Canadian HabitatMatters

Lily Pond – Ruddy Ducks, from the 2008 Canadian Wildlife Habitat Conservation Stamp Series
Artist: Patricia Pepin
Bromont, Quebec

On-the-ground wetland habitat conservation activities, generously funded by Canadian and U.S. partners including State agencies and the U.S. North American Wetlands Conservation Act fund, are at the core of NAWMP success.

CONTENT:

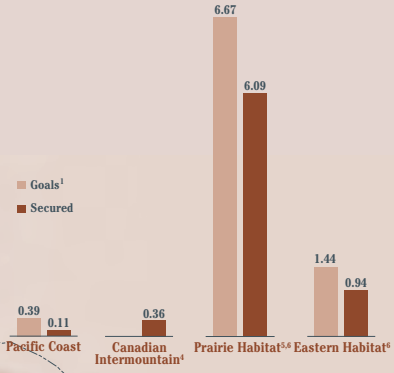
The North American Waterfowl Management Plan (NAWMP) is an international partnership among Canada, the United States and Mexico to sustain abundant waterfowl populations through habitat conservation efforts. Conservation is achieved through sound science, innovative landscape planning and diverse partnerships that include all levels of government, non-governmental organizations, industry, Aboriginal communities and landowners. The Prairie Habitat, Pacific Coast, Canadian Intermountain and Eastern Habitat Joint Ventures are the key landscapes and partnerships for implementing conservation programs and projects across Canada. On-the-ground wetland habitat conservation activities, generously funded by Canadian and U.S. partners including State agencies and the U.S. North American Wetlands Conservation Act fund, are at the core of NAWMP success. In addition, the population and habitat data collection and research of the international Black Duck, Arctic Goose and Sea Duck Joint Ventures are critical to effectively managing certain priority NAWMP populations. The plan that started as a dream in the mid-eighties has become one of the most successful, ongoing conservation efforts in the world. This report focuses on Canada's NAWMP accomplishments for the year 2007.

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

National Overview

NAWMP and NAWCA-funded Habitat Conserved

(Million Acres) – 1986-2007



Progress Report[3]

Accomplishment Goal = 8.5M secured acres[1]

Achieved: 7.1M acres (84%)

Expenditure Goal = $Cdn. 2.6B[1,2]

To date: $Cdn. 1.19B (46%)

1. These goals are under revision as per the 2004 NAWMP Update.
2. Based on $Cdn. = $U.S. 0.93.
3. Data includes PHJV, PCJV and EHJV only.
4. Habitat goals are being developed on a focus area-specific basis within the CIJV.
5. Secured acres include habitat conserved prior to 1986.
6. New habitat objectives are being developed for the PHJV and EHJV and will be reported in Habitat Matters 2009.

Terminology

Securement:
The protection of wetland and/or upland habitat through land title transfer or binding long-term (minimum 10-year) conservation 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.

"The joint ventures have proven to be one of the most important legacies of the original 1986 Plan" – NAWMP Continental Progress Assessment Final Report, 2007.

After celebrating two decades of successful waterfowl and wetland conservation in 2006, Canadian North American Waterfowl Management Plan (NAWMP) partners were poised in 2007 to focus on achieving even more over the next 20 years. Having completed the NAWMP Continental Assessment, the first ever NAWMP comprehensive continental biological assessment, Canadian Joint Ventures and the North American Wetlands Conservation Council (Canada) got down to business reviewing and prioritizing the final recommendations of the Assessment to determine the best path forward for successful implementation at both the regional and national levels.

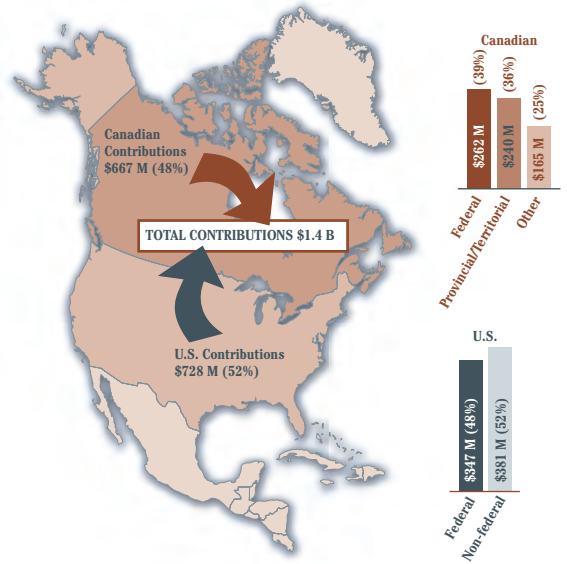
Regionally, most joint ventures have already initiated actions that will contribute to the implementation of the recommendations. For example, in the Eastern Habitat Joint Venture (EHJV), breeding, staging, and wintering population goals were established in 2007 for waterfowl species of continental importance and also for those of regional concern. The scientific/technical committee of the Canadian Intermountain Joint Venture (CIJV) updated its multi-partner two-year implementation plan. In the Prairie Habitat Joint Venture (PHJV), the Assessment recommendations were assigned to the appropriate body for action (the PHJV Board, Waterfowl Working Group, Policy Committee and/or Communications Committee) and reports are anticipated in 2008. The Pacific Coast Joint Venture (PCJV) prioritized actions in response to both their Joint Venture specific assessment and the Continental Assessment. Both the Sea Duck Joint Venture (SDJV) and the Black Duck Joint Venture (BDJV) will continue to expand their interactions and communications with relevant habitat joint ventures. The Arctic Goose Joint Venture (AGJV) and Technical Committee arranged a standing agenda item at each meeting to ensure progress is made in implementing the Assessment recommendations.

Nationally, the Assessment process helped to re-emphasize the scope of NAWMP in Canada. Both the habitat joint ventures and the species joint ventures play key roles in contributing to the success of NAWMP in Canada. In recognition of this, Canadian species joint venture co-chairs were invited to formally join the North American Wetlands Conservation Council (Canada), a national forum chaired by Environment Canada that oversees the coordination and implementation of NAWMP in Canada. A national forum is planned for 2008 to review Canadian progress in implementing the Assessment recommendations.

Along with the high priority NAWMP Assessment, new national initiatives begun in 2007 will benefit NAWMP projects and influence planning and policy related to achieving population and habitat goals.

Total NAWMP and NAWCA Contributions to Canada

1986-2007 ($Cdn.)



In March 2007, the Canadian government announced a $225 million investment in a national campaign to acquire and preserve ecologically sensitive land in partnership with the Nature Conservancy of Canada, Ducks Unlimited Canada and other conservation organizations. This national campaign focuses on lands that have national or provincial ecological significance, provide habitat for species at risk or migratory birds or that connect to existing protected areas such as Migratory Bird Sanctuaries, National Wildlife Areas and National Parks. It is expected to result in the long-term protection of 202,000 hectares (500,000 acres) of habitat across Canada. This new Canadian funding will be used in part to conserve wetlands that will benefit waterfowl and other wetland-associated migratory birds and contribute to NAWMP goals.

In partnership with several First Nations, Ducks Unlimited Canada and others, the Government of Canada announced one of the largest land conservation initiatives in Canadian history.

In partnership with several First Nations, Ducks Unlimited Canada and others, the Government of Canada announced one of the largest land conservation initiatives in Canadian history. Just over 11.4 million hectares (28.2 million acres) of land was given interim protection from development in Canada's Western Boreal Forest. This includes 1.5 million hectares (3.7 million acres) around the Ramparts River and Wetlands Complex in the Northwest Territories. An Interim Land Withdrawal will ensure both the surface and subsurface area of this landscape is protected from development while permanent federal protection status is sought. This critical wetland area provides habitat to thousands of nesting, staging and brood-rearing waterfowl every year.

In addition, 2007 saw the conclusion of Phase One of the Canadian Wetland Inventory (CWI) – an overarching framework for wetland inventory and monitoring in Canada. Phase one consisted of mapping wetlands in selected study areas across Canada covering a range of ecological and physical settings. Accomplishments included improved satellite image analysis for wetland mapping, enhanced expertise in land classification based on remote sensing and progress on digital wetland mapping for selected study areas. It is anticipated that work undertaken over the next three to six years will expand the CWI to a full national wetland inventory and monitoring program. This will lead to reliable monitoring and indicator development for species at risk habitat conservation, watershed management, climate change and many other applications. For more information, visit www.cwi-icth.ca.

This publication of Canadian Habitat Matters highlights Canada's NAWMP accomplishments for 2007. NAWCA funding and the continued support of all U.S. and Canadian partners is essential for the conservation of wetlands that support waterfowl and other wetland-associated migratory birds in North America.

The Serpentine wetland area (bottom right within photo) and adjacent farmlands are located at Boundary Bay, a key area for PCJV securement and easement activities.
Ducks Unlimited Canada

Habitat Joint Ventures

Pacific Coast Joint Venture

British Columbia's Fraser River Delta is the largest and most important coastal estuary for wintering and migratory waterfowl along Canada's west coast. The Delta's extensive agricultural habitat is a primary food source for many species of migratory birds. As a result, Pacific Coast Joint Venture (PCJV) partners, with the support of the North American Wetland Conservation Act (NAWCA) and other funding sources, is working with farmers to secure and enhance agricultural land within the Delta.

An array of PCJV programs and partners reflect the diversity of land tenure, agriculture crops and increasing human and wildlife habitat demands within the Delta. PCJV partners are implementing programs related to policy, outreach and education that supplement the core NAWCA securement and enhancement programs. Together, these programs and their partnerships support NAWMP population and habitat objectives.

Importance of Fraser River Delta and Influence of Agriculture (Science Support)

The Fraser River Delta estuary is a cornerstone anchoring the entire network of estuaries that spread along the Pacific Coast. Located in B.C.'s southwest corner, the Delta estuary contains over 29,000 hectares (72,000 acres) of tidal habitat and more than 13,000 hectares (33,000 acres) of adjacent waterfowl-compatible agricultural habitat. The vegetables, grains and grasses that make up the traditional crops of the agricultural landscape continue to be lost to other more intensive agricultural crops such as berries, nurseries and greenhouses as well as urban sprawl. Yet in recent scientific studies by PCJV partners, the food energy value of traditional agricultural crops provided significant sources of food energy for migrating and wintering waterfowl.

Securement – Purchase and Covenants

Given the importance of agricultural crops, PCJV partners employ a number of securement and enhancement options to protect and improve those crops that provide energy resources for waterfowl. In a landscape where farmland acquisition now exceeds $125,000 per hectare ($50,000 per acre), there is increasing intensification on agricultural land resulting in acquisition of only the most critical farmlands and expansion of other conservation tools. This approach, identified under the Fraser Delta Conservation Plan of 2000, ensures effective use of funds. Science work undertaken by Ducks Unlimited Canada and Ducks Unlimited, Inc. between 2003 and 2006 will update the plan as part of an adaptive management process. Recently, PCJV partners developed conservation covenants (easements) that are acceptable by the Agriculture Land Commission which approves or rejects covenants on agricultural land. This approach enables PCJV partners to work with farmers to ensure waterfowl-compatible farming practices that also benefit their operations.

Joint Venture Quick Facts

Size: The B.C. portion of the PCJV includes 218,980 square kilometres (136,000 square miles) of landscape, 457,646 kilometres (284,000 miles) of seascape and 30,285 kilometres (19,000 miles) of shoreline.

Major Habitat Types: The B.C. coast is a complex of inlets, bays, islands, straits and fjords rising to a diversity of near-shore, intertidal and forested habitats. Variations in altitude create widely contrasting ecological zones within the region ranging from mild, humid, coastal rainforest to cool boreal forest and alpine conditions at higher elevations.

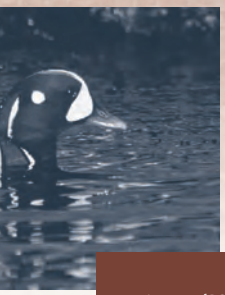
Notable Waterfowl Species: Over 1,000,000 waterfowl winter along the B.C. coast, 50 percent of the Pacific Coast trumpeter swan population and over half the Wrangel Island snow goose population winter in B.C.

Provinces and States: The PCJV is an international joint venture that includes B.C., Alaska, Washington, Oregon, California and Hawaii.

2007 Major Accomplishments: Completion of the B.C. Estuary Ranking Project.

PCJV partners investigate the effectiveness of relay crops planted on corn fields. Relay crops are planted prior to corn harvesting and provide not only food for migratory waterfowl, but a spring harvest of forage for farmers the following spring.
Dan Buffet,
Ducks Unlimited Canada

Background Image:
Snow geese rely on cover crops as an important food source during spring and fall migrations.
Ducks Unlimited Canada



Harlequin duck
Ducks Unlimited Canada

Intensive agriculture on the left side of the road includes berries, nursery crops and greenhouses. On the right side of the road, traditional fields of vegetables which serve as seasonal wetlands are being squeezed off the Delta by more lucrative and intensive agricultural crops and practices.
Ducks Unlimited Canada

An array of PCJV programs and partners reflect the diversity of land tenure, agriculture crops and increasing human and wildlife habitat demands within the Fraser River Delta.

Enhancement – On-Farm Plans

Over the years, PCJV partners have developed a number of enhancement options to improve the productivity of agricultural land. Historically, stewardship agreements that have short-term agreements (less than 10 years) were the main mechanism to improve farmland. This included the planting of winter cover crops in the fall after harvesting of vegetables, and leveling fields to improve drainage and reduce the impact of winter flooding. Management activities now also include tile drainage and the addition of lime to the soil. With these recently adopted activities, the fields are more productive for the farmers but also better able to withstand waterfowl grazing during the heavy fall and winter rains thereby lengthening waterfowl foraging time. In the Delta, the Delta Farmland and Wildlife Trust (Trust) administers and delivers these PCJV stewardship agreements. The Trust was based on an initial PCJV pilot project and is now a leading PCJV partner.

Building on the stewardship agreements, PCJV partners have developed long-term agreements, such as On-Farm Plans that are 20 year sustainable agriculture plans for managing agricultural activities on fields. In addition to activities similar to stewardship agreements, this program addresses key limitations, such as soil fertility, that will improve agricultural productivity while benefiting waterfowl populations. This recent approach emulates the philosophy of long-term agreements for wetlands, except the habitat is now farmland. In recent years, beneficial management practices have been funded through federal/provincial agricultural programs. Financial incentives are given to those who modify their agricultural practices and reduce environmental risks, such as water contamination and damage to riparian areas.

The Fraser River Delta is a complex landscape with a diversity of farm crops and many challenges. To minimize agricultural degradation and loss, PCJV partners have adapted and applied a diversity of tools to deliver conservation programs that work for farmers and for wildlife. The development and continual expansion of these like-minded partnerships is fundamental to PCJV success.

For more information, contact Saul Schneider, Pacific Coast Joint Venture Coordinator, (604) 666-2342, saul.schneider@ec.gc.ca, www.pcjv.org.

Contributions ($CN)

	2007	Total (1986-2007)
U.S. Federal	767,335	21,457,404
U.S. Non-Federal	757,746	20,684,856
Canadian	551,885	128,259,252
Total	2,076,966	170,401,512

Accomplishments (Acres)

	2007	Total (1986-2007)
Secured	1,529	110,092
Enhanced	1,458	90,810
Managed*	1,746	87,692
Total**	1,529	110,092

* New acres under management shown for 2007; all acres shown under total column are managed each year.

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

A low-elevation wetland within a forest-dominated landscape in the Cariboo-Chilcotin offers high-value breeding habitat for cavity nesters such as bufflehead.
Bruce Harrison,
Ducks Unlimited Canada

Canadian Intermountain Joint Venture

The Canadian Intermountain Joint Venture (CIJV) covers almost half of the Province of British Columbia and contains the Canadian portions of Bird Conservation Regions 9 (Great Basin) and 10 (Northern Rockies). Over 150,000 wetlands in this diverse landscape are home to 1.6 million breeding ducks, and habitat for an additional 8 million migrating and wintering waterfowl.

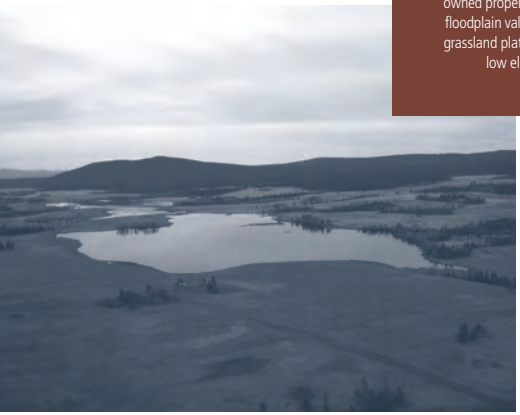
Within the CIJV, the most at-risk, waterfowl-rich wetlands are typically found on privately owned properties along fertile floodplain valley bottoms and grassland plateaus at mid and low elevations. Hence, NAWMP programs are directed at productive wetlands threatened by agriculture, industry or urbanization. Habitat improvement activities generally include securement, such as acquisitions, easements or long-term agreements, enhancement/restoration and management of secured lands. These activities are partly funded by U.S. partners and through grants received under the U.S. North American Wetland Conservation Act.

CIJV partners also work together on policy-related activities to influence governments and dominant resource industries to adopt sustainable land-use practices. For example, a coalition of CIJV partners (the Wetland Stewardship Partnership) has recently produced and distributed a model "Green Infrastructure" bylaw package to assist local governments in protecting wetlands and grasslands from development.

Within the CIJV, the most at-risk, waterfowl-rich wetlands are typically found on privately owned properties along fertile floodplain valley bottoms and grassland plateaus at mid and low elevations.

Priority areas within the CIJV include the Cariboo-Chilcotin and the Okanagan Valley. Ducks Unlimited Canada (DUC) recently completed its *Cariboo-Chilcotin Landscape Plan* to guide conservation activities in this 3.5-million-hectare (8.6-million acre) central interior plateau dissected by the Fraser and Chilcotin Rivers. With over 210,000 hectares (518,900 acres) of permanent and semi-permanent lakes and wetlands (over 7 percent of the total area), the Cariboo-Chilcotin supports the highest densities of breeding waterfowl in the CIJV and is an important staging area for several hundred thousand migrating waterfowl annually. The landscape is also home to a variety of other wildlife and several species classified as "at risk". To date, CIJV partners have secured 5.5 percent of the landscape including 10 percent of all semi-permanent and permanent wetlands.

Long-term trends for the dominant waterfowl species in the landscape have remained stable, and therefore the habitat program focuses on "no net loss" of existing populations via retention of existing habitat, with some restoration to compensate for lost or degraded habitat. Cariboo-Chilcotin habitats are threatened most by climate change effects, such as drought, and ranching practices that include over-grazing and water extraction for irrigation.



Low-elevation wetlands within the Cariboo-Chilcotin grassland-dominated landscape are home to nesting waterfowl including mallard, green-winged teal and Barrow's goldeneye.
Bruce Harrison,
Ducks Unlimited Canada

Cattle degradation on a formerly productive grassland-associated wetland could be improved through waterfowl-friendly livestock management such as fencing, alternative watering and/or rotational grazing.
Bruce Harrison,
Ducks Unlimited Canada

Joint Venture Quick Facts

Size: 50 million hectares (123.5 million acres).

Major Habitat Types: The Canadian Intermountain is a landscape of widely varying elevation and climatic conditions. This has resulted in a tremendous diversity of habitat types including desert, grasslands, shrub-steppe, riparian, wetlands, dry and moist coniferous forests and alpine tundra. Sixty-three percent of the area is forested, with over five percent covered by lakes and wetlands, one percent in open native grasslands and the remaining area in other non-forested habitat (including urban, agriculture, alpine, rock and ice).

Notable Waterfowl Species: Approximately 60 percent of the global Barrow's goldeneye population breeds in the CIJV. During migration up to 8 million waterfowl from 38 species use CIJV wetlands.

Province: British Columbia

2007 Major Accomplishments: Completion of the *Cariboo-Chilcotin Landscape Plan*.

Forests dominate the Cariboo-Chilcotin but rangelands are common and cattle also graze the forested lands. Most of DUC resources will be applied to agricultural areas, primarily to support and demonstrate improved stewardship of private rangelands such as limiting cattle impacts on wetlands. In forest-dominated areas, DUC plans to work with forest companies and government agencies to implement management practices that benefit wetlands.

In accordance with the 2007 NAWMP Continental Progress Assessment, the *Cariboo-Chilcotin Landscape Plan* also requires that all conservation activities be undertaken using an "adaptive management" framework wherein implementation, evaluation and adaptation are explicitly considered from the outset. Evaluation initiatives include a study of nesting rates on project lands to improve knowledge of factors limiting waterfowl production. In particular, DUC is investigating how livestock grazing intensity affects nesting success of upland nesters such as mallards.

Coordinated partnership is integral to the delivery of CIJV habitat programs. New opportunities, such as the Federal Government of Canada's $225 million pledge to non-governmental organizations for the protection of Canada's ecologically sensitive areas, are essential to CIJV success. By matching resources, CIJV partners enable further delivery of NAWMP programs in priority areas for the benefit of waterfowl and other wetland-associated species.

For more information, contact Saul Schneider, Canadian Intermountain Joint Venture Coordinator, (604) 666-2342, saul.schneider@ec.gc.ca.

Contributions ($CN)

	2007	Total (1986-2007)
U.S. Federal	422,191	4,451,955
U.S. Non-Federal	92,954	4,199,927
Canadian	3,337,560	15,911,439
Total	3,852,705	24,563,321

Accomplishments (Acres)

	2007	Total (1986-2007)
Secured	5,201	363,453
Enhanced	8,189	112,551
Managed*	37,180	233,895
Total**	5,201	363,453

* New acres under management shown for 2007; all acres shown under total column are managed each year.

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

Background Image:
Mallard
Ducks Unlimited Canada

The Kingdon Project is one of nearly 500 conservation easements delivered by NAWMP partners in Manitoba.
Manitoba Habitat Heritage Corporation

Joint Venture Quick Facts

Size: 641,252 square kilometers (247,588 square miles) for traditional PHJV area of prairie and aspen parklands.

Major Habitat Types: PHJV comprises ecoregions of prairie and aspen parkland. The Western Boreal Forest comprises ecoregions of Boreal Plains, Taiga Plains, Taiga Cordillera and Boreal Cordillera.

Notable Waterfowl Species: PHJV – 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 – Mallard, American wigeon, green-winged teal, blue-winged teal, northern shoveler, northern pintail, redhead, canvasback, ruddy duck, scaup (lesser and greater), ring-necked duck, goldeneye (common and Barrow's), bufflehead, merganser (common and red-breasted), scoter (surf and white-winged), oldsquaw, greater white-fronted geese and Canada geese.

2007 Major Accomplishments

- Partners secured 97,172 hectares (240,113 acres) of which 18,341 hectares (45,319 acres) were permanently secured. Conservation easements represented 84% of the new permanently secured acres.
- In the Western Boreal Forest, interim land withdrawals were announced by the Government of Canada and these encompass over 11.4 million hectares (28.2 million acres).

Prairie Habitat Joint Venture Program (includes Western Boreal Program)

The Prairie Habitat Joint Venture (PHJV) mission is to provide leadership to achieve healthy and diverse waterfowl and other bird populations through conservation partnerships. These partnerships strive for sustainable and responsible management of the landscape taking into account social, economic and environmental factors.

On-the-ground conservation activities in 2007 confirm that the PHJV, including the Western Boreal Program, is making notable progress in NAWMP delivery. The 2006-2011 PHJV Strategic Plan and provincial implementation plans are guiding partners toward PHJV success. Programs are evolving and building on over 20 years of scientific studies and on-the-ground experience. Partners are dedicated to addressing wetland issues to ensure that waterfowl population objectives are met. The new PHJV website (www.phjv.ca) highlights the PHJV vision, programs, accomplishments and reports.

The PHJV is critical to the continental production of waterfowl. Spring waterfowl surveys confirm this importance. Favourable winter snowfalls and a 2007 spring runoff in Prairie Canada created attractive breeding conditions, particularly in southern Alberta and Saskatchewan. In fact, surveys by the U.S. Fish and Wildlife Service and Environment Canada reported the fourth highest pond estimate since 1955.

Over 18 million breeding ducks, or about 45 percent of the 2007 continental duck population, breed in the Canadian prairies and aspen parklands that make up survey stratum 26-40 and 75-76. Since 2005, duck populations are continuing to increase in the PHJV. As with continental populations, trends in the PHJV area indicate mallard, gadwall, green-winged teal, blue-winged teal, northern shoveler, redhead and canvasback are all above their respective long-term average. Northern pintail and scaup are of special concern as they remain below long-term average population goals and continentally below NAWMP population goals. Overall duck production in 2007 is considered above average for southern Saskatchewan and average for southern Alberta.

The western boreal forest, extending broadly from traditional duck survey areas of Alaska/Yukon east and south to, and including western Ontario, attracted an estimated 14.7 million ducks or 32 percent of the continental population in 2007. Habitat conditions were good and duck numbers estimated to be three percent above the long-term average.

Targeting habitat programs to where these waterfowl populations are in highest density is just one of the outcomes learned through planning. Sourcing new funding to add to current Canadian and U.S. funding contributions, such as the North American Wetlands Conservation Act, and developing partnerships for the ensuing habitat delivery is equally important.

Provincial and Western Boreal Program Overviews

Manitoba

Manitoba NAWMP program partners have made notable progress with direct habitat securement initiatives, especially through the protection of wetland and associated upland habitat with conservation easements. Successes on the broader conservation front have also been significant and supportive of NAWMP objectives.

Winter wheat has proven to be more beneficial to upland nesting waterfowl than any other annual field crop. Many Manitoba farmers are adopting this option. Anecdotal reports from the autumn planting season suggest that the acreage increase is so significant that it taxed winter wheat seed stocks in many areas.

Manitoba formally endorsed and is now implementing integrated watershed planning and management processes in numerous provincial watersheds. Some of these first watersheds are in NAWMP priority areas where Manitoba NAWMP partners are active participants in ensuring that wetland conservation and restoration become eminent watershed management elements.

The first Canadian pilot project based on the principles of "ecological goods and services" (EGS) was put into action two years ago in Manitoba with the support of NAWMP partners. The Province of Manitoba has since committed to implementing a more broad-based EGS initiative which will add to Manitoba's conservation program portfolio.

Through the federal Agricultural Policy Framework, environmental farm plans (EFPs) became a reality in Manitoba. By the end of 2007, over 5,000 plans were completed, influencing approximately 65 percent of the Province's agricultural acreage. Farmers with completed EFPs were eligible for cost-shared assistance to adopt a variety of beneficial management practices.

Saskatchewan

Saskatchewan NAWMP partners continue to make progress on retention and restoration of waterfowl habitat. Ducks Unlimited Canada's (DUC) winter wheat extension program has resulted in large increases in seeded acreage that provides improved waterfowl nesting habitat over spring-seeded cropland. Field studies show winter wheat to be particularly attractive to nesting northern pintail. Conversion of cultivated land to perennial forage is ongoing, while wetland restoration efforts continue to gain momentum.

Partners persist in their efforts to secure valuable habitats, but are also actively improving the condition of existing habitat through management, extension and stewardship. As part of the PHJV Implementation Plan revision, Saskatchewan NAWMP partners will set habitat restoration and retention objectives to eliminate deficits in waterfowl productivity that have accumulated due to loss of wetlands and upland nesting habitat since the 1970s.

To support and target habitat programming, Saskatchewan NAWMP partners also direct important science and policy initiatives. Habitat inventory and monitoring projects identify valuable habitat, habitat trends and the risk factors that influence the

The Ramparts River and Wetlands, located near Fort Good Hope, Northwest Territories will be protected from development until 2011 as part of Canada's Interim Land Withdrawal process.
Garth Lenz

On-the-ground conservation activities in 2007 confirm that the PHJV, including the Western Boreal Program, is making notable progress in NAWMP delivery.

likelihood of habitat loss. The impacts of wetland and upland habitat loss on downstream hydrology are being analyzed in partnership with the University of Saskatchewan. Saskatchewan partners are working with the Lower Souris Watershed Committee on an EGS pilot project to establish watershed land-use goals that ensure healthy wildlife populations, water quality and agricultural operations.

The Saskatchewan Watershed Authority is leading development of a new provincial wetland policy. Finally, the governance structure of the Saskatchewan NAWMP partnership has been improved to provide a strategic forum for provincial habitat issues.

Alberta

The Alberta NAWMP partnership focuses on restoring wetlands, expanding the adoption of winter wheat and retaining priority wetlands and their associated uplands.

The Adam Ranch Project, located within the Peace Parkland Biome, has a mission to restore drained wetlands. The Ranch consists of rolling terrain that historically included numerous wetlands. Land securement has been achieved through the use of a 30-year conservation agreement that covers 1,942 hectares (4,800 acres).

Winter wheat acreage in Alberta keeps on increasing through active delivery programs with farmers and with the seed and fertilizer industries. Winter wheat acreage in Alberta increased from 89,033 hectares (220,000 acres) last year to approximately 111,291 hectares (275,000 acres) this year. All direct winter wheat delivery programs throughout Alberta were fully or over-subscribed this year. There were also several new and rewarding partnerships created to promote additional winter wheat plantings in Alberta.

To address wetland and upland retention goals, the Wood Lake Project was purchased jointly by the Alberta NAWMP partnership and the Alberta Conservation Association. The Project protects 60.7 hectares (150 acres) of prime waterfowl habitat within the Pine Lake target area, home to a diversity of wetlands and intact native uplands.

In addition to the Alberta NAWMP partnership's accomplishments, the Alberta Wetland Policy is moving ahead. Public review is complete and the results will soon be submitted to the Alberta Water Council. The Policy is expected to go before the Alberta Legislature in 2008.

Western Boreal Forest

Canada's boreal forest is crucial habitat for a large percentage of North America's continental waterfowl populations. The Western Boreal Program has been led by DUC since 1997. Working with numerous partners, notable progress is being made in one of the world's largest remaining intact forests.

The Government of Canada announced a landmark action to conserve boreal habitat for the benefit of wetland-dependent species on November 21, 2007. The Honourable John Baird, Canada's Minister of the Environment and the Honourable Chuck Strahl, Canada's Minister of Indian Affairs and Northern Development and Federal Interlocutor for Métis and Non-Status Indians are leading this new legislative protection which will follow comprehensive area studies of cultural and ecological significance.

To date, Interim Land Withdrawals include: 1.5 million hectares (3.7 million acres) in Ts'ude niline Tu'eyeta, also known as the Ramparts River and Wetlands, 3.4 million hectares (8.3 million acres) in East Arm Slave Lake, 6 million hectares (14.8 million acres) with the Akaitcho Dene First Nations, and 566,000 hectares (1.4 million acres) in the Sahoyúé - Sehdacho National Historic Site of Canada. These areas are located in the Northwest Territories and include important wetland landscapes critical to North America's waterfowl populations and to the traditions of local Aboriginal communities.

Other accomplishments include completion of the five-year Boreal Conservation Project with Alberta-Pacific Forest Industries Inc. The Project brings awareness to the importance of ensuring wetland conservation in northeastern Alberta. Completed mapping of the Beauval Project in Saskatchewan and waterfowl surveys and mapping at the Pasquia Hills Project in Manitoba will help scientists plan new protected areas. Satellite, aerial and ground surveys of boreal wetlands now are incorporated into *A Field Guide to the Wetlands of the Boreal Plains Ecozone* available for downloading at DUC's website www.ducks.ca.

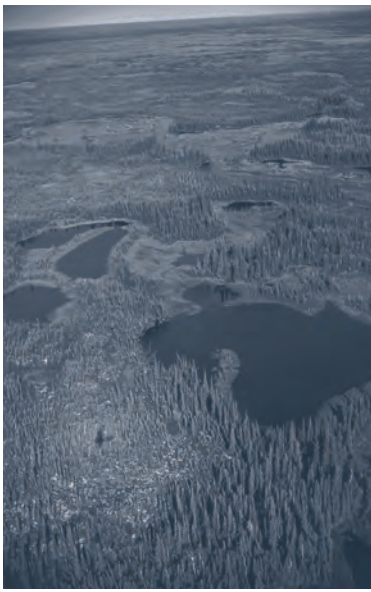
For more information, contact Deanna Dixon, Prairie Habitat Joint Venture Coordinator, (780) 951-8652, deanna.dixon@ec.gc.ca, www.phjv.ca.

Prairie Habitat Joint Venture Contributions ($CN)

	2007	Total (1986-2007)
U.S. Federal	7,352,354	233,253,269
U.S. Non-Federal	7,390,743	249,496,675
Canadian	12,951,306	282,423,390
Total	27,694,403	765,173,334

Prairie Habitat Joint Venture Accomplishments (Acres)

	2007	Total (1986-2007)
Secured	344,421	6,095,325
Enhanced	260,379	2,233,972
Managed*	470,719	4,874,588
Total**	344,421	6,095,325



The Wood Lake Project has conserved 8 hectares (20 acres) of existing wetlands and 42.5 hectares (105 acres) of native aspen parkland, of which 10 hectares (25 acres) includes wetland restorations.
Darwin Chambers

Western Boreal Forest Contributions ($CN)

	2007	Total (1986-2007)
U.S. Federal	2,964,616	14,551,263
U.S. Non-Federal	6,219,480	33,103,734
Canadian	2,488,023	29,656,265
Total	11,672,119	77,311,262

Western Boreal Forest Accomplishments (Acres)

	2007	Total (1986-2007)
Secured***	60	25,002
Enhanced	0	107
Managed*	0	107
Total**	60	25,002

* New acres under management shown for 2007; all acres shown under total column are managed each year.

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

*** Protected area securement in the Western Boreal Forest involves a process whereby targeted lands move through an Interim Protection period (5 years) to perpetual securement. There are currently over 35 million acres under Interim Protection of which 10.3 million were added during 2007. Over 1 million acres under Interim Protection will move to Permanent Protection during 2008.

Left to right: Ross Melinchuk, Ducks Unlimited Inc.; Bill Short, South Carolina State Chairman, Ducks Unlimited, Inc.; Dean Harrigal, South Carolina Department of Natural Resources; Jay Phillips, South Carolina Volunteer, Ducks Unlimited, Inc. and Joe Johnson, South Carolina Migratory Waterfowl Committee mark the completion of the DUC Eden Grove wetland restoration project site in eastern Ontario.
Ducks Unlimited Canada

Joint Venture Quick Facts

Size: Approximately one third of Canada's land base.

Major Habitat Types: coastal bays and salt marshes; lakeshore marshes, floodplain wetlands and boreal forest wetlands.

Notable Waterfowl Species: Black duck, mallard, ring-necked duck, common goldeneye, common eider, green-winged teal and Canada geese.

Provinces: Ontario, Quebec, Nova Scotia, Prince Edward Island, New Brunswick and Newfoundland and Labrador.

2007 Major Accomplishments: Revision of EHJV Five-year Implementation Plan to include waterfowl objectives.

The Ruisseau de Feu, Municipality of Terrebonne, Quebec, is comprised of 101 hectares (250 acres) of wetlands to be enhanced through a three-year multipartite agreement.
André Michaud,
Ducks Unlimited Canada

Eastern Habitat Joint Venture

Stretching from the Manitoba/Ontario border to the eastern tip of Newfoundland and Labrador, the Eastern Habitat Joint Venture (EHJV) provides breeding, migration and wintering habitat for a wide variety of waterfowl. For example, it comprises the entire Canadian breeding range for the American black duck, eastern populations of harlequin duck and Barrow's goldeneye (both listed as species of concern) as well as several populations of Canada geese.

In 2007 the EHJV established population objectives for waterfowl species of continental importance as well as provincial objectives for species of regional concern. Habitat objectives within the key program delivery areas were developed to link habitat programs to waterfowl goals. Each province has completed revised five-year implementation plans which will soon be integrated to form a new EHJV-wide implementation plan with explicit waterfowl objectives as recommended by the NAWMP Assessment. The EHJV continues to expand its interaction and cooperation with the Black Duck Joint Venture and the Sea Duck Joint Venture, as well as increasing its participation on the NAWMP Science Support Team.

Provincial Overviews

Ontario

Staff from the South Carolina Department of Natural Resources traveled to Ontario in October to meet with EHJV partners and celebrate the NAWMP international partnership and the State Grant Program. Through the State Grant Program, individual states make significant contributions to waterfowl conservation in Ontario and other provinces. States contribute funds to Ducks Unlimited, Inc, which then matches the state donations – these funds are the non-federal contribution which the U.S. Fish and Wildlife Service matches as part of the North American Wetlands Conservation Act funding process. The States of Alabama, Indiana, Ohio and South Carolina all provide generous funding to Ontario as part of their annual budgets. For example, since 1998 the average annual contribution from South Carolina to Ontario has been $50,000, and since 1965, South Carolina has contributed over 2.3 million dollars for waterfowl conservation in Canada.

To commemorate the visit from South Carolina staff, a celebration was held at Ducks Unlimited Canada's (DUC) Eden Grove wetland restoration project site in eastern Ontario. The Eden Grove project is within the Frontenac Axis United Nation's Educational, Scientific and Cultural Organization (UNESCO) Biosphere Reserve. It is also in one of the EHJV's highest priority waterfowl habitat areas. With the support and commitment of several private landowners who signed long-term conservation agreements, the 18-hectare (45-acre) wetland was restored through the NAWMP partnership. Funding from the South Carolina Department of Natural Resources helped leverage the cost of the project. The restoration included the construction of an earthen dyke which incorporated a variable level water-control structure enabling better management of water levels to achieve an optimal distribution of open water and emergent vegetation which is favoured by breeding, molting and migrating waterfowl and other wetland-dependent wildlife. Attendees at the celebration enjoyed fine weather and took the opportunity to observe waterfowl such as mallard, blue-winged teal and wood duck that nest at the Eden Grove site and make their way down the Atlantic Flyway to over-winter in states such as South Carolina.

Quebec

Ducks Unlimited Canada has undertaken the major task of producing wetland conservation plans for each of the Government of Quebec's 17 administrative regions. Seven of these plans covering southern Quebec are now available on the DUC website at www.ducks.ca. During the past year, DUC has also secured a unique and rare coastal marsh on the Gaspé Peninsula. This intertidal 433-hectare (1,070-acre) salt marsh is characterized by an ombrotrophic bog surrounded by a diversity of habitats. A three-year enhancement project was also initiated through an agreement between DUC, the Municipality of Terrebonne close to the Greater Montreal Urban Area, a residential developer and two Quebec departments (Sustainable Development, Environment and Parks; Natural Resources and Wildlife). This 1.4-million dollar-agreement will enhance 101 hectares (250 acres) of wetlands for the benefit of waterfowl, waterbird and fish populations.

The Nature Conservancy of Canada has secured 1,066 hectares (2,635 acres) of wetland and associated upland habitat in the Ottawa River Valley, Pointe Sauvage and Pointe St-Pierre regions. In addition, a donation of 186 hectares (460 acres) of land on the Kettle Island was donated. Kettle Island's vast marshland and swamps located along the shores

Below: Excluding livestock from wetlands by installing fencing promotes nesting opportunities and escape cover for waterfowl while also as improving overall water quality.
Reg Newell, Nova Scotia Department of Natural Resources

Fullerton's Marsh, Prince Edward Island.
Alan McLennan

Below: Remote watering stations like this one in a Beausejour pasture in New Brunswick help keep livestock away from wetlands.
Ducks Unlimited Canada

In 2007 the EHJV established population objectives for waterfowl species of continental importance as well as provincial objectives for species of regional concern.

management practices (BMPs) to increase biodiversity on their farms. This is a cost-sharing program wherein the provincial and federal governments and DUC subsidize 75 percent of the costs. Federal and provincial funding for these restorations has been provided under the National Farm Stewardship Program of the Agriculture Policy Framework. To date, there have been a total of 41 projects that have restored 75 hectares (185 acres) of wetland and buffer habitat across New Brunswick, Nova Scotia and Prince Edward Island.

Participants tour the Iron Ore Company of Canada's "Tailings to Biodiversity" project as part of the Stewardship of Municipalities semi-annual meeting.
Gerry Yetman

provide quality staging and feeding areas for migratory waterfowl and aquatic birds. Also, stewardship activities that promote environmentally sustainable land-use practices and protect harlequin duck habitat are being implemented at the Malbaie Bird Information Center.

Atlantic

Since 2004, traditional partners of the EHJV have joined forces with producers, Agriculture and Agri-Foods Canada and provincial agricultural departments in New Brunswick, Nova Scotia and Prince Edward Island to restore wetlands in agricultural areas of the Maritime Provinces. This program promotes and provides incentives to farmers to uptake beneficial

In 2007, the Greencover Technical Assistance Component under the Agricultural Policy Framework and DUC, in partnership with the provincial EHJV, is implementing the new Agricultural Biodiversity Program. The program objective is to identify and begin to address key barriers that may be discouraging landowners from incorporating biodiversity BMPs into their operations. More specifically, the program is designed to increase landowner implementation, raise awareness and promote the benefits of biodiversity BMPs to landowners. Examples of these BMPs include wetland restoration, shelterbelt establishment, delayed hay harvest, flushing bars and riparian health assessments. For each farm that is visited a biodiversity plan is created. Along with a plan, the landowner is given a geographic information system-based aerial image showing locations on their farm for potential and current BMPs. Landowners will also receive information on how proposed BMPs could work in practical terms to benefit their operations and also waterfowl and other wildlife. As part of the program, demonstration sites have been set up to show how BMPs will work. There is one such site at Charlottetown, Prince Edward Island and the other near Amherst, Nova Scotia.

Newfoundland and Labrador

Stewardship programs to conserve and enhance existing wetlands and the restoration of common eider breeding populations continue to be the main thrusts of the EHJV program in Newfoundland and Labrador.

In particular, the Stewardship Association of Municipalities (SAM) is a priority for the province's Municipal Wetland Stewardship Program. SAM serves as a forum wherein communities forge partnerships related to wetland and natural resource management.

The spring 2007 SAM meeting was hosted by the Town of Carmanville and coincided with the signing of the Town's expanded wetland stewardship agreement. The new stewardship signing adds 219 hectares (540 acres) of secured land to an already 1,133-hectare (2,800-acre) mixed wetland-associated upland area. The autumn 2007 SAM meeting was hosted by the Town of Labrador City, in association with the Iron Ore Company of Canada (IOC). The IOC played an important role in the SAM weekend through sponsorship and by providing a tour of areas associated with the company's Tailings to Biodiversity initiative.

For more information, contact Keith McAloney, Acting Eastern Habitat Joint Venture Coordinator, (506) 364-5013, keith.mcaloney@ec.gc.ca.

Contributions ($CN)

	2007	Total (1986-2007)
U.S. Federal	2,377,203	63,965,064
U.S. Non-Federal	2,185,454	63,325,392
Canadian	15,158,330	168,595,301
Total	19,720,987	295,885,757

Accomplishments (Acres)

	2007	Total (1986-2007)
Secured	15,225	943,829
Enhanced	8,603	554,363
Managed*	19,092	580,945
Total**	15,225	943,829

* New acres under management shown for 2007; all acres shown under total column are managed each year.

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

Species Joint Ventures

Arctic Goose Joint Venture

Since 1989, Arctic Goose Joint Venture (AGJV) partners have been working to gather important information on 17 populations (6 species) of North American Arctic goose populations. The knowledge and experience garnered over these past two decades has been instrumental in improving management of Arctic geese populations. In fact, all but two populations are at or above target population levels.

The most recent example of success is documented in the "*Evaluation of the Special Conservation Measures for Greater Snow Geese, Report of the Greater Snow Goose Working Group, AGJV*." After "*Arctic Ecosystems in Peril, Report of the Arctic Goose Habitat Working Group, AGJV*" voiced a call to action to protect Arctic habitats from burgeoning snow goose populations, goose harvest management was modified in 1998-1999 through the implementation of new regulatory measures. The regular hunting season was liberalized in the United States and special conservation measures were implemented in Canada. The rapid growth in abundance of the greater snow goose population was subsequently halted, and the population appears to have stabilized between 800,000 and one million birds. Despite the potential stabilization of this population, it appears that the environmental conditions that have led to the overabundance of geese still exist and may even be intensifying in eastern North America. These environmental conditions include global warming (milder summers on the Arctic breeding grounds) and increasing acreages of corn fields near staging and wintering grounds. Coordinated efforts for greater snow goose management continues to be a high priority for the AGJV.

Joint Venture Quick Facts

Number of Species: 8

Number of Populations: 28

Geographic Scope: Spans the entire continent and other circumpolar countries.

Total number of Arctic/sub-Arctic Geese banded in the north 1989-2006: 882,479 birds

AGJV partners tour goose habitats in the Copper River Delta, Alaska, 2007 to get a better appreciation for the issues surrounding Alaskan goose populations.
Deanna Dixon, Canadian Wildlife Service

AGJV research includes banding and tracking of the Ellesmere Island greater snow goose (pictured) population to help determine management and conservation priorities for the species.
Josée Lefebvre

The AGJV Management Board and Technical Committee are furthering NAWMP goals by building upon past successes to include 11 additional populations of geese, many of them nesting in Alaska. These populations are:

- Tule and Pacific populations of greater white-fronted geese;
- Emperor geese;
- Taverner's, cackling and Aleutian populations of cackling[1] geese;
- Vancouver, lesser, dusky and western prairie populations of Canada geese; and
- Eastern high Arctic brant.

1. A 2004 decision by the American Ornithologist's Union to split Canada geese into two species: cackling and Canada.

The knowledge and experience garnered over these past two decades has been instrumental in improving management of Arctic geese populations. In fact, all but two populations are at or above target population levels.

Numerous challenges in managing the Alaska populations have been confounding experts for many years. Several of these populations are below objectives, or in decline, while others are thriving, and/or verging on overabundance, leading to depredation concerns. The intermixing of these populations poses serious management issues which are compounded by significant knowledge gaps and extremely limited resources. For several of the newly added populations, there are substantial gaps in basic biological knowledge. It is hoped that by including these populations in the AGJV strategic plan, more emphasis will be placed on their research needs.

The most recent iteration of the AGJV Strategic Plan reflects the additional populations, evolving priorities and the future challenges and actions that lie ahead for AGJV partners.

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

Contributions ($CN)*

	2007	Total (1986-2007)
U.S. Federal	594,058	6,073,875
U.S. Non-Federal	327,290	7,830,025
Canadian	894,300	16,574,204
Countries other than Canada or the U.S.	17,647	92,608
Total	1,833,295	30,570,712

* These contributions contain no NAWCA funding.

The male Barrow's goldeneye (below) has an implanted satellite transmitter that was installed in Indian Arm (near Vancouver), B.C., in February 2007.
Sean Boyd,
Canadian Wildlife Service

Environment Canada's Jean-Pierre Savard captures common eiders at the St. Lawrence Estuary and installs radios for tracking post-breeding movements.
Amélie Robillard, Parks Canada

In 2007, SDJV partners invested a total of $734,801 for sea duck work in Canada alone.

Banded common eiders are viewed from a blind to determine survival estimates.
Garnet Raven, Canadian Wildlife Service

Sea Duck Joint Venture

The international Sea Duck Joint Venture (SDJV) strives to promote the conservation of North America's sea duck populations. By providing a coordinating forum that shares management strategies and subsequent results, SDJV partners aim to fill knowledge gaps in the information needed for the scientific management of these largely elusive species.

Joint Venture Quick Facts

Size: Includes all of Canada and the United States.

Major Habitat Types: Coastal waters for migration and wintering, boreal forest and tundra for nesting.

Notable Waterfowl Species: 15 species, 20 recognized populations of sea ducks (*Tribe mergini*).

2007 Major Accomplishments: Completed *Monitoring Report for Sea Ducks*.

2007 Notable New Partnerships: Invited Bird Studies Canada and Patuxent Wildlife Research Center to SDJV Board as active partners in both funding and research.

In 2007, the SDJV Continental Technical Team completed the Sea Duck Monitoring Report which includes detailed study plans for 30 surveys to adequately monitor sea duck populations. The Team also updated the SDJV Strategic Plan for approval by the SDJV Board at its March 2008 meeting. In addition, 13 projects addressing sea duck information needs, with the work all or partially in Canada, were funded in 2007.

Canadian research projects receiving support from SDJV included year three of the study of common eider population dynamics in Newfoundland and moult ecology studies of surf scoters in Labrador.

Other studies included ecological and behavioural monitoring of common eider in Quebec, survival rates of common eider in Quebec, molt ecology of white-winged scoter in Quebec and spring migration energetics of surf scoter along the Pacific coast.

Monitoring projects receiving SDJV funding included a survey of Pacific common eider breeding populations in the Western Arctic, Lake Ontario wintering duck surveys and a jointly funded project with the Arctic Goose Joint Venture to survey breeding populations of geese, long-tailed duck and eider in northwestern Canada.

Other SDJV-funded projects included the continuation of eider banding, the survival rate of common eider in Nova Scotia and migration monitoring of scoters at Point Lepreau, New Brunswick.

In 2007, SDJV partners invested a total of $734,801 for sea duck work in Canada alone.

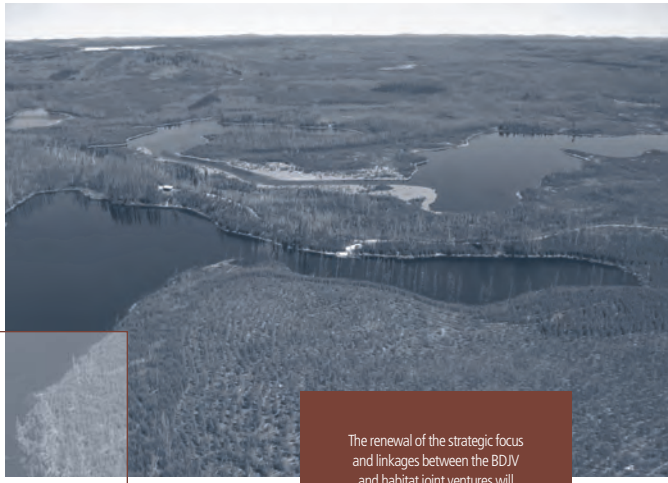
The results of these and other studies will be presented at the 3rd Sea Duck Symposium in Quebec City in November, 2008, and will help set the direction for future sea duck research.

For more information, contact Keith McAloney, Sea Duck Joint Venture Coordinator, CWS, (506) 364-5013, keith.mcaloney@ec.gc.ca, www.seaduckjv.org.

Contributions ($CN)*

	2007	Total (1986-2007)
U.S. Federal	230,000	1,990,072
U.S. Non-Federal		218,954
Canadian	504,801	4,780,565
Total	734,801	6,989,591

* These contributions contain no NAWCA funding.



All ducks tend to return in fall and winter to the same marshes that they visited the previous year, but this trait is most pronounced in the American black duck. In Canada, their highest breeding densities occur in the Great Lakes–St. Lawrence River region of mixed forests.

Christine Lepage,
Canadian Wildlife Service

Joint Venture Quick Facts

Size: Six provinces and 14 U.S. States.

Major Habitat Types: Salt water marshes, brackish and freshwater impoundments, riverine and estuary marshes, woodland wetlands, shallow lakes and boreal bogs.

2007 Major Accomplishments: Hired science coordinator, developed strategic plan, re-invigorated research program.

2007 Notable New Partnerships: Improved linkages with pertinent Habitat JVs (Eastern Habitat Joint Venture, Atlantic Coast Joint Venture and Upper Mississippi River/Great Lakes Joint Venture).

The renewal of the strategic focus and linkages between the BDJV and habitat joint ventures will continue to guide research and conservation programs for the American black duck.

Black Duck Joint Venture

The Black Duck Joint Venture (BDJV) is making progress towards its goal of determining research priorities and coordinating the gathering of scientific information on *Anas rubripes* – the American black duck, the only common duck in eastern North America in which both sexes are almost identical in appearance.

Research, monitoring and modeling continue to be the BDJV focus. In addition, the BDJV recently hired its first science coordinator – Patrick Devers will lead the coordination and production of the revised BDJV Strategic Plan. The renewal of the strategic focus and linkages between the BDJV and habitat joint ventures will continue to guide research and conservation programs for the American black duck.

Three research projects in Canada were recently funded by the BDJV. The first study modeled the relative effects of mallard and local habitat change on breeding black duck in southern and central Ontario. Results suggested climate and wetland-scale habitat changes were correlated with declines. However, the results of this study were not definitive due to small sample sizes and a lack of suitable long-term habitat data series. Recommendations for further analyses, as well as descriptions of long-term habitat datasets, are currently being developed and will allow further research and modeling of black duck habitat and populations. The second study relied on stable isotopes to link black duck natal origins and harvest areas for the species in Canada – researchers are determining and mapping the natal origins of birds harvested in Eastern Canada. The final study aimed at characterizing wetland landscapes, evaluating their alteration and determining whether timber harvesting affects waterfowl populations in boreal habitats. Results to date indicate that timber harvesting did not negatively impact local black duck populations. However, continuing studies are needed to evaluate the importance of wetland size and connectivity in relation to waterfowl use and implications for wetland protection policies.

For more information, contact Brigitte Collins, Black Duck Joint Venture Coordinator, (613) 949-8264, brigitte.collins@ec.gc.ca, www.blackduckjv.org.

Contributions ($CN)*

	2007	Total (1986-2007)
U.S. Federal	35,500	1,499,960
U.S. Non-Federal	240,500	3,813,450
Canadian	521,050	7,123,057
Total	797,050	12,436,467

* These contributions contain no NAWCA funding.

American black duck
Ducks Unlimited Canada

Thank you to all our partners who supported the Canadian program by contributing in 2007:

Canada

Acadia Centre for Estuarine Research
Acadia University
Acquired Land Management Inc.
Action Energy Inc.
Action Land Consultants (2001) Ltd.
Advantage Oil & Gas Ltd.
AgraPoint
Agriculture and Agri-Food Canada
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Aquila Exploration Consultants Ltd.
Alberta Conservation Association
Alberta Ecotrust Foundation
Alberta Energy and Utilities Board
Alberta Environment
Alberta Fish and Game Association
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Fisheries and Oceans Canada
Fondation de la faune du Québec
Forest Products Association of Canada
Friends of Cornwallis River Society
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Galleon Energy Inc.
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Island Nature Trust
Kellross No. 247 (Rural Municipality of)
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MGV Energy Inc.
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Municipal District of Wainwright
NAL Resources Limited
Natural Resources Canada – Polar Continental Shelf Project
Natural Sciences and Engineering Research Council of Canada
Nature Conservancy of Canada
Nature Trust of British Columbia
New Brunswick Department of Agriculture, Fisheries and Aquaculture
New Brunswick Department of Environment and Local Government
New Brunswick Department of Natural Resources
Newfoundland-Labrador Department of Environment and Conservation
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Northwest Territories Department of Resources, Wildlife and Economic Development
Nova Scotia Agricultural College
Nova Scotia Department of Agriculture
Nova Scotia Environment and Labour
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Nova Scotia Habitat Conservation Fund
Nova Scotia Natural Resources
Ontario Ministry of Natural Resources
Ontario Trillium Foundation
OutSource Seismic Consultants Inc.
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Parks Canada
PCL Construction Management Inc.
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Penn West Petroleum Ltd.
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Pierce Reston Inc.
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Prairie Plantation Inc.
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Prince Edward Island Department of Agriculture, Fisheries and Aquaculture
Prince Edward Island Wildlife Conservation Fund
Priority Printing
Prospect Oil and Gas Management Ltd.
QLF/Atlantic Center for the Environment
Ranger Land Services Ltd.
Ravenswood Developments Inc.
Real Resources Inc.
Renton Land Services (1983) Ltd.
Richland Petroleum Corporation
Rife Resources Ltd.
Rocky Mountain Elk Foundation – Canada
Rockyview Gas Co-op Ltd.
Rosevear Land Services Ltd.
Roy Northern Land Service Ltd.
Sabretooth Energy Ltd.
Saint John Naturalists Club
Saskatchewan Agriculture, Food and Rural Revitalization
Saskatchewan Environment
Saskatchewan Forest Center
Saskatchewan Watershed Authority
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Scotiabank
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Seamac Land Services Ltd.
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Shiningbank Energy Income Fund
Signalta Resources Limited
Simon Fraser University
Société de la faune et des parcs du Québec
Société Duvetnor Ltée
Société Protectrice des Eiders de l'Estuaire
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American widgeon flock
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