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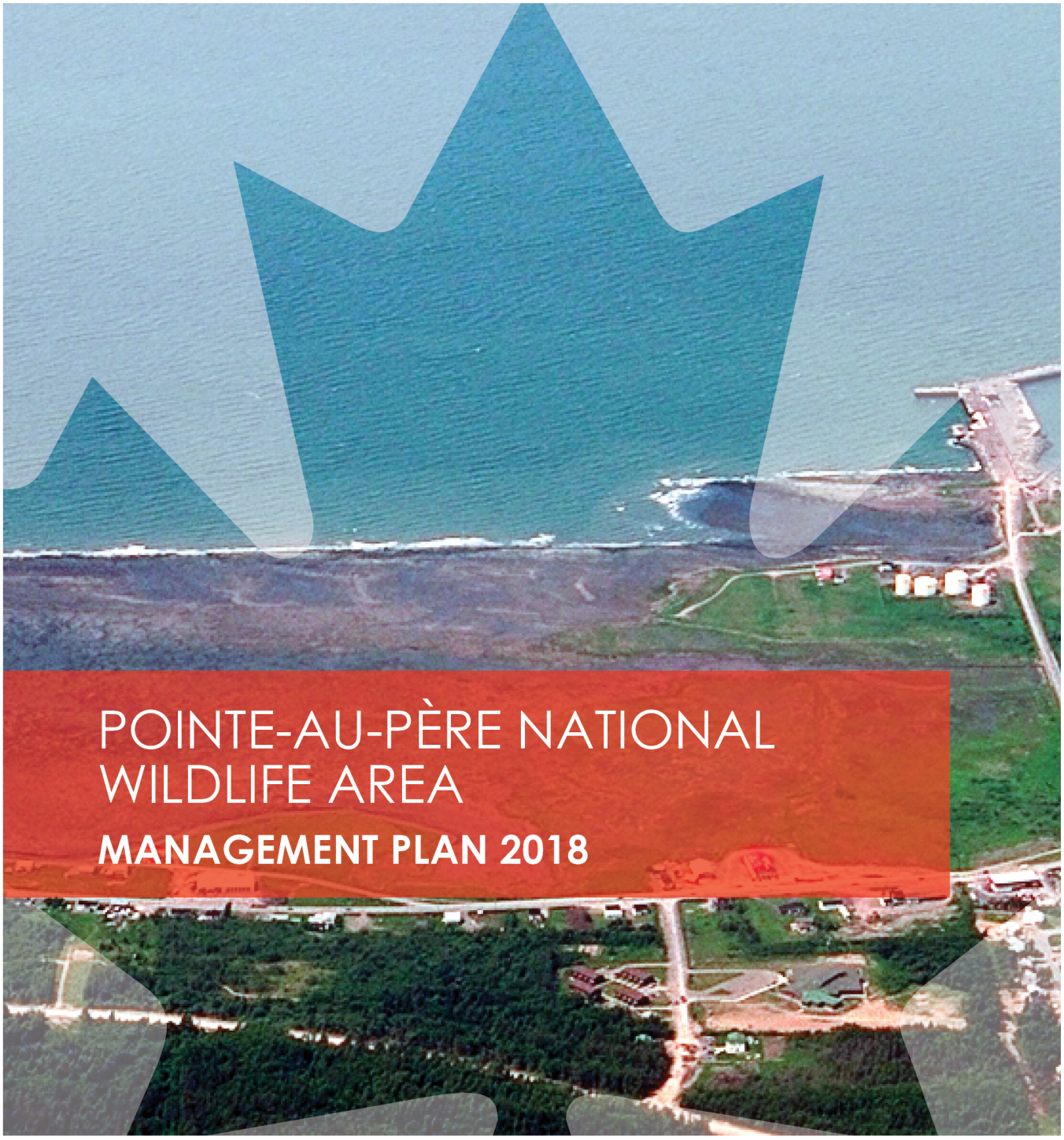
Environnement et Changement climatique Canada



POINTE-AU-PÈRE NATIONAL WILDLIFE AREA

MANAGEMENT PLAN 2018

Canada

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About Environment and Climate Change Canada Protected Areas and Management Plans

What are Environment and Climate Change Canada Protected Areas?

Environment and Climate Change 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 and Climate Change 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. They are intended to be used by Environment and Climate Change 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 and Climate Change Canada prepares a management plan for each protected area in consultation with First Nations 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 and Climate Change 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 and Climate Change Canada's protected areas, please visit the Department's website at www.ec.gc.ca/ap-pa or contact the Canadian Wildlife Service.

Pointe-au-Père National Wildlife Area

Pointe-au-Père National Wildlife Area (NWA) was created in 1986 to protect a tidal cordgrass marsh and coastal areas used by migratory birds, including a number of shorebird, waterfowl and waterbird species. This protected area is located on the south shore of the Lower Estuary of the St. Lawrence, in the city of Rimouski (Pointe-au-Père district), approximately eight kilometres northeast of downtown. At 21.71 hectares, it is the smallest NWA in Quebec. The NWA protects a portion of Pointe-au-Père Marsh, which is recognized as a good shorebird watching site in Quebec and is part of an Important Bird Area (IBA).

Despite its small size and urban location, the NWA supports a rich biodiversity. From the salt waters of the St. Lawrence to the shoreline, it boasts a wide variety of habitats, including patches of loam and sand, the mouth of a river, and a shrub-lined saltwater marsh containing numerous salt ponds and herbaceous plants, such as cordgrass. These productive habitats are home to diverse wildlife species, including many invertebrate, fish, mammal and bird species. Surveys counted 49 bird species, which represent only a fraction of the species observed in this protected area throughout the year and a small percentage of the approximately 250 species observed in the Pointe-au-Père sector (radius of about 3 km around the NWA) over the past 15 years. During migration, the area is used as a stopover by thousands of ducks and geese and huge flocks of shorebirds, including the American Black Duck, the Snow Goose, the Canada Goose, the Brant, the Semipalmated Sandpiper and the Least Sandpiper. A few duck species, including the American Black Duck and the Common Eider, use the NWA and surrounding area during the nesting and rearing season. In addition, waterbirds such as the Great Blue Heron, the Common Loon and a number of gull species, can be observed. Furthermore, the NWA is host to at least four species at risk or with a precarious status: the Nelson’s Sparrow—which may nest in this protected area—the Buff-breasted Sandpiper, the Peregrine Falcon and the Short-eared Owl.

The NWA is open to the public year-round, but access is restricted to a short trail leading to a lookout. Access to the shoreline and other areas is prohibited for conservation reasons.

Pointe-au-Père NWA is exposed to various threats and presents management challenges, including climate change and severe weather (related to shoreline erosion), natural system modifications, residential and commercial development, human intrusions and disturbance, pollution, invasive and other problematic species, diseases and genes, as well as scientific knowledge gaps.

The goals of this management plan are to: 1) protect and enhance significant habitats for species at risk, priority bird species and other wildlife species; 2) consolidate the NWA's land holdings and promote natural habitat conservation on adjacent lands in order to foster connectivity and improve ecological conditions; 3) reduce the impact of human activities on the NWA; 4) ensure ecological monitoring of the NWA and improve knowledge of wildlife species and their habitats; and 5) raise awareness among the public and regional communities about the conservation of the NWA, wildlife species and their habitats.

This document is the first approved management plan for Pointe-au-Père NWA. It will be implemented over a 10-year period in accordance with priorities and available resources.

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

Pointe-au-Père National Wildlife Area (NWA) is located on the south shore of the Lower Estuary of the St. Lawrence, in the northeast part of the city of Rimouski (Pointe-au-Père district), approximately eight kilometres from downtown (Figure 1). At 21.71 hectares, it is the smallest NWA in Quebec. It was created in 1986 by the Canadian Wildlife Service (CWS) of Environment and Climate Change Canada to protect part of the Pointe-au-Père tidal cordgrass marsh and coastal habitats frequented by a variety of migratory birds, including various shorebird, waterfowl and waterbird species. Table 1 summarizes general information about this protected area.

The NWA is located in a sparsely populated urban area bisected east to west by the Sainte-Anne River. This area contains some tourism facilities that attract thousands of visitors each year. The NWA has roads on three sides and is shielded from the St. Lawrence by a southwest-to-northeast-oriented rocky point. Despite its small size and urban location, this protected area has high wildlife value due to its diversified habitats, which primarily consist of a sandy mud zone that includes the mouth of the Sainte-Anne River, a salt pond zone, and a salt marsh zone (herbaceous meadows). The area is highly sought after by migratory birds and is a good waterfowl and shorebird watching site.

Note on Toponymy

The exact geographical boundaries of Pointe-au-Père Marsh, part of which is protected by the NWA, are unclear. Although this marsh may correspond to the intertidal zone that appears as a dotted area on Figure 1, a number of sources consider it to include only the bay that is bounded by a rocky point to the north and a rocky outcrop along Route 132 and Rue du Fleuve to the south and that opens onto the St. Lawrence to the west. Others are of the opinion that this coastal marsh extends from Pouliot Point to the Pointe-au-Père wharf. In this document, details on the territory under consideration are given where possible. Otherwise, the term “Pointe-au-Père sector” is used to designate a zone covering a radius of approximately three kilometres around the NWA, namely from Pouliot Point to Anse au Lard and from the St. Lawrence Estuary to Highway 20, including the NWA and the entire Pointe-au-Père intertidal zone. This sector roughly corresponds to the Pointe-au-Père district (former town of Pointe-au-Père) of the city of Rimouski.

Table 1 : Information on Pointe-au-Père National Wildlife Area

Protected Area Designation	National Wildlife Area
Province or Territory	Quebec – City of Rimouski; RCM of Rimouski-Neigette
Latitude and Longitude	48°30'40" N, 68°27'57" W
Size	21.71 ha (an adjacent area of 1.11 ha belongs to Environment and Climate Change Canada but does not have NWA status)
Protected Area Selection Criteria (Protected Areas Manual[1])	Criterion 1a – The area supports a population of a species or subspecies or a group of species that is concentrated for any portion of the year. For this NWA: The NWA and adjacent areas are sought after by waterfowl and shorebirds during migration.
Protected Area Classification System (Protected Areas Manual[1])	Category A – Conservation of species or critical habitat
International Union for Conservation of Nature (IUCN[2]) Classification	Category III – Natural Monument or Feature
Order-in-Council Number	PC 1995-473, PC 1995-1445
Directory of Federal Real Property (DFRP) Number	67449 Includes one building (interpretive kiosk)
Gazetted	1986
Additional Designations	The NWA is part of an Important Bird Area (Rimouski IBA).
Faunistic[3] and Floristic[4] Importance	The NWA protects a portion of the Pointe-au-Père cordgrass marsh, a type of marsh not often found in Quebec. The NWA and marsh provide feeding, resting and breeding habitats for many animal species, particularly birds. They are used as breeding and rearing grounds by several duck species, such as the American Black Duck and the Common Eider, and are excellent sites for watching shorebirds and migrating waterfowl.
Invasive Species[4]	The Purple Loosestrife and the Reed Canarygrass were observed in the NWA in 2011 but showed no signs of invasiveness. To be monitored: The Japanese Knotweed, the European Reed and three other species.
Species at Risk	The NWA is frequented by at least four species with a precarious status: the Peregrine Falcon and the Short-eared Owl, which are listed as species of special concern under Canada's *Species at Risk Act* (SARA); the Nelson's Sparrow, which (together with the two above-mentioned species) is a species likely to be designated as threatened or vulnerable under the *Quebec Act Respecting Threatened or Vulnerable Species* (LEMV); and the Buff-breasted Sandpiper, which is considered a species of special concern by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).
Management Agency	Environment and Climate Change Canada – Canadian Wildlife Service
Public Access and Use	The NWA is open to the public from April to December, but access is restricted to a 100-m trail leading to a lookout. Access to the shoreline and other sectors is prohibited for conservation reasons. Authorized activities: hiking, nature observation and photography.

1. Environment Canada, 2005.
2. IUCN, 2008.
3. Names of vertebrate wildlife species used by MFFP, 2015a.
4. Names of plant species used by Brouillet et al., 2010+ (VASCAN, accepted names).

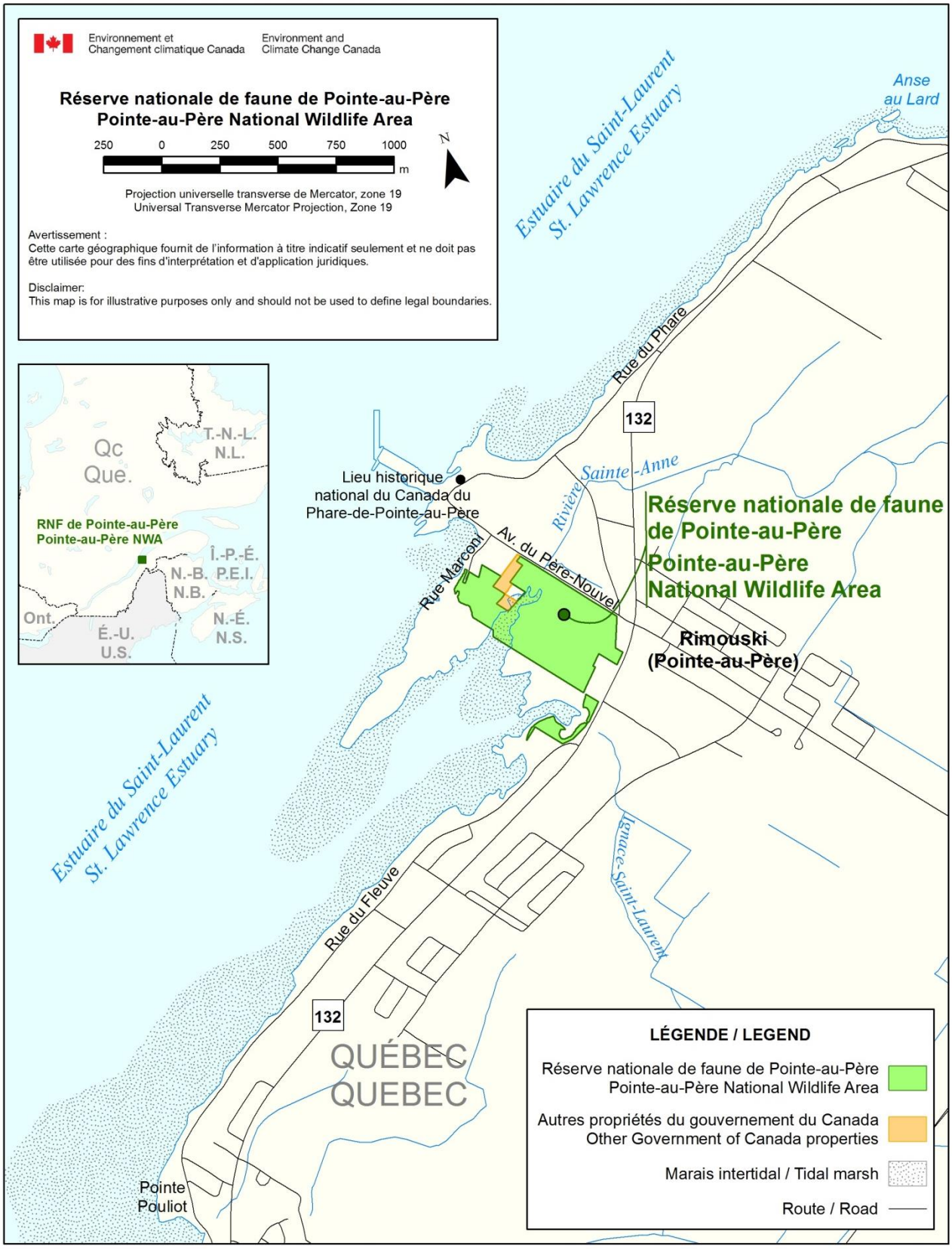

Figure 1 : Pointe-au-Père National Wildlife Area

1.1 REGIONAL CONTEXT

Pointe-au-Père NWA was originally established in the town of Pointe-au-Père, which became a district of the city of Rimouski in 2002. It is located in the administrative region of Bas-Saint-Laurent and in the regional county municipality (RCM) of Rimouski-Neigette. This RCM covers a vast area used for urban, agricultural, forestry and tourism purposes and has a population of more than 54,000, about 85% of whom live in Rimouski. A major urban centre and significant economic driver for the region, Rimouski has a commercial sea port, a high concentration of businesses and services, academic and health institutions, numerous corporate headquarters, and administrative centres housing the regional offices of a number of provincial and federal departments. The Bas-Saint-Laurent region also has various tourist attractions, such as parks, gardens, bike trails, hiking trails, museums and historical sites. In addition, there are many activities for discovering the St. Lawrence, such as kayak excursions and whale-watching tours, run primarily from Saint-André, Rivière-du-Loup, Trois-Pistoles and Rimouski (Le Bic). The region is a segment in the Route des Navigateurs, an eco-tourist circuit more than 470 kilometres long that follows Route 132 between Baie-du-Febvre (Centre-du-Québec) and Sainte-Luce (Bas-Saint-Laurent) and showcases the river and its features.

The NWA protects a portion of Pointe-au-Père Marsh, which is one of the six sectors that make up the Rimouski Important Bird Area (IBA) (Nature Québec, 2012). The NWA is part of a network of sites dedicated to conserving the natural and historical heritage of the St. Lawrence Estuary and shoreline. The network also includes the Estuary Islands NWA, the provincial park Parc national du Bic, and the Saguenay–St. Lawrence Marine Park. Parc national du Bic is a waterfront park renowned for its peaks, bays, islands and archaeological site. It is located west of the NWA that is The Saguenay–St. Lawrence Marine Park includes a large part of the St. Lawrence Estuary and almost all of the Saguenay Fjord. In addition, the NWA is adjacent to Pointe-au-Père Lighthouse National Historic Site of Canada, a site that is protected and presented by Parks Canada in partnership with the non-profit organization Site historique maritime de la Pointe-au-Père. This historic site features a number of notable heritage elements, including the Pointe-au-Père Lighthouse, the *Empress of Ireland* museum, and the *Onondaga* submarine, which attracts 60,000 to 75,000 visitors each year. These facilities generate significant tourist traffic in the Pointe-au-Père sector (Nature Québec, 2012).

Figure 2 : Aerial view of the Pointe-au-Père National Wildlife Area
Photo: Léo-Guy de Repentigny © Environment and Climate Change Canada

1.2 HISTORICAL BACKGROUND

1.2.1 Prehistoric Period

Some 10,000 years ago, the Bas-Saint-Laurent region lay under the waters of a postglacial sea (Dionne, 1977). As the waters receded, the area became habitable. Archaeological sites discovered in Rimouski, particularly in Le Bic, date to the Paleo-Indian period (the oldest period of prehistory of the northeastern Americas, from 11,000 to 7,000 years before present) and suggest human occupation of the Bas-Saint-Laurent region over 8,000 years before present. The archaeological relics found were temporary camps containing stone tools and chips (Fortin, 2003a). Few traces remain of the Paleo-Indians' way of life, but it appears that they lived off hunting, fishing and gathering. A number of sites dating from subsequent periods (the Archaic and Woodlands periods, from 7,000 to 500 years before present) have been discovered in the Bas-Saint-Laurent region. They indicate that, over the centuries, Amerindians used the shores of the postglacial sea and later of the estuary, as well as inland areas, to hunt for aquatic and terrestrial game (Fortin, 2003a; Fortin et al., 1993).

1.2.2 Historic Period

Amerindians and European Contact

At the time of European contact (Historic period, around the 1500s), the Amerindians who inhabited the area that is now southern Quebec belonged to two major groups or linguistic families: the Algonquians (e.g. the Maliseets and Montagnais or Innus) and the Iroquoians (first the St. Lawrence Iroquoians, who disappeared from the St. Lawrence valley after the passage of Jacques Cartier, and later the Mohawks and Hurons). Between 1550 and 1652, the area covering the entire Bas-Saint-Laurent region (between the Rivière du Loup and the Matane River) and a large part of the North Shore (between La Malbaie, Sept-Îles and Mistassini Lake) was the exclusive preserve of the Innu people. At roughly the same time, the traditional territory of the Mi'kmaq extended from Prince Edward Island to Gaspé. Therefore, present-day Bas-Saint-Laurent was located at the western edge of their territory. The Maliseets inhabited a vast territory covering a large part of what is now New Brunswick, Maine and the Bas-Saint-Laurent, centred around the Saint John River valley (New Brunswick). These people's way of life was dramatically affected by the arrival of the Europeans. The Innu population declined in the mid-17th century (starting in 1652). The Mi'kmaq and Maliseets still had a strong presence in the Bas-Saint-Laurent in the 17th and 18th centuries but subsequently experienced periods of crises and decline (Fortin et al., 1993). At present, the only Aboriginal community in the Bas-Saint-Laurent is the Viger Maliseet First Nation.

In August 1535, Jacques Cartier sailed past the Pointe au Père[1]. Decades later, in May 1603, Champlain visited the coast of the Pointe au Père on his way to Le Bic and Tadoussac (De Repentigny, 1993). In 1663, the Jesuit priest Henri Nouvel, heading for Rimouski and the backwoods with a few French and Amerindian companions, stopped [translation] "on the South side, opposite the Isle of St. Barnabé," where he celebrated the Feast of the Immaculate Conception of Mary. A number of historians believe that the site he described was the present-day Pointe au Père (De Repentigny, 1993). The name Sainte-Anne-de-la-Pointe-au-Père, attested in 1696 in the act of concession of the Lessard seigneury, harks back to that historic event (Commission de toponymie du Québec, 2015). Sainte-Anne-de-la-Pointe-au-Père became a place of pilgrimage starting in 1873. The name was also applied to a parish that was canonically erected in 1882 and to a parish municipality established the same year. The latter was replaced by the town of Pointe-au-Père in 1988, which became the district of Pointe-au-

[1] The name "Pointe au Père" refers to the geographic entity while the name "Pointe-au-Père" refers to an administrative entity (e.g. seigneury, municipality, town or national wildlife area).

Père after its amalgamation with the town of Rimouski in 2002. Other place names include Pointe-aux-Pères, Father Point (Carver's 1763 map), Pointe-de-l'Islet-aux-Pères and Pointe-de-l'Isle-aux-Pères (act of concession of the Saint-Barnabé seigneury) (Commission de toponymie du Québec, 2015).

Colonization and the seigneurial system

The first settled communities in the Bas-Saint-Laurent region were established under the French seigneurial system (1653-1854), whereby a portion of land called a *seigneury* was granted to entrepreneurs (or *seigneurs*) for clearing and settlement by tenants, known as *censitaires* or *habitants*. Between 1653 and 1751, 19 seigneuries were granted in the Bas-Saint-Laurent (Fortin, 2003b; Fortin et al., 1993). The Rimouski seigneury was granted in 1688 to Augustin Rouer de la Cardonnière. The seigneury was bounded by the Hâtée River to the west and the Rimouski River to the east and included Saint-Barnabé Island. In 1694, the seigneury was traded to René Lepage in exchange for a property on Île d'Orléans (Ville de Rimouski, 2014). Lepage is considered one of the first settlers of the Bas-Saint-Laurent region. In 1696, a seigneury bordered to the west by the Pointe au Père was granted to Pierre Lessard. In 1751, the Rimouski seigneury was expanded when the Saint-Barnabé seigneury (which extended from the Rimouski River to the Pointe au Père) was granted to René Lepage's son Pierre. By 1773, Paul Lepage de la Mollaie, René's sixth child, owned the west half of the Lessard (or de la Mollaie) seigneury, as well as a property located at the Pointe au Père that was sometimes known as the Pointe-au-Père seigneury. By 1790, the Lepage family owned not only their original seigneury of Rimouski and Saint-Barnabé, but also the Lessard (or de la Mollaie or Pointe-au-Père) seigneury and the Lepage-Thivierge seigneury, as well as the Pachot fief and two other seigneuries or fiefs. That year, these properties were acquired by the merchant Joseph Drapeau of Quebec City (De Repentigny, 1993).

Development

The first non-aboriginal inhabitants of Pointe-au-Père, who originally came from Montmagny, Cap-Saint-Ignace, Saint-Jean-Port-Joli and Île d'Orléans, initially struggled due to their isolation and lack of means of communication. Most were already familiar with the region, having fished there for some time (De Repentigny, 1993). After the American War of Independence (1775–1782), farming, fishing and pilotage drew a number of Loyalist families to Pointe-au-Père. From the latter half of the 18th century to the start of the 19th century, immigration was low but continuous. A road linking Rimouski to Pointe-au-Père was built in 1815 (De Repentigny, 1993). Rimouski, which had a population of 1,963 in 1825, officially became a

town in 1869. In 1874, Monsignor Jean Langevin, first bishop of Rimouski, ordered the construction of a chapel in Pointe-au-Père in honour of Saint Anne, the patron saint of sailors. The site became a place of pilgrimage (Ville de Rimouski, 2014). The parish municipality of Sainte-Anne-de-la-Pointe-au-Père was created in 1882. At the time, it had a total population of 242, consisting of 35 families including 18 farmers and 17 *emplacitaires* (e.g., navigators, pilots, artisans) (De Repentigny, 1993).

Between 1820 and 1900, due to its poor agricultural potential, Pointe-au-Père was unable to retain all of its settlers, many of whom were deterred by the clayey soil and peaty flats. American Eel and herring fishing provided additional income for farmers, and surplus herrings were used to fertilize potato crops. Between 1950 and 1980, a number of farms in the area were broken up. Once an agricultural parish, Pointe-au-Père became an extension of the urban area, its lands largely put to residential and commercial use (Collaboration, 1982 in De Repentigny, 1993). The town of Pointe-au-Père was annexed by the city of Rimouski in 2002.

Pointe-au-Père: pilotage station, lighthouse, telegraph office

From the beginning of European colonization, the St. Lawrence River was considered the gateway to northern North America. Since sailing conditions were extremely difficult, French and later British colonial authorities quickly realized they needed pilots who were familiar with the river to guide ships to Quebec City (Fortin, 2003c). Pointe-au-Père was used as a starting point by many pilots beginning in 1805 or 1815, even though the official pilot station had been located in Le Bic since 1762 (Fortin, 2003c; Ville de Rimouski, 2014). The first wharf was built in 1902. The official pilot station in Le Bic was relocated to Pointe-au-Père in 1906. There it remained until 1960, when the Quebec Department of Transport moved it to Les Escoumins on the north shore of the St. Lawrence (Fortin, 2003c; De Repentigny, 1993).

The first lighthouse in Pointe-au-Père was erected in 1859. Its tower housed a telegraph office. The lighthouse was destroyed in a fire in 1867 and rebuilt the same year. In 1909, a third, more modern lighthouse was built; the old one was then used as a pilot station. In 1975, a new automated lighthouse, a skeleton tower, was built. The 1909 lighthouse was preserved and is today a classified federal heritage building. Between 1908 and 1910, a Marconi wireless telegraph station was built on the small path leading from the point to the road (known today as Marconi Road). The station remained in operation until the early 1960s (Commission de toponymie, 2015). It was located on the present-day territory of the NWA.

National Wildlife Area

In 1978, after Pointe-au-Père Marsh was damaged by infilling and sand removal, residents formed a conservation group called the Regroupement pour la conservation du marais de Pointe-au-Père, which became the Club des ornithologues du Bas-Saint-Laurent (COBSL) in 1979. The group lobbied the federal, provincial and municipal governments to protect the site (Massicotte et al., 1982; COBSL, 2014).

Environment and Climate Change Canada acquired most of the lands for the NWA in 1984 and 1985. Pointe-au-Père National Wildlife Area was officially created on June 19, 1986, under the *Wildlife Area Regulations*.

This document is the first approved management plan for Pointe-au-Père NWA. A conservation plan for this protected area was previously published in 2003 (CWS, 2003).

1.3 LAND OWNERSHIP

Pointe-au-Père NWA is the property of the Government of Canada and is managed by Environment and Climate Change Canada. The total area of the NWA is 21.71 hectares. Environment and Climate Change Canada also owns 1.11 hectare of lands adjacent to the NWA that do not have legal protection status.

1.4 FACILITIES AND INFRASTRUCTURE

The facilities and infrastructure of the NWA include a parking lot, an interpretive kiosk, a short walking trail leading to a lookout platform, and signage and interpretation panels (Table 2 and Figure 3). Access to the NWA is restricted to the trail and lookout.

Table 2 : Facilities and infrastructure in Pointe-au-Père National Wildlife Area

Type of Facility or Infrastructure	Approximate Size	Owner
Parking lot	250 m^2	Environment and Climate Change Canada
Interpretive kiosk	10 m	Environment and Climate Change Canada
Hiking trail	100 m	Environment and Climate Change Canada
Lookout platform	Area: 9 m^2 Height: 2 m	Environment and Climate Change Canada
Signage and interpretation panels		Environment and Climate Change Canada

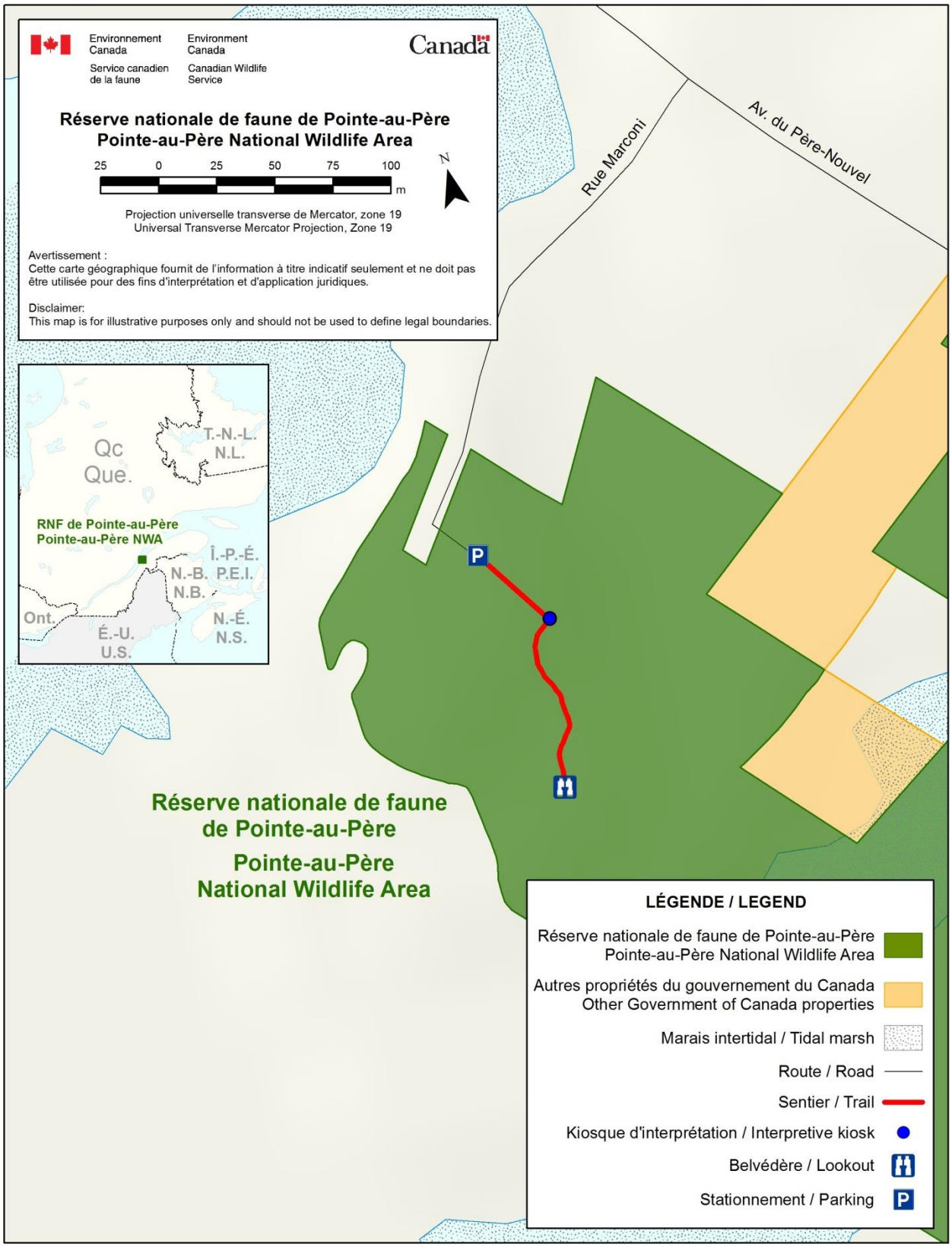

Figure 3 : Facilities and infrastructure of Pointe-au-Père National Wildlife Area

Figure 4 : Interpretive kiosk and trail in the NWA
Photo: Simon Boudreau © Environment and Climate Change Canada

Figure 5 : Lookout over Pointe-au-Père Marsh in the NWA
Photo: Chantal Lepire © Environment and Climate Change Canada

2 ECOLOGICAL RESOURCES

2.1 TERRESTRIAL AND AQUATIC HABITATS

Pointe-au-Père NWA lies in the Appalachians ecoregion, which is part of the Atlantic Maritime Ecozone (Ecological Stratification Working Group, 1995), and is located on the edge of the cool temperate and maritime boreal ecoclimatic regions (Ecoregions Working Group, 1989). This protected area includes part of Pointe-au-Père Marsh, which experiences semidiurnal tides with an amplitude of two metres, but that can reach five metres during high tides (Comité d'étude sur le fleuve Saint-Laurent, 1978a in CWS, 2003). The marsh has been described as a [translation] "marsh of saltmeadows, smooth cordgrass and saltmeadow cordgrass" (Argus, 1998). The salinity of the Lower Estuary in the vicinity of Rimouski reaches 27‰ (parts per thousand) (Cardinal and Villalard, 1971 in CWS, 2003). This salinity and the mechanism of the tides are what makes Pointe-au-Père Marsh salty.

The NWA is located at the head of a bay (unnamed) bounded by a rocky point to the northwest and a rocky outcrop along Route 132 and Rue du Fleuve to the southeast, opening onto the St. Lawrence to the west (Figure 1). The NWA is shielded from the St. Lawrence by the rocky point, bordered by roads on three sides and bisected east to west by the Sainte-Anne River, which discharges into the bay. At low tide, the river forms a channel about 30 centimetres deep in the bay. A human-made canal approximately 300 metres long, perpendicular to the river, crosses the southeast part of the NWA. This canal was dug in the 1950s before the creation of the NWA (Gauthier et al., 1979).

Pointe-au-Père NWA and Marsh are characterized by their diversified natural environments, which generate high biodiversity (CWS, 2003). These environments are arranged in successive layers modulated by the action of the tides, the frequency of flooding and the halotolerance of the plants (Pouliot et al., in prep.). Gauthier et al. (1979) defined the southeast part of Pointe-au-Père Marsh,[2] where the NWA is located, according to four major zones characterized by various types of vegetation. From north to south or from the sea to the shore, these authors described: 1) the **gravel-rock zone** or rocky outcrop, which is oriented east to west and protects the marsh from the currents and ice; 2) a small **zone of salt ponds** (small intertidal pools), including the Saltmeadow Cordgrass (*Spartina patens*) and the Smooth Cordgrass (*Spartina alterniflora*); 3) the **sandy mud zone**, which includes the bed of the Saint-

2. According to Gauthier et al. (1989), Pointe-au-Père Marsh (which they refer to as the *marécage côtier de Pointe-au-Père*) extends from Pouliot Point to the Pointe-au-Père wharf. See Note on Toponymy on p. 1.

Anne River and a transition zone characterized by the presence of the Common Eelgrass (*Zostera marina*), algae such as *Ascophyllum* sp. and *Fucus* sp., and some Smooth Cordgrasses; and 4) the **salt marsh**, which includes three habitats, namely the **low meadow** or **salt pond zone**, a muddy environment colonized by halophile plants (the Saltmeadow Cordgrass and the Smooth Cordgrass), the **mid-meadow**, where certain sedges, grasses and rushes grow, and the **shrub meadow** at the top of the slope, which contains the Sweet Gale (*Myrica gale*), the American Green Alder (*Alnus crispa var. mollis*) and grasses. The NWA primarily consists of mid- and shrub meadows, or salt meadows, which are the richest in terms of plant variety (CWS, 2003), but it also encompasses part of the sandy mud zone and the low meadow (salt pond zone).

A more recent plant survey mapped the primary plant communities of Pointe-au-Père NWA and surrounding area (Joubert et al., 2012). The shoreline vegetation that was sampled was grouped into 4 broad types of coastal zones—the beach berm, the marine mudflat, the rocky shore and the salt marsh—and into 17 specific habitats or communities containing 86 taxa of vascular plants and 4 species of ochrophyte (yellow-brown) algae. This survey found that native halophytes dominated, except in areas disturbed by humans or by the presence of alien plants, whether naturalized or non-naturalized (Joubert et al., 2012).

Following this survey, to complement the historical description in Gauthier et al. (1979), J.-É. Joubert (2015) suggested a description of the current vegetation zones in the NWA, namely from north to south or from the estuary to the shore: the rocky foreshore, the dry *Epilobium* prairie dotted with trees and shrubs, the small salt marsh with a few deep salt ponds (intertidal pools), the marine mudflat that includes the bed of the Sainte-Anne River, the large salt marsh – that includes salt ponds colonized by the Sea Ditchgrass (*Ruppia maritima*) and dried-out salt ponds dominated by the Maritime Glasswort (*Salicornia maritima*) –, and the shrub swamp.

As part of their plant survey, Joubert et al. (2012) also carried out a geomorphological characterization of the NWA. This enabled them to identify the limit of storm surges (coastline) in a climate change context and to observe that much of the beach berms had been disturbed and that Pointe-au-Père Marsh was eroding. The length of the affected shoreline was not determined, but observations show that the entire microcliff (boundary between the upper and lower levels) of the salt marsh is eroding. In addition, a number of salt ponds located south of the river are being disturbed by ice scour, tidal currents, storms, and browsing by Snow Geese.

Some ponds have dried out or become partially or completely filled with sediment and have been colonized by the Maritime Glasswort instead of the Sea Ditchgrass (J.-É. Joubert, J. Larivée and J.-P. le Bel, pers. comm., 2015).

Figure 6 : Pointe-au-Père Marsh
Photo: Léo-Guy de Repentigny © Environment and Climate Change Canada

Figure 7 : Dried-out salt pond colonized by the Maritime Glasswort (red) and surrounded by cordgrasses (green)
Photo: Jean-Pierre le Bel

In addition, five land use/soil cover zones were identified in the NWA: human use (which account for 4.6% of the NWA territory); perennial crops (19%; the term “perennial crops” is used here to refer to habitats structured similarly to cultivated lands, i.e., grassed areas, prairies and young wildlands); wildlands (21.4%); marshes (54.4%); and disturbed zones (0.5%) (Maheu-Giroux et al., 2006; data based on analysis and comparison of aerial photographs taken between 1973 and 1993). These zones changed little between 1973 and 1993, apart from one wildland that became a marsh and one marsh that became a wildland. However, the landscape around the NWA (within a radius of about 2 km) underwent multiple changes over the same period: the area of human zones tripled, the area of perennial crops decreased by half, and annual crops disappeared. The area occupied by marshes and forest stands, however, remained virtually unchanged.

2.1.1 Common Eelgrass

In 2011, the presence of the Common Eelgrass was recorded in 2 of the 17 habitats described by Joubert et al. (2012), namely the brown algae and Smooth Cordgrass mudflat and the brown algae and Eelgrass mudflat. These two habitats were found at the southwest edge of the NWA and west of the NWA in Pointe-au-Père Marsh. No Eelgrass beds were found in the study area (NWA and vicinity), only isolated clusters (J.-É. Joubert, pers. comm., 2014). In 1994, a medium-to-low-density Eelgrass bed was mapped in the centre of Pointe-au-Père Marsh (Lemieux and Lalumière, 1995), west of the NWA. A discontinuous, sparse bed is still present in that area (J.-É. Joubert, pers. comm., 2015). The exact presence and distribution of the species in the NWA have yet to be documented.

The American Eelgrass is an aquatic plant with long, ribbon-like leaves. It forms colonies, known as Eelgrass beds, that provide vital habitat for a number of animal species such as fish and birds in coastal zones (Hemminga and Duarte, 2000 and Polte and Asums, 2006a in Nellis et al., 2012) and can counteract coastal erosion by helping to stabilize sediment (Widdows et al., 2008 and Comité ZIP du Sud-de-l’Estuaire, 2010 in Nellis et al., 2012). The American Eelgrass is especially important for the Brant (*Branta bernicla*), which has a very specialized diet (Brousseau and Lepage, 2013).

2.2 WILDLIFE SPECIES

The wildlife species present in the Pointe-au-Père NWA are described in this section on the basis of knowledge acquired through three decades of studies and surveys conducted by the Canadian Wildlife Service and various organizations and collaborators. However, since many of

these works examined Pointe-au-Père Marsh without making a distinction between it and the NWA, it is often difficult to characterize the NWA itself. In this section, the exact location of the studies or observations cited (Pointe-au-Père NWA, Marsh or sector) is specified where possible.

2.2.1 Invertebrates

No studies have been conducted on invertebrates in the NWA, but some information on invertebrates in Pointe-au-Père Marsh is available.

Benthic Invertebrates

The benthic invertebrate community found in Pointe-au-Père Marsh is described as an [translation] "Atlantic boreal *Macoma balthica* community" (Paquin, 1983 in CWS, 2003). Four groups of invertebrates have been identified in the marsh: polychetes, gastropods, crustaceans and bivalves. Among mollusks, the bivalve *Macoma balthica* dominates, followed by the gastropod *Littorina obtusata*. The most abundant polychete is *Nereis virens*, and the most common crustacean is the amphipod *Gammarus lawrencianus*. The burrowing bivalve *Macoma balthica*, together with crustaceans and polychetes, dominates areas characterized by prolonged periods of exposure. Periwinkles and crustaceans, primarily gammarids and isopods, colonize sites with little exposure, such as mudflat channels and their edges (Paquin, 1983 in CWS, 2003). As for larger invertebrates, the Sea Cucumber (*Cucumaria frondosa*), the Razor Clam (*Ensis directus*), the Rock Crab (*Cancer irroratus*), the Snow Crab (*Chionoecetes opilio*), the Grey Sand Shrimp (*Crangon septemspinosa*), the American Lobster (*Homarus americanus*) and the Icelandic Scallop (*Chlamys islandica*) have been observed "throughout the sector which includes the NWA" [the authors most probably meant the whole Pointe-au-Père sector, not only the NWA] (SIGHAP, unpubl. data, 2002 in CWS, 2003).

Insects and Spiders

Observers report the presence of a small population of the Gaspé Swallowtail (*Papilio brevicauda gaspeensis*), in the Pointe-au-Père salt marsh, which is also home to the Scotch Lovage (*Ligusticum scothicum*), a host plant of the caterpillar of this butterfly species (J. Larivée and L. Handfield in Joubert et al., 2012; M. Larrivée, Montreal Insectarium, pers. comm., 2015). This population coexists with a population of the Black Swallowtail (*Papilio polyxenes*)—a rare phenomenon, given that the ranges of these two species historically did not overlap. Hybridization of these two species may be occurring in the marsh (M. Larrivée, Montreal Insectarium, pers. comm., 2015).

2.2.2 Fish

No studies have been conducted on fish in the NWA. Generally speaking, the shoreline of the Lower Estuary of the St. Lawrence is characterized by a relatively undiversified fish community typically dominated by two or three species, namely the Rainbow Smelt (*Osmerux mordax*) and the Atlantic Tomcod (*Microgadus tomcod*) (Argus, 1998). In late summer and fall, juveniles of the American Shad (*Alosa sapidissima*) occasionally become dominant or abundant in catches. The other species that frequent the intertidal zone are primarily the American Eel (*Anguilla rostrata*), sticklebacks (four species), the Atlantic Herring (*Clupea harengus*), the Winter Flounder (*Pseudopleuronectes americanus*), the American Smooth Flounder (*Liopsetta putnami*), the Capelin (*Mallotus villosus*), the American Sand Lance (*Ammodytes americanus*) and sculpins. However, the cordgrass marshes are a veritable haven for fish. For example, juveniles spend part of their lives feeding in the canals or salt ponds at low tide. At high tide, certain species feed on insects, crustaceans and mollusks that they find among the vegetation (Argus, 1998).

In 1979, Gauthier et al. noted that the presence of the Sainte-Anne River, a small creek and a sandy mud substrate in Pointe-au-Père Marsh was favourable to the Capelin and the Rainbow Smelt (Gauthier et al., 1979). According to these authors and the SIGHAP (unpubl. data, 2002 in CWS, 2003), the Capelin spawned in the intertidal zone of Pointe-au-Père in the spring and the Rainbow Smelt swam upstream towards its spawning grounds in the spring and came close to shore in the fall to feed. However, the Capelin Observers Network (Fisheries and Oceans Canada, 2015) reports no observations of Capelin present or spawning in Pointe-au-Père NWA between 2003 and 2015. However, it does have a report of the species spawning approximately two kilometres west and east of the NWA (P. Nellis, Fisheries and Oceans Canada, pers. comm., 2013) and elsewhere along the shore of Rimouski. Furthermore, the Équipe de rétablissement de l'Éperlan arc-en-ciel du Québec (2008) has no record of Rainbow Smelt spawning grounds in the sector. The Rainbow Smelt population in the southern St. Lawrence Estuary has greatly declined over the past 30 years and is considered vulnerable in Quebec.

2.2.3 Amphibians and Reptiles

During herpetofaunal surveys conducted in the NWA in 2005, only the presence of the Spring Peeper (*Pseudacris crucifer*) could be confirmed (Pouliot et al., in prep.). These surveys particularly focused on anurans (frogs, tree frogs and toads). The low abundance of the Spring Peeper and the absence of other anuran species is partly due to the area's high exposure to the

salt waters of the estuary. Given the low potential for the presence of salamanders and snakes in this protected area, no special effort has been devoted to them, nor has any species from either of these groups been observed. However, the Eastern Common Garter Snake (*Thamnophis sirtalis*) and the Northern Redbelly Snake (*Storeria occipitomaculata occipitomaculata*) may be present (Pouliot et al., in prep.). De Repentigny (1993) recorded occasional Common Garter Snake sightings and the presence of Spring Peepers in the NWA. The Centre de données du patrimoine naturel du Québec has no reports of amphibians or reptiles on the territory of the NWA (CDPNQ, 2014).

2.2.4 Birds

The small size of Pointe-au-Père NWA and Marsh and their proximity to populated areas and roads make them easily accessible sites ideal for bird watching. A survey conducted in June 2005 found 49 bird species in the NWA, which represents only a fraction of the species observed in this protected area throughout the year (Pouliot et al., in prep.). From 1978 to 1989, about 100 species appeared on the list of bird sightings in Pointe-au-Père Marsh[3] (102 species in 1978 and over 110 in 1989); of these species, 10 to 15 were reported as breeding (Gendron and Larivée, 1978; Environment Canada, 1989). Furthermore, some 250 bird species have been observed in the Pointe-au-Père sector[4] over the past fifteen years (Larivée, 2015: ÉPOQ data from 2001 to 2013, compilations of amateur ornithologists' checklists). These data give an idea of the current diversity and distribution of avian species in this sector. Species diversity is highest during migration (Larivée, 2015; De Repentigny, 1993), owing to the large number of shorebirds and waterfowl.

<u>Shorebirds</u>

Little information is available about the shorebirds that frequent the NWA; most of the available data are for Pointe-au-Père Marsh and do not make a distinction between it and the NWA. However, the presence of the Killdeer (*Charadrius vociferus*) and the Wilson's Snipe (*Gallinago delicata*) in the NWA was confirmed in the summer of 2005 (Pouliot et al., in prep.), as was their breeding (J. Larivée, pers. comm., 2015). Four other shorebird species have also been surveyed in the NWA: the Greater Yellowlegs (*Tringa melanoleuca*), the Short-billed Dowitcher (*Limnodromus griseus*), the Black-bellied Plover (*Pluvialis squatarola*) and the

3. The boundaries of the marsh are not specified, but, given the species cited, they probably include the estuary portion of the marsh (see Note on Toponymy on page 1).
4. Zone contained within a radius of approximately 3 km around the NWA (see Note on Toponymy on page 1 and Figure 1).

Semipalmated Plover (*Charadrius semipalmatus*). The birds sighted must have been late migrators, since these species breed further north (Pouliot et al., in prep.).

Generally speaking, shorebirds use Pointe-au-Père NWA and Marsh and adjacent environments for feeding, resting and roosting during migration (CWS, 2003). This marsh has long been considered one of the best shorebird watching sites in Quebec (Guay, 1990; Nature Québec, 2012), but far fewer shorebirds have been seen there over the past 10 or 15 years (Larivée, 2015; J. Larivée and J.-P. le Bel, COBSL and Y. Aubry, CWS, pers. comm., 2015). The Rimouski IBA, which originally included the Pointe-au-Père zone alone,[5] obtained its IBA designation in 2000–2001 because of the high number of shorebirds that frequented the site during migration, particularly the Least Sandpiper (*Calidris minutilla*), the Short-billed Dowitcher and the Black-bellied Plover. However, although these species are still sighted in the IBA, they are not as numerous as in the past. In fact, the total number of shorebird species in the IBA has declined over the past 10 years (Nature Québec, 2012).

This decline follows the same trend observed elsewhere in North America. From the early 1980s to the mid-1990s, many shorebird populations declined steeply in North America (Andres et al., 2012). In addition, analyses of population trends in 34 out of 47 common shorebird species in Canada showed that a large percentage of them were declining in Canada and North America (74% and 65% respectively; Donaldson et al., 2000, and Morrison et al., 2006 respectively in Aubry and Cotter, 2007, Appendix 14). In Quebec, a decline in the populations of 10 out of 25 species, or 40%, has been recorded (Aubry and Cotter, 2007). Recent analyses show, however, that a number of shorebird populations have stabilized in North America in recent years, although none have achieved the targeted recovery objectives (Andres et al., 2012). Habitat loss and alteration are the key threats to these birds (Aubry and Cotter, 2007; Andres et al., 2012). In the case of Pointe-au-Père NWA and Marsh, some observers believe that there is also a link between the decline in the number of shorebirds and the treatment of wastewater by the city of Rimouski (J. Larivée and J.-P. le Bel, COBSL and Y. Aubry, CWS, pers. comm., 2015; see 3.5.1 Domestic and Urban Wastewater).

For the past 35 years or so, 20 to 30 shorebird species have been observed each year in the Pointe-au-Père sector (Gendron and Larivée, 1978, and Bourget, 1988, 1990, 1991 in CWS 2003; Larivée, 2015). Recent data (Larivée, 2015) suggest the presence of at least 30 shorebird

[5] The Nature Québec map (2012) shows a zone of approximately 8 km^2, extending from the Rimouski wharf to the Pointe-au-Père wharf, that includes a stretch of shoreline and the Pointe au Père but primarily encompasses the waters of the St. Lawrence.

species in this sector. It is in fall, and then in spring, that species diversity and the number of sightings are highest. The species sometimes observed in quite large numbers in spring or fall include the Semipalmated Sandpiper (*Calidris pusilla*), the Least Sandpiper, the White-rumped Sandpiper (*Calidris fuscicollis*), the Sanderling (*Calidris alba*) and the Dunlin (*Calidris alpina*). The Short-billed Dowitcher, the Semipalmated Plover, the Black-bellied Plover and the Ruddy Turnstone (*Arenaria interpres*) are relatively common and abundant. From spring to fall, the Killdeer and the Wilson's Snipe are regularly observed in low numbers (Larivée, 2015). Pointe-au-Père also serves as a stopover for the Purple Sandpiper (*Calidris maritima*) during migration. This species is the only shorebird that regularly overwinters along the Estuary and Gulf of St. Lawrence (Aubry and Cotter, 2007). It is observed every year in the Pointe-au-Père sector, mainly in November and December. Lastly, two shorebird species at risk—the Red Knot (*Calidris canutus rufa*) and the Buff-breasted Sandpiper (*Calidris subruficollis*)—frequent Pointe-au-Père Marsh (see 2.3 Species at Risk). The latter species is sometimes observed in the NWA (Larivée, 2015).

Breeding Waterfowl

A ground survey of breeding waterfowl pairs conducted in May 2004 in the NWA and vicinity[6] (CWS, unpubl. data in Pouliot et al., in prep.) found 11 waterfowl species, 8 of which may use the territory to feed, breed or rear young: the American Black Duck (*Anas rubripes*), the Northern Pintail (*Anas acuta*), the Blue-winged Teal (*Anas discors*), the Mallard *(Anas platyrhynchos)*, the Common Eider (*Somateria mollissima*), the Red-breasted Merganser (*Mergus serrator*), the Common Merganser (*Mergus merganser*) and the Canada Goose (*Branta canadensis*) (Pouliot et al., in prep.). The exact use of the territory by these species has not yet been determined.

In addition, in the 1970s, Northern Pintail and Green-winged Teal (*Anas crecca*) breeding was reported in the grassy part of the marsh[7] (Gendron and Larivée, 1978), as was the presence of a few American Black Duck broods, one Mallard brood and one Northern Pintail brood in the upper part of the marsh[8] (Le Bel, 1979).

6. Two quadrats: one covering almost the entire NWA and the intertidal zone located to the west and north of it, and the other covering the southwest part of the NWA.
7. May include the NWA.
8. May include the NWA.

American Black Duck

The NWA contains habitats suitable for American Black Duck breeding, particularly the upper part of the cordgrass marsh, on the fringes of the shrubberies (Pouliot et al., in prep.). Considering the area occupied by this type of habitat in the NWA and assuming a potential brood density similar to that of Baie de L'Isle Verte NWA, namely 8.3 broods per kilometre of shoreline (CWS, 2004), Pouliot et al. (in prep.) calculated a maximum of 8 to 9 American Black Duck pairs in the NWA. Based on the average size of the broods that reach fledging age, namely 4.5 (CWS, 2004), these authors estimate a maximum duckling population of approximately 40 in mid-May. They note, however, that the actual support capacity of the environment seems lower, given the number of individuals (only four) counted in recent multi-species surveys carried out in June 2005.

In the summer of 1978, seven breeding pairs of this species were reported in the grassy part of Pointe-au-Père Marsh (Gendron and Larivée, 1978), for an estimated density of 15.7 nests per kilometre of shoreline (CWS, 2003). Le Bel (1979) counted 4 to 5 American Black Duck broods in the zone of salt marsh ponds[9] in 1977 and 11 broods in 1978. The latter result, which represented a density of 18.3 broods per kilometre of shoreline and a production of 58 ducklings, led the author to conclude that the pond zone of the Pointe-au-Père salt marsh was an environment of outstanding productivity.

The decline of the American Black Duck population has caused some concern in recent decades, but the population seems to have stabilized over the past decade, at least in the species' breeding habitat (Canadian Wildlife Service Waterfowl Committee, 2012). However, it remains below the objective set under the North American Waterfowl Management Plan (2012), a joint initiative of Canada, the United States and Mexico.

Common Eider

Surveys conducted in the early 1970s showed that Pointe-au-Père Marsh[10] was one of the six main brood-rearing grounds of the Common Eider (*Somateria mollissima dresseri*) in the Lower Estuary of the St. Lawrence (Bédard et al., 1986) and that most eider broods present in the marsh came from Bicquette Island (Cantin and Bédard, 1974, and Gauthier and Bédard, 1976 in Gauthier et al., 1979). Gendron and Larivée (1978) note that the water in the bay located south of the rocky point is calm and shallow and therefore provides a suitable gathering

9. Area covering 24.8 ha (0.6 km of shoreline) encompassing the pond zone and part of the mudflat; may include the NWA.

10. The authors likely included the entire tidal marsh zone of Pointe-au-Père (dotted area on Figure 1).

place for ducklings or juvenile eiders. They also noted the presence of five breeding pairs of the species in 1978. More recent surveys conducted in 2003 and 2004 on the south shore of the St. Lawrence Estuary show that eiders seem to occupy the same brood-rearing and moulting sites as in the 1970s (Diéval, 2006; Diéval et al., 2011). Adults accompanied by ducklings or juveniles are regularly observed in the Pointe-au-Père sector in the summer (Larivée, 2015), particularly along the rocky point in the *Fucus* zone, on the estuary side, but also in the bay south of the point (J.-P. le Bel and J. Larivée, COBSL, pers. comm., 2015), near the wharf and Anse au Lard (J.-É. Joubert, pers. comm., 2015). The species was also recorded in the NWA and vicinity during a ground survey of breeding waterfowl pairs conducted in May 2014 (CWS, unpubl. data in Pouliot et al., in prep.).

Common Eiders nest in colonies in the islands of the Estuary and Gulf of St. Lawrence. Of the 35 colonies of the species counted in the estuary, the Bicquette Island colony is by far the largest (6,000 to 6,700 nests counted in 2014; CWS, unpubl. data). Located about 10 kilometres from Rimouski, the island is part of Estuary Islands NWA. Aside from a few exceptions, the estuary islands are not used for rearing ducklings. After the eggs hatch, the females and ducklings leave the island colonies for the coastal marshes, where they find shelter and food (Bédard et al., 1986; Joint Working Group on the Management of the Common Eider, 2004). They seek out sites rich in periwinkles (small mollusks), their preferred prey, which are located in the intertidal zone (Diéval, 2006).

Migratory Waterfowl

The Pointe-au-Père sector is also recognized for the high concentration of waterfowl that stop there during migration. Although some species use the NWA as a stopover, most primarily use the bay to the west of the NWA and the rest of the tidal marsh. Some 30 waterfowl species are regularly observed in this sector, including 3 goose species, about 10 dabbling duck species and about 15 diving and sea duck species (Larivée, 2015; Environment Canada, 2013a).

Snow Goose and Canada Goose

The Canada Goose and the Snow Goose (*Anser caerulescens*) are regularly observed in the Pointe-au-Père sector during migration. The Canada Goose is typically more abundant in spring, but it is also numerous in fall. During these two periods, this species is regularly sighted by the tens or hundreds in the sector, particularly in the salt marsh[11] (Larivée, 2015). The Snow Goose was formerly considered not to be abundant in the sector, but it has been observed there

[11.] Likely includes the NWA.

in greater numbers in recent years (CWS, 2003; Nature Québec, 2012; Larivée, 2015; Environment Canada, 2013a). Snow Geese are regularly observed by the thousands in the sector, including in the bay south of the rocky point. Some 20,000 individuals of this species have been counted there in spring and fall (Larivée, 2015).

Brant

The Brant is also present in relatively large numbers in spring in the Pointe-au-Père sector, which is considered a prime stopover for the species during this period (CWS, 2003). Hundreds of individuals of this species are regularly observed there, including in the salt marsh[12] (Larivée, 2015). The American Eelgrass is an important food source for this bird during migration (Nature Québec, 2012; Brousseau and Lepage, 2013).

Ducks

The Pointe-au-Père sector is also used by a number of migrating dabbling duck species, including the American Black Duck, which stops over there by the hundreds and sometimes thousands in the fall (Larivée, 2015), the Mallard, the Green-winged Teal, the Northern Pintail and the American Wigeon (*Anas americana*) (Larivée, 2015). A number of sea ducks are also sighted there, particularly during migration, including the Common Goldeneye (*Bucephala clangula*), the Barrow's Goldeneye (*Bucephala islandica*) (see 2.3 Species at Risk), the Red-breasted Merganser, the Long-tailed Duck (*Clangula hyemalis*), the Common Merganser, three Scoter species, and occasionally the Harlequin Duck (*Histrionicus histrionicus*) (Larivée, 2015). In addition, the Common Eider is regularly observed in the sector during migration and in summer (Larivée, 2015; Environment Canada, 2013a; Pouliot et al., in prep.).

Other Groups of Birds

Surveys conducted in the NWA in June 2005 provide an overview of the avian species present in summer (Pouliot et al., in prep.). A total of 49 species were counted. The Song Sparrow (*Melospiza melodia*), the Savannah Sparrow (*Passerculus sandwichensis*) and the Red-winged Blackbird (*Agelaius phoeniceus*), birds typical of open-country habitats, were the three most abundant and widespread species in the NWA. Other open-country species surveyed in the NWA include, in decreasing order of occurrence and abundance, the Alder Flycatcher (*Empidonax alnorum*), the American Goldfinch (*Carduelis tristis*), the Common Yellowthroat (*Geothlypis trichas*), the American Robin (*Turdus migratorius*), the Yellow Warbler (*Setophaga aestiva*), the Killdeer and the Common Grackle (*Quiscalus quiscula*). The presence of the Nelson's Sparrow (*Ammodramus nelsoni*), a species likely to be designated threatened or

12. Likely includes the NWA.

vulnerable in Quebec (see 2.3 Species at Risk), has also been confirmed in the NWA (Pouliot et al., in prep.).

A number of waterbird species were recorded in the NWA during these surveys, including the Sora (*Porzana carolina*), the Virginia Rail (*Rallus limicola*), the Black-crowned Night Heron (*Nycticorax nycticorax*), the Common Loon (*Gavia immer*), the Ring-billed Gull (*Larus delawarensis*), the Herring Gull (*L. argentatus*), the Great Black-backed Gull (*L. marinus*), the Double-crested Cormorant (*Phalacrocorax auritus*) and the Great Blue Heron (*Ardea herodias*) (Pouliot et al., in prep.). The latter two species were also observed during the survey of breeding waterfowl pairs conducted in May 2004 in the NWA and vicinity (CWS, unpubl. data in Pouliot et al., in prep.). In addition, the NWA serves as staging grounds for gulls, particularly the Ring-billed Gull (J. Larivée, pers. comm., 2015).

The Merlin (*Falco columbarius*) was the only bird of prey observed in the NWA during the 2005 surveys, but the Peregrine Falcon (*F. peregrinus*) (see 2.3 Species at Risk) and the Snowy Owl (*Bubo scandiacus*) frequent this protected area (J. Larivée, pers. comm., 2015). Other raptor species are also observed in the sector, including the Bald Eagle (*Haliaeetus leucocephalus*), the Northern Harrier (*Circus cyaneus*) and the Sharp-shinned Hawk (*Accipiter striatus*) (Larivée 2015).

The NWA contains no seabird colonies (CDQS, 2012).

2.2.5 Mammals

During surveys conducted in the NWA in 2005, efforts were made to find bats and micromammals (Pouliot et al., in prep.). No bats were observed, but five micromammal species were found. The Meadow Vole (*Microtus pennsylvanicus*) was the most abundant species; the Meadow Jumping Mouse (*Zapus hudsonius*) and the Masked Shrew (*Sorex cinereus*) were common in a wide variety of habitats; the Short-tailed Shrew (*Blarina brevicauda*) and the Deer Mouse (*Peromyscus maniculatus*) were less abundant (Pouliot et al., in prep.).

The NWA is likely frequented by other mammal species, including the Eastern Chipmunk (*Tamias striatus*), the Muskrat (*Ondatra zibethicus*), the Woodchuck (*Marmota monax*), the Raccoon (*Procyon lotor*), the Skunk (*Mephitis mephitis*), the Ermine (*Mustela erminea*), the Red Fox (*Vulpes vulpes*) and sometimes the White-tailed Deer (*Odocoileus virginianus*) (Pouliot et al., in prep.). The intertidal zone of Pointe-au-Père is also frequented by the Grey Seal (*Halichoerus grypsus*) (De Repentigny, 1993) and the Harbour Seal (*Phoca vitulina*) (De Repentigny, 1993; J.-É. Joubert, pers. comm., 2013).

2.3 SPECIES AT RISK

At least four species at risk or with precarious status occur in Pointe-au-Père NWA (Table 3).

The Buff-breasted Sandpiper frequents the Pointe-au-Père sector, where it was sighted a few times between 2001 and 2013 (Larivée, 2015), including in the NWA (J. Larivée, pers. comm., 2015).

The Nelson's Sparrow is often observed in Pointe-au-Père NWA and Marsh in summer (Larivée, 2015; SOS-POP, 2013 – data from 1980–2008: the site was last visited by the program participants in 2009). Furthermore, the presence of this species in the NWA was confirmed by a survey conducted in June 2005 (Pouliot et al., in prep.). This protected area is a possible nesting site for the Nelson's Sparrow (SOS-POP, 2013). However, the small size of the NWA may be a significant obstacle to the establishment of breeding pairs (Pouliot et al., in prep.).

The Peregrine Falcon is often observed in the Pointe-au-Père NWA (J. Larivée and J.-É. Joubert, pers. comm., 2015) and sector, primarily during migration but also in summer. A few observers report having seen Peregrine Falcons hunting or eating birds (shorebirds, waterfowl) (Larivée, 2015).

The presence of the Short-eared Owl (*Asio flammeus*) was reported a few times between 1981 and 2012 in the Pointe-au-Père sector, where the species likely nests (SOS-POP, 2013; Larivée, 2015). The NWA contains habitat suitable for this owl. Furthermore, an individual was sighted in May 2009 in the cattail zone (in the alder stand) located in the southeast part of the NWA (Larivée, 2015, and J. Larivée, pers. comm., 2015).

The Centre de données sur le patrimoine naturel du Québec contains no records of plant, amphibian, reptile or mammal species at risk in Canada or Quebec in the NWA (CDPNQ, 2014).

Table 3 : Species at risk observed in Pointe-au-Père National Wildlife Area

Species Common and Scientific Names	Status			Presence
	Canada		Quebec	
	SARA[1]	COSEWIC[2]	LEMV[3]	
Birds				
Buff-Breasted Sandpiper *Calidris subruficollis*	None	Of concern	None	Rare visitor during migration
Nelson's Sparrow *Ammodramus nelsoni*	None	Not at risk	SLDTV[4]	Regular user and possible nester
Peregrine Falcon *Falco peregrinus anatum/tundrius*	Of concern*	Of concern*	Vulnerable** or SLDTV[4]***	Regular user
Short-eared Owl *Asio flammeus*	Of concern	Of concern	SLDTV[4]	Isolated sightings, suitable habitat

1. *Species at Risk Act* of Canada (Species at Risk Public Registry, 2015).
2. Committee on the Status of Endangered Wildlife in Canada (COSEWIC, 2014).
3. *Quebec Act Respecting Threatened or Vulnerable Wildlife Species* (MFFP, 2015b).
4. Species likely to be designated threatened or vulnerable in Quebec (MFFP, 2015b).

* Status assigned to the *anatum/tundrius* subspecies taken together.
** Status assigned to the *anatum* subspecies.
*** *Tundrius* subspecies.

Other bird species at risk use environments adjacent to the NWA and may sometimes use the NWA itself. These include the Bank Swallow (*Riparia riparia*) and the Barn Swallow (*Hirundo rustica*), the Bald Eagle, the Red Knot (*rufa* subspecies) and the Barrow's Goldeneye. Both species of swallows feed in the area, sometimes in the NWA. Bald Eagles frequent the rocky point near the NWA. The Red Knot is observed on a relatively regular basis in the Pointe-au-Père sector (CWS, 2003; Aubry and Cotter, 2007; Larivée, 2015). This passage migrant, which is scarce in Quebec, frequents the Upper Estuary and Lower Estuary of the St. Lawrence primarily during fall migration (Aubry and Cotter, 2007). The Barrow's Goldeneye is often sighted in the Pointe-au-Père sector from fall to spring (Larivée, 2015), quite often in the bay west of the NWA (J. Larivée and J.-É. Joubert, pers. comm., 2015). The Barrow's Goldeneye, Eastern population, is estimated at a maximum of 6,800, more than 95% of which overwinter in the Estuary and Gulf of St. Lawrence (Environment Canada, 2013b).

2.4 INVASIVE SPECIES

No studies on invasive species have been conducted in Pointe-au-Père NWA. A plant survey conducted in this protected area in 2011 detected the Purple Loosestrife (*Lythrum salicaria*) and the Reed Canarygrass (*Phalaris arundinacea*) (Joubert et al., 2012), two plants considered invasive in Canada (Environment Canada, 2012) and harmful in Quebec (Lavoie et

al., 2015). However, neither of these species could be considered invasive in the NWA at the time of the survey (J.-É. Joubert, Comité ZIP du Sud-de-l'Estuaire, pers. comm., 2013). The Purple Loosestrife comes from Eurasia and is naturalized in Quebec (Lavoie et al., 2012). The Reed Canarygrass is native to Canada, but recent genetic studies show that the plants of this species that are present in northeastern North America (including southern Quebec) are very likely agricultural cultivars of European origin. Although this plant has a significant adverse impact on plant diversity, it also forms wet meadows that provide useful spawning grounds for certain fish species (Lavoie et al., 2015).

The presence of the Japanese Knotweed (*Reynoutria japonica*) and the Giant Hogweed (*Heracleum mantegazzianum*), two alien plant species that are highly invasive in the Rimouski IBA (Nature Québec, 2012), bears monitoring in the NWA, even though these plants were not observed during the 2011 survey (J.-É. Joubert, pers. comm., 2013). The Knotweed has been observed around the cove to the southwest of the NWA (J.-P. le Bel, COBSL and J.-É. Joubert, Comité ZIP du Sud-de-l'Estuaire, pers. comm., 2015). The presence of three other invasive alien species also bears monitoring: the European Reed (*Phragmites australis*), a few individuals of which were recently discovered in the Nazareth and Sacré-Coeur districts of Rimouski (J.-É. Joubert, Comité ZIP, pers. comm., 2015); the Oyster Thief (*Codium fragile* spp. *tomentosoides*), an alga that has been observed in the Gulf of St. Lawrence; and the Green Crab (*Carcinus maenas*), which is present in the estuary. The latter two species pose a threat to Eelgrass beds and the organisms that use them (Nature Québec, 2012).

3 MANAGEMENT CHALLENGES AND THREATS

Pointe-au-Père National Wildlife Area faces various management challenges and threats, including climate change and severe weather (associated with shoreline erosion), natural system modifications, residential and commercial development, human intrusions and disturbance, pollution, invasive and other problematic species, diseases and genes, and scientific knowledge gaps. These management challenges and threats are described below in order of relative importance based on current knowledge and established on the basis of an analysis tool created by CWS (Baril, 2014). The threats nomenclature and classification and the assessment of their significance are based on the Threats Classification System of the International Union for the Conservation of Nature (IUCN, 2015; Salafsky et al., 2008).

3.1 CLIMATE CHANGE AND SEVERE WEATHER

3.1.1 Coastal Erosion

Coastal erosion phenomena are observed in the NWA. They may be influenced by climate change and severe weather. Between 2001 and 2011, in Pointe-au-Père Marsh, there has been a loss of several metres of the high schorre[13] and erosion has occurred between the slikke[14] and the low schorre (Joubert et al., 2012). The more obvious signs of erosion are located between the high schorre and the low schorre, at the shoreline level, where an active erosion microcliff can be seen (J.É. Joubert, pers. comm., 2016). This significant erosion poses a threat to already rare coastal species, such as the Gaspé Swallowtail, that use the marsh (M. Larivée, Insectarium de Montréal, pers. comm., 2015).

Studies on coastal erosion of the St. Lawrence show very significant shoreline retreat in the loose (unconsolidated) deposits of the estuary and gulf (Bernatchez and Dubois, 2004). On the south shore of the St. Lawrence River, erosion rates of 0.25 to 0.5 m per year were calculated for the high schorre (Dionne, 1999 in Bernatchez and Dubois, 2004). Pointe-au-Père and Rimouski are known to be particularly vulnerable to coastal erosion. Climate change is expected to accelerate coastal erosion, partly due to global sea level rise and increased storm intensity (various authors in Bernatchez and Dubois, 2004).

13. Schorre: A term used in geology for the upper part of the marsh that is flooded during very high tides.
14. Slikke: A term used in geology for the lower part of the mud flat that is flooded during each high tide.

3.2 NATURAL SYSTEM MODIFICATIONS

3.2.1 Drying-up of Salt Ponds (Intertidal Pools)

Experienced observers (J.-P. le Bel and J. Larivée, pers. comm., 2015; Joubert et al., 2012) mention that many of the salt ponds (small intertidal pools that provide shelter and food for many wildlife species) of Pointe-au-Père Marsh (in the bay and NWA) are drying up. These salt ponds were once colonized by the Sea Ditchgrass and contained water between two tides. They now form permanently visible depressions in the mud that are colonized by the Maritime Glasswort (Figure 7). This represents a major alteration of the natural environment (Joubert et al., 2012) that could be the result, among other things, of the annual use of the marsh by feeding Snow Geese (J.-P le Bel and J. Larivée, pers. comm., 2015), but the exact cause is not yet known.

3.2.2 Impacts of Geese

The many Snow Geese that use the Rimouski IBA cause a number of problems. This species feeds on plants in marshes and cultivated fields, placing significant pressure on coastal ecosystems and resulting in economic losses to the agriculture sector (Nature Québec, 2012). Large numbers of Snow Geese make stopovers in the NWA on their spring and fall migration, which is a source of concern given their possible impacts on the habitats of this protected area.

3.3 RESIDENTIAL AND COMMERCIAL DEVELOPMENT

Given its location on the outskirts of an urban area, Pointe-au-Père National Wildlife Area faces pressures associated with nearby residential and commercial development. The area surrounding the NWA has undergone many changes in recent decades. For instance, the size of anthropogenic areas has tripled (Maheu-Giroux et al., 2006). Road infrastructure, backfill operations and housing in this sector limit progression of the marsh, which is wedged between the road embankment and the waters of the St. Lawrence River (Joubert et al., 2012). The south part of the NWA is surrounded by anthropogenic structures that restrict ecological exchanges with surrounding natural areas (e.g. species movements, gene flow). In this regard, there are very few natural areas near the NWA that can provide buffer zones or ecological corridors for wildlife. In addition, recent cases of encroachment have been observed in the NWA, such as the installation of structures and the planting of non-native plants by adjacent property owners (B. Roberge, CWS, pers. comm., 2012).

3.4 HUMAN INTRUSIONS AND DISTURBANCE

3.4.1 Recreational Activities (Visitors)

Pointe-au-Père Lighthouse National Historic Site of Canada, which is located next to the NWA, receives over 60,000 visitors every year. This can place anthropogenic pressures on habitat near the NWA (Joubert et al., 2012). Some of these visitors take advantage of their visit to the national historic site to walk along the shore and explore the NWA, access to which is authorized only on an official trail due to the risk of wildlife disturbance and habitat degradation.

3.5 POLLUTION

3.5.1 Domestic and Urban Wastewater

Prior to 2007, untreated wastewater from the Mgr Leduc pumping station, which is located approximately 500 metres west of the NWA, could overflow and reach the NWA. This situation was corrected in 2007. In some situations, the overflow of the Père-Nouvel pumping station, which is located on the eastern boundary of the NWA and serves only eight residences, can discharge to the Sainte-Anne River (e.g., pump failure). The outfall of the Rimouski-Est water treatment plant is submerged roughly 3 kilometres west of the NWA, 500 metres from the shoreline (C. Lafrance, Ville de Rimouski, pers. comm., 2014). The possible effects of water flowing from the outfall on the NWA are unknown.

3.5.2 Contaminated Soil

Petroleum contaminants have been detected in the northeastern part of the NWA which is adjacent to Père-Nouvel Street and to land once owned by the company Golden Eagle (now called Ultramar Canada) (Hamelin et associés, 2002, Hamelin et associés, 2003, Technisol Environnement, 2005). Between 1961 and 1987, this company operated a marine terminal that housed gasoline, fuel oil and diesel tanks. In 1974, a spill of roughly 160,000 litres of gasoline occurred at the terminal. The terminal was dismantled in 1987 and replaced by a research station owned by the Institut des sciences de la mer (ISMER, UQAR). Remediation may be required, but it is recommended that no action be taken until the extent of the contamination on neighbouring properties is assessed (Technisol Environnement, 2005).

3.5.3 Accidental Spills

The NWA is exposed to a risk of spills of hydrocarbons and other toxic products associated with heavy ship traffic in the St. Lawrence. Such spills could have a serious impact on the habitats and species of the NWA. Environment and Climate Change Canada and its

collaborators have developed an emergency response plan that sets out minimum bird protection measures in the event of a spill.

3.6 INVASIVE AND OTHER PROBLEMATIC SPECIES, DISEASES AND GENES

The Reed Canary Grass and the Purple Loosestrife were observed in the NWA in a plant survey conducted in 2011 (Joubert et al., 2012), but they did not exhibit invasive characteristics. Three highly invasive and noxious exotic plant species observed in the Rimouski IBA were also found in the NWA: the European Reed, the Japanese Knotweed and the Giant Hogweed. The presence of two other pest species—the *Codium fragile* (an alga) and the Green Crab—should also be monitored.

3.7 SCIENTIFIC KNOWLEDGE GAPS

Knowledge of a number of the natural resources of the NWA is lacking, such as the use of the area by the American Black Duck, the Common Eider and the Brant, the extent of coastal erosion and drying up of the salt ponds, the effects of Snow Geese grazing on the marsh and the presence of certain species at risk. Enhancing knowledge would make it possible to better assess the state of ecological health of this protected area and would facilitate management decision making.

4 GOALS AND OBJECTIVES

4.1 VISION

Pointe-au-Père National Wildlife Area protects important habitats for species at risk, priority bird species and other wildlife species. Priority bird species are those identified in the *Bird Conservation Strategy for Bird Conservation Region 14 in Quebec Region: Atlantic Northern Forest* (Environment Canada, 2013c).

4.2 GOALS AND OBJECTIVES

The following goals and objectives are designed to clarify the vision of the management plan, taking account of the management challenges and threats. The goals and objectives will be achieved through the actions set out in Table 4 (Management Approaches for Pointe-au-Père National Wildlife Area), which will be implemented in line with available resources.

Goal 1: Protect and enhance significant habitats for species at risk, priority bird species and other wildlife species.

Objectives:

1.1 Protect the priority bird species of the NWA, including waterfowl and shorebird populations.

1.2 Maintain populations of species with a precarious status and their habitats by implementing the recommendations and actions outlined in federal and provincial recovery documents.

1.3 Reduce the effects of shoreline erosion and extreme weather on habitats.

1.4 Limit the impacts of natural system modifications.

1.5 Prevent the spread of invasive species.

Goal 2: Consolidate the NWA's land holdings and promote natural habitat conservation on adjacent lands in order to foster connectivity and improve ecological conditions.

Objectives:

2.1 Integrate adjacent lands having ecological value into the NWA.

2.2 Correct for encroachment by private lands onto the NWA.

Goal 3: Reduce the impact of human activities on the NWA.

Objectives:

3.1 Complete the NWA signage to protect plants and animals from the impact of human activities.

3.2 Reduce the number of incidents of non-compliance with regulations.

3.3 Limit the possible effects of pollution on the habitats and species of the NWA.

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

Objectives:

4.1 Implement an ecological monitoring plan.

4.2 Identify scientific knowledge gaps and fill those considered a priority.

Goal 5: Raise awareness among the public and regional communities about the conservation of the NWA, wildlife species and their habitats.

Objectives:

5.1 Encourage public and local community outreach and communication activities on the importance of conservation and the role of the NWA.

5.2 Inform local communities and the public of the regulations that are applicable to the NWA.

5.3 Ensure that visitor facilities and infrastructure are in good condition and safe for the public.

4.3 EVALUATION

Annual monitoring of the measures taken and results obtained will be performed within the constraints dictated by the availability of financial and human resources. The monitoring will serve to establish future priorities for action and to allocate resources. The management plan will be reviewed five years after its initial approval and reviewed and updated every ten years thereafter.

Table 4 : Pointe-au-Père National Wildlife Area Management Approaches

Goals	Objectives	Actions (priority level)[1]
Goal 1: Protect and enhance significant habitats for species at risk, priority bird species and other wildlife species. **Threats and challenges:** • Climate change and severe weather • Natural system modifications • Residential and commercial development • Invasive and other problematic species, genes and diseases • Scientific knowledge gaps	**Objective 1.1:** Protect the priority bird species of the NWA, including waterfowl and shorebird populations.	• Conduct surveys of breeding American Black Ducks and other waterfowl and priority bird species. **(2)** • Establish protection measures for these species and their habitats. **(2)** • Determine the use of the NWA by Common Eiders during the rearing period. **(1)** • Conduct five-year monitoring of migrating shorebird populations in the NWA. **(1)** • Identify conservation measures for migratory shorebird populations in the NWA. **(2)**
	Objective 1.2: Maintain populations of species with a precarious status and their habitats by implementing the recommendations and actions outlined in federal and provincial recovery documents.	• Assess the use of the NWA by species with a precarious status, such as the Buff-breasted Sandpiper, the Nelson's Sparrow, the Peregrine Falcon, the Short-eared Owl and the Gaspé Swallowtail. **(1)** • Determine the need for protection of species at risk in the NWA. **(2)** • Implement the recommendations of all recovery documents for all species at risk in the NWA, in accordance with agreed timelines. **(2)**
	Objective 1.3: Reduce the effects of shoreline erosion and severe weather on habitats.	• Assess the impacts of coastal erosion on the wildlife habitats of the NWA. **(1)** • Implement a coastal erosion monitoring program. **(2)** • Perform priority shoreline and wildlife habitat restoration work if possible. **(3)**
	Objective 1.4: Limit the impacts of natural system modifications.	• Assess the impacts of Snow Goose grazing in the NWA. **(2)** • Study the phenomenon of the drying up of salt ponds. **(3)** • If applicable, assess and implement possible methods of restoring salt ponds that have dried up. **(3)**

Table 4 : Pointe-au-Père National Wildlife Area Management Approaches

Goals	Objectives	Actions (priority level)[1]
	Objective 1.5: Prevent the spread of invasive species.	• Establish monitoring stations for detecting invasive species in the NWA and conduct regular monitoring. **(1)**
Goal 2: Consolidate the NWA's land holdings and promote natural habitat conservation on adjacent lands in order to foster connectivity and improve ecological conditions. **Threats and challenges:** • Residential and commercial development • Human intrusions and disturbance	**Objective 2.1:** Integrate adjacent lands having ecological value into the NWA.	• Conduct an analysis of the ecological value and conservation potential of the lands adjacent to the NWA (federal or other). **(1)** • Where possible, acquire lands having high conservation potential adjacent to the NWA. **(1)**
	Objective 2.2: Correct for encroachment by private lands on the NWA.	• Address cases of encroachment by private land on the NWA and restore the sites, where appropriate. **(2)**
Goal 3: Reduce the impact of human activities on the NWA. **Threats and challenges:** • Human intrusions and disturbance • Pollution	**Objective 3.1:** Complete the NWA signage to protect plants and animals from the impact of human activities.	• Install comprehensive signage and complete NWA boundary marking. **(1)** • Close possible access points to the shoreline of the NWA and indicate prohibitions on entry to prevent visitor access. **(1)**
	Objective 3.2: Reduce the number of incidents of non-compliance with regulations.	• Collaborate with the Wildlife Enforcement Branch to promote monitoring of the area and enforcement. **(1)**
	Objective 3.3: Limit the possible effects of pollution on the habitats and species of the NWA.	• Characterize the possible impacts of wastewater discharges on habitats and species in the NWA. **(1)** • Assess the possible impacts of the presence of petroleum contaminants in the northeast part of the NWA. **(2)**
Goal 4: Ensure ecological monitoring of the NWA and improve knowledge of wildlife species and their habitats. **Threats and challenges:** • Scientific knowledge gaps • Human intrusions and disturbance	**Objective 4.1:** Implement an ecological monitoring plan.	• Determine the indicators and monitoring methods of an ecological monitoring plan. **(1)** • Implement the ecological monitoring plan. **(1)**

Table 4 : Pointe-au-Père National Wildlife Area Management Approaches

Goals	Objectives	Actions (priority level)[1]
	Objective 4.2: Identify scientific knowledge gaps and fill those considered a priority.	• Update the knowledge acquisition plan on the basis of the NWA conservation plan and more recent plant and animal surveys. **(2)** • Encourage the carrying out – by CWS or in collaboration with Aboriginal people and conservation groups – of inventories and priority monitoring of resources (e.g., shorebirds, waterfowl, plants, coastal erosion and its impacts on the NWA). **(2)** • Establish scientific research priorities in the NWA and inform researchers and conservation groups of those priorities. **(1)** • Use the various sources of existing data (ÉPOQ, eBird, SOS-POP, NGOs, birding clubs, research work) to enhance scientific knowledge on the NWA. **(3)**
Goal 5: Raise awareness among the public and local communities about the conservation of the NWA, wildlife species and their habitats. **Threats and challenges:** • Climate change and severe weather • Residential and commercial development • Human intrusions and disturbance • Pollution	**Objective 5.1:** Encourage public and local community outreach and communication activities on the importance of conservation and the role of the NWA.	• Work with local stakeholders on various projects, such as the development of an awareness program on the NWA. **(2)** • Promote the development of NWA information and awareness tools by local collaborators and the Viger Maliseet First Nation (e.g. brochure, visitor's guide, discovery guide, social media). **(3)**
	Objective 5.2: Inform local communities and the public of the regulations that are applicable to the NWA.	• Put up posters displaying the regulations that apply in the NWA. **(1)** • Publish public notices of the regulations in newspapers. **(1)**
	Objective 5.3: Ensure that visitor facilities and infrastructure are in good condition and safe for the public.	• Develop a public safety plan. **(3)** • Conduct annual inspections of facilities and infrastructure. **(1)** • Ensure regular maintenance of facilities and infrastructure. **(1)**

1. **Implementation timeline:** 1 (from 0 to 3 years), 2 (from 4 to 6 years), 3 (from 7 to 10 years and over)

Note: The level of priority assigned to the actions refers to the implementation timeline and not to their importance in terms of resource conservation. Priority level may change depending on the context and available resources.

5 MANAGEMENT APPROACHES

This section summarizes the approaches and actions presented in Table 4 that could be used in the management of Pointe-au-Père National Wildlife Area. However, specific management actions will be determined during the annual work planning process and will be implemented as human and financial resources allow, in accordance with the approaches described below.

5.1 HABITAT MANAGEMENT

Habitat management will be focused on the conservation of important habitats for the American Black Duck, the Common Eider, the Brant and shorebirds, on the recovery of species at risk, and on the protection of critical habitat of species at risk and important habitats for other wildlife species.

Since the NWA is small, efforts will be made to consolidate it by annexing adjacent lands and working with local organizations to protect adjacent habitats that are important to wildlife species. The monitoring of the NWA will also be encouraged to limit encroachment and pollution. Assessments will be conducted to determine whether soil remediation is needed in the northeast part of the NWA where the presence of petroleum contaminants has been documented.

5.2 WILDLIFE MANAGEMENT

Wildlife management efforts will be based on the knowledge acquired through surveys. This knowledge will be useful in taking stock of various aspects of the biodiversity of the NWA. Monitoring efforts could be carried out to support better understanding and management of the waterfowl and shorebird populations that use the NWA. In addition, collaboration will be undertaken with various government and university specialists on research or monitoring projects to ensure the best possible protection of species at risk. The recommendations made as part of species at risk recovery strategies will guide the identification and protection of critical habitat in and around the NWA.

5.3 MONITORING

An ecological monitoring program is planned over the next five years to assess the ecological health of the NWA and to gather information that will be useful for management decision making. The program will be based on biological monitoring conducted internally and on follow-ups conducted in collaboration with regional and provincial stakeholders. Ecological monitoring efforts will focus specifically on wildlife habitats, species at risk, priority and

representative species of the NWA (e.g. waterfowl) and ecological and human stresses on the area (e.g., coastal erosion). Collaboration with various local stakeholders could be carried out to increase the effectiveness and sustainability of the monitoring program.

5.4 RESEARCH

Knowledge acquisition and research needs have been established for various plant and animal species and for the management challenges and threats associated with Pointe-au-Père National Wildlife Area. An update of a knowledge acquisition plan on the basis of the current NWA conservation plan and on surveys and studies conducted since the plan was drafted is being considered. One of the priorities is to better document the use of the NWA by the American Black Duck during the breeding season, the Common Eider during the rearing period, the Brant during spring migration and shorebirds during their migration, as well as the presence of certain species at risk or with a precarious status, including the Buff-breasted Sandpiper, the Nelson's Sparrow, the Peregrine Falcon, the Short-eared Owl and the Gaspé Swallowtail. It is very important to have a better understanding of the extent of the ecological threats that may be affecting the NWA, such as coastal erosion, the possible effects of soil and water pollution and the drying up of salt ponds. Lastly, it would be desirable to acquire knowledge on the presence and distribution of the American Eelgrass in Pointe-au-Père NWA and Marsh.

To obtain a permit to conduct research in Pointe-au-Père National Wildlife Area and to receive instructions concerning guidelines for a research proposal, please contact:

National Wildlife Area – Permit Request
Environment and Climate Change Canada, Canadian Wildlife Service
801-1550 D'Estimauville Avenue
Québec QC G1J 0C3
Email: ec.permisscfquebec-cwsquebecpermit.ec@canada.ca

5.5 PUBLIC INFORMATION AND OUTREACH

A designated sector of Pointe-au-Père National Wildlife Area is open to the public, and Environment and Climate Change Canada may authorize outreach activities in that sector. These activities can be carried out by municipalities and conservation organizations, among other groups, under the authority of a permit.

6 AUTHORIZATIONS AND PROHIBITIONS

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

Activities within an NWA are authorized where notices have been posted at the entrance or along the NWA boundaries or when notices have been published in local newspapers (see example in Appendix I). However, in addition to notices, certain activities may be authorized by obtaining a permit from the Minister of the Environment and Climate Change.

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 a NWA entrance or along its boundaries prohibiting entry to the NWA or any part thereof. These notices 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 habitats.

At Pointe-au-Père National Wildlife Area, such a notice would be posted at the entrance of the NWA in the parking lot.

6.2 AUTHORIZED ACTIVITIES

The NWA is open to the public year-round, but access is restricted to one designated area, namely a 100-m trail leading to a lookout platform, unless otherwise indicated in notices published in local newspapers or posted at the NWA entrance or boundaries. Access to the shoreline and other areas of the NWA is prohibited for conservation reasons. Visitors must comply with all other restrictions unless they have a permit issued by the Minister.

The following activities are compatible with the conservation goals and objectives set out in this management plan and are therefore authorized in the NWA: hiking and nature observation and photography on the trail and at the lookout.

All other activities are prohibited in this NWA, including migratory bird hunting, small and large game hunting, snaring, trapping, fishing, collecting plants and animals (e.g., insects, butterflies), use of motorized vehicles (e.g., all-terrain vehicles, motorcycles, snowmobiles,

vessels with outboard engines), kayaking, camping, cycling, cross-country skiing and snowshoeing.

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 authorizing the activity.

6.3 AUTHORIZATIONS

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 wildlife and their habitats or will contribute to wildlife conservation; or the activity is not inconsistent with the purpose for which the NWA was established and is consistent with the most recent management plan.

The Minister may also add terms and conditions to permits in order to minimize the impact of an activity on wildlife and wildlife habitats and to protect them.

For further information, please consult the Environment and Climate Change Canada Policy when Considering Permitting or Authorizing Prohibited Activities in Protected Areas Designated Under the *Canada Wildlife Act* and *Migratory Birds Convention Act, 1994* (December 2011). This policy document in available on the protected areas website at www.ec.gc.ca/ap-pa.

All requests for permits or authorizations must be made in writing to the following address:

National Wildlife Area – Permit Request
Environment and Climate Change Canada – Canadian Wildlife Service
801-1550 D'Estimauville Avenue
Québec QC G1J 0C3
Email: ec.permisscfquebec-cwsquebecpermit.ec@canada.ca

6.4 EXCEPTIONS

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

- Activities related to public safety, health or national security, that are authorized 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 to enforcement conducted by an officer or employee of Environment and Climate Change Canada.

6.5 OTHER FEDERAL AND PROVINCIAL AUTHORIZATIONS

Depending on the type of activity, other federal or provincial permits or authorizations may be required to undertake an activity in this NWA.

For more information, please contact your regional federal and 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 and Climate Change Canada staff will take all reasonable and necessary precautions to protect their own health and 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. Since natural areas contain some inherent dangers, visitors must take proper precautions to ensure their own safety, recognizing that Environment and Climate Change Canada staff neither regularly patrol nor offer services for visitor safety in this NWA. Environment and Climate Change Canada plans to develop a public safety plan to limit the risk of incidents and to ensure public safety in the NWA.

Environment and Climate Change Canada intends to develop a public safety plan in order to limit the risks of accident and insure public safety in this NWA.

To report an environmental emergency, please call the Canadian Environmental Emergencies Notification System at the following telephone numbers:

514-283-2333 or 1-866-283-2333

Incidents or emergency situations can be reported to:

- Environment and Climate Change Canada: 1-800-668-6767 or ec.enviroinfo.ec@info.ec.gc.ca
- Maritime Rescue (Canadian Coast Guard): 1-800-463-4393/cell: *16
- Sûreté du Québec: 310-4141/cell: *4141
- Civil Protection: 1-866-776-8345/cell: 911
- SOS-Poaching: 1-800-463-2191
- Environmental emergency: Environment and Climate Change Canada: 1-866-283-2333 or Quebec Department of Sustainable Development, Environment and Fight Against Climate Change: 1-866-694-5454
- Forest fires: 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 their regulations:

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

The following are examples of activities that, if carried out on NWAs without authorization, may constitute an offence:

- accessing the site;
- destroying or disturbing migratory birds, their nests or their eggs;
- possessing a weapon or any instrument that could be used for the purpose of hunting;
- picnicking, camping or engaging in any other recreational activity;
- lighting a fire;
- removing or damaging any natural artefact, building, fence, poster, sign or other structure;
- dumping or depositing any waste material or substance likely to reduce the quality of the natural environment;
- allowing any domestic animal to run at large.

9 PLAN IMPLEMENTATION

This management plan will be implemented over a 10-year period. Annual work plans will be developed in accordance with priorities and budgets. Depending on available resources and opportunities, some actions could be brought forward, postponed or cancelled. Environment and Climate Change Canada will favour an adaptive management approach. The implementation of the plan will be evaluated five years after its publication on the basis of the actions identified in Table 4.

10 COLLABORATORS

Collaboration with local agencies and sector organizations will be favoured to contribute to the protection and conservation of wildlife species and their habitats in Pointe-au-Père National Wildlife Area. 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 conservation objectives of the NWA.

The main organizations likely to collaborate in the mission and activities of Pointe-au-Père National Wildlife Area are listed below.

CEGEP de Rimouski
60 De l'Évêché Street West
Rimouski QC G5L 4H6
Telephone: 418-723-1880
Toll free number: 1-800-463-0617
Fax: 418-724-4961

Club des ornithologues du Bas-Saint-Laurent (COBSL)
PO Box 66
Rimouski QC G5L 7B7
Email: cobsl@globetrotter.net

Comité ZIP du Sud-de-l'Estuaire
88 Saint-Germain Street West, Suite 101
Rimouski QC G5L 4B5
Telephone: 418-722-8833
Fax: 418-722-8831
Email: zipse@globetrotter.net

Ministère de la Faune, des Forêts et des Parcs (MFFP) (Quebec Department of Forests, Fauna and Parks)
Direction générale du Bas-Saint-Laurent (Bas-Saint-Laurent Branch)
92 2nd Street West, Suite 207
Rimouski QC G5L 8B3
Telephone: 418-727-3710
Fax: 418-727-3735
Email: bas-saint-laurent@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)
Direction générale de l'analyse et de l'expertise régionales et Centre de contrôle environnemental du Québec – Bureau régional (Analysis and Regional Expertise Branch and Quebec Environmental Control Centre – Regional Office)
212 Belzile Avenue
Rimouski QC G5L 3C3
Telephone: 418-727-3511
Fax: 418-727-3849
Email: bas-saint-laurent@mddelcc.gouv.qc.ca

Municipalité régionale de comté (MRC) de Rimouski-Neigette (Regional county municipality, RCM)
23 De l'Évêché Street West, Suite 200
Rimouski QC G5L 4H4
Telephone: 418-724-5154
Fax: 418-725-4567
Email: administration@mrcrimouskineigette.qc.ca

Organisme des bassins versants du nord-est du Bas-Saint-Laurent
23 De l'Évêché Street West, Suite 200
Rimouski QC G5L 4H4
Telephone: 418-724-5154
Email: info@cbrr.org

Université du Québec à Rimouski
300 Allée des Ursulines
PO Box 3300, Station A
Rimouski QC G5L 3A1
Telephone: 418-723-1986
Toll free number: 1-800-511-3382
Fax: 418-724-1525
Email: uqar@uqar.ca

Viger Maliseet First Nation (Première Nation malécite de Viger)
217, De la Grève Street
Cacouna QC G0L 1G0
Telephone: 418-860-2393
Fax: 418-867-3418
Email: info@malecites.ca

Ville de Rimouski (City of Rimouski)
205 De la Cathédrale Avenue
PO Box 710
Rimouski QC G5L 7C7
Telephone: 418-724-3171
Fax: 418-724-3183
Email: directiongenerale@ville.rimouski.qc.ca

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APPENDIX I: ENVIRONMENT CANADA NOTICE PUBLISHED IN 2014

Environment Canada would like to inform the public that the Pointe-au-Père National Wildlife Area (NWA)—located approximately 10 kilometres northeast of downtown Rimouski—is a protected area. Since its creation in 1986, the NWA has been protecting migratory birds, wildlife and wetland habitats, as well as species at risk. To protect the area, the Department is informing NWA visitors of their obligation to follow certain rules, as dictated by the *Canada Wildlife Act* and its corresponding regulations. Anyone who fails to follow these rules or obey the laws in effect may be subject to fines and prosecution. Hiking, nature viewing and photography are authorized in designated areas (trails, kiosks, lookouts, roads and parking lots). These activities are prohibited elsewhere in the NWA, outside designated areas.

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

- circulate (on foot or on any mode of transportation) except in designated areas;
- hunt or fish;
- destroy or remove a plant;
- allow any domestic animal to run at large;
- swim, picnic, camp or carry on any other recreational activity or light a fire;
- dump or deposit any trash.

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

To file a complaint or report illegal activities, please contact Environment Canada by telephone at 1-800-668-6767 or by email at enviroinfo@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.