hasso Development Corporation  
Heritage Surface Solutions Ltd.  
Imperial Oil Resources Ltd.  
Indian and Northern Affairs Canada  
Integrated Geophysical Consultants Ltd.  
Inter Pipeline Fund  
J.D. Irving, Limited  
Jaffer Real Estate Limited Partnership III Inc  
Ji Properties Inc.  
Kancor Ltd.  
Kinder Morgan, Inc.  
Kings Community Economic  
Development Agency  
Kings County (Municipality of)  
Kismen Club of Yorkton  
La La Biche Feed Mill & Farm Supply Ltd.  
Lakeland (County of)  
Lamont (County of)  
Land Solutions Inc.  
Landwest Resource Services Ltd.  
Lane Land Services Ltd.  
Little Saskatchewan River  
Conservation District  
LXL Consulting Ltd.  
Manitoba Conservation  
Manitoba Habitat Heritage Corporation  
Manitoba Water Stewardship  
Manitoba Wildlife Federation  
Habitat Foundation  
Maritrol Exploration Inc.  
MEC Operating Company  
MGV Energy Inc.  
Minco Gas Co-op Ltd.  
Ministère de l'Éducation, du Loisir  
et du Sport du Québec  
Ministère des Ressources naturelles  
et de la Faune  
Ministère du Développement durable,  
de l'Environnement et des Parcs du Québec  
Misik Management Ltd.  
Mor-West Ventures Inc.  
Mr. and Mrs. Donald M. Ross  
MSL Land Services Ltd.  
Municipal District of Wainwright  
NAL Resources Limited

Natural Areas Conservation Program  
Natural Resources Canada –  
Polar Continental Shelf Project  
Natural Sciences and Engineering Research  
Council of Canada  
Nature Conservancy of Canada  
New Brunswick Department of Environment  
New Brunswick Department of  
Natural Resources  
New Brunswick Regional Development  
Corporation  
Newfoundland-Labrador Department of  
Environment and Conservation  
Nowin Inc.  
Northrock Resources Ltd. (Canada)  
Northwest Territories Department of  
Environment and Natural Resources  
Nova Scotia Crown Share Land Legacy Trust  
Nova Scotia Department of Agriculture  
Nova Scotia Environment  
Nova Scotia Federation of Agriculture  
Nova Scotia Habitat Conservation Fund  
Nova Scotia Natural Resources  
Omara Resources Limited  
Ontario Ministry of Natural Resources  
OurSource Seismic Consultants Inc.  
Pan Canadian Petroleum Limited  
Paramount Energy Trust  
Park Paving Ltd.  
Park Ridge Homes Ltd.  
Parks Canada  
Pengrowth Corporation  
Penn West Petroleum Ltd.  
Peters Reston Inc.  
Ponoka (County of)  
Prairie Land & Investment Services Ltd.  
Prairie Land Consultants Inc.  
Prairie Mines and Royalty Ltd.  
Prairie Plantation Inc.  
Prince Edward Island  
Department of Agriculture  
Prince Edward Island Department of  
Transportation and Public Works  
Prospect Land Services (Alta) Ltd.  
Prospect Oil and Gas Management Ltd.  
Rention Land Services (1983) Ltd.  
Richard Ivey Foundation  
Richardson Foundation Inc.  
Richland Petroleum Corporation  
Rife Resources Ltd.  
Rocky Mountain Property, Inc.  
Saboteoth Energy Ltd.  
Saskatchewan Crop Insurance Corporation  
Saskatchewan Environment  
Saskatchewan Watershed Authority  
SaskEnergy Incorporated  
SaskPower  
SaskTel  
Scott Land and Lease Ltd.  
Shell Canada Products Ltd.  
Shell Environmental Fund  
Signalta Resources Limited  
Silverado Properties Ltd.  
Simon Fraser University

Sobey Foundation  
Société de la faune et des parcs du Québec  
St. Albert (City of)  
Standard Land Company Inc.  
Strategic Land Services Inc.  
Strathcona (County of)  
Sturgeon (County of)  
Sunco Energy Inc.  
TD Canada Trust  
Terra Environmental Consultants  
Terra-Sure Resources Ltd.  
The Harold C. Cabree Foundation  
The Garfield Weston Foundation  
Thompson & Associates, Inc.  
Tides Canada Foundation  
Touchdown Land Consultants Trust  
TriStar Oil & Gas Ltd.  
Traverse Landgroup Ltd.  
Trident Exploration Corp.  
Trilog Energy Corp.  
Tristar Oil & Gas Ltd.  
Tula Foundation  
Turtle Mountain Conservation District  
Twin Butte Energy Ltd.  
Université de Sherbrooke  
Université du Québec à Montréal  
Université du Québec à Rimouski  
Université Laval  
Upper Assiniboine River Conservation District  
Vancouver International Airport Authority  
Venturus Canada Resources Limited  
Vermlion Energy Trust  
Viteria  
VSD Developments Corporation  
WAM Developments Group  
Westlife Energy Ltd.  
Weyerhaeuser  
Wheatland Industrial Park Inc.  
Wildlife Habitat Federation  
Yukon Department of Energy,  
Mines and Resources  
Zargon Energy Trust

Davis LLP  
Delaware Department of Natural Resources  
and Environmental Control  
Ducks Unlimited, Inc.  
Florida Fish and Wildlife Conservation  
Commission  
FRAC Alberta Properties Inc.  
Friends of the Nature Conservancy  
of Canada  
Georgia Department of Natural Resources,  
Wildlife Resources Division  
Illinois Department of Natural Resources  
Indiana Department of Natural Resources  
Iowa Department of Natural Resources  
Irene W. and C.B. Pennington Foundation  
Kansas Department of Fish and Parks  
Kentucky Department of Fish and  
Wildlife  
Louisiana Department of Wildlife  
and Fisheries  
Massachusetts Division of Fisheries and  
Wildlife  
Michigan Department of Natural Resources  
and Environment  
Minnesota Department of Natural Resources  
Mississippi Department of Wildlife,  
Fisheries and Parks  
Mississippi Flyway Council  
Missouri Department of Conservation  
Montana Fish, Wildlife & Parks  
National Fish and Wildlife Foundation  
Nebraska Game and Parks Commission  
Nevada Department of Wildlife  
North Carolina Wildlife Resources Commission  
North Dakota Game and Fish Department  
Oceans North Canada  
Ohio Division of Wildlife  
Oklahoma Department of Wildlife  
Conservation  
Open Space Institute  
Pennsylvania Game Commission  
PEW Charitable Trusts  
Rhode Island Department of Environmental  
Management, Division of Fish and Wildlife  
Resources  
South Dakota Game, Fish and Parks  
Southern Illinois University  
Syngenta Crop Protection Inc.  
Tennessee Wildlife Resources Agency  
Texas Parks and Wildlife Department  
The Nature Conservancy  
The Rhode Island University  
TransCanada Pipelines, Ltd.  
U.S. Fish and Wildlife Service  
U.S. Geological Survey - Biological  
Resources Division  
University of Alaska  
Vermont Department of Fish and Wildlife  
Washington Department of Fish  
and Wildlife  
West Virginia Division of Natural Resources  
Wisconsin Department of Natural Resources  
Wildlife Fund  
Wyoming Game and Fish Department

### Other

Wangel Island Nature Reserve

### United States

Alabama Department of Conservation and  
Natural Resources  
Alliance Pipeline Limited Partnership  
Anonymous Foundation  
Arizona Game and Fish Department  
Arkansas Game and Fish Commission  
Atlantic Flyway Council  
Avian Specialty Veterinary Services of Alaska  
Bayer CropScience Inc.  
Boreal Songbird Initiative  
California Department of Fish and Game  
Campion Corporation  
Cargill Limited  
Central Flyway Council  
ConocoPhillips Alaska

We thank all our funding partners and apologize if we have inadvertently omitted any contributors from this list.

Background Image:

Pintail flock.

© Brian Woltski, Ducks Unlimited Canada

Canadian conservation partners are grateful for the financial support provided under the *North American Wetlands Conservation Act* and by all United States and Canadian partners.

### Contacts

For information on NAWMP and NAWCA in Canada, or for additional copies:

NAWCC (Canada) Secretariat  
Wetlands Office  
Canadian Wildlife Service  
Environment Canada  
7th Floor,  
351 St. Joseph Boulevard  
Gatineau, Québec K1A 0H3  
(819) 934-6034  
nawmp@ec.gc.ca

To view this publication electronically  
[nawmp.ca](http://nawmp.ca)

North American Wetlands Conservation Act Funding  
[wetlandscanada.org](http://wetlandscanada.org)

North American Bird Conservation Initiative  
[nabci.net](http://nabci.net)

Map of Bird Conservation Regions  
<http://www.nabci-us.org/map.html>

Canadian Biodiversity: Ecosystem Status and Trends 2010 is available online at  
<http://www.biodycanada.ca/default.asp?lang=En&n=83A35E06-1>