NATIONAL CONSERVATION PLAN

Îles de la Paix National Wildlife Area Management Plan

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Canada

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About Environment Canada Protected Areas and Management Plans

What are Environment Canada Protected Areas?

Environment Canada establishes marine and terrestrial National Wildlife Areas for the purposes of conservation, research and interpretation. National Wildlife Areas are established to protect migratory birds, species at risk, and other wildlife and their habitats. National Wildlife Areas are established under the authority of the *Canada Wildlife Act* and are, first and foremost, places for wildlife. Migratory Bird Sanctuaries are established under the authority of the *Migratory Birds Convention Act, 1994* and provide a refuge for migratory birds in marine and terrestrial environments.

What is the Size of the Environment Canada Protected Areas Network?

The current Protected Areas Network consists of 54 National Wildlife Areas and 92 Migratory Bird Sanctuaries comprising more than 12 million hectares across Canada.

What is a Management Plan?

A management plan provides the framework in which management decisions are made. It is intended to be used by Environment Canada staff to guide decision making, notably with respect to permitting. Management is undertaken in order to maintain the ecological integrity of the protected area and to maintain the attributes for which the protected area was established. Environment Canada prepares a management plan for each protected area in consultation with First Nations, the public and other stakeholders.

A management plan specifies activities that are allowed and identifies other activities that may be undertaken under the authority of a permit. It may also describe the necessary improvements needed in the habitat, and specify where and when these improvements should be made. A management plan identifies Aboriginal rights and allowable practices specified under land claims agreements. Further, measures carried out for the conservation of wildlife must not be inconsistent with any law respecting wildlife in the province in which the protected area is situated.

What is Protected Area Management?

Management includes monitoring wildlife, maintaining and improving wildlife habitat, periodic inspections, enforcement of regulations, as well as the maintenance of facilities and infrastructure. Research is also an important activity in protected areas; hence, Environment Canada staff carries out or coordinates research in some sites.

The Series

All of the National Wildlife Areas are to have a management plan. All of these management plans will be initially reviewed five years after the approval of the first plan, and every ten years thereafter.

To Learn More

To learn more about Environment Canada's protected areas, please visit our website at www.ec.gc.ca/ap-pa or contact the Canadian Wildlife Service.

Îles de la Paix National Wildlife Area

The Îles de la Paix National Wildlife Area is an archipelago that extends about five kilometres in the Lake Saint-Louis, a natural widening of the St. Lawrence River situated southwest of Montréal, in a highly urbanized and industrialized region. These islands are located next to the St. Lawrence Seaway, one of the most important navigable waterways in North America. Created in 1977 by Environment Canada, this National Wildlife Area (NWA) aims to protect important waterfowl breeding habitats and a popular staging area for migratory birds.

This 120-hectare protected area is an archipelago consisting of low islands surrounded by beaches and wetlands and covered by open environments and sparse stands of Silver Maple. Despite its small area, the NWA supports a diversity of habitats that are used by close to 130 species of birds. They provide nesting sites for dozens of breeding pairs of ducks, as well as food and refuge for close to 5 000 ducks during the spring migration and close to 30 000 ducks during the fall migration. The NWA is home to over 150 animal species and over 50 plant species, some of which are species at risk.

A number of birds use the Îles de la Paix during the breeding period. The Black Duck, the Mallard, the Blue-winged Teal, the Green-winged Teal and the Northern Pintail nest along the edge of the islands and sometimes, when water levels are high, in the forks of trees. Dead trees on the islands provide breeding habitat for the Tree Swallow. The Black Tern forms large colonies in the islands' marshes. A few mammals also use the area, among them the Muskrat, which frequent the islands' shores and cattail marshes, the Beaver, the American Mink and sometimes, in winter, the Coyote and the Red Fox.

The NWA faces major threats and management challenges associated, among other things, with its proximity to a large urban area and current and past human activities. The main threats are shoreline erosion, the impact of human activities on the NWA and the invasion by plant species. Other threats and challenges to the management of the reserve include hunting and poaching, scientific knowledge gaps, Lake Saint-Louis contaminated sediments, and accidental spills.

Given the sensitive nature of the wildlife species and habitats on the islands, access and practice of activities in the Îles de la Paix NWA are prohibited, except under the authority of a permit issued by the Minister. A permit can be issued for scientific activities aligned with the priorities set out in the management plan, such as surveys, and habitat enhancement works or restoration.

The goals of the management plan are to: 1) reduce the impacts of human activities on the NWA; 2) protect and enhance significant habitats for species at risk, priority bird species, and other wildlife species; 3) reduce the effects of shoreline erosion; 4) ensure ecological monitoring of the NWA and improve knowledge on wildlife species and their habitats.

The plan is developed over a 10-year horizon and will be implemented as human and financial resources allow.

For greater certainty, nothing in this management plan shall be construed so as to abrogate or derogate from the protection provided for existing Aboriginal or treaty rights of the Aboriginal peoples of Canada by the recognition and affirmation of those rights in section 35 of the *Constitution Act, 1982.*

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1 DESCRIPTION OF THE PROTECTED AREA

The Îles de la Paix National Wildlife Area (NWA) was created in 1977 by Environment Canada to protect important waterfowl habitats and a popular staging area for migratory birds. The NWA is comprised of low islands fringed by beaches and wetlands, and offers a unique ecosystem for various species of plants and animals in a heavily urbanized and industrialized region. The archipelago is about five kilometres long and is located in Lake Saint-Louis, a widening of the St. Lawrence River situated approximately 20 kilometres of Montréal in southwestern Quebec (Figure 1).

Table 1: Information on Îles de la Paix National Wildlife Area

Protected Area (PA) Designation	National Wildlife Area
Province or Territory	Quebec – municipalities of Beauharnois and Léry RCM of Beauharnois-Salaberry and RCM of Roussillon
Latitude and Longitude	45°20' N 73°54' W
Size	120 ha
Protected Areas Selection Criteria (Protected Areas Manual[1])	Historic: Created to protect wetlands providing important waterfowl breeding areas and a popular staging area for migratory birds. Current: Criterion 2a – The area supports an appreciable assemblage of rare, vulnerable, threatened or endangered species or subspecies of plants or animals, or an appreciable number of individuals of any one or more of these species or subspecies. For this NWA: The area supports an appreciable number of individuals of the Green Dragon, a plant species designated threatened by the Government of Quebec. Criterion 2b – The area has special value for maintaining the genetic and ecological diversity of a region because of the quality and uniqueness of its flora and fauna. For this NWA: The area supports a diversified and unique fauna and flora.
PA Classification System (Protected Areas Manual[1])	Category A – Species or critical habitat conservation
International Union for Conservation of Nature Classification (UICN[2])	Category Ia – Strict nature reserve
Order-in-Council Numbers	C.P. 1977-2958, C.P. 1978-1439, C.P. 1995-1445
Directory of Federal Real Property (DFRP) Number	67462
Gazetted	1977, 1978, 1995

Table 1: Information on Îles de la Paix National Wildlife Area (continued)

Other Designations	Îles de la Paix Migratory Bird Sanctuary, which includes the islands of the NWA and the surrounding waters within a radius of 500 m, for the most part; Important Bird Area (IBA "Lac Saint-Louis et Îles de la Paix").
Faunistic and Floristic Importance	Wetlands and islands forming important breeding areas for birds and a popular staging area for migratory birds. Presence of species at risk.
Invasive Species	Presence of three invasive plant species: the European Reed, the Reed Canary Grass and the Purple Loosestrife. In the grass beds surrounding the NWA, presence of the Zebra Mussel and the Quagga Mussel.
Species at Risk	The NWA supports at least three species at risk under the federal *Species at Risk Act*, including the Green Dragon, and at least eight species designated threatened or vulnerable or likely to be so designated in Quebec under the provincial *Act respecting threatened or vulnerable species*, including the Hoary Bat.
Management Agency	Environment Canada – Canadian Wildlife Service
Public Access and Use	Access prohibited. Permits can be issued for activities related to the conservation of species and habitats.

[1] Environment Canada, 2005

[2] UICN

Figure 1: Îles de la Paix National Wildlife Area

Note: The boundaries of the islands changed over time due to shoreline erosion and land flooding. The current configuration of the islands does not correspond to the original official boundaries of the NWA because portions of the territory have been submerged.

1.1 REGIONAL CONTEXT

The Îles de la Paix consist of low-lying, low-relief alluvial stretches, most of which are part of the Îles de la Paix Natural Wildlife Area. The NWA is located within the municipalities of Beauharnois and Léry in the Lake Saint-Louis, a natural widening of the St. Lawrence River situated roughly 20 kilometres southwest of Montreal (Figure 2). The islands are located next to one of the most important navigable waterways in North America: the St. Lawrence Seaway.

Figure 2: Aerial view of a sector of the Îles de la Paix National Wildlife Area
Photo: © Society for the Protection of Parc des Îles-de-la-Paix

The municipality of Beauharnois has a population of 11 918 people, among which 2 808 live in the district of Maple Grove, and the municipality of Léry has 2 385 people. The economic activity of the regional county municipality of Beauharnois-Salaberry is strongly influenced by the proximity of a large urban centre, metallurgical industries and a hydroelectric dam. The shoreline is heavily urbanized, but agriculture is still covering most of the area. Lake Saint-Louis is heavily used by recreational boaters and water sports enthusiasts and is home to the second largest marina in Quebec.

The Îles de la Paix archipelago is exposed to severe environmental stresses. The islands are particularly sensitive to high water levels (that may be due to the artificial regulation of Lake Saint-Louis for navigation and hydroelectric power production). They are also affected by wind and water erosion. It appears that shoreline erosion has slowed since 2001 but can nonetheless

exceed one meter a year in some of the more highly exposed sectors of the islands, such as La Grande Île, Île Ronde and Île aux Plaines (Figure 1). Between 1964 and 1997, the area of swamps and marshes greatly decreased in the NWA (from about 90 % to 30 % of the territory) (Figure 3) while the area of marshes [swamps that became submerged] and submerged marshes significantly increased (from 5% to 45% of the territory) (Labrecque and Jobin, 2013). These major changes are likely associated with high water levels that occurred between the 1970s and the mid-1980s (Canadian Wildlife Service, 2003)..

The islands of the NWA act as a natural breakwater and protect the south shore of Lake Saint-Louis from severe erosion (Figure 4). They also provide a high-quality staging area for waterfowl during the migration, thus creating opportunities for fall hunting activities in the waters surrounding the NWA, and generating economic benefits for local communities.

Although access to the islands is prohibited, the beauty of the surrounding landscape and the sheltered waters around the islands attract recreational boaters, kayakers and canoeists, bird watchers, and recreational fishers.

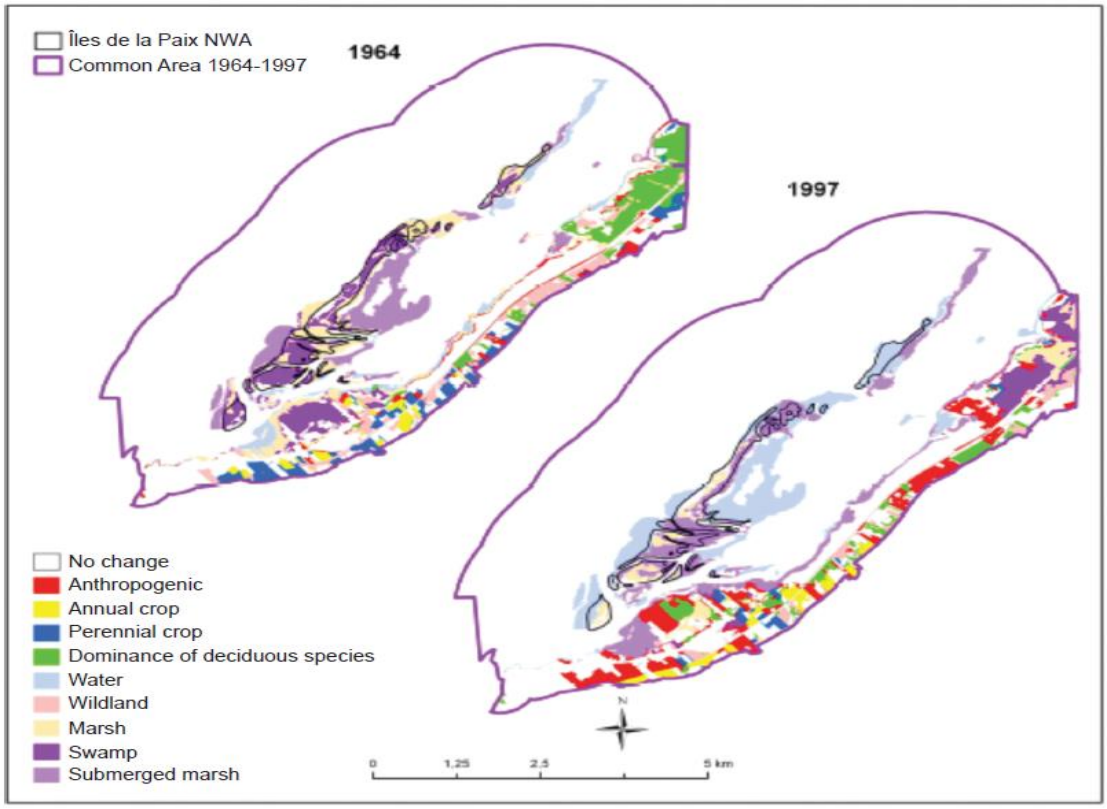

Figure 3: Comparison of the distribution of habitats in 1964 and 1997 following the rise in water levels in the Îles de la Paix National Wildlife Area
Source: Labrecque and Jobin, 2013

Figure 4: Île à Tambault in 1999; shoreline erosion can be seen
Photo: Denis Lehoux © Environment Canada, Canadian Wildlife Service

1.2 HISTORICAL BACKGROUND

A string of islands in the middle of game-filled waters, the Îles de la Paix was an Aboriginal camp and fishing base for close to 3 000 years, as evidenced by artifacts recovered from the islands. At the time of settlement in the 17th century, the islands were part of the seigneury of Île Perrot. In the following century, the seigneurial rights to the islands were gradually transferred, by either inheritance or sale, to various owners. One of the owners was Marguerite Dufrost de la Jemmeraye, the widow of François Madeleine Youville, better known as Marguerite d'Youville, the director of the General Hospital of Montréal and the founder of the Grey Nuns of Montréal religious order (Ringuet and de Repentigny, 1986). Two centuries later, on November 24, 1967, the order sold most of the archipelago (11 islands) to the Government of Canada.

The archives of the Grey Nuns of Montréal provides a better understanding of the use of the area prior to its purchase by the federal government. They contain agreements between the religious order and individuals for activities on the islands, such as wood collecting and timber harvesting; in return, these individuals committed to maintain the areas and to ensure some

degree of surveillance. It seems that the Îles de la Paix was once used as pasture, and that in the 19th and early 20th centuries, beach hay (*foin de grève*) was harvested there.

More recently, Ringuet and de Repentigny (1986) mention that sporadic fishing has taken place in Lake Saint-Louis for several centuries. In the spring, the Yellow Perch (*Perca flavescens*) is particularly abundant. In summer, the Brown Trout (*Salmo trutta*), the Northern Pike (*Esox lucius*), the Muskellunge (*Esox maskinongy*), the Smallmouth Bass (*Micropterus dolomieu*), the Largemouth Bass (*Micropterus salmoides*) and the Walleye (*Stizostedion vitreum*) are highly sought after. The authors also mention that waterfowl hunting is associated with the abundance of waterfowl habitats on Lake Saint-Louis. Every year, hunters fill their bags with 15 000 aquatic birds. This surprising abundance confirmed in the 1980s the need to protect waterfowl and its habitat in Lake Saint-Louis.

Given their location in the heart of a highly urbanized and industrialized region, the Îles de la Paix are, in a sense, one of the only areas left that are still suitable for aquatic birds and diversified wildlife in the greater Montréal area. Today, many human communities are established close to these islands and the NWA, notably in Léry and Beauharnois. Vibrant Mohawk communities still exist in the area and utilize the lands for traditional pursuits.

1.2.1 National Wildlife Area

By 1967, the Government of Canada already owned a large part of the Îles de la Paix, and consolidated the territory by expropriating three other islands in 1968. On March 7, 1973, the Canadian Wildlife Service of Environment Canada, which was responsible for managing the site, established the Îles de la Paix Migratory Bird Sanctuary. That status applied only to dry land and was designed to protect birds that frequented the islands in large numbers (Ringuet and de Repentigny, 1986). In 1977, with the promulgation of the *Canada Wildlife Act*, the same islands became the Îles de la Paix National Wildlife Area. This dual status for the islands remained until 1980, when the sanctuary status was eliminated, only to be restored in 1986, with the addition of a 500-metre perimeter around most of the islands (Figure 1).

The first management plan of Îles de la Paix NWA was published in 1986 (Ringuet and de Repentigny, 1986). In addition, a conservation plan of this protected area was published in 2003 (Canadian Wildlife Service, 2003).

1.3 LAND OWNERSHIP

All of the islands that form the NWA are owned by the Government of Canada since they were acquired through purchase and/or expropriation in the 1960s. They are managed by Environment Canada. However, other islands in the archipelago are privately owned, namely Île

Ronde (or Île Lucas), Île du Rapide (or Île du Docteur) and two unnamed islands. The islands once covered a much larger area (121 ha), but have been exposed to the rising water levels and to significant wave-induced erosion. A large part of the land area that was initially protected was lost to erosion and transformed into shoals (Figure 3). As a result, there is some ambiguity with respect to title to land that has been eroded and submerged.

1.4 INSTALLATIONS AND INFRASTRUCTURE

There are no facilities or infrastructure in the Îles de la Paix NWA. However, signs installed at various locations within the area describe the regulations and indicate the boundaries of the NWA.

2 ECOLOGICAL RESOURCES

2.1 TERRESTRIAL AND AQUATIC HABITATS

The Îles de la Paix are so low-lying that, from the south shore of Lake Saint-Louis, they appear as a distant mirage. The central part of most of the islands is lower than the shoreline, forming a depression colonized by a succession of plant species ranging from wetland plain vegetation to swamp vegetation (Figure 5). The gently sloped shore is clayey or sandy to the north, on the channel side, and is exposed to waves and spring flooding. Due to their exposure to high water levels and erosion, the Îles de la Paix have undergone significant recession rates (Dauphin and Lehoux, 2003; Labrecque and Jobin, 2013). Changes have thus occurred in the composition of the habitats. Today, tall grass prairies and forests are the main habitats available in the islands (Lehoux et al., 2003, in Rivard and Giguère, 2014). The islands are bordered by a marsh, primarily on the south side of the archipelago. The shallow water zone (less than 1 m deep) covers over 1 000 hectares around the islands.

Over 51 plant species occur in the NWA. The shoreline vegetation of the islands varies from west to east. The westernmost islands (Île à Thomas, Île du Rapide, La Grande Île) are characterized by forests (dead woodlands) dominated by the Red Maple (*Acer rubrum*) or Silver Maple (*Acer saccharinum*) invaded by emergent hydrophytes. On higher areas of the islands, there are forests that have been exposed to exceptionally high water levels in the 1970s and 1980s (stressed woodlands). These forests shelter the Reed Canary Grass (*Phalaris arundinacea*), Rice Cutgrass (*Leersia oryzoides*) and Purple Loosestrife (*Lythrum salicaria*). The highest points on the island, in the generally most sheltered southeast areas, are characterized by Silver Maple stands with the Canada Nettle (*Laportea canadensis*) or Reed Canary Grass. The maple stands contain a high diversity of other species, including the Gray Birch (*Betula populifolia*), American Ash (*Fraxinus americana*) and Basswood (*Tilia americana*). The shrub layer is composed of the Common Buttonbush (*Cephalanthus occidentalis*), Common Winterberry (*Ilex verticillata*) and Staghorn Sumac (*Rhus typhyna*).

The easternmost islands are colonized primarily by stressed woodlands or forests that shelter the Reed Canary Grass, Rice Cutgrass and Purple Loosestrife (Figure 6). There is an area of generally very dense herbaceous meadows, primarily graminoids. At a lower elevation, the herbaceous meadows comprise emergent hydrophytes, such as the Giant Bur-Reed (*Sparganium eurycarpum*), the Common Cattail (*Typha latifolia*) and the Broadleaf Arrowhead (*Sagittaria latifolia*), species typical of aquatic habitats (Gratton and Mousseau, 1985).

In the southern part of the archipelago, the islands are sheltered from the winds and currents, which is favourable to the growth of floating aquatic plants. The dominant species is the Tuberous Water Lily (*Nymphaea tuberosa*), and companion species include the Canada Waterweed (*Elodea canadensis*), the Tape Grass (*Vallisneria americana*), the Water Stargrass (*Heteranthera dubia*), the Nitella (*Nitella* sp.) and the Ivy-leaved Duckweed (*Lemna trisulca*) (Grondin et al., 1983).

Figure 5: La Grande Île in 1999 – terrestrial habitats and marsh
Photo: Denis Lehoux © Environment Canada, Canadian Wildlife Service

Figure 6: Île aux Plaines in 2011 – forest subject to water level variations
Photo: Benoît Roberge © Environment Canada, Canadian Wildlife Service

2.2 WILDLIFE SPECIES

Despite the loss of habitats due to severe shoreline erosion, the NWA supports a wide variety of animal species in a relatively limited space given the diversity of habitats offered by its extensive grass beds and wetlands. Animal inventories conducted in 2004 by the Canadian Wildlife Service (Rivard and Giguère, 2014) have shown that the archipelago supports over 11 mammal species, some 130 bird species, 3 reptile species and 5 amphibian species. In the surrounding waters, 41 fish species, 9 mollusc species (freshwater mussels) and invertebrates of over 70 taxa were recorded.

2.2.1 Invertebrates

The waters around the Îles de la Paix make the NWA a unique environment that supports a rich diversity and abundance of benthic wildlife dominated by gastropods, oligochaetes, amphipods and pelecypods (Ferraris, 1984a, b). These invertebrates are an important food source for many wildlife species, particularly fish and waterfowl. Surveys of benthic fauna conducted in Lake Saint-Louis and along the Îles de la Paix (Levasseur, 1977; Ferraris, 1984a, b; Jacquaz, 1995) revealed over 70 taxa. Although probably incomplete, this portrait indicates that the benthic fauna in the sector is relatively diversified on account of the large variety of aquatic habitats. There are no data on the insects present in the Îles de la Paix. As regards molluscs, a survey of freshwater mussel shells collected on the shores recorded nine species, with the Zebra Mussel (*Dreissena polymorpha*) clearly being the dominant species in the shellfish areas surveyed (Rivard and Giguère, 2014).

2.2.2 Fish

Spawning by two species, namely the Largemouth Bass and the Yellow Perch, has been confirmed around the Îles de la Paix. Potential spawning areas have been found for the following 9 other species: the Bowfin (*Amia calva*), the Rock Bass (*Ambloplites rupestris*), the Common Carp (*Cyprinus carpio*), the Northern Pike, the Catfish (*Ameiurus nebulosus*), the Channel Catfish (*Ictalurus punctatus*), the Pumpkinseed (*Lepomis gibbosus*), the Burbot (*Lota lota*) and the Black Cappie (*Pomoxis nigromaculatus*) (Gravel and Pageau, 1976; Mongeau and Massé, 1976; Pageau and Tanguay, 1977). A total of 41 species were recorded in the waters surrounding the Îles de la Paix. Most recent surveys have found about 20 species of fish (La Violette et al., 2003).

2.2.3 Amphibians and Reptiles

In the surveys and field visits by the Canadian Wildlife Service in 2004, the following amphibian and reptile species were also recorded in the NWA: the Wood Frog (*Rana sylvatica*), the Northern Leopard Frog (*Rana pipiens*), the Spring Peeper (*Pseudacris crucifer*), the American Bullfrog (*Lithobates catesbeianus*), the Common Garter Snake (*Thamnophis sirtalis*), and the Painted Turtle. The Eastern American Toad (*Bufo americanus americanus*) was also reported on the archipelago (Ringuet and de Repentigny, 1986) as well as on the mainland (Maple Grove district in Beauharnois) (Rivard and Giguère, 2014). The Green Frog (*Rana clamitans*) was also observed on the mainland (Maple Grove district in Beauharnois) (Canadian Wildlife Service, 2003) and could possibly be present on the Îles de la Paix. The presence and abundance of the species and of the American Bullfrog in the NWA have yet to be documented (Rivard and Giguère, 2014).

2.2.4 Birds

Despite the small size of the area, close to 130 bird species have been surveyed in the NWA and immediate vicinity, most of which are in transit (ÉPOQ, 2011). Over 60 bird species were counted specifically on the islands, and of that number, more than 20 nesting species (Ringuet and de Repentigny, 1986; Rivard and Giguère, 2014). In the late 1960s and early 1970s, some 70 duck nests were inventoried each year. Due to spring flooding, the Mallard (*Anas platyrhynchos*) and the American Black Duck (*Anas rubripes*), the two main nesting species, had adapted to nesting in trees in order to protect their nests from flooding (Laperle, 1970). In addition to these two species, high densities of the Blue-winged Teal (*Anas discors*) and the Northern Pintail (*Anas acuta*) were also recorded. Today, the majority of woodlands are stressed or dead due to the high water levels (Figure 6), and the sparsely populated forests no longer provide the necessary shelter against predators (Ringuet and de Repentigny, 1986). However, the vast marshes of the Îles de la Paix continue to offer a high-value habitat for brood rearing. In a 2001 survey, a colony of 60 to 70 Great Blue Herons (*Ardea herodias*) was recorded on Île à Thomas, and several nests were observed in 2004 (Rivard and Giguère, 2014). In 1998, a colony of 90 Double-crested Cormorants (*Phalacrocorax auritus*) was seen on Île à Tambault. However, it disappeared in 1999 (Canadian Wildlife Service, 2003), possibly as a result of several factors as habitat degradation or human disturbance.

The dead forests provide breeding habitat for the Tree Swallow (*Tachycineta bicolor*), and the marshes serve as nesting and brood-rearing habitat for the Black Tern (*Chlidonias niger*) (Ringuet and de Repentigny, 1982, in de Repentigny, 1988). Other breeding bird species

present in the NWA include the Pied-billed Grebe (*Podilymbus podiceps*), the Green Heron (*Butorides virescens*), the Common Gallinule (*Gallinula galeata*), the Spotted Sandpiper (*Actitis macularius*), the Mourning Dove (*Zenaida macroura*), the Eastern Screech Owl (*Megascops asio*), the Marsh Wren (*Cistothorus palustris*) and the Red-winged Blackbird (*Agelaius phoeniceus*). The Black-crowned Night-Heron (*Nycticorax nycticorax*) and the Great Blue Heron are also present during the nesting period.

The Îles de la Paix also serve as a staging area for migrating waterfowl (Canadian Wildlife Service, 2003) and are used by the Mallard, the Black Duck, the American Widgeon (*Anas americana*) and the Northern Pintail. Diving ducks, such as the Common Goldeneye (*Bucephala clangula*), the Bufflehead (*Bucephala albeola*) and the Ring-necked Duck (*Aythya collaris*), also occur at the site. In addition, large numbers of Canada Geese (*Branta canadensis*) (over 500 individuals) gather in the waters north of the archipelago in the spring (Denis Labonté, CWS, pers. comm., 2010). Over 5 000 ducks are also present around the Îles de la Paix during this period, and as many as 30 000 birds can be found in the NWA during the fall migration (de Repentigny, 1988). The diversity of habitats attracts many other groups of birds, such as passerines, terns and gulls.

2.2.5 Mammals

The natural (unaltered) shorelines of the Îles de la Paix combined with the presence of emergent marshes and swamps provide high-quality habitats for the Muskrat (*Ondatra zibethicus*), which is abundant on the islands (Marsan et ass., 1986; Armellin et al., 1994). The Beaver (*Castor canadensis*) and the American Mink (*Neovison vison*) are also present (Canadian Wildlife Service, 2003). The Red Fox (*Vulpes vulpes*) and the Coyote (*Canis latrans*) can been observed on the Îles de la Paix in winter. Surveys carried out in 2004 (Rivard and Giguère, 2014) allowed to identify only one micromammal species in the NWA, the Meadow Vole (*Microtus pennsylvanicus*). They also revealed the presence (using recordings) of at least three species of bats in the NWA or in its immediate vicinity: the Hoary Bat (*Lasiurus cinereus*), clearly identified, the Big Brown Bat (*Eptesicus fuscus*) or the Silver-haired Bat (*Lasionycteris noctivagans*) and individuals of the genus *Myotis* (Rivard and Giguère, 2014) (see 2.3 Species at Risk).

2.3 SPECIES AT RISK

The Îles de la Paix NWA supports a diversity of plant and animal species, among which at least three have been designated “at risk” under the *Species at Risk Act*, and at least eight species have been or are likely to be designated threatened or vulnerable in Quebec under the province’s *Act respecting threatened or vulnerable species* (ARTVS) (Table 2).

Three at-risk bird species were observed in the NWA in surveys conducted in 2004: the Barn Swallow (*Hirundo rustica*), the Eastern Wood-Pewee (*Contopus virens*), a probable breeder in the NWA, and the Caspian Tern (*Hydroprogne caspia*) (Savard and Giguère, in prep.).

The presence of the Hoary Bat has been confirmed during acoustic surveys conducted in 2004 (Rivard and Giguère, 2014). One recording could be one of the Big Brown Bat or the Silver-haired Bat, a species likely to be designated threatened or vulnerable in Quebec, but the identification could not be confirmed. In addition, individuals of the genus *Myotis* were recorded. It could be the Little Brown Bat (*Myotis lucifugus*) or the Northern Myotis (*Myotis septentrionalis*), two species that are endangered in Canada, but due to strong similarities between the sounds of both species, it is often impossible to distinguish them with certainty. Based on their ecological preferences, it was most probably the Little Brown Bat (Rivard and Giguère, 2014).

Turtle tracks, possibly of the Snapping Turtle (*Chelydra serpentina*) or the Northern Map Turtle (*Graptemys geographica*), as well as suitable habitats for these species, were observed in the NWA, but the presence of these species remains to be confirmed (Rivard and Giguère, 2014). The Brown Snake (*Storeria dekayi*) and the Northern Watersnake (*Nerodia sipedon sipedon*), two species likely to be designated threatened or vulnerable in Quebec, as well as the Western Chorus Frog (*Pseudacris triseriata*), a species designated threatened under the SARA and vulnerable under the ARTVS, are present near the Îles de la Paix, but observation of these species has not yet been reported in the NWA (Rivard and Giguère, 2014; CDPNQ, 2014). It is unlikely that these species will frequent the NWA.

As regards vascular plants at risk, a large colony of the Green Dragon (*Arisaema dracontium*), a species of special concern in Canada and endangered in Quebec, occurs in the NWA, as well as the Swamp White Oak (*Quercus bicolor*) and four other species likely to be designated threatened or vulnerable under the ARTVS. Records of five other plant species likely to be designated so are listed in the database of the Centre de données sur le patrimoine naturel du Québec: *Arabia laevigata*, *Cardamine concatenata*, *Neobeckia aquatica*, *Potamogeton pusillus* subsp. *gemniparus* and *Zizania aquatica* var. *aquatica*. The majority of the last observations were made in 1965 and have not been validated.

Table 2: Species at Risk in the Îles de la Paix National Wildlife Area

Common and scientific names of species	Status in Canada SARA[1]	Status in Canada COSEWIC[2]	Status in Quebec ARTVS[3]
Birds			
Barn Swallow *Hirundo rustica*	No status	Threatened	No status
Eastern Wood-Pewee *Contopus virens*	No status	Special concern	No status
Caspian Tern *Hydroprogne caspia*	No status	Not at risk	Threatened
Mammals			
Silver-haired Bat (to be confirmed) *Lasionycteris noctivagans*	No status	No status	SLDTV[4]
Hoary Bat *Lasiurus cinereus*	No status	No status	SLDTV[4]
Myotis sp (Little Brown Bat, *M. lucifugus*, **and/or** Northern Myotis, *M. septentrionalis*)	Endangered	Endangered	No status
Reptiles			
Common Map Turtle (to be confirmed) *Graptemys geographica*	Special concern	Special concern	Vulnerable
Snapping Turtle (to be confirmed) *Chelydra serpentina*	Special concern	Special concern	No status
Vascular Plants			
Green Dragon *Arisaema dracontium*	Special concern	Special concern	Threatened
Narrow-leaved Blue-eyed Grass *Sisyrinchium angustifolium*	No status	No status	SLDTV[4]
Swamp White Oak *Quercus bicolor*	No status	No status	SLDTV[4]
Rusty Flatsedge *Cyperus odoratus*	No status	No status	SLDTV[4]
LeConte's Violet *Viola affinis*	No status	No status	SLDTV[4]
Northern Watermeal *Wolffia borealis*	No status	No status	SLDTV[4]

1 Canada *Species at Risk Act* (Species at Risk Public Registry, 2014)
2 Committee on the Status of Endangered Wildlife in Canada (COSEWIC, 2014)
3 Quebec *Act Respecting Threatened or Vulnerable Species* (MDDELCC, 2014 and MFFP, 2014)
4 Species likely to be designated threatened or vulnerable in Quebec (MDDELCC, 2014 and MFFP, 2014)

3 MANAGEMENT CHALLENGES AND THREATS

The Îles de la Paix NWA is facing many management threats and challenges, which are largely related to the proximity of a large urban area and to present and past human activities. A study conducted by Environment Canada in 2003 indicates that the ecological integrity of the NWA was not sufficient to meet its conservation objectives (Canadian Wildlife Service, 2003). Nowadays, the state of ecological integrity of the NWA is probably similar to that observed in 2003, or may even have deteriorated, notably because of the islands' loss of area due to erosion. The main threats associated with the ecological integrity of the Îles de la Paix NWA are shoreline erosion, impact of human activities on the NWA and invasion by plant species. They are described below in descending order of importance according to the current state of knowledge.

3.1 SHORELINE EROSION

Erosion of the shorelines is one of the most serious threats on the Îles de la Paix NWA since it causes riparian habitat destruction, species loss and ecosystem modifications. Winds, ice and waves as well as high water levels in part related to the regulation of the St. Lawrence water levels (or flow) and observed mainly in the 1970s and 1980s (Canadian Wildlife Service, 2003) have resulted in the loss of forested areas on the islands (except on the higher parts) and in shoreline erosion of more than one meter a year in some areas, such as La Grande Île, Île Ronde and Île aux Plaines.

Over the years, the NWA has shrunk considerably in size, with shoreline recessions of approximately 64 metres over a 33-year period on some islands (Labrecque and Jobin, 2013). In an effort to limit the risk of shoreline erosion, dikes were constructed by the Society for the Protection of Parc des Îles-de-la-Paix. In 2001, a 235-metre dike was built between Île Napoléon (or Île du Gardien) and Île à Tambault. In addition, a 200-metre dike was constructed in 2009 beside La Grande Île and a 100-metre long riprap was installed on the east side of the dike. These efforts appear to have contributed to reducing erosion. In 2012, the authorities responsible for constructing highway 30 (NA30) built, as a fish habitat compensation measure, three dikes respectively 140 metres, 240 metres and 160 metres in length as well as three breakwater islets about 20 metres in diameter north of Île à Tambault. Lastly, in 2013, a 119-metre dike was installed west of Île aux Plaines.

3.2 IMPACT OF HUMAN ON THE NWA

Given the proximity of Montréal and the large population in the region, the Îles de la Paix NWA attracts many visitors despite the regulations and signage prohibiting entry and the presence of wildlife officers. A large number of recreational boaters and fishers, swimmers, dead-wood collectors, picnickers and partiers, sometimes accompanied by dogs, illegally access the islands of the NWA, disturbing birds during the breeding periods and trampling and degrading habitat (plants). The impacts of these activities are particularly important during the nesting and brood-rearing period, when species are very vulnerable to disturbance. Unauthorized human presence also threatens the species at risk present on the islands.

3.3 INVASION BY PLANT AND ANIMAL SPECIES

The European Reed (*Phragmites australis*), an exotic plant which has been present in the NWA for some years, has become invasive (B. Roberge, CWS, pers. comm., 2014). Moreover, forests on the easternmost islands exposed to water-level fluctuations are colonized by the Reed Canary Grass and the Purple Loosestrife, which are also considered invasive species. These species cover large areas and can cause losses of biodiversity and natural habitats. They pose a serious threat to the ecological integrity of the NWA.

In the waters surrounding the NWA, two species of exotic mussels are present: the Zebra Mussel and the Quagga Mussel (*Dreissena bugensis*). These species occur primarily in the grass beds surrounding the islands. Mussels filter larger quantities of phytoplankton, and compete with zooplankton species, a food source for young fish (OFAH, 2011). The Round Goby (*Neogobius melanostomus*) and the Rusty Crayfish (*Orconectes limosus*) consume large quantities of food and could compete for food resources with native fish species (OFAH, 2011).

Although not considered an invasive species, the so-called resident Canada Goose is expanding its range in urban environments (parks, golf courses, etc.) and could nest in the archipelago.

3.4 HUNTING AND POACHING

Although hunting is prohibited in the NWA, nearly 250 permits are issued annually for hunting in the aquatic part of the Migratory Bird Sanctuary that surrounds the NWA (500 m around the islands). The hunting of migratory birds in the sanctuary poses a major management challenge in terms of surveillance and enforcement. The appropriateness of continuing to allow migratory bird hunting in the sanctuary will have to be evaluated. Cases of migratory bird poaching in the NWA have also been reported.

3.5 SCIENTIFIC KNOWLEDGE GAPS

The current state of knowledge of ecosystems is sometimes inadequate or obsolete, particularly with respect to vegetation, habitats, certain bird and mammal species, and threats. These knowledge gaps sometimes hinder proper assessment of the current state of ecological integrity of the NWA and effective decision making on the management of the habitats and species present.

3.6 CONTAMINATED SEDIMENTS

Many years of industrial releases in the Beauharnois region have contributed to the contamination (pesticides, heavy metals) of lake sediments, particularly in the southern part of the NWA (Environment Canada, 2011). The toxic products present in water or trapped in sediments could accumulate in the food web of aquatic and terrestrial ecosystems.

3.7 ACCIDENTAL SPILLS

Many commercial vessels and recreational boats transit through the St. Lawrence Seaway every year. They cross Lake Saint-Louis and therefore sail near the Îles de la Paix NWA. An accidental spill of hydrocarbons or other chemicals from these ships into the waters surrounding the islands could have serious repercussions on aquatic species, their habitats and the ecosystem of the NWA.

4 GOALS AND OBJECTIVES

4.1 VISION

The Îles de la Paix National Wildlife Area protects significant habitats for species at risk, priority bird species and other wildlife species. Priority bird species are the species identified in the *Bird Conservation Strategy for Bird Conservation Region 13 in the Quebec Region: Lower Great Lakes/St. Lawrence Plain* (Environment Canada, 2013).

4.2 GOALS AND OBJECTIVES

The goals and objectives listed below are used to clarify the management plan vision, taking into account the threats and management challenges. These goals and objectives will be achieved by carrying out the actions identified in Table 3 (Management approaches for the Îles de la Paix National Wildlife Area), which will be implemented in accordance with available resources.

Goal 1: Reduce the impacts of human activities on the NWA.

Objectives:

1.1 Determine the current boundaries of the NWA (islands, flooded lands and adjacent grass beds) and post them in the field by means of signage in order to protect plants and animals from the impacts of human activity (navigation, fishing, hunting and disturbance).

1.2 Evaluate the appropriateness of continuing to allow migratory bird hunting in the waters of the Migratory Bird Sanctuary (500 m around the islands).

1.3 Raise regional awareness of the purpose of the NWA and applicable regulations, and obtain regional support.

1.4 Reduce the number of incidents of regulatory non-compliance.

1.5 Reduce the impacts of accidental spills.

Goal 2: Protect and enhance significant habitats for species at risk, priority bird species and other wildlife species.

Objectives:

2.1 Prevent and reduce the spread of invasive species.
2.2 Conserve wildlife species and their habitats.
2.3 Develop waterfowl nesting and brood-rearing habitats.
2.4 Assess the ecological potential of the archipelago islands that are not part of the NWA and determine the significance of threats to which they are exposed.

Goal 3: Reduce the effects of shoreline erosion.

Objectives:

3.1 Assess the priorities and the appropriateness for restoring shorelines and habitats and conduct the appropriate works if required.
3.2 Assess the feasibility of reforesting higher parts of the islands.

Goal 4: Ensure ecological monitoring of the NWA and improve knowledge on wildlife species and their habitats.

Objectives:

4.1 Fill priority knowledge gaps.
4.2 Establish an ecological monitoring program.

4.3 EVALUATION

An annual monitoring of the actions implemented and the results obtained will be performed based on financial and human resources availability. This monitoring will be used to establish priorities for action and resources. The management plan will be reviewed five years after its initial approbation and every ten years following that.

5 MANAGEMENT APPROACHES

Table 3, below, contains a description of all the possible actions that could be used in the management of the Îles de la Paix NWA. However, specific management actions will be determined during the annual work planning process and will be implemented as human and financial resources allow.

Table 3: Management approaches for the Îles de la Paix National Wildlife Area

Goals	Objectives	Actions (Priority Level[1])
Goal 1: Reduce the impacts of human activities on the NWA. **Threats and challenges:** • Impact of human activities on the NWA • Hunting and poaching • Scientific knowledge gaps • Accidental spills	**Objective 1.1:** Determine the current boundaries of the NWA (islands, flooded lands and adjacent grass beds) and post them in the field by means of signage in order to protect plants and animals from the impacts of human activity (navigation, fishing, hunting and disturbance).	• Clarify legal title to the land and flooded grass beds. **(1)** • As required, review the legal boundaries of the NWA as per cadastral data. **(1)** • Review the legal description of the NWA. **(1)** • Display the boundaries of the NWA around its entire perimeter. **(1)**
	Objective 1.2: Evaluate the appropriateness of continuing to allow migratory bird hunting in the waters of the Migratory Bird Sanctuary (500 m around the islands).	• Assess the need to maintain the status and current boundaries of the Migratory Bird Sanctuary. **(1)** • Examine the need to restrict the issuance of waterfowl hunting permits in the aquatic part of the Migratory Bird Sanctuary adjacent to the NWA. **(1)** • Identify priority compliance promotion and enforcement actions. **(1)**
	Objective 1.3: Raise regional awareness of the purpose of the NWA and applicable regulations, and obtain regional support.	• Install signage in the NWA at all potential points of entry and at certain strategic points outside of the NWA. **(1)** • Publish regularly public notices in newspapers concerning the regulations respecting the NWA **(1)** • Disseminate information on the importance of the NWA and document the situation on an ongoing basis with local partner organizations. **(1)** • Specify the role of stakeholders, Aboriginal people and collaborators in public awareness efforts. **(1)**

Table 3: Management approaches for the Îles de la Paix National Wildlife Area (continued)

Goals	Objectives	Actions (Priority Level[1])
	Objective 1.4: Reduce the number of incidents of regulatory non-compliance.	• Identify surveillance and enforcement priorities with Environment Canada Wildlife Enforcement Directorate. **(1)** • Promote an increase surveillance of the NWA by law enforcement agents. **(1)**
	Objective 1.5: Reduce the impacts of accidental spills.	• Identify and keep up-to-date information on the presence of species and location of their habitats in order to ensure an effective response in the event of accidental spills. **(1)**
Goal 2: Protect and enhance significant habitats for species at risk, priority bird species and other wildlife species. **Threats and challenges:** • Shoreline erosion • Invasion by plant species • Scientific knowledge gaps	**Objective 2.1:** Prevent and reduce the spread of invasive species.	• Assess the extent of invasion by the European Reed, the Reed Canary Grass and the Purple Loosestrife. **(1)** • Develop and apply measures to stabilize **(1)** and reduce **(2)** the size of European Reed, Reed Canary Grass and Purple Loosestrife colonies.
	Objective 2.2: Conserve wildlife species and their habitats.	• Implement the recommendations of all species at risk recovery planning documents within the prescribed timeframes. **(1)**
	Objective 2.3: Develop waterfowl nesting and brood-rearing habitats.	• Examine measures and conservation status for grass beds adjacent to the islands (flooded lands) that form part of the NWA. **(2)** • Assess the ecological appropriateness and feasibility of actions such as habitat restoration, reforestation and nest boxes. **(3)** • Develop priority waterfowl habitat enhancement. **(3)**
	Objective 2.4: Assess the ecological potential of the archipelago islands that are not part of the NWA and determine the significance of threats to which they are exposed.	• Assess the ecological potential of the four privately owned islands of the Îles de la Paix archipelago. **(2)** • Assess the significance of the threats and identify the conservation or protection measures of these islands. **(2)**
Goal 3: Reduce the effects of shoreline erosion. **Threats and challenges:** • Shoreline erosion • Contaminated sediments	**Objective 3.1:** Assess the priorities and the appropriateness for restoring shorelines and habitats and conduct the appropriate works if required.	• Assess the current state of erosion of the NWA islands and establish a monitoring system for the erosion of the islands. **(1)** • Identify priority shoreline and habitat restoration work and assess their ecological appropriateness and feasibility. **(2)** • Document the potential impact of contaminated sediments on habitat restoration. **(2)** • In collaboration with local organizations, carry out priority restoration works. **(2)**

Table 3: Management approaches for the Îles de la Paix National Wildlife Area (continued)

Goals	Objectives	Actions (niveau de priorité[1])
	Objective 3.2: Assess the feasibility of reforesting upper parts of the islands.	• Assess the ecological relevance and feasibility of reforesting 3 ha of a targeted area in the upper parts of the islands. **(2)** • Carry out priority reforestation works. **(2)**
Goal 4: Ensure ecological monitoring of the NWA and improve knowledge on wildlife species and their habitats. **Threats and challenges:** • Impact of human activities on the NWA • Hunting and poaching • Scientific knowledge gaps	**Objective 4.1:** Fill priority knowledge gaps.	• Identify priority scientific and traditional ecological knowledge gaps. **(1)** • Include traditional ecological knowledge for the ecosystems management of the reserve. **(2)** • Conduct surveys and monitoring of species at risk, stresses, sensitive habitats and the impacts of certain human activities in collaboration with Aboriginals and other partners. **(2)** • Conduct studies and surveys of aquatic and marsh birds in collaboration with Aboriginals and other partners. **(2)** • Establish research collaborations with universities and research centers. **(2)**
	Objective 4.2: Establish an ecological monitoring program.	• Determine the indicators and methodology of the ecological monitoring program. **(1)** • Implement the ecological monitoring program. **(1)** • Use the expertise of Mohawks, local conservation organizations and governments in the implementation and analysis of the ecological monitoring. **(2)**

[1] **Level of Priority: 1 (from 0 to 3 years); 2 (from 4 to 6 years); 3 (from 7 to 10 years)**

Note: The levels of priority assigned to the actions relate to the implementation schedule and not the significance for resource conservation. They can change depending on the context and the available resources.

6 AUTHORIZATIONS AND PROHIBITIONS

In the interest of the wildlife species and their habitats, human activities are minimized and controlled in NWAs through the implementation of the *Wildlife Area Regulations*. These regulations set out activities that are prohibited (subsection 3[1]) in the NWA and provide mechanisms for the Minister of the Environment to authorize certain activities that are otherwise prohibited. The regulations also provide the authority to the Minister to prohibit entry into NWAs.

Activities within a NWA are authorized where notices have been posted at the entrance or boundaries of the wildlife area or published in local newspapers. All activities in an NWA are prohibited unless a notice has been posted or published authorizing the activity to take place. A permit may be obtained from the Minister of the Environment authorizing certain activities to take place.

6.1 PROHIBITION OF ENTRY

Under the *Wildlife Area Regulations*, the Minister may issue a notice that will be published in a local newspaper or posted at the entrance of any wildlife area or on the boundary of any part thereof prohibiting entry to any wildlife area or part thereof (see Appendix I). Such a notice can be issued when the Minister is of the opinion that entry is a public health and safety concern or may disturb wildlife and their habitat.

Due to the fragility of the islands' wildlife species and habitats, entry to the Îles de la Paix NWA is prohibited, except under authorization of a permit issued by the Minister. The notice of prohibition of entry will be posted at the site and on the boundary and will be published in local newspapers. It could be posted at main boat access points in the immediate area (dockslip, marinas).

Note: If there is a discrepancy between the information presented in this document and the notice, the notice prevails, as it is the legal instrument prohibiting entry.

6.2 AUTHORIZED ACTIVITIES

No activities are authorized within the Îles de la Paix NWA without a permit.

Permits or authorizations could be issued for research activities that are consistent with the priorities set out in the management plan. Permits could also be issued for scientific activities, such as surveys, enhancement works or habitat restoration.

Hunting and gathering of natural resources or of objects will not be authorized within the boundaries of the NWA, although waterfowl hunting can be carried out in the water sector of the

Migratory Bird Sanctuary (500 m around the islands) under the authority of a permit issued by Environment Canada.

6.3 AUTHORIZATIONS

Under the *Wildlife Area Regulations*, the Minister of the Environment may authorize an activity that is prohibited by issuing a permit, or a notice that will be published in a local newspaper or posted at the entrance of any wildlife area or on the boundary of any part thereof.

Permits and notices authorizing an activity may be issued only if the Minister is of the opinion that the activity is scientific research relating to wildlife or habitat conservation; or the activity benefits the wildlife and their habitat or will contribute to wildlife conservation; or the activity is not inconsistent with the most recent management plan. These conditions must be met before the Minister will consider authorizing a prohibited activity.

The Minister may also add terms and conditions to permits and authorizations in order to minimize the impact of an activity on wildlife and their habitat.

All requests for permits or authorizations must be made (in writing or online) to the following addresses:

National Wildlife Area-Request for permits
Environment Canada – Canadian Wildlife Service
Quebec Region
801-1550 D'Estimauville Avenue
Québec QC G1J 0C3
Email: permisSCFQuebec@ec.gc.ca

6.4 EXCEPTIONS

The following activities will be exempt from the requirements for permitting and authorizations:

- Activities related to public safety, health or national security, that are authorized by or under another Act of Parliament, or activities that are authorized under the *Health of Animals Act* and the *Plant Protection Act* to protect the health of animals and plants;
- Activities related to routine maintenance of NWAs, to the implementation of management plans, and enforcement activities conducted by an officer or employee of Environment Canada.

6.5 OTHER FEDERAL AND PROVINCIAL AUTHORIZATIONS

Depending on the type of activity, other federal, provincial or municipal authorizations may be required to undertake an activity in the NWA. For more information, please contact your regional federal or provincial permitting office.

7 HEALTH AND SAFETY

All reasonable efforts will be made to protect the health and safety of the public, including adequately informing visitors of any known or anticipated hazards or risks. Further, Environment Canada staff will take all reasonable and necessary precautions to protect their own health and ensure safety as well as that of their co-workers. However, visitors (including researchers and contractors) must make all reasonable efforts to inform themselves of risks and hazards and must be prepared and self-sufficient. Natural areas involve some dangers, and proper precautions must be taken by visitors to ensure their own security, recognizing that Environment Canada staff neither regularly patrol nor offer services for visitor safety in NWAs.

In the case of environmental emergencies, please contact the National Environmental Emergencies Centre at the following telephone numbers:

514-283-2333 ou 1-866-283-2333

Incidents or emergency situations can be reported to:

- Environment Canada: 1-800-668-6767 ou enviroinfo@ec.gc.ca
- Marine salvage (Canadian Coast Guard): 1-800-463-4393/cellular: *16
- Sûreté du Québec (police): 310-4141/cellular: *4141
- Sécurité civile (civil security): 1-866-776-8345/cellular: 911
- SOS-Braconnage : 1-800-463-2191
- Environmental emergencies : Environment Canada: 1-866-283-2333 or Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques: 1-866-694-5454
- Forest fire (SOPFEU): 1-800-463-FEUX (3389)
- Local authorities (police or fire department): 911

8 ENFORCEMENT

The management of NWAs is based on three acts and the regulations thereunder:

- the *Migratory Birds Convention Act*, *1994* and the *Migratory Birds Regulations*;
- the *Canada Wildlife Act* and the *Wildlife Area Regulations*;
- the *Species at Risk Act*.

Environment Canada's wildlife enforcement officers are responsible for ongoing surveillance of compliance with the acts and regulations and for conducting investigations, as required.

Examples of activities that, if carried out on NWAs without authorization, may constitute an offence include:

- Accessing the site;
- Destroying or disturbing migratory birds, their nests or eggs;
- Possessing a weapon or other instrument that could be used for hunting;
- Picnicking, camping or engaging in any other recreational activity;
- Lighting a fire;
- Removing or damage any natural artefact, building, fence, poster, sign or other structure;
- Dumping or depositing waste or substances likely to reduce the quality of the natural environment;
- Letting a pet run free.

9 PLAN IMPLEMENTATION

The management plan will be implemented over a 10-year period. Annual work plans will be based on priorities and budgets. Depending on available resources and opportunities, some actions could be brought forward, postponed or cancelled. Environment Canada will promote an adaptive management approach for the implementation of the management plan.

The implementation of the plan will be evaluated five years after its publication, on the basis of the actions identified in Table 3 above.

10 COLLABORATORS

Collaboration with local agencies and sector organizations to contribute to the protection and conservation of wildlife species and their habitats in the NWA will be favoured. For instance, collaborations could be developed or pursued with universities and research centres to fill scientific knowledge gaps, with the province to implement species at risk recovery measures, particularly for species under provincial jurisdiction, and with non-governmental organizations and municipal authorities to increase public awareness of the objectives of the NWA.

The following are the main organizations likely to collaborate on the mission and activities of Îles de la Paix NWA.

City of Beauharnois
660 Ellice Street, Suite 100
Beauharnois QC J6N 1Y1
Telephone: 450-429-3546
Fax: 450-429-6663
Email: reception@ville.beauharnois.qc.ca

City of Léry
1 Hôtel de Ville Street
Léry QC J6N 1E8
Telephone: 450-692-6861
Fax: 450-692-6881
Email: villedelery@videotron.ca

Comité ZIP du Haut-Saint-Laurent
(ZIP Committee of Haut-Saint-Laurent)
28 St. Paul Street, Suite 203
Salaberry-de-Valleyfield QC J6S 4A8
Telephone: 450-371-2492
Fax: 450- 371-7599
Email: dg.ziphsl@rocler.com

Ministère des Forêts, de la Faune et des Parcs (MFFP)
(Quebec Ministry of Forests, Fauna and Parks)
Estrie–Montréal–Montérégie Directorate
545 Crémazie Boulevard East, 8th Floor
Montréal QC H2M 2V1
Telephone: 514-873-2140
Fax: 514-873-8983
Email: montreal@mffp.gouv.qc.ca

Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (MDDELCC)
(Quebec Department of Sustainable Development, Environment and Fight against Climate Change)
Montréal Regional Office
5199 Sherbrooke Street East, Suite 3860
Montréal QC H1T 3X9
Telephone: 514-873-3636
Fax: 514-873-5662
Email: montreal@mddelcc.gouv.qc.ca

Mohawk Council of Kahnawake
P.O. Box 720
Kahnawake QC J0L 1B0
Telephone: 450-632-7500
Fax: 450-638-5958
Email: communications@mck.ca

Regional County Municipality of Beauharnois-Salaberry
2 Ellice Street, Suite 200
Beauharnois QC J6N 1W6
Telephone: 450-225-0870
Fax: 450-225-0872
Email: info@mrc-beauharnois-salaberry.com

Regional County Municipality of Roussillon
260 St-Pierre Street, Suite 200
Saint-Constant QC J5A 2A5
Telephone: 450-638-1221
Fax: 450-638-4499
Email: l.dansereau@mrcroussillon.qc.ca

Société de conservation et d'aménagement du bassin de la rivière Châteauguay
624 Notre-Dame Street, Suite 40
Saint-Chrysostome QC J0S 1R0
Telephone: 450-699-1771
Fax: 450-699-1781
Email: f.blackburn@scabric.ca

Society for the Protection of Parc des Îles-de-la-Paix
1 Hôtel de Ville Street
Léry QC J6N 1E8
Telephone: 450-692-6861
Email: info@ilesdelapaix.ca

Wildlife Protection Officers (MFFP)
Salaberry-de-Valleyfield Local Office
640 Cardinal Street
Salaberry-de-Valleyfield QC J6S 0A8
Telephone: 450-370-3024
Fax: 450-370-3026

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APPENDIX I : NOTICE FROM ENVIRONNEMENT CANADA PUBLISHED IN 2011

Environment Canada would like to inform the public that the Îles de la Paix National Wildlife Area (NWA)—an archipelago in the municipalities of Beauharnois and Léry—is a protected area closed to the public. Since its creation in 1977, the NWA has been protecting wildlife and habitats, particularly those of migratory birds and species at risk. This area also includes a Migratory Bird Sanctuary, where it is specifically prohibited to hunt, take, injure, destroy or disturb migratory birds, their nests or their eggs.

To protect the area, access is strictly prohibited from May 1 to August 15. The Department is also informing the public of its obligation to follow certain rules, as dictated by the *Canada Wildlife Act*, the *1994 Migratory Birds Convention Act*, and corresponding regulations. Anyone who neglects to follow these rules or obey the laws in effect may be subject to fines and prosecution.

Without a permit issued by the Minister, it is strictly prohibited for anyone in the area to:

- hunt or fish;
- destroy or remove a plant;
- allow any domestic animal to run at large;
- swim, picnic, camp or carry any other recreational activity or light a fire;
- operate any mode of transportation;
- dump or deposit any trash.

For complete information on all applicable regulations, please consult the *Canada Wildlife Act*, *Wildlife Area Regulations*, *1994 Migratory Birds Convention Act*, *Migratory Bird Regulations*, and *Species at Risk Act* at www.ec.gc.ca.

To file a complaint or report illegal activities, please contact Environment Canada by phone at 1-800-668-6767 or by email at enviro@info.ec.gc.ca.

This notice shall not be construed so as to abrogate or derogate from any Aboriginal, treaty or other rights of Aboriginal peoples.