

# Virginia Department of Wildlife Resources

SECURING A LEGACY OF HABITAT  
CONSERVATION IN QUEBEC

## Your 5-Year Conservation Report

*Submitted by Ducks Unlimited Canada and Ducks Unlimited Inc.*

**JULY 2023**



# Overview

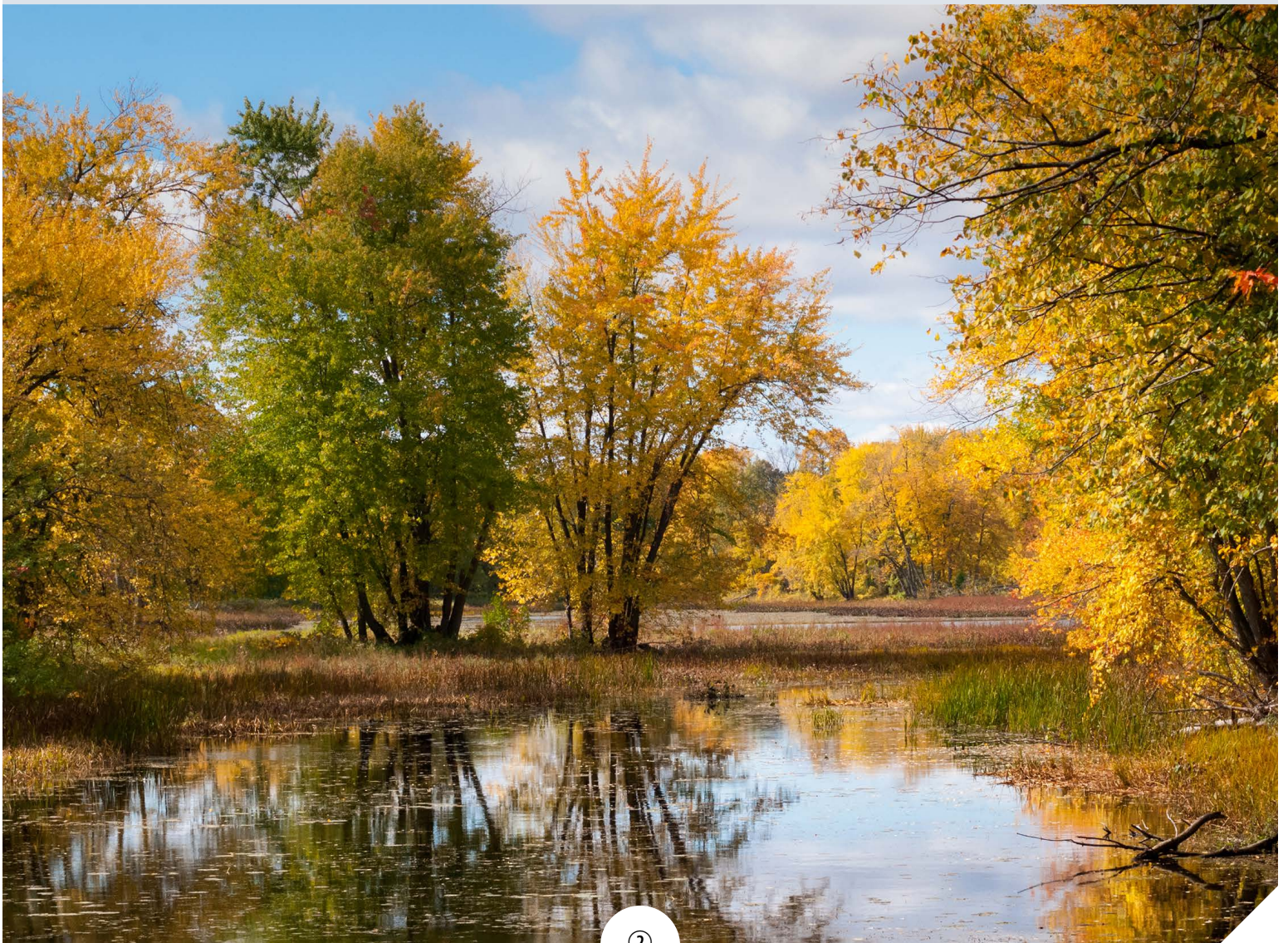
***Ducks Unlimited (DU) is the world leader in wetland conservation.***



Since 1937, DU has invested over \$2 billion in waterfowl and wildlife habitat conservation in the United States, Canada and Mexico. In Canada alone, DU has completed over 12,000 habitat projects, securing 6.6 million acres, of which more than 3.4 million acres have been restored, and positively influencing 195.2 million acres of habitat that benefit waterfowl, wildlife and people. Besides waterfowl, numerous species of wildlife, including many threatened or endangered species live and flourish on DU projects.

Recently, the Association of Fish and Wildlife Agencies (AFWA) renewed their Fall Flights goal for states to collectively contribute \$10 million per year to North American Waterfowl Management Plan (NAWMP) projects on the Canadian breeding grounds.

***In support of this effort, the Virginia Department of Wildlife Resources (DWR) agreed to provide \$415,000 (USD) towards the Quebec Waterfowl Habitat Initiative over five years, beginning in 2018. This is your final report.***





# Waterfowl Conservation Effort

The St. Lawrence River is a dominant feature of Quebec's landscape. The St. Lawrence Lowlands are a Level 1 priority within DU's International Conservation Plan. Conservation efforts are focused on the St. Lawrence Lowlands, as it is the most densely-populated part of the province, and remains subject to multiple threats including habitat loss, fragmentation and increased urbanization.

More than three million waterfowl breed, stage, or winter in this area. It offers fantastic opportunities for sport hunting and birdwatching along migration routes and wintering areas that stretch from the Arctic to the southern United States.

Waterfowl banding data (*see map below*) from Quebec-banded birds have historically shown a correlation to waterfowl band recoveries from Virginia hunters. Species of waterfowl such as American black duck, mallard, wood duck, green-winged teal, Canada goose, greater snow goose, and greater and lesser scaup are produced in Quebec wetlands. For example, 62 per cent of the continental population of American black duck breed in Quebec, and are highly dependent upon the conservation of breeding and staging habitats in the province. Among dabbling ducks, Quebec also produces up to 70 per cent of the eastern green-winged teal population.

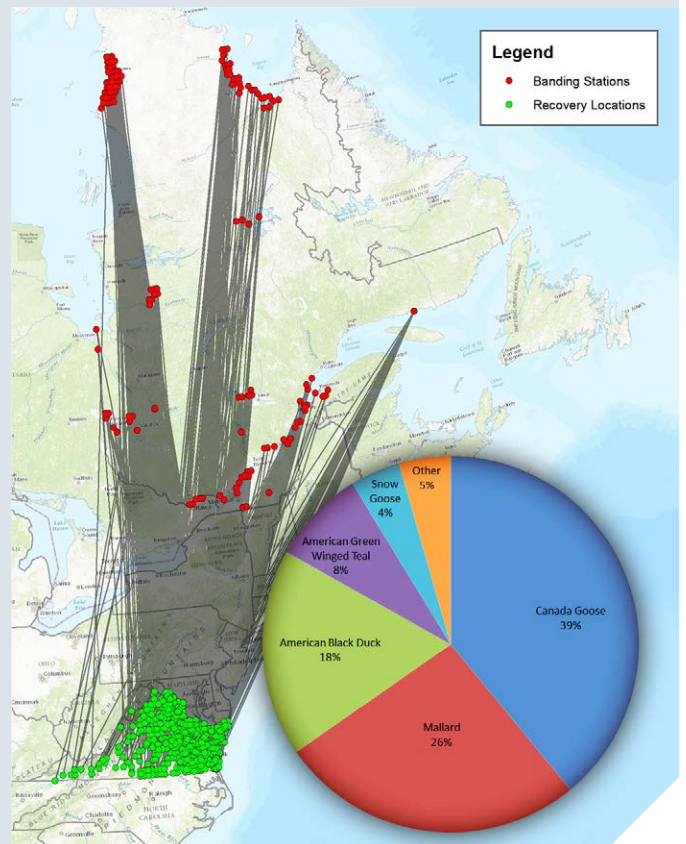
Increasing waterfowl settling rates within our priority areas is the focus of the conservation program mix in Quebec. The enhancement of seasonal and semi-permanent wetlands, where large permanent wetlands exist and currently provide productive habitat for broods, will promote increased waterfowl recruitment rates directly benefiting Virginia's migratory and wintering waterfowl population.

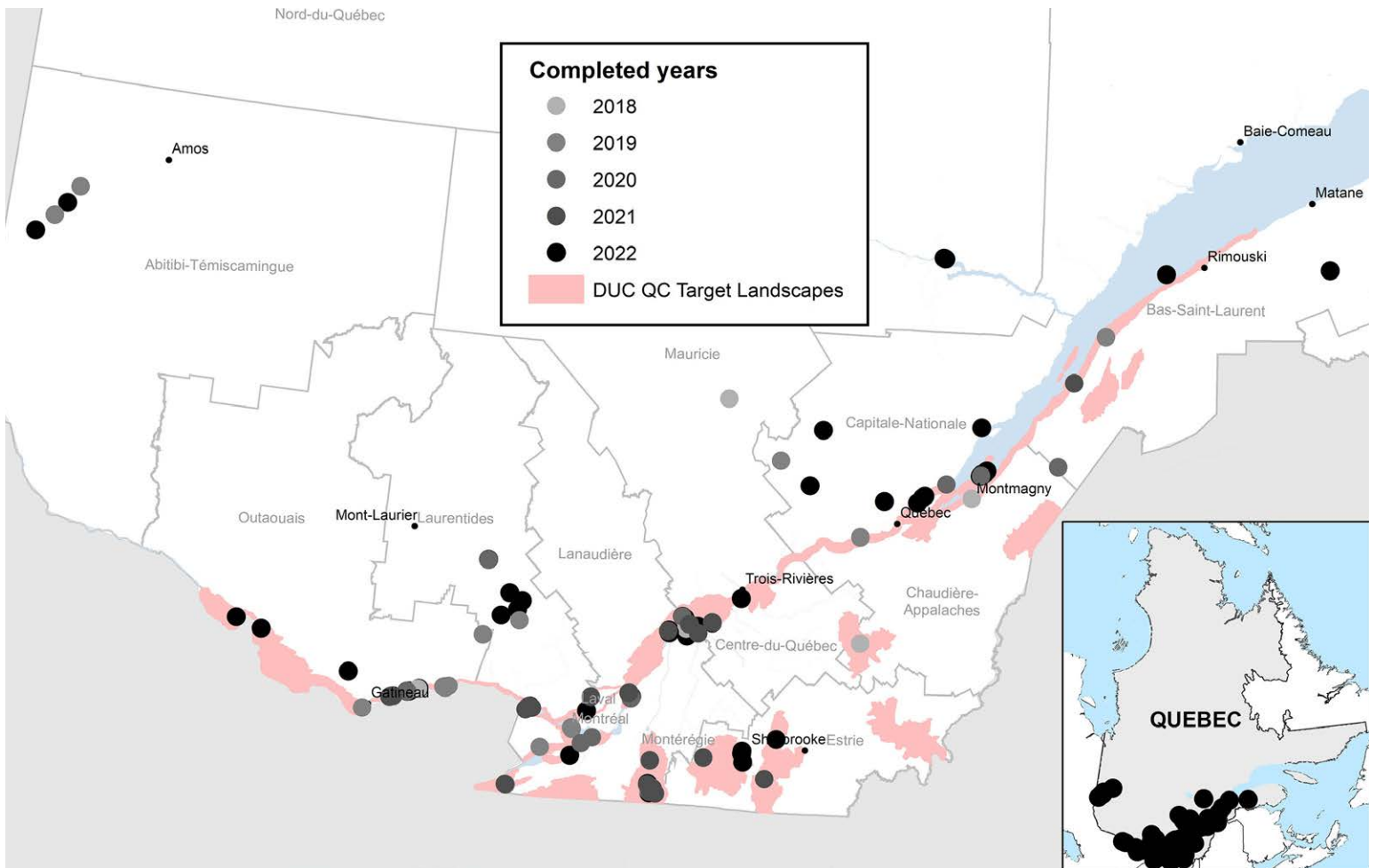


## BAND RECOVERIES

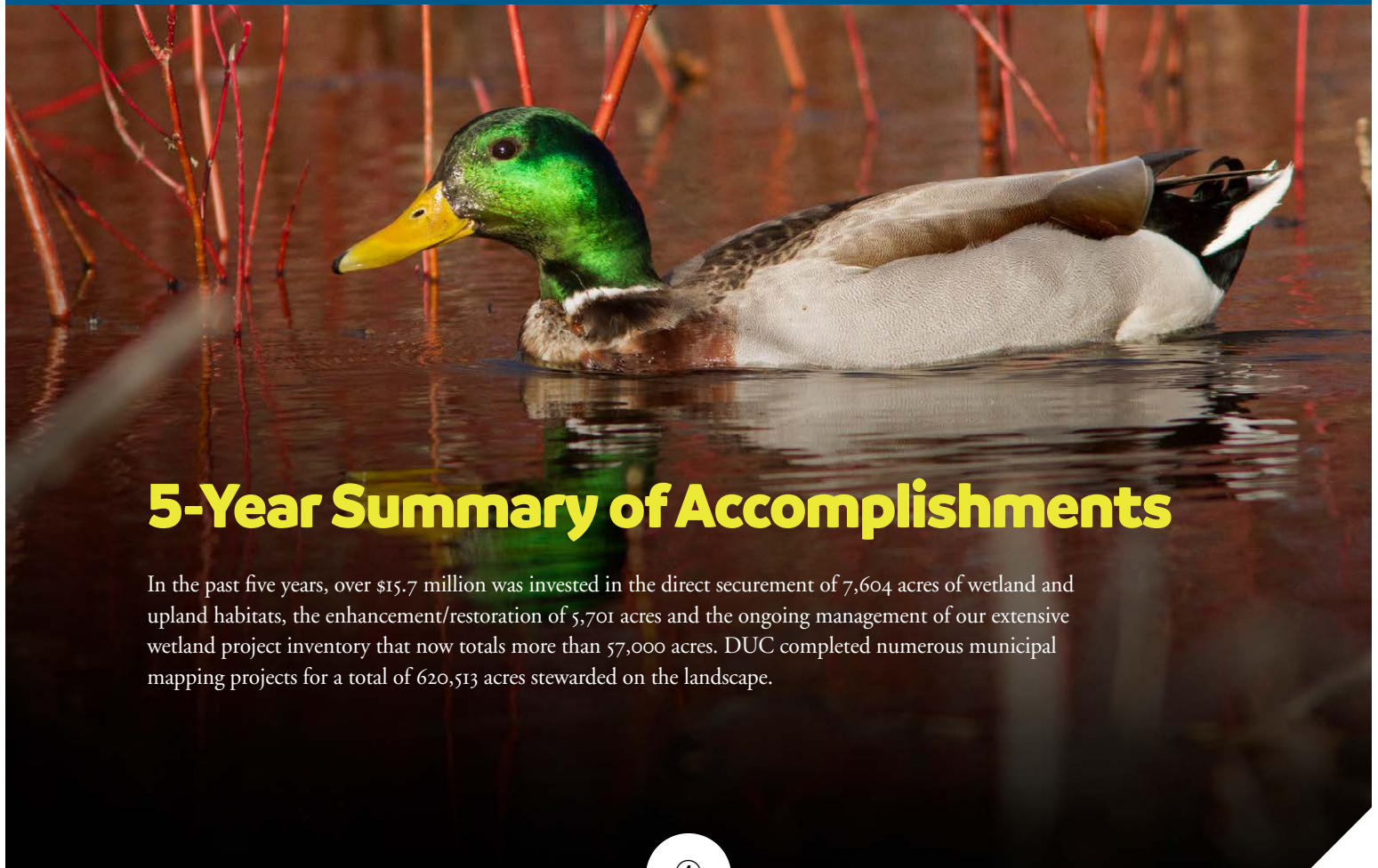
**Right:** Species mix of ducks harvested in Virginia from 1921-2016.

**Note:** this datum is not corrected for banding effort.



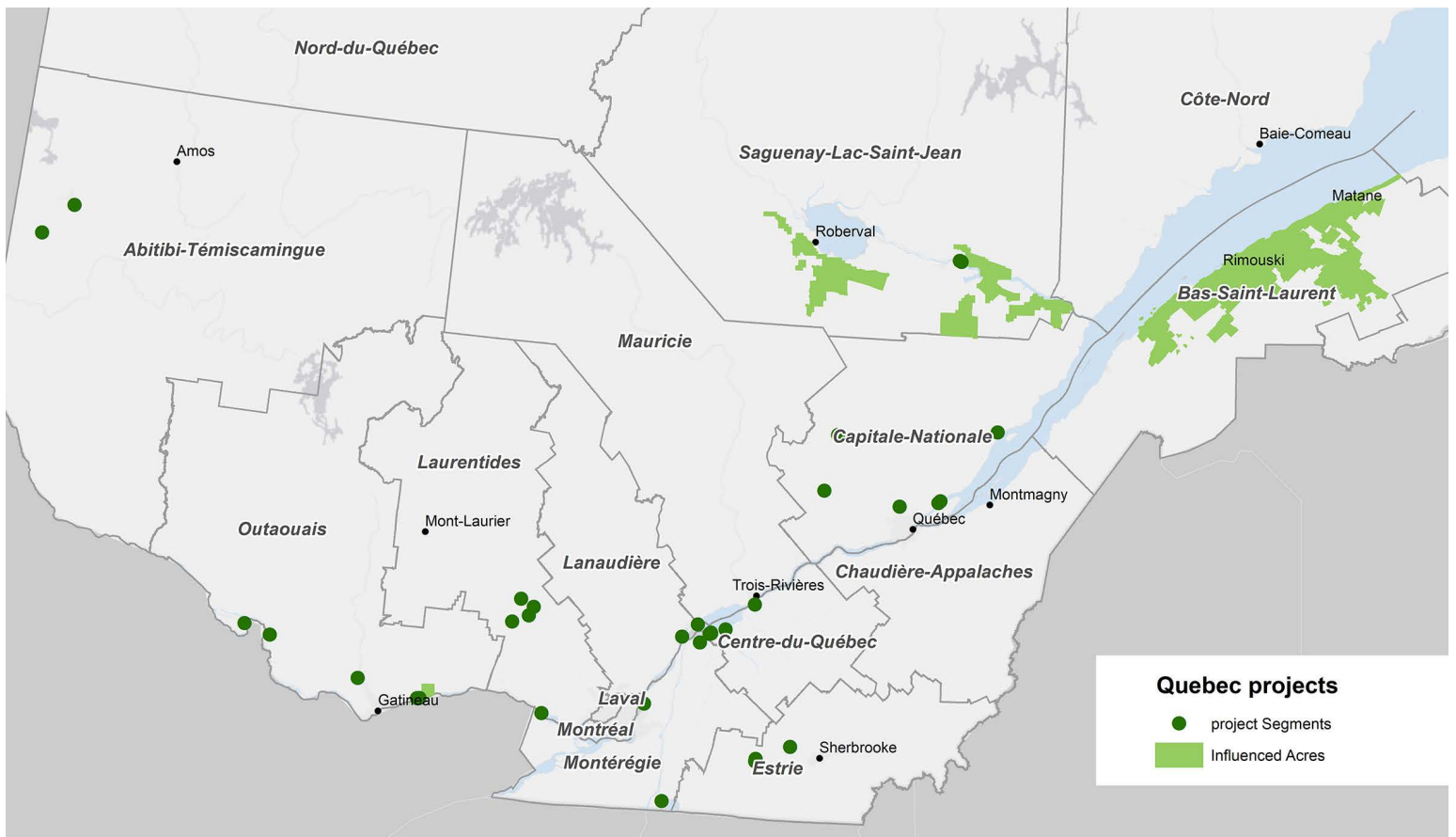


**Above:** DUC waterfowl habitat projects funded in part by Virginia over the five-year commitment.



## 5-Year Summary of Accomplishments

In the past five years, over \$15.7 million was invested in the direct securement of 7,604 acres of wetland and upland habitats, the enhancement/restoration of 5,701 acres and the ongoing management of our extensive wetland project inventory that now totals more than 57,000 acres. DUC completed numerous municipal mapping projects for a total of 620,513 acres stewarded on the landscape.



**Above:** Annual DUC waterfowl habitat projects funded in part by Virginia

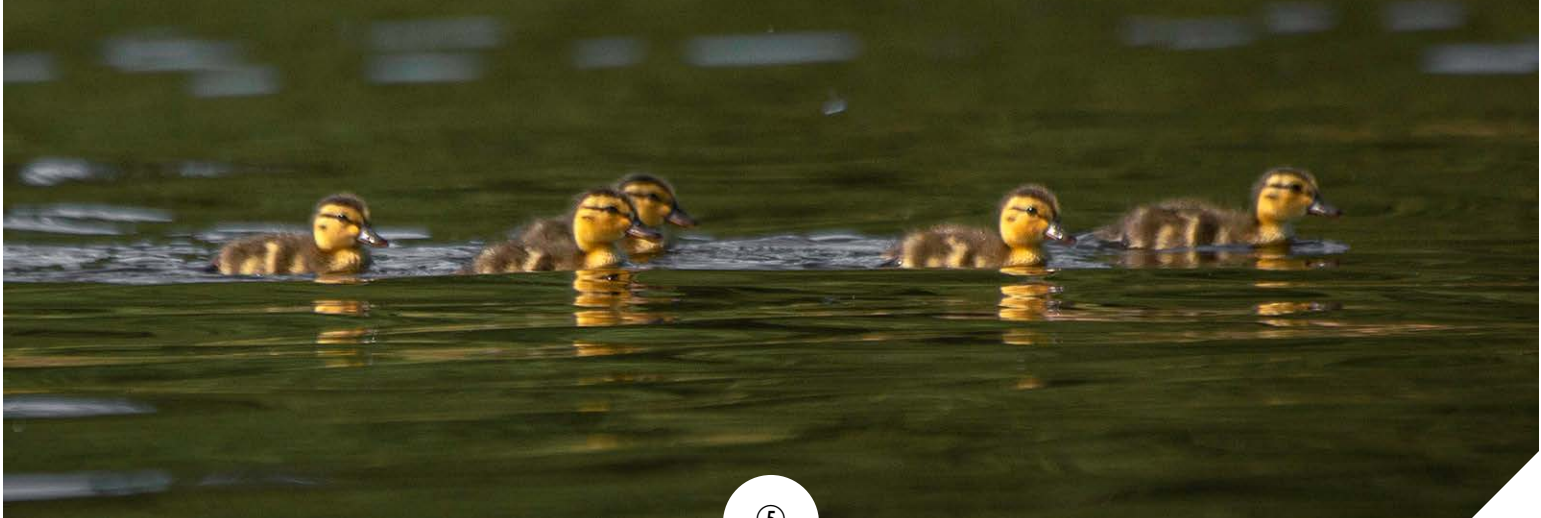


# Annual Accomplishments

**DUC is a proud partner of the EHJV.** Canada is home to 25 per cent of the world's wetlands – of which 39 per cent are within EHJV boundaries. The conservation of those wetlands is fundamental to the survival of waterfowl and all migratory bird populations as well as hundreds of other wildlife and plant species.

Habitat conservation efforts targeted the restoration of wetland complexes for breeding waterfowl and the securement and restoration of key habitats along the St. Lawrence Plain for breeding and staging waterfowl.

Virginia DWR funding was invested in a program mix that cost \$4.3 million. These conservation actions resulted in the direct securement of 1,353 acres of wetland and upland habitats and the enhancement/restoration of 1,782 wetland and upland acres. DUC completed two mapping projects which resulted in 264,979 acres influenced. DUC also performed ongoing management of our extensive wetland project inventory that now totals more than 57,000 managed acres (*see map above*).



# Revenues and Expenditures

Over five years, Virginia's funding contribution of \$532,200 (CAD) helped to leverage \$1,748,879 from DU and \$4,904,781 from the USFWS when combined with contributions from other states. This amount, in turn, was then matched with \$7,924,172 from various Canadian sources, for a total program expenditure of \$15,713,631. See below for the details of matching partner funding and program accomplishments.

## FY18-FY22 Accomplishments and Expenditures

Activity	Acres	Expenditures (\$CAD)
Securement	7,604	\$4,120,524
Restoration	5,701	\$7,703,965
Management	57,405	\$2,941,951
Landscape Stewardship	885,492	\$947,191
<b>Total</b>		<b>\$15,713,631</b>

## Last Year's Accomplishments and Expenditures

Activity	Acres	Expenditures (\$CAD)
Securement	1,353	\$993,761
Restoration	1,782	\$2,025,380
Management	57,405	\$610,588
Landscape Stewardship	264,979	\$692,191
<b>Total</b>		<b>\$4,321,920</b>

## FY18-FY22 Revenue Sources

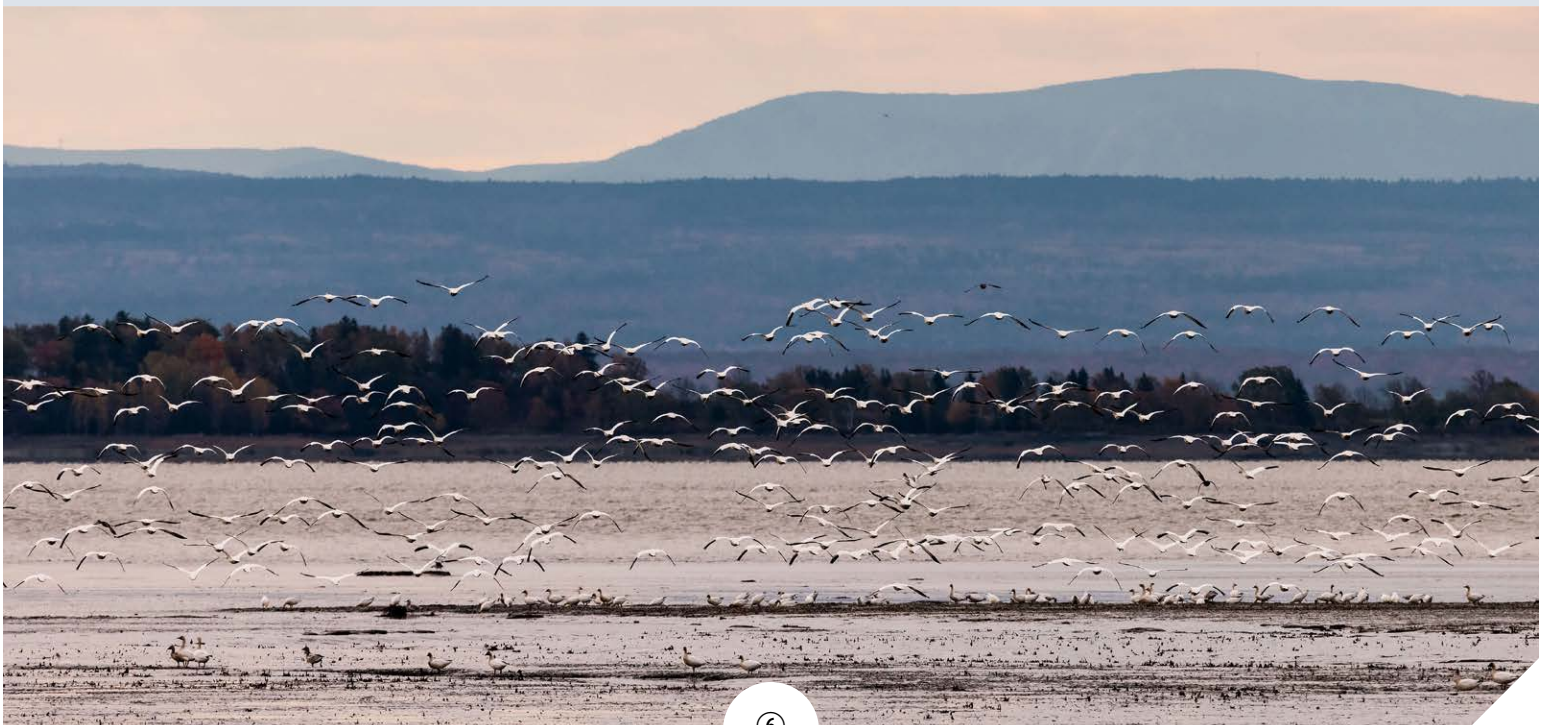
Revenue Sources	Revenue (\$USD)*	Revenue (\$CAD)
Virginia DWR	\$415,000	\$532,200
Other State Contributions**	\$470,499	\$603,599
Ducks Unlimited	-	\$1,748,879
USFWS	-	\$4,904,781
Various Canadian Contributions	-	\$7,924,172
<b>Total</b>	<b>-</b>	<b>\$15,713,631</b>

## Last Year's Revenue Sources

Revenue Sources	Revenue (\$USD)*	Revenue (\$CAD)
Virginia DWR	\$116,000	\$145,000
Other State Contributions**	\$114,499	\$143,124
Ducks Unlimited	-	\$438,124
USFWS	-	\$1,452,495
Various Canadian Contributions	-	\$2,143,177
<b>Total</b>	<b>-</b>	<b>\$4,321,920</b>

\* An average exchange rate was applied

\*\* Connecticut, New Jersey, Pennsylvania, Vermont, West Virginia, Maryland, New Hampshire and Georgia

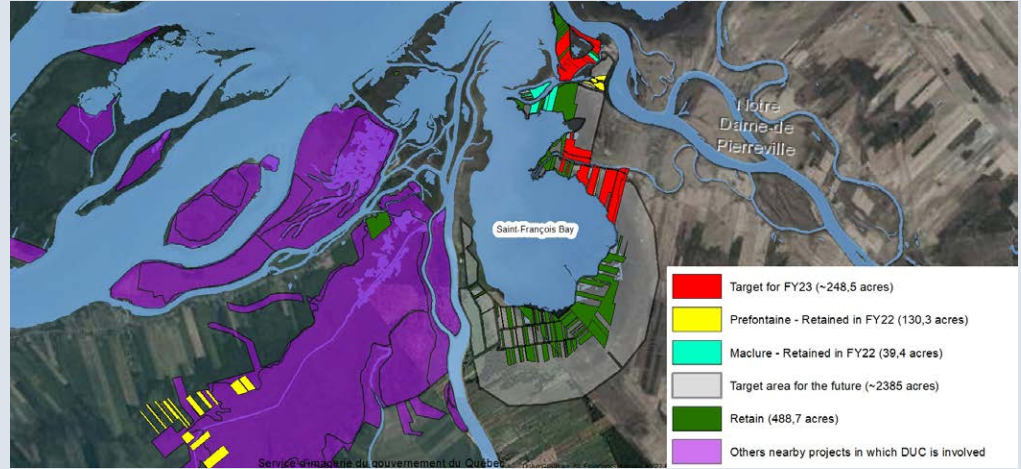


# Project Highlights

The funding provided by the Virginia DWR was invested in on-the-ground wetland purchase and restoration projects that benefit Quebec's major breeding waterfowl species. DUC employs an adaptive approach in the management of our existing habitat project inventory, with a goal of maintaining their ecological function for waterfowl populations. Project upgrades were completed on several wetland projects that were initially constructed in the mid-1980s in an important wetland complex in southern Quebec, ensuring the continuing availability of quality brood-rearing and staging habitats for many years to come.



**Top:** Lush forest and wetland at DUC's Maclure purchase. **Above:** Greenery abounds at DUC's Parent purchase site.



## Securement Program

### Saint-François Bay Purchases

Lake Saint-Pierre has long been recognized as an area of great importance for biodiversity, its international recognition as a Ramsar site in May 1998, as an exceptional wetland, as well as an UNESCO World Biosphere Reserve in November 2000. This area has been a Conservation Priority Area for DUC for over 30 years due to its value for waterfowl breeding and staging. DUC's purchase program has been focused for the last few years on consolidating properties along Saint-François Bay. This year DUC purchased an additional 133 acres as part of the **Préfontaine Phase 2** and are working with the landowner to purchase more parcels in the next fiscal year. While we were negotiating with multiple landowners in this area, the Maclures accepted a phased purchase plan of multiple properties they owned. This year, DUC was able to acquire **Maclure Phase 1**, which was 40 acres (10 land parcels) and we are working with other Maclure family members to purchase more wetlands next year. DUC has identified over 500 acres owned by 15 families near Saint-François Bay that are excellent waterfowl habitat and these owners are all interested in selling their floodplain properties.

### Parent Purchase

This project is part of a goal to consolidate a high-priority wetland conservation area for the benefit of waterfowl and wildlife. The project aims to continue the acquisitions that began in the early 2000s along the South River, one of the main tributaries of the Richelieu River. Its watershed extends over more than 60 square miles. Located in Montérégie, approximately three miles from the Canada-U.S. border, it crosses the municipalities of Saint-Sébastien, Henryville and Saint-George-de-Clarenceville (this acquisition is located on the territory of Saint-George-de-Clarenceville). The parcel encompasses 23 acres and consists entirely of a wooded bog surrounded by previously protected lands.



## Restoration Program

### Écho Marsh

Located in Abitibi-Témiscamingue, Écho Marsh covers an area of 976 acres and was originally restored in 1982. The water control structure consisted of a wall of steel sheet piles, equipped with a central sluice with removable wooden beams. In 2020, DUC hired an engineering firm to complete the dam safety study and quality assessment of the water control structures. The studies concluded that the structure was in good condition, though the gate's galvanized steel and the dam's safety footbridge needed to be replaced. In 2021, DUC resigned a conservation agreement with the land owner, completed the rebuild of the structure and re-established normal operating levels. Common species observed here are American bittern, great blue heron, American black duck, blue-winged teal and northern shoveler. Local birders have also observed notable species such as the sandhill crane and short-eared owl.

### Anse-aux-Foins

Anse-aux-Foins (48 acres) was originally completed in 1998. Recently, a hole in the structure's steel pipe had decreased water levels. A replacement of the water control structure and the installation of a plastic pipe restored the levels. This wetland is a highly productive site along the Saguenay, much to the delight of bird-watchers who regularly count more than 135 species during the annual Birds Canada Bioblitz. This area has been designated by the Quebec Ministry of Forests, Wildlife and Parks as a protected area with the status of Wildlife Refuge of Battures-de-Saint-Fulgence. Many species at risk have been observed in this Refuge: Nelson's sharp-tailed sparrow, chimney swift, yellow rail and least bittern. Waterfowl observed here include American black duck, blue-winged teal, American wigeon and eastern mallards.

*Left (top to bottom): Old water control structure at Écho Marsh; the completed replacement structure at Écho Marsh; work at the Anse-aux-Foins project ran through the winter; a new plastic pipe installed at Anse-aux-Foins replaced a corroded steel pipe.*

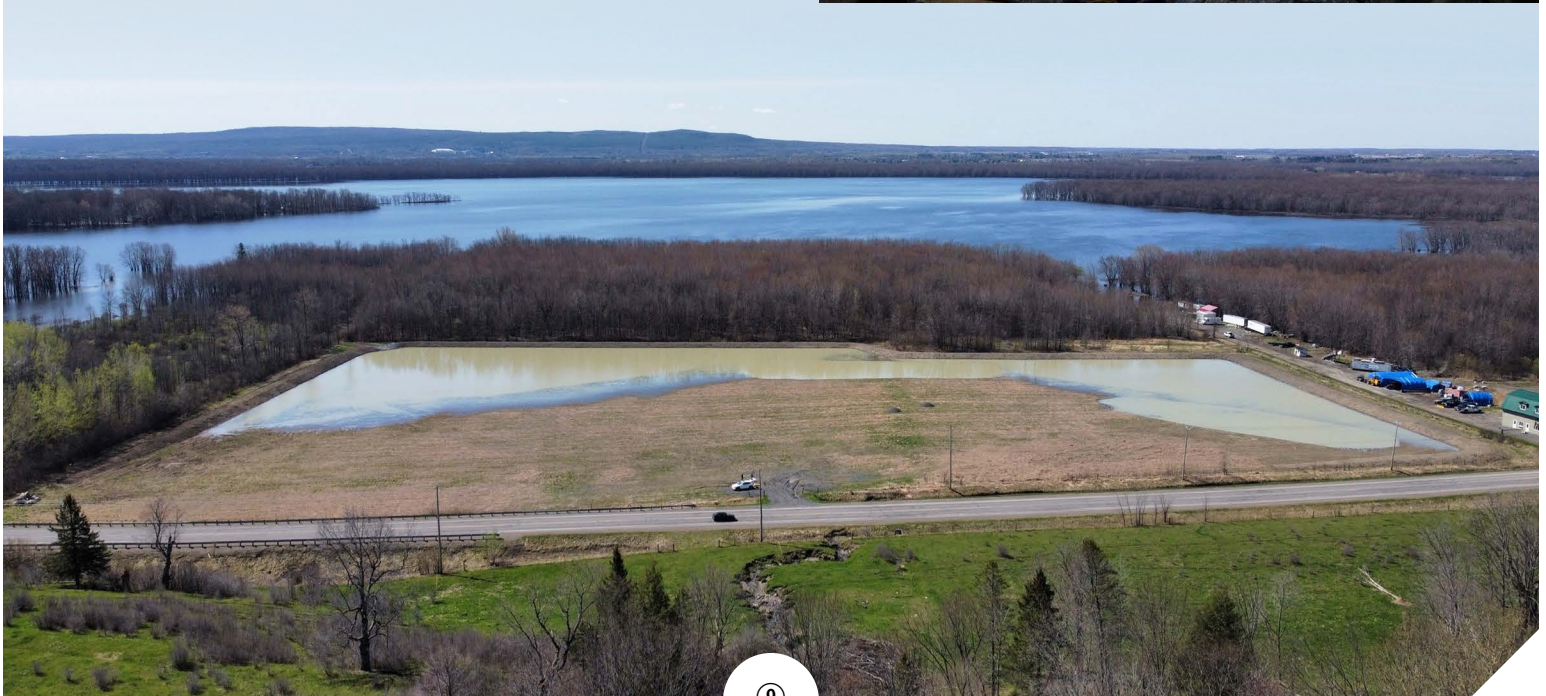


### Lavigne Marsh

The Lavigne property borders the Ottawa River in Carillon, in the Laurentians. The 35-acre property was purchased by DUC in March 2021. The restoration site consists of a nine-acre marsh on the ditched and drained portion of the property. By restoring the wetland and managing water levels, a hemi-marsh suitable for waterfowl and wildlife has been established. This new marsh will benefit the least bittern, present in the area, by offering good breeding and feeding habitat. Taking advantage of the natural relief of the land, the installation of a ring dike and a rock spillway will create a good distribution of open water areas and aquatic vegetation once flooded. The northern map turtle, a provincial species at risk, is found within Carillon Bay. To increase its breeding success, four egg-laying sites were developed by placing gravel mounds around the marsh, on the dikes and exposed to the sun.



**Above right:** The least bittern, a species at risk, will benefit from the new habitat created at Lavigne Marsh. **Right:** Egg-laying sites at Lavigne Marsh were built to entice northern map turtles. **Below:** Aerial view of the Lavigne project, one month after winter construction was completed. Water levels will continue to rise over the next year. The Ottawa River is in the background.





**Top:** DUC staff clean debris from the water control structure during the inspection and assessment of Lac Noir. **Above:** Coastal salt marsh along the St. Lawrence River.

## Management Program

### Protecting Our Investment

With more than 450 wetland conservation project segments in the province, representing over 57,000 acres of secured habitat, ongoing operation and maintenance is critical to ensuring the projects continue to provide valuable waterfowl habitat. DUC's engineering team uses a group of enthusiastic, hard-working contractors and summer students to ensure projects are in good working order. Removing beaver debris, managing water levels and assessing project infrastructure conditions are all important components of the annual management program.

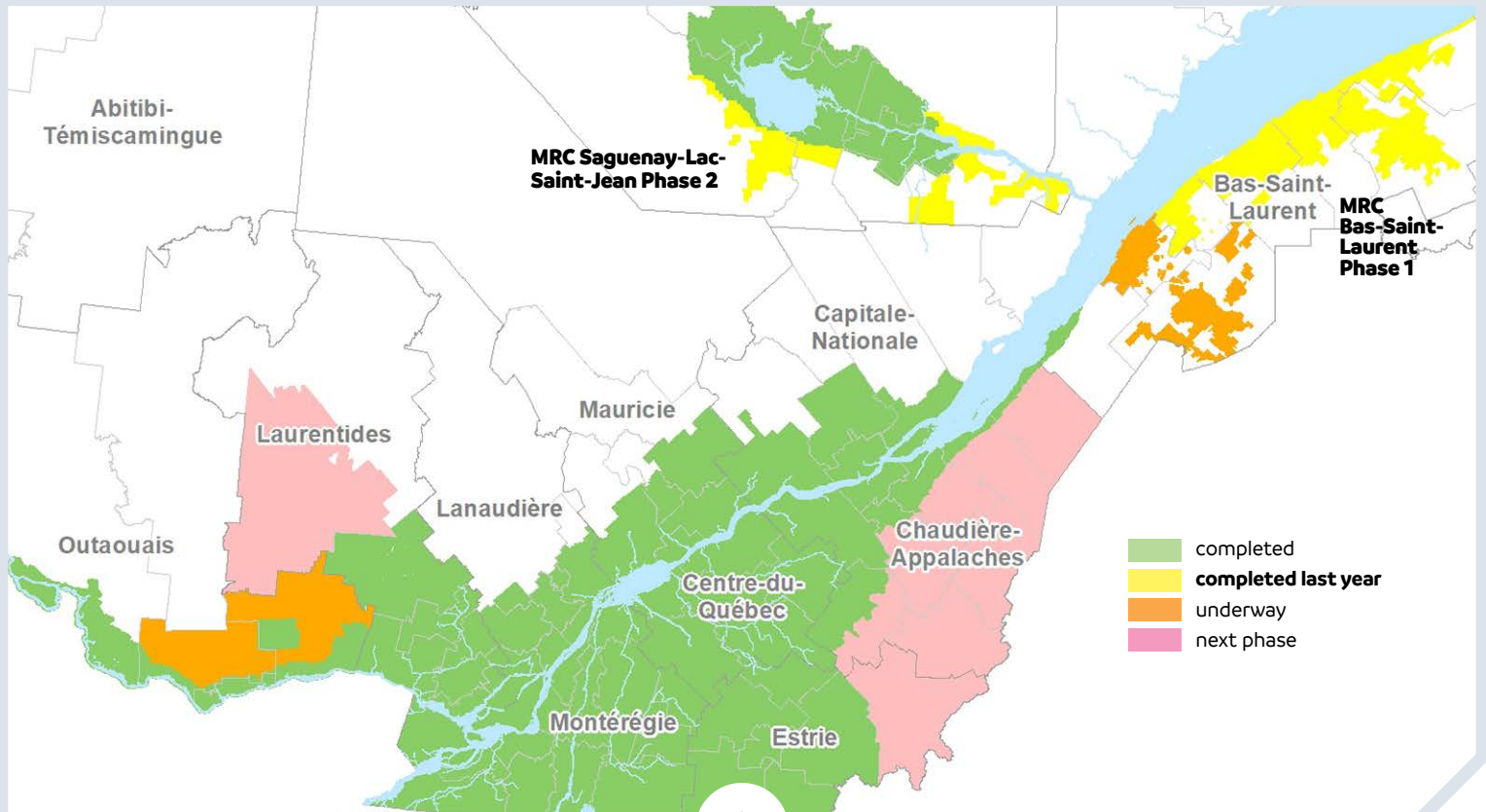
## Influencing Landscapes

### Municipal Stewardship Program

Integration of the baseline information about the extent, type and state of wetlands into various planning, conservation and public awareness activities by municipalities, governments, watershed groups and other NGOs is the goal of the Municipal Stewardship Program. Since 2010, over 2 million acres of wetlands have been mapped in the Saint Lawrence Lowlands, which includes Montreal and Quebec City, and covers 72 regional municipal counties, 766 municipalities and has a population base of over six million. In FY2022, DUC completed two mapping projects: MRC Bas-Saint-Laurent Phase 1 and Saguenay-Lac-Saint-Jean Phase 2.

- For the MRC Bas-Saint-Laurent Phase 1, 24,816 wetland polygons were identified covering an area of 184,493 acres, which corresponds to 15% of the territory in wetlands.
- For MRC Saguenay-Lac-Saint-Jean Phase 2, resulted in 19,349 wetland polygons covering an area of 80,395 acres, which corresponds to 13.5% of the territory in wetlands.

Due to this success, the program will continue to develop mapping tools for municipal land-use planners in partnership with many other government and municipal partners for the settled areas of southern Quebec (*see pink areas on progress map below*) over the next five years. These activities will provide quality information on the presence and value of wetlands to these municipalities and provide the basis for long-term conservation planning.



# Securing a Legacy



Ducks Unlimited and the Virginia DWR are working together to conserve the 'best of the best' waterfowl habitats in Quebec.

***Ducks Unlimited is the world leader in wetland conservation.***

The EHJV Implementation Plan and DU have set habitat objectives to restore key priority areas in Quebec and to sustain waterfowl production. Continued partnerships will be the key to success.

DU values its relationship with the Virginia DWR and recognizes them as a key player in supporting NAWMP conservation efforts in Canada. However, increased support from all partners is needed if the goals of NAWMP are to be met. The waterfowl community continues to recognize habitat programs as the primary solution to waterfowl recovery. DUC is the primary delivery agent of the NAWMP program in Eastern Canada.

***Your support and continued action in Quebec means that critical waterfowl habitat will be protected in the top waterfowl production area of North America. The benefits of these conservation efforts will endure for the enjoyment of future generations.***

## Thank You.

