

The EHJV in Québec

# 1987-2007 Status Report



**20 years of partnership**  
to promote waterfowl  
and **biodiversity**

North American Waterfowl  
Management Plan





# Message from the Eastern Habitat Joint Venture, Québec Region Steering Committee

We are very proud to present the status report covering the Eastern Habitat Joint Venture, Québec Region's first twenty years. This program, an offshoot of the North American Waterfowl Management Plan, is designed to protect and enhance waterfowl habitats—no mean feat given the vast tracts involved and wetland distribution in Québec. Both St. Lawrence lowland wetlands and small wetlands located throughout Québec are subject to pressure. Although the task of protecting them is daunting, this status report shows that pooling the expertise and resources of the Plan's partners has had remarkable results.

Those benefiting most from these years of efforts are wetland-dependant species: ducks, geese, Canada geese and the many plant and animal species that make these environments so rich. Secondary beneficiaries are hunters, fishermen, trappers, wildlife observers, naturalists and hikers who visit and admire these wetlands.

We would like to take this opportunity to reiterate our thanks to the organizations and landowners who cooperated on one or more of the many projects carried out over these twenty years.

## Thank-you to all of our partners.

AbitibiBowater  
Agence régionale de mise en valeur des forêts privées de la Chaudière  
Agence régionale de mise en valeur des forêts privées du Bas-Saint-Laurent  
Agriculture Canada  
AGTF-Bas-Saguenay-Charlevoix  
Alcan  
ALCOA (formerly Aluminerie Luralco)  
Association des sauvaginsiers de la grande région de Québec  
Association des sauvaginsiers de la Rive-Nord  
Association des sauvaginsiers du Lac-Saint-Pierre  
Association des sauvaginsiers du Saguenay-Lac-Saint-Jean  
Association minière du Québec  
Association pour la protection de l'environnement du lac Saint-Charles (APEL)  
Bas-Saint-Laurent Model Forest  
Canadian Boreal Initiative  
Canadian Coast Guard  
Centre de recherche et d'éducation relative à l'environnement régional  
Centre d'études de la forêt  
Centre d'interprétation de Baie-du-Febvre  
Centre d'interprétation et de réhabilitation de Saint-Fulgence  
Centre québécois du droit de l'Environnement  
Comité de citoyens de Pointe-Fortune  
Comité du marais de Kingsbury  
Congrégation des Sœurs de la Charité de Montréal (Sœurs Grises)  
Conseil de bassin de la rivière Rimouski  
Conseil de bassin de la rivière Saint-Charles  
Conseil de recherches en sciences naturelles et en génie du Canada  
Conseil régional de l'environnement Chaudière-Appalaches  
Conseil régional de l'environnement – Région de la Capitale-Nationale  
Corporation d'aménagement et de protection de la Sainte-Anne  
Corporation de gestion CHARMES

Corporation de gestion du Petit marais de Saint-Gédéon  
Corporation de la Commune de l'île Dupas  
Éco-Nature de Laval  
Fédération québécoise des chasseurs et pêcheurs du Québec  
Fisheries and Oceans Canada  
Fondation EJLB  
Fondation Héritage Faune  
Fondation Hydro-Québec pour l'environnement  
Fondation PEW  
Fondation québécoise pour la protection du patrimoine naturel  
Fonds d'action québécois pour le développement durable  
Foresterie Saint-Donat  
Gestion communautaire Guérin  
Groupement forestier Beauce Sud  
Groupement forestier Baie-des-Chaleurs  
Groupement forestier du Pontiac  
Groupement forestier et agricole de Beauce Sud inc.  
Habitat Stewardship Program for Species at Risk  
Héritage Saint-Bernard  
Horizon multiresources inc.  
Hydro-Québec  
Industries James Maclaren  
Institut de recherche et de développement agroalimentaire  
Intertape Polymer Group  
Les amis de la Grande plée Bleue  
Minéraux Noranda  
Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec  
Ministère du Développement durable, de l'Environnement et des Parcs (MDDEP)  
MRC de Charlevoix  
MRC du Haut-Richelieu  
Municipalité de Baie-du-Febvre  
Municipalité de Pointe-aux-Trembles  
Municipalité de Saint-Fulgence  
Municipalité de Saint-Gédéon  
Nature Action de Boucherville  
Option Verte

RAPPEL  
Romano family  
Société d'aménagement de la Baie Lavallière (SABL)  
Société d'aménagement et de protection de l'île aux Pommes  
Société d'aménagement récréatif pour la conservation de l'environnement du lac Saint-Pierre (SARCEL)  
Société de conservation, d'interprétation et de recherche de Berthier et ses îles (SCIRBI)  
Société de conservation de la baie de l'Isle-Verte (SCOBIV)  
Société de conservation de Saint-Barthélemy et Saint-Joseph-de-Maskinongé (SCOBAJM)  
Société de mise en valeur de la Commune de Baie-du-Febvre (SOMICO)  
Société des traversiers du Québec  
Société Duvetnor  
Société Provancher d'histoire naturelle du Canada  
Société sylvicole de la Haute-Gatineau  
Université de Sherbrooke  
Université du Québec à Montréal  
Université du Québec à Trois-Rivières  
Université du Québec en Abitibi-Témiscamingue  
Université Laval  
Ville de Beaconsfield  
Ville de Boucherville  
Ville de Châteauguay  
Ville de Léry  
Ville de Maple Grove  
Ville de Montréal  
Ville de Sherbrooke  
Ville de Terrebonne  
All private landowners who have been involved directly or indirectly in PLAN activities.  
The following US organizations:  
Vermont Fish and Wildlife Department  
New Jersey Division of Wildlife  
Georgia Wildlife Resources Division  
New York Department of Environmental Conservation  
West Virginia Division of Natural Resources  
Pennsylvania Game Commission



# 20 years of partnership in Québec

## PLAN and EHJV origins and objectives

The North American Waterfowl Management Plan (Plan) was born of a Canada-US agreement signed in 1986 and extended to Mexico in 1994. Aimed at protecting and ensuring the increase of waterfowl populations, it is founded on the principle of joint ventures implemented on a geographic scale. One of these ventures, the Eastern Habitat Joint Venture (EHJV), targets the protection of waterfowl habitats and covers Canada's six eastern provinces, including Québec.

The EHJV has enabled synergy between the resources and knowledge of various organizations with expertise in waterfowl and wetland protection. In Québec, the partners are: Ministère des Ressources naturelles et de la Faune, Fondation de la faune du Québec (FFQ), Environment Canada/Canadian Wildlife Service (CWS), Ducks Unlimited Canada (DUC) and Wildlife Habitat Canada (WHC). In 2003, the Nature Conservancy of Canada (NCC) joined through its Québec division. Many other organizations and private landowners have also cooperated on specific projects. Over these past 20 years, action has been directed primarily at protecting and restoring wetland habitats bordering the St. Lawrence, Ottawa and Saguenay rivers and the Abitibi lowlands.

## Efforts have paid off...

Over 20 years, almost one hundred organizations have helped carry out more than 130 projects. This status report for Québec reflects the wide range of intervention and each partner's contribution. By citing certain projects, it illustrates the protection, stewardship, enhancement, research, assessment, recreational and educational development activities marking this period. It also reflects the ongoing concern for helping to safeguard biodiversity while focussing on waterfowl habitats. Over these two decades, growing efforts have been devoted to protecting other wetland resources such as non-game birds, fish, amphibians, reptiles and rare plants.



Ducks Unlimited



Ducks Unlimited



# Marais Antoine, Abitibi



Ducks Unlimited

Located in the municipality of Roquemaure, at the mouth of Rivière Antoine, Marais Antoine is one of Abitibi's loveliest marshes. Covering 284 hectares, its waterfowl productivity declined considerably following the construction of a power dam on Lac Abitibi.

## A well-integrated project

The protection and restoration project, carried out in 1995, entailed negotiations with 54 landowners. Conservation agreements were signed to ensure long-term protection of 525 hectares of wetlands and associated uplands inhabited by bird species. Development of a water level control structure and fishway made it possible to recreate conditions that are favourable for birds and fish. A walleye spawning ground was created and a small-craft crossing facilitates access to the marsh.

## A regional resource

More than 130 bird species have been inventoried in the marsh, including the yellow rail, which is likely to be designated

threatened or vulnerable, and the sandhill crane, which sometimes breeds there. Reproduction and feeding conditions for northern pike, yellow perch, goldeye and burbot have also improved.

## A popular observation site

An interpretation trail was built with the help of the municipality of Roquemaure and its development assistance committee thanks to a Conseil régional de développement de l'Abitibi-Témiscamingue subsidy. The trail helps to better promote this environment's great wealth. ■

# Marais de la rivière des Outaouais



Ducks Unlimited

The Ottawa River between Gatineau and Carillon is especially popular among migratory birds. It is dotted with bays and wetlands where thousands of Canada geese and ducks gather during their migrations. It is one of Québec's best-known waterfowl breeding grounds. In the early 1970s, this land caught the attention of public and private organizations interested in preserving it.

## A wetland complex to protect

The Fondation de la faune's and Ducks Unlimited's acquisitions and the conservation agreements signed by Ducks Unlimited have made it possible to protect one of the loveliest wetlands. Water level control structures maintain levels conducive to wildlife. The protection of adjacent uplands and the development of agricultural management plans have made considerable improvements to duck nesting grounds and Canada geese migratory stopover feeding

grounds. The list of projects carried out is impressive: Marais de Thurso, Baie McLaurin, Marais aux Massettes, Marais des Laïches, Marais aux Grenouillettes, Ruisseau Trépanier, Baie Clément, Marais de Templeton, etc.

### A joint action plan

An action plan for the protection and enhancement of the Ottawa River's wetlands was launched in 1999. All four plan components have been carried out: protection of additional land through acquisitions and conservation agreements, enhancement

and restoration of numerous wetlands, implementation of an agricultural management plan that is compatible with wildlife, and creation of access by land and water for waterfowl hunting and other outdoor activities. More than \$2.2 million were invested in these projects. ■



## Refuge faunique Marguerite-d'Youville, Montérégie

### A protection agreement

Coveted by real estate promoters, the island's wildlife vocation was jeopardized. To maintain it, in 1993, the Fondation de la faune signed a conservation agreement with the Sœurs de la Charité de Montréal and the Ville de Châteauguay to protect 223 hectares of wetlands.

species, 11 of which are at risk, have been located on these lands.

Héritage Saint-Bernard, a local organization responsible for developing trails and organizing educational activities has been mandated to oversee and enhance the site. ■



Ducks Unlimited

The Sœurs de la Charité de Montréal (Sœurs grises) have protected Île Saint-Bernard since acquiring it. Located at the mouth of Rivière Châteauguay on the south shore of Lac Saint-Louis, this island features the largest intact floodplain in the Greater Montréal area. Especially during the spring thaw, the island's lower reaches attract the greatest number of bird and fish species. In the past, when the water withdrew in late spring, most species used to have to leave the area.

### Water for birds and fish

Three sections of the floodplain were enhanced to maintain water in the summer and fall. Ducks Unlimited created conditions conducive to duck breeding and fish hatching over 104 hectares.

### Exceptional biodiversity

The uplands, characterized by hickory-sugar maple forest and holm oak-swamp white oak forest, and marshy areas, colonized by cattails, sparganium and button-bush, offer a complex of wetlands suitable for more than 210 bird species, 18 mammal species, 11 amphibian and reptile species and 25 fish species. More than 450 plant



Ducks Unlimited



# Tourbière du lac à la Tortue, Mauricie



Nature Conservancy Canada

## An ecological gift

In 2005 and 2006, Abitibi Consolidated Inc. donated 1 397 hectares of this peat bog to the Nature Conservancy of Canada (NCC). This area, which is now protected, was added to the 372 hectares already protected by CNC and the 671 hectares safeguarded by virtue of its ecological reserve status.

vesting activities, and conservation projects like the one at Tourbière du Lac à la Tortue help curb the loss of these valuable habitats. ■

## A unique environment

Tourbière du Lac à la Tortue is the largest peatland in the St. Lawrence Valley and Lake Champlain ecoregion. This vast 6 633-ha complex includes marshes, shrubby wetlands, woody wetlands and peaty woodlands. It is home to many species likely to be designated threatened or vulnerable.

## A nesting habitat

The importance of southern Québec's peat bogs for waterfowl was only recently demonstrated. Ducks, especially black duck, nest there and, although nesting density is low, reproductive success is generally high. Many of these peat bogs are threatened by har-



Ducks Unlimited

# Marais Réal-D.-Carbonneau, Estrie



CHARMES

## Doomed to disappear

Marais Réal-D.-Carbonneau, formerly Saint-François, is one of Sherbrooke's rare wetlands. Covering 30 hectares, this marsh was severely affected by the construction of a boulevard. It gradually drained and its quality deteriorated for both waterfowl breeding and migratory stopovers.

## Mobilizing stakeholders

In the early 1990s, the Corporation de gestion CHARMES approached Ducks Unlimited and the Ville de Sherbrooke to restore and protect this site. The latter two organizations signed a conservation agreement to this effect.

## A healthier marsh

Ducks Unlimited set up water level control structures in 1997 to improve natural conditions for aquatic birds and many other marshland species.



## An environment that is accessible to the public

With financial assistance from several partners, CHARMES developed the area to facilitate the public's contact with plant and animal species: pile-supported trails, lookouts

and an observation tower. The organization offers educational activities to the public, especially school groups. ■

# Marais Léon-Provancher, Capitale-Nationale



Ducks Unlimited

## Duck-related development

Duck hunters' foresight is responsible for the development of one of the National Capital area's most popular waterfowl observation sites. As a result of their representations, 125 hectares was acquired under the EHJV by the Fondation de la faune and 19 hectares were developed by Ducks Unlimited. The creation of a marsh with a water level control structure provided aquatic birds with a high-quality breeding ground.

## Successful enhancement

In 1996, EHJV partners gave the title deed to the Société Provancher d'histoire naturelle du Canada, which pledged to protect and enhance the area. The public can now access it free of charge. Introduction-to-waterfowl-hunting days for young people are organized by the Association des sauvagins de la grande région de Québec and educational activities for school groups are offered in conjunction with the Maison Léon-Provancher.

## A very popular observation site

Its wide range of different aquatic birds makes the Marais Léon-Provancher a first-rate location for migratory observation. Its abundant plant life, amphibians, passerines and certain insect groups, such as odonata, make it a nature lover's paradise. ■



Gilles Lacroix



# Battures de Saint-Fulgence, Saguenay-Lac-Saint-Jean



Ducks Unlimited

## A unique environment

The Rivière Saguenay's shores are not generally very popular with aquatic birds, with the exception of the Battures de Saint-Fulgence, where a spit has promoted the creation of a tidal marsh. The meeting of the Saguenay's fresh and salt waters and the

prevailing sedimentation conditions have created a habitat sought by waterfowl and long renowned among birdwatchers seeking the yellow rail, Nelson's sharp-tailed sparrow and migrating Canada geese.

## Now, a protected site

The creation of the Battures-de-Saint-Fulgence wildlife preserve, in 2006, was the culmination of many years of hard work and effective regional joint efforts to safeguard the area purchased by the Fondation de la faune and restored by Ducks Unlimited. Covering 290 hectares, the preserve includes an intertidal marsh and uplands conducive to nesting. Potentially harmful activities are now controlled and strictly supervised hunting is allowed.

## Trails and observation stations

Access infrastructures, including trails and lookouts, have been set up to facilitate contact with more than 175 plant species and over 242 bird species. The Centre d'Interprétation des Battures et de Réhabilitation des Oiseaux de Saint-Fulgence now manages the territory, that was transferred to the municipality. The center organizes various activities such as Journée de la Bernache (Canada Goose Day), in May, when 6 000 to 9 000 Canada geese can be seen there. ■



# L'Isle-Verte, Bas-Saint-Laurent



Ducks Unlimited

A large percentage of the salt marshes on L'Isle-Verte on the south shore of the St. Lawrence estuary lost their appeal for migratory birds after dikes and aboiteau were built there in former half of the 20th century. Much of the land recovered for agriculture was left fallow and acquired by the Canadian Wildlife Service in the 1970s for incorporation into the Baie de L'Isle-Verte National Wildlife Area.

## Returned to its original use

Ducks Unlimited enhanced this land on several occasions to return it to its original use, by priming furrows and ditches, creating permanent marshes, installing nesting vegetation cover and managing farming practices. An additional 114 hectares are now available for waterfowl in the sector.



## A major black duck breeding ground

The black duck has benefited from this enhancement by recovering certain lost habitats. A number of other species, such as green-winged teal, blue-winged teal, mallard duck and black-crowned night heron use these wetlands. Management of the farming practices advocated by Ducks Unlimited has made it possible to limit crop damage by the greater snow goose, thereby lowering tensions between farmers and ornithologists. ■



Ducks Unlimited

Ducks Unlimited



# Marais de la Baie au Chêne, Gaspésie



Ducks Unlimited

### Remarquable for its biodiversity

The Baie au Chêne, also known as Marais Alexander, is an extraordinarily rich site. Covering 433 hectares, it is composed of a wetland complex crossed by the Rivière du Loup and many streams. A vast intertidal marsh, peat bog and many beaver ponds make it a popular site for migratory birds and mammals.

### Finally, a protected environment

Considered one of eastern Québec's most beautiful wetlands, Baie au Chêne has been protected since 2006. The Gouvernement du Québec and Ducks Unlimited jointly acquired this land, with a financial contribution from the EHJV Foundation and the collaboration of the municipality of Pointe-à-la-Croix. Two threatened or vulnerable species benefited from this protection: Nelson's sharp-tailed sparrow and the hooded arrowhead, a plant found in only two Chaleur Bay estuaries, including that of Rivière du Loup.

### A contribution to ecotourism

A 9-kilometer interpretation trail was developed by the municipality of Pointe-à-la-Croix to give local residents and seasonal visitors access to this rich environment. ■



Line Couillard, MDDEP



# Lac Saint-Pierre wetlands



Ducks Unlimited

With the one hundred islands forming its delta and its immense floodplains, the Lac Saint-Pierre wetland complex is definitely southern Québec's richest waterfowl habitat. Its international importance was recognized in 1998 when Lac Saint-Pierre was designated a Ramsar site under the Convention on Wetlands of International Importance. Its extensive grasslands, marshes dotted with small ponds, vast silver maple stands and floodplains offer conditions favourable for waterfowl and a large variety of fish, birds and amphibians. It is no accident that it is home to Québec's largest heronry.

Floodplain recovery projects for farming in the early 1980s were the rationale for protection, restoration and enhancement measures under the EHJV: Baie de Lavallière, Nicolet, Commune-de-Baie-du-Febvre, Baie-du-Febvre agricultural and wildlife complex, Baie Saint-François on the south shore of Lac Saint-Pierre; Saint-Barthélemy/Saint-Joseph-de-Maskinongé and Pointe-à-Caron (north shores) marshes; Île de Grâce, Île Dupas, Île du Moine, Île du Milieu and Île des Barques in the Îles de Berthier-Sorel. These projects involved various municipalities and local organizations.

## Acquisitions and conservation agreements

On Lac Saint-Pierre's south shore, 1021 ha of wetlands have been protected with key projects being Baie-du-Febvre/Nicolet-Sud and the Commune de Baie-du-Febvre. On the north shore, acquisitions and conservation agreements cover 506 hectares, notably the Saint-Barthélemy/Saint-Joseph-de-Maskinongé projects, which were acquired by the Fondation de la Faune du Québec. On the Berthier/Sorel islands, large areas are protected, including Île Dupas, île du Moine and île de Grâce.

## Restoration of degraded habitats

Among the significant enhancement work done by Ducks Unlimited are the construction of water level control structures, the installation of pumping units to manage water drawdown to meet wildlife and agricultural needs, the installation of fishways, crop management, and livestock confinement for shoreline protection. For each project, efforts were made to take the needs of each wetland-dependant species into account.

## Spinoffs for communities

Intervention under the EHJV has helped make Lac Saint-Pierre one of the best-known sites for wildlife, hunting, fishing and observation. Many accesses were created, observation towers were installed and interpretation activities are offered. Their economic spinoffs now benefit the shoreline communities.



Ducks Unlimited



MNRNF



Ducks Unlimited



# Monitoring and assessment



Ducks Unlimited

Research conducted under the EHJV's *Monitoring and assessment* component has resulted in new integrated development approaches and made it possible to pinpoint the areas offering the greatest waterfowl potential. The following are examples of the work carried out.

## Wetland distribution

Inventoried waterfowl during breeding provided information on the density of nesting couples in the St. Lawrence lowlands, Abitibi and Lac Saint-Jean. A model developed to predict this density made it possible to map Québec's potential habitats and target the most promising sectors for intervention.

## Forest potential

A study was conducted in the forest environment on the impact of clearcutting on habitat use by waterfowl. More than 32 000 observations of nesting couples were analyzed for seven main types of wetlands and aquatic environments and six types of shoreline environments. Data revealed the importance of small bodies of water and streams for waterfowl breeding. The local,

short-term impact (approximately 4 years) of logging on duck populations nesting in tree cavities and ground-nesting species was also assessed. No negative effect was detected for cavity-nesting species, while there seems to be a positive impact on Canada goose and green-winged teal, two ground-nesting species. This study supported the hypothesis that waterfowl species are resilient to a certain level of disturbance caused by forest operations in Québec.

Forest aquatic and riparian wetland enhancement plans were developed for areas located in the Saguenay, Forêt Montmorency, Charlevoix and Mauricie. These plans are based on detailed wetland mapping and a three-tiered zoning approach: conservation, intensive use and ecosystem approach.

## Nesting and farming practices

Inventories conducted on the Îles de Varennes from 1992 to 1994 to assess the impact of pasture management and seeding dense vegetation cover on ground-nesting ducks and passerines resulted in pasture management projects on certain islands.

Nesting and breeding habitats were also characterized in the Rivière Boyer basin to understand the constraints facing waterfowl in the farm environment and find means of increasing reproductive success. Farm ponds and shoreline strips were shown to be important and recommendations were made for their enhancement.

## Biodiversity inventories

In all new waterfowl habitat conservation and restoration projects, special attention is given to inventorying threatened species and species other than waterfowl to allow

their needs to be better integrated into the development of restoration projects.

## Water management for fish

The marshes enhanced along the St. Lawrence are inhabited by 37 fish species and are very productive spawning and hatching sites for the yellow perch in particular. Research conducted under the EHJV has resulted in better water management and a significant increase of this environment's production. By prolonging the spring ood period, water warming is accelerated, water levels promoting access to the best spawning sites are ensured and drying out of eggs and larvae is prevented. Partial draining in June has permitted evacuating fry and some early adult spawners. Complete draining in the fall ensures close-to-full evacuation. This is followed by filling through fall precipitation and the water table, thereby allowing muskrat to settle here for the winter and enabling waterfowl hunters to benefit from the marsh.

On Île du Moine, these enhancements have shown that the production of pumpkinseed and brown bullhead is among Québec's highest. In the fall, fish exit rates of approximately 96% have been observed. ■



## Promotion and education



ASGRQ

### Education of young hunters at Marais Léon-Provancher

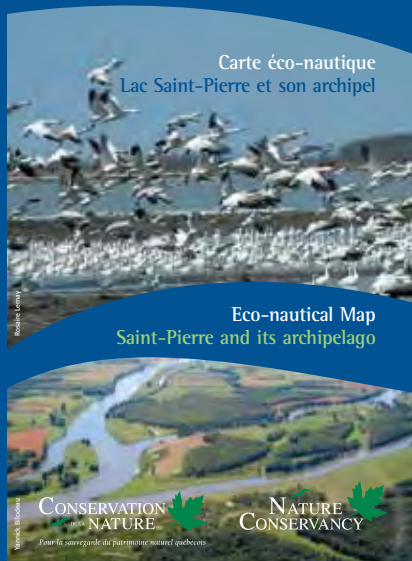
Through the *Journées de la relève des chasseurs de sauvagine* (Quebec's equivalent to the Youth Waterfowl Hunting Days) which is organized by waterfowl association mem-

bers of the Fédération québécoise des chasseurs et pêcheurs, an educational program for young waterfowl hunters was set up by the Association des sauvaginaires de la grande région de Québec (ASGRQ) and EHJV partners. Youngsters aged 12 to 17 receive annual training in good hunting practices and waterfowl habitat conservation. DU distributes them at no cost a kit of educational materials that includes "A young hunter's Guide to Waterfowling and Conservation". After successfully completing their training, young hunters enjoy their first day of hunting with a volunteer monitor in Marais Léon-Provancher. We anticipate that over the next five years, it's more than 1,000 young people who would benefit from the educational package and training through the Journées de la relève au Québec.

### Recreational and educational promotion plans

The majority of land acquired under the EHJV, and whose management has been delegated, is subject to recreational and educational promotion plans prepared to harmoniously implement activities for the public, i.e. migratory bird observation, hiking and controlled hunting, while safeguarding environmental integrity. On several sites, reception stations and observation platforms have been built and trails facilitate better contact with the natural environment. Conditions permitting, bike paths and nautical trails have been created. ■

EAUsez comprendre,  
EAUsez changer!



Carte éco-nautique  
Lac Saint-Pierre et son archipel

Eco-nautical Map  
Saint-Pierre and its archipelago

## EAUsez comprendre, EAUsez changer awareness campaign

In 2006, Conservation de la Nature and Comité ZIP du lac Saint-Pierre launched an extensive campaign to make Lac Saint-Pierre users aware of wetland protection. Yachters especially were targeted. An eco-nautical chart was drawn and distributed to 4 627 people. Agents working on the awareness project met with 1 694 yachters. Information signs were posted in 11 strategically located sites on both the north and south shores.

pants in Sorel-Tracy. By coming into close contact with wetlands, they were able to observe their main components and become aware of the main problems linked to their conservation. ■

Activity days were offered in conjunction with the Centre d'interprétation du patrimoine de Sorel to young day camp partici-

Ducks Unlimited

# Outlook for the coming years

The acquisition of wetlands of key importance for waterfowl will continue, completing projects that are under way and protecting new areas targeted by ecoregional planning.

Habitat enhancement will be directed primarily at restoring past enhancements. Some water level control structures are more than 20 years old and require upgrading. Each structure's design will be reviewed to make it more productive for

waterfowl and better integrate the needs of other species, especially fish. ■

## A current project: Ruisseau de Feu

### An integrated development approach

After many years of studies and negotiations, an agreement was signed in February 2007 between project partners: the ministère des Ressources naturelles et de la Faune (MRNF), the ministère du Développement durable, de l'Environnement et des Parcs (MDDEP), the Ville de Terrebonne, a real estate promoter and Ducks Unlimited (DU). This is the key project in the Greater Montréal area, integrating residential development and environmental conservation. The promoters of this vast housing project ceded 52 hectares to protect wetlands and Ducks Unlimited received a major ecological gift from the Romano family, which owns a portion of these lands.

### Necessary restoration

Restoration projects spanning more than 100 hectares involve improving fish habitats. This component will be carried out by softening the profile of the Ruisseau de

Feu's shores and building three fish migration routes. Installing a pumping station, creating a marsh and planting 25 000 trees will promote waterfowl breeding and migratory stopovers. DU, MRNF, Fondation Hydro-Québec pour l'Environnement and Ville de Terrebonne will invest more than \$1.5 million in this project from 2007 to 2010. This restoration will promote more abundant, diversified wildlife and plant life and benefit observers, hikers and fishermen. A conservation plan will be implemented to maintain the site. ■



Ducks Unlimited

The Ruisseau de Feu wetlands comprise floodable tracts, the majority of which have been transformed over the years by farming, notably corn growing. Until very recently, a major residential and commercial development project threatened part of this floodplain. Despite the wildlife constraints this area presents in its current state, it has high ecological potential.



Benoit Audet



# Baie de Lavallière restoration



Baie de Lavallière is a huge 900-hectare wetland complex located on the St. Lawrence's south shore near the mouth of Rivière Yamaska. Protected since its acquisition in the 1970s, it has been targeted by various phases of enhancement—the main one being the implementation of a water level control structure in 1988.

## Accelerated aging

Studies conducted in 2006 documented the ecosystem's accelerated aging. Gradual occlusion of vegetation and raised canal beds, due to sediment deposits from farmlands located upstream, have resulted in less favourable conditions for waterfowl and fish. Barely 10% of the marsh is now considered of good quality for aquatic birds. Conditions conducive to the growth of invasive plants like the common reed exist there, jeopardizing the other species that are characteristic of this environment.

## A new development concept

Ducks Unlimited and the MRNF are working on a new development concept to restore this key waterfowl and fish habitat. Creating permanent openings in the marsh, digging new canals and ponds and fighting the common reed are some of the means envisaged. However, until the problem of excessive sedimentation in the marsh from farm sectors has been solved at the source, restoration work cannot be done on the main canal in which most of the sediments travel. ■



SABL



Ducks Unlimited

# Status Report 1987-2007

Conservation Projects	Restoration		Protection	
	Surface area (ha)	Cost (\$)	Surface area (ha)	Cost (\$)
Aboiteau Girard	34	20 000	--	--
Archipel Dartmouth	--	--	24	4 400
Baie Brazeau	--	300	545	159 700
Baie Chapman	--	--	11	41 400
Baie Clément	--	--	36	111 500
Baie Clément Saint-Louis	--	--	386	285 300
Baie des Mille-Vaches	--	7 500	29	117 300
Baie de Lavallière	--	45 400	18	134 249
Baie McLaurin	--	--	416	1 566 755
Baie St-François	--	--	10	23 000
Baie-du-Febvre (Nicolet-Sud)	251	1 017 550	425	544 443
Battures de St-Augustin	--	--	257	51 600
Battures Saint-Fulgence	63	87 050	68	397 013
Bécancour	110	66 000	--	--
Bégin	--	--	6	42 000
Boisbriand	6	3 500	--	--
Boisé Angell	--	--	«in progress»	46 300
Bras-Mort Rivière Boyer	1	3 000	--	--
Breckenridge	--	--	162	100 750
Commune de Baie-du-Febvre	62	500 000	326	50 000
Côte-de-Beaupré	--	--	97	97 500
Étang Dollard	--	--	12	53 000
Grande plée Bleue	--	--	490	350 600
Île à l'Aigle	--	--	50	94 000
Île aux Alouettes	6	14 000	11	950
Île aux Cerfueils	--	--	25	73 500
Île aux Fraises	7	85 000	7	0
Île aux Grues	--	--	50	21 600
Île aux Lièvres	--	--	--	22 000
Île aux Oies	194	90 000	--	--
Île aux Pommes	26	70 000	60	--
Île Bouchard	128	37 700	43	26 000
Île d'Orléans	--	--	--	17 000
Île de Grâce	--	650	262	697 600
Île des Barques	62	120 000	--	--
Île du Moine	509	347 700	--	1 700
Île Dupas	524	868 000	700	--
Île Lacroix	--	--	--	730
Île Lapierre	--	--	29	20 000
Île Marie	51	82 000	45	86 000

Conservation Projects	Restoration		Protection	
	Surface area (ha)	Cost (\$)	Surface area (ha)	Cost (\$)
Îles du Pot à l'Eau-de-Vie	45	106 000	58	--
Îles Les Pèlerins	234	18 000	234	--
Joyal	--	--	5	1 900
Kamouraska	1	6 000	17	81 620
L'Isle Verte	114	155 000	59	--
Lac à Bégin	8	6 700	--	--
Lac au Foin	19	46 200	--	--
Lac Bostonnais	1 490	215 000	1490	--
Lac Brompton	--	--	160	102 800
Lac Brompton Sud	--	--	30	118 000
Lac Leverrier	170	134 000	222	--
Lac Mud	220	81 000	304	--
Lac Saint-Charles	--	--	67	142 200
Lafranchise	--	--	117	120 600
Lanthier	--	7 500	--	--
Longue-Pointe	93	155 000	114	251 276
Marais Antoine	525	322 000	--	--
Marais aux Grenouillettes	69	132 900	--	--
Marais Beauharnois	461	516 400	200	--
Marais Cléricky	22	71 000	33	--
Marais de la Baie au Chêne	--	--	426	498 000
Marais des Graves	35	45 000	--	--
Marais des Laïches	250	128 000	--	--
Marais Double	14	83 000	55	--
Marais Drummondville	51	28 000	--	--
Marais du Cap	34	85 000	--	--
Marais Fabre	4	35 000	12	--
Marais Fantom	3	23 000	15	--
Marais Fiske	47	87 000	60	--
Marais forestier de l'Estric	--	--	36	30 000
Marais forestier du Bas-Saint-Laurent	--	--	1 414	15 600
Marais forestier du bassin de la rivière Chaudière	--	--	3 395	150 000
Marais forestiers de la Forêt modèle du Bas-Saint-Laurent	--	--	438	78 000
Marais forestiers (20 other projects)	--	--	1920	348 000
Marais Guay	1	4 800	--	--
Marais Ippersiel	4	70 000	15	--
Marais Katevale	--	3 500	65	133 100
Marais Léon-Provancher	95	183 000	124	175 490



# Status Report 1987-2007 (continued)

▼ continued

Conservation Projects	Restoration		Protection	
	Surface area (ha)	Cost (\$)	Surface area (ha)	Cost (\$)
Marais Madore	20	28 000	79	--
Marais Manneville	13	71 000	33	--
Marais Nymphéa	19	50 000	41	--
Marais Perdrix	27	75 000	46	--
Marais Peter-Curry	3	62 400	14	--
Marais Réal-D.-Carbonneau (Saint-François)	22	61 000	--	--
Marais Sainte-Angèle	--	--	6	35 100
Marais Snake Creek	40	85 000	67	--
Marais Stadacona	11	70 000	63	--
Marais Thiballier	24	113 000	41	--
Marécage des Scots	--	--	--	6 000
Montesson	225	36 000	--	--
Oie Blanche	87	106 000	--	--
Outaouais access	--	70 200	--	--
Petit marais Saint-Gédéon	--	--	114	357 430
Petite Ferme (Cap Tourmente)	23	161 100	--	--
Petite Presqu'île	9	6 000	--	--
Plaine Checkley (T. Sept-Îles)	--	--	30	54 600
Pointe à Caron	--	--	65	125 400
Pointe au Boisvert	--	--	--	500
Pointe Fortune	--	--	25	46 300
Pointe-aux-Cèdres	--	--	117	75 000
Pointe-aux-Outardes	--	--	--	2 000
Pointes Hébert et Goyette	13	54 500	13	62 000
Quyon	--	--	22	17 000
Ragueneau	10	22 500	--	--
Refuge faunique Marguerite-d'Youville	104	436 700	206	87 700
Rigolet	17	25 000	--	--
Rivière des Mille-Îles	--	--	62	189 900
Rivière du Sud	--	235 000	332	1 165 500
Rivière Marguerite	17	123 300	40	3 600
Rivière Outaouais	--	15 000	90	200 000
Rivière-aux-Pins	21	353 320	--	365 400
Rivière-aux-Vases	19	6 300	--	--
Rousseau	--	10 000	--	--
Ruisseau Bleury	--	--	--	19 000
Ruisseau de Feu	--	--	42	1 176 000
Ruisseau des Aulnages	--	10 500	--	--
Ruisseau Saint-Jean	3	46 040	32	398 658

Conservation Projects	Restoration		Protection	
	Surface area (ha)	Cost (\$)	Surface area (ha)	Cost (\$)
Saint-Barthélemy/Saint-Joseph-de-Maskinogé	615	1 022 540	441	1 231 570
Ruisseau Trépanier	247	465 400	247	472 200
Sainte-Anne-de-la-Pérade	--	--	46	48 000
Templeton	44	50 500	--	--
Thurso	106	29 000	--	--
Varenes	233	122 000	--	--
Victoriaville	15	15 800	--	--
<b>TOTAL</b>	<b>8030</b>	<b>10 252 300</b>	<b>18 187</b>	<b>14 053 602</b>

Note : The amounts contained in this table do not include indirect costs.

Other conservation initiatives	(\$)
15 sites	1 170 000
Water chesnut	558 000
Farming component posters and pamphlets	22 000
Wetlands posters	50 400
Restauration Atlas	198 000
Other projects < \$5 000	15 000
Courses and guides	7 200
Centre de ressources éducatives et communautaires pour adultes (CRECA)	26 500
Projects Development	656 000
Communauté métropolitaine de Québec (CMQ) file	53 000
Géomatics	24 000
Enhancement Analysis Guide	20 000
Farm stewardship component	30 000
Municipal stewardship component	31 000
Ministère de l'Environnement du Québec (MENV) Protected Areas	35 000
Outaouais Action Plan	124 500
Outaouais Management Plan	100 500
Regional Plans	228 700
Boreal program	189 000
Nesting Boxes Program	172 550
Regroupement des Associations pour la protection de l'Environnement des Lacs et cours d'eau de l'Estrie et du haut bassin de la Saint-François (RAPPEL)	11 000
<b>TOTAL</b>	<b>3 722 350</b>





# NCC protection status report<sup>1</sup>

Protection	2003-2007	
Projects	Surface area (ha)	Cost (\$) <sup>2</sup>
Anse Ross	9	43 100
Barchois de Malbaie	54	154 700
Boisé Papineau	6	712 500
Breckenridge	173	517 100
Forêt de Senneville	17	553 200
Grand marais	332	284 700
Lac à la Tortue	1397	44 900
Île Bouchard	24	86 000
Île Carillon	215	7 100
Île de Grâce	9	16 600
Île Kettle	185	12 100
Lac Champlain	611	2 066 000
Lac Indien	49	51300
Pointe Saint-Pierre	10	60 800
Rivière Outaouais	26	57 100
Rivière Richelieu	622	366 700
<b>Total</b>	<b>3 739</b>	<b>5 033 900</b>

<sup>1</sup> Since the cost calculation method differs from EHJV's other partners, a separate table has drawn up for Nature Conservancy Canada's achievements.

<sup>2</sup> Include NCC financial support (\$1 424 867) and support from NCC's partners, including the value of gifts.



Ducks Unlimited



# Partners' contributions from 1987 to 2007 (in thousands of \$)

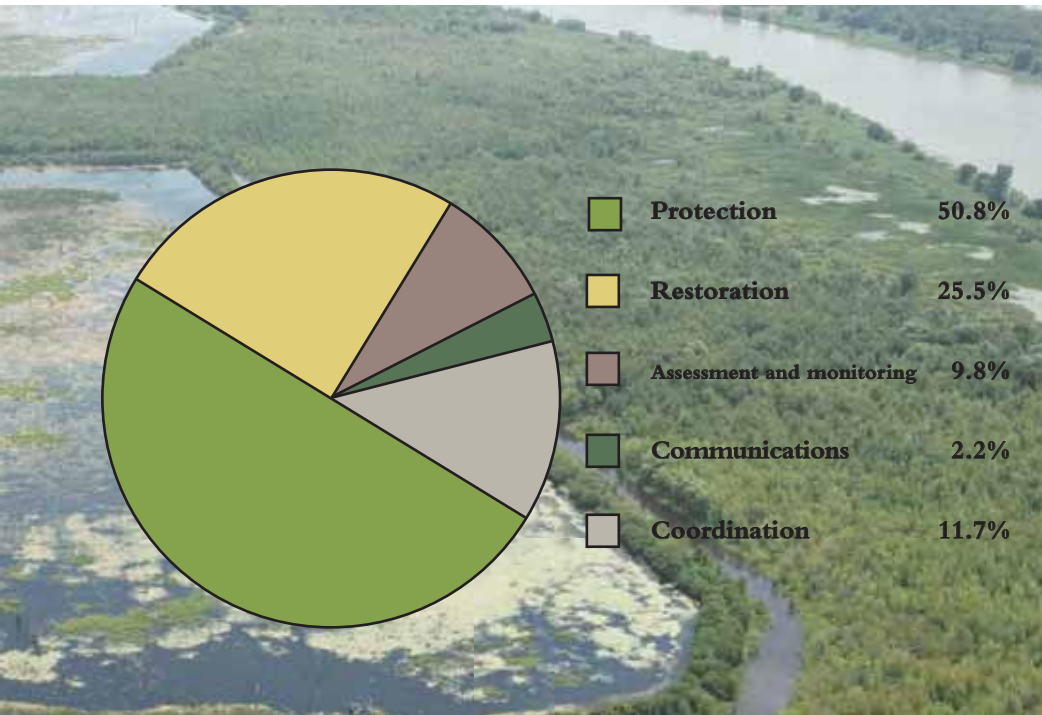
Activity	Ducks Unlimited	Canadian Wildlife Service	Wildlife Habitat Canada	Fondation de la faune du Québec	Ministère des Ressources naturelles et de la Faune	The Nature Conservancy of Canada	US partners <sup>1</sup>	Other partners <sup>2</sup>	Total
Protection	4 517 604	2 636 475	2 010 947	2 824 239	3 766 597	1 230 067	7 713 061	4 566 303	29 265 293
Restoration	4 484 354	403 000	--	165 000	998 575	23 600	8 050 761	570 000	14 695 290
Assessment and monitoring	1 194 760	2 353 150	--	24 000	1 880 677	--	1 240	216 700	5 670 527
Communications	771 582	84 000	71 632	81 203	208 628	3 600	39 818	--	1 260 463
Coordination	3 727 784	1 153 800	48 750	645 150	819 545	167 600	102 716	6 000	6 725 345
<b>Total</b>	<b>14 696 084</b>	<b>6 630 425</b>	<b>2 131 329</b>	<b>3 739 592</b>	<b>7 674 022</b>	<b>1 424 867</b>	<b>15 907 596</b>	<b>5 413 003</b>	<b>57 616 918</b>

<sup>1</sup> US, Fish and Wildlife Service  
Ducks Unlimited, Inc.

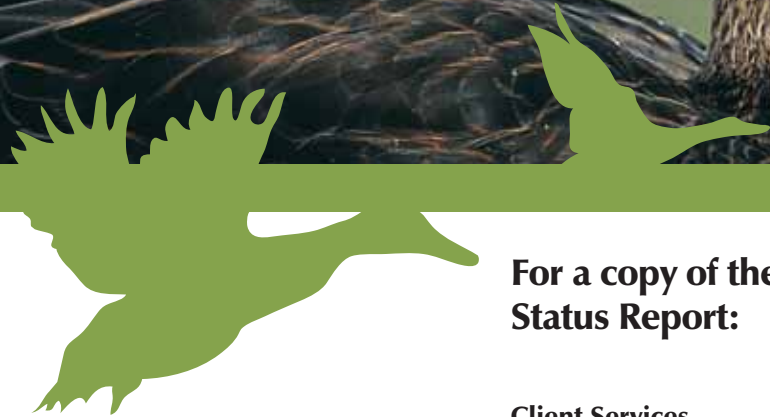
<sup>2</sup> Office de planification et de développement du Québec (OPDQ)  
Hydro-Québec  
Fonds de restauration de l'habitat du poisson (FRHAP)  
St. Lawrence Vision 2000 (SLV-2000)



# Plan activities in Québec (1987-2007)







## For a copy of the 1987-2007 Eastern Habitat Joint Venture Status Report:

### Client Services

#### Ministère des Ressources naturelles et de la Faune

880, chemin Sainte-Foy, RC 120-C  
Quebec (Quebec) G1S 4X4

**Phone:** 1 866 248-6936

**Quebec area:** 418 627-8600

**Fax:** 418 644-6513

**Web site:** [www.mrnf.gouv.qc.ca](http://www.mrnf.gouv.qc.ca)

**E-mail:** [services.clientele@mrnf.gouv.qc.ca](mailto:services.clientele@mrnf.gouv.qc.ca)

Cover photo: Canards Illimités

Text: Michel Lepage

Contributors: Normand Traversy

Graphics: Copiexpress

Revision: Marie Blais

Translation: Dialangue Inc.

Legal deposit

Bibliothèque nationale du Québec, 2008

National Library of Canada

ISBN: 978-2-923725-04-8



Ducks Unlimited Canada  
Conserving Canada's Wetlands



For the Preservation of Québec's Natural Heritage



Environnement  
Canada

Environnement  
Canada

**WILDLIFE HABITAT**  
CANADA

Ressources naturelles  
et Faune

Québec

