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## Notices

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### Notice

Natural Heritage Conservation Act  
(2002, c. 74)

#### Temporary protection status assigned to various territories as a proposed biodiversity reserve or aquatic reserve

Notice is hereby given, in keeping with section 29 of the Natural Heritage Conservation Act (2002, c. 74):

1° that, through the Ministerial Order of March 18, 2003, published in the *Gazette officielle du Québec* on April 9, 2003, the Minister of the Environment has assigned, for a period of four years as of the date on which this notice is published in the *Gazette officielle du Québec*, a temporary protection status to the seven (7) areas the name and location of which are mentioned in Appendix I, as a proposed biodiversity reserve;

2° that, through the Ministerial Order of March 18, 2003, published in the *Gazette officielle du Québec* of April 9, 2003, the Minister of the Environment has assigned, for a period of four years as of the date on which this notice is published in the *Gazette officielle du Québec*, a temporary protection status to the three (3) areas the name and location of which are mentioned in Appendix II, as a proposed aquatic reserve;

3° that a copy of the respective plans of those proposed biodiversity reserves and aquatic reserves can be obtained upon payment of a fee, by contacting Léopold Gaudreau by mail at Direction du patrimoine écologique et du développement durable, ministère de l'Environnement, 675, boulevard René-Lévesque Est, 4<sup>e</sup> étage, boîte 21, Québec (Québec) G1R 5V7, by phone at (418) 521-3907, extension 4783, by fax at (418) 646-6169 or by e-mail at leopold.gaudreau@menv.gouv.qc.ca

4° that the permanent protection status planned for those areas is respectively that of biodiversity reserve or aquatic reserve, as a continuation of the temporary status already granted, the allocation of such permanent status being regulated by the Natural Heritage Conservation Act.

MADELEINE PAULIN,  
*Deputy Minister*

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### APPENDIX I

#### PROPOSED BIODIVERSITY RESERVES

##### Proposed Pasteur lake biodiversity reserve

Location: The territory of this reserve is located in the Côte-Nord administrative region, between 50°09' and 50°27' latitude north and 66°50' and 67°06' longitude west.

##### Proposed Boatswain bay biodiversity reserve

Location: The territory of this reserve is located in the Nord-du-Québec administrative region, between 51°42' and 51°56' latitude north and 78°47' and 79°03' longitude west.

##### Proposed Ministikawatin peninsula biodiversity reserve

Location: The territory of this reserve is located in the Nord-du-Québec administrative region, between 51°09' and 51°40' latitude north and 78°59' and 79°31' longitude west.

##### Proposed Missisicabi plain biodiversity reserve

Location: The territory of this reserve is located in the Nord-du-Québec administrative region, between 50°28' and 50°44' latitude north and 78°29' and 79°54' longitude west.

##### Proposed Muskuuchii hills biodiversity reserve

Location: The territory of this reserve is located in the Nord-du-Québec administrative region, between 50°04' and 50°26' latitude north and 78°22' and 78°56' longitude west.

##### Proposed Vaudray and Joannès lakes biodiversity reserve

Location: The territory of this reserve is located in the Abitibi-Témiscamingue administrative region, between 48°01' and 48°13' latitude north and 78°36' and 78°45' longitude west.

##### Proposed Sabourin lake biodiversity reserve

Location: The territory of this reserve is located in the Abitibi-Témiscamingue administrative region, between 47°44' and 48°02' latitude north and 77°22' and 77°56' longitude west.

## APPENDIX II PROPOSED AQUATIC RESERVES

### Proposed Ashuapmushuan river aquatic reserve

Location: The territory of this reserve is located in the Saguenay–Lac-Saint-Jean region, between 48°40' and 50°45' latitude north and 73°42' and 72°44' longitude west.

### Proposed Moisie river aquatic reserve

Location: The territory of this reserve is located in the Côte-Nord administrative region, between 50°19' and 52°29' latitude north and 65°58' and 67°33' longitude west.

### Proposed North Harricana river aquatic reserve

Location: The territory of this reserve is located in the Nord-du-Québec region, between 50°11' and 51°00' latitude north and 79°7' and 79°20' longitude west.

## CONSERVATION PLAN OF THE PROPOSED PASTEUR LAKE BIODIVERSITY RESERVE

### 1. Plan and description

#### 1.1. Geographic location, boundaries and dimensions

The plan of the proposed Pasteur lake biodiversity reserve and its location are shown on the maps in Schedules A.1 and A.2.

The proposed Pasteur lake biodiversity reserve is located in the Côte-Nord administrative region, between 50°9' and 50°27' latitude north and 66°50' and 67°6' longitude west. It is situated roughly 15 km north of Ville de Port-Cartier. It is accessible via the unpaved road RO920 that crosses the Port-Cartier–Sept-Îles wild-life sanctuary from north to south, or via the road RO921 to the east, near Gallix.

It lies within the non-municipalized territory of Lac Walker, which is attached to Municipalité régionale de comté de Sept-Rivières.

The proposed biodiversity reserve covers a total area of 310.9 km<sup>2</sup>.

#### 1.2. Ecological overview

The proposed biodiversity reserve is in the Central Laurentian natural province. It protects natural environments characteristic of ecosystems in the natural region of the Sainte-Marguerite River Plateau.

#### 1.2.1. Representative elements

**Climate:** The proposed biodiversity reserve is at the interface of two major types of continental climate: the hilly sectors in the west and northeast are characterized by a cold, subpolar and subhumid climate with a short growing season, whereas the valley bottoms are characterized by a subpolar, subhumid climate with a middle growing season. To the east, a small part of the reserve is characterized by a subpolar, subhumid climate with a short growing season. The protected area belongs to the bioclimatic field of mossy spruce stands.

**Geology and geomorphology:** The reserve is in the Grenville geologic province. It is part of the Central Laurentians, the foothills of a powerful mountain range created almost one billion years ago. The substratum is mainly formed by gneiss, derived either from sedimentary rock (paragneiss) or “granitized” gneiss (migmatites). To the northeast, the rock base is formed by felsic rock, in this instance solid granite and pegmatite. To the east of Chevarie lake, the bedrock is covered by a light deposit of rock and well-drained peat. In contrast, to the west of Chevarie lake, the surface is thin, well-drained till. The valley bottoms are covered with glaciofluvial sand and gravel. The landscape comprises hills dissected by inset, rectilinear valleys, with occasional glacial lakes. The average altitude is 285 m, varying between 77 m and 554 m.

**Hydrography:** Most of the zone is part of the watershed of the Aux Rochers river. It has around twenty lakes, which cover roughly 15% of the total area. The largest lake is Pasteur lake, which covers roughly 18 km<sup>2</sup>. The drainage system is well developed, and comprised mainly of intermittent watercourses. It is subparallel, generally oriented north-south, and follows the main fractures in the bedrock.

**Vegetation:** Three-quarters of the area is covered by forest, mainly resistant softwoods. Black spruce (*Picea mariana*) predominates, often with balsam fir (*Abies balsamea*). Almost two-thirds of the tree cover is made up of mature stands over 90 years old. The steeper slopes and some peaks are heathland. The dips, often poorly drained, are occupied by wetlands (peat bogs and alder groves). The area has not been logged recently, and has been only slightly affected by forest fires.

#### 1.3. Land occupation and use

The land occupations and uses in the proposed Pasteur lake biodiversity reserve are shown on the map in Schedule A.3.

The road network is the only human disturbance. It comprises 98% of unpaved roads suitable for road vehicles, and has a total length of 114 km.

Land rights have been granted on 8 sites: 2 cottage leases and 6 Native camps.

The entire territory lies within the Saguenay beaver reserve, where the Sept-Îles Inuit community residing at Uashat and Maliotenam has special rights regarding the hunting and trapping of fur-bearing animals.

The area also lies within the Port-Cartier-Sept-Îles wildlife sanctuary. Recreational activities (small and big game hunting, fishing, blueberry picking, wildlife observation, hiking, canoeing, canoe-camping, etc.) are subject to the regulations in force (such as visitor registration and payment of the applicable fees).

## 2. Protection status

The proposed biodiversity reserve safeguards several lakes at the head of the watershed of the Aux Rochers river, including Pasteur lake. The area offers a forest landscape of great interest, both from an ecological perspective and for its beauty.

Biodiversity reserve status would allow the pursuit of the following conservation objectives:

- the conservation of a glacial heritage characteristic of the Central Laurentians;
- the preservation of biodiversity in lake and forest ecosystems;
- the development of certain key elements in the landscape;
- the acquisition of new knowledge concerning natural heritage.

## 3. Activities within the reserve

All activities carried on within the proposed Pasteur lake biodiversity reserve are governed by the provisions of the Natural Heritage Conservation Act (2002, c. 74).

This conservation plan does not specify any prohibited activity other than those prohibited in biodiversity reserves by the Act; nor does it authorize any other activities, or set any additional constraints on the activities permitted by the Act.

### 3.1. Prohibited activities

For reference purposes, it is important to note that under the Natural Heritage Conservation Act, the main activities prohibited in an area designated as a proposed biodiversity reserve are:

- mining, and gas or petroleum development;
- mining, gas or petroleum exploration, brine and underground reservoir exploration, prospecting, and digging or boring, where such activities necessitate stripping, the digging of trenches, excavation or deforestation;
- forest management activities within the meaning of section 3 of the Forest Act (R.S.Q., c. F-4.1);
- the development of hydraulic resources and any production of energy on a commercial or industrial basis;
- any new allocation of a right to occupy land for vacation resort purposes;
- earthwork, backfilling or construction work.

### 3.2. Activities governed by other Acts

All activities carried on within the boundaries of the proposed Pasteur lake biodiversity reserve remain governed by the other applicable legislative and regulatory provisions, including those that require the issue of a permit or authorization or the payment of fees. The carrying on of certain activities may also be prohibited or limited by other Acts or regulations applicable within the boundaries of the proposed biodiversity reserve.

In particular, within the boundaries of the proposed biodiversity reserve, special legal rules may govern permitted and prohibited activities in connection with:

- Archaeological research (especially the measures contained in the Cultural Property Act (R.S.Q., c. B-4);
- Utilisation of wildlife resources (especially the measures contained in the Act respecting the conservation and development of wildlife (R.S.Q., c. C-61.1) and the regulation on beaver reserves, and, where applicable, the measures contained in any applicable federal legislation);
- Access (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1));

— Land rights (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1) and in leases issued by the Minister of Natural Resources).

### 3.3. Supervision of activities

The Minister of the Environment is responsible for the application of the Natural Heritage Conservation Act, and is also responsible for the proposed biodiversity reserves established under that Act. The Minister will supervise and monitor the measures contained in the Act with regard to permitted activities in protected areas.

All other government departments and bodies will retain their responsibilities as set out in all the legislative and regulatory texts that apply within a proposed biodiversity reserve.

The Minister of Natural Resources will supervise all activities subject to the Minister's authority within the territory of the proposed Pasteur lake biodiversity reserve, in particular as regards permitted forms of land occupation.

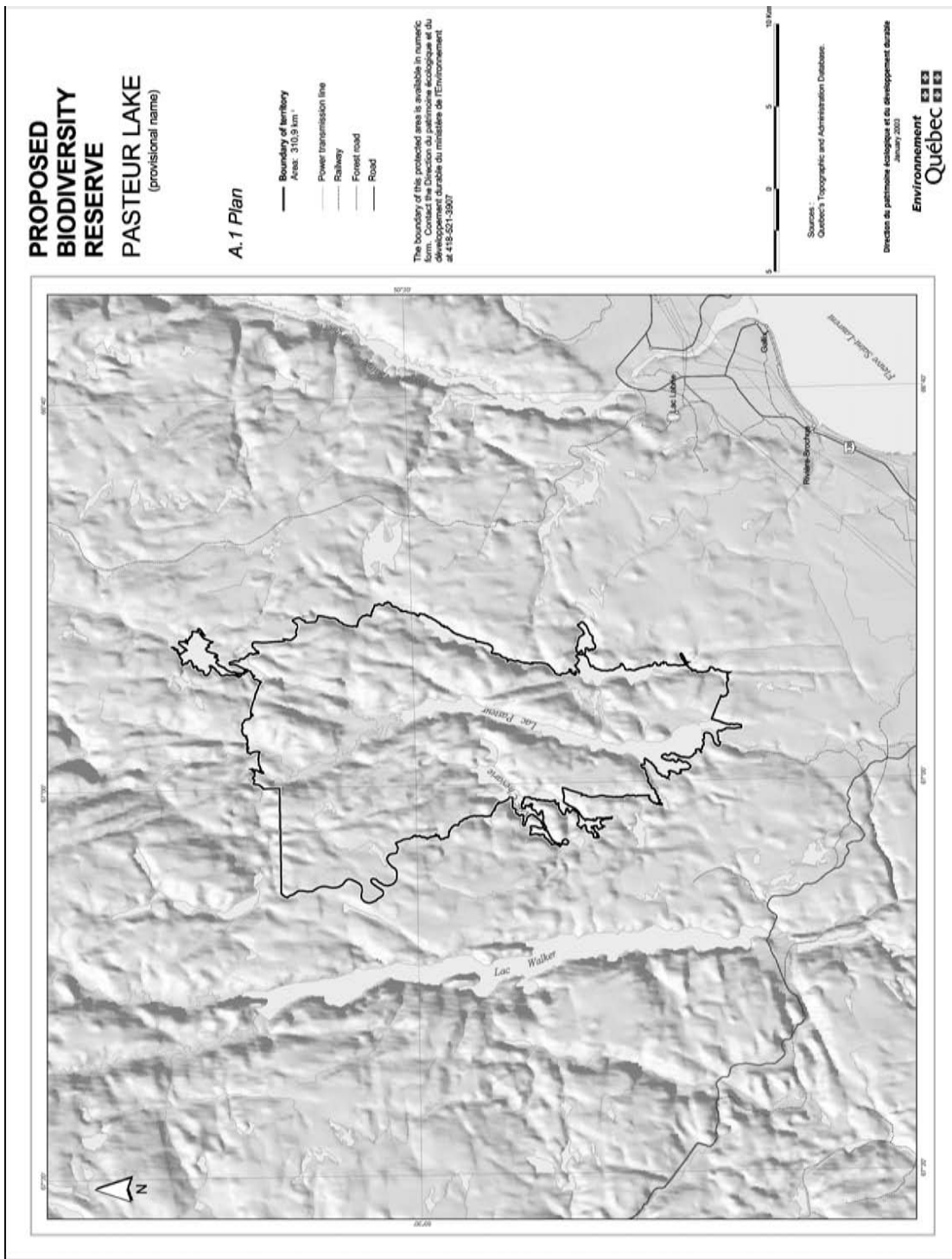
The Société de la faune et des parcs du Québec (FAPAQ) remains responsible for supervising the activities relating to wildlife protection and management that are under its responsibility, and the Société des établissements de plein air du Québec (SÉPAQ) remains responsible for the land in the Port-Cartier – Sept-Îles wildlife sanctuary.

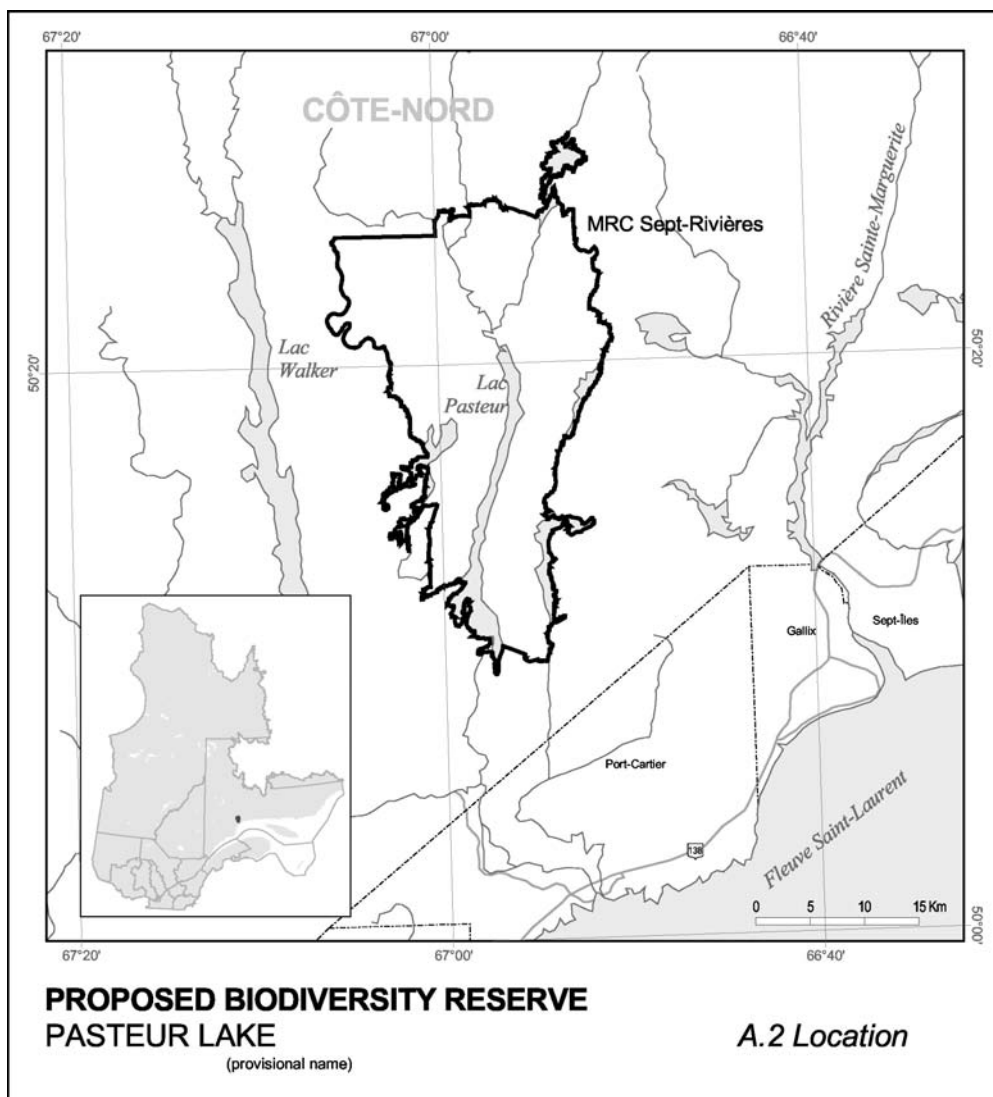
### 4. Permanent protection status

The permanent protection status envisaged for the reserve is “biodiversity reserve” status under the Natural Heritage Conservation Act.

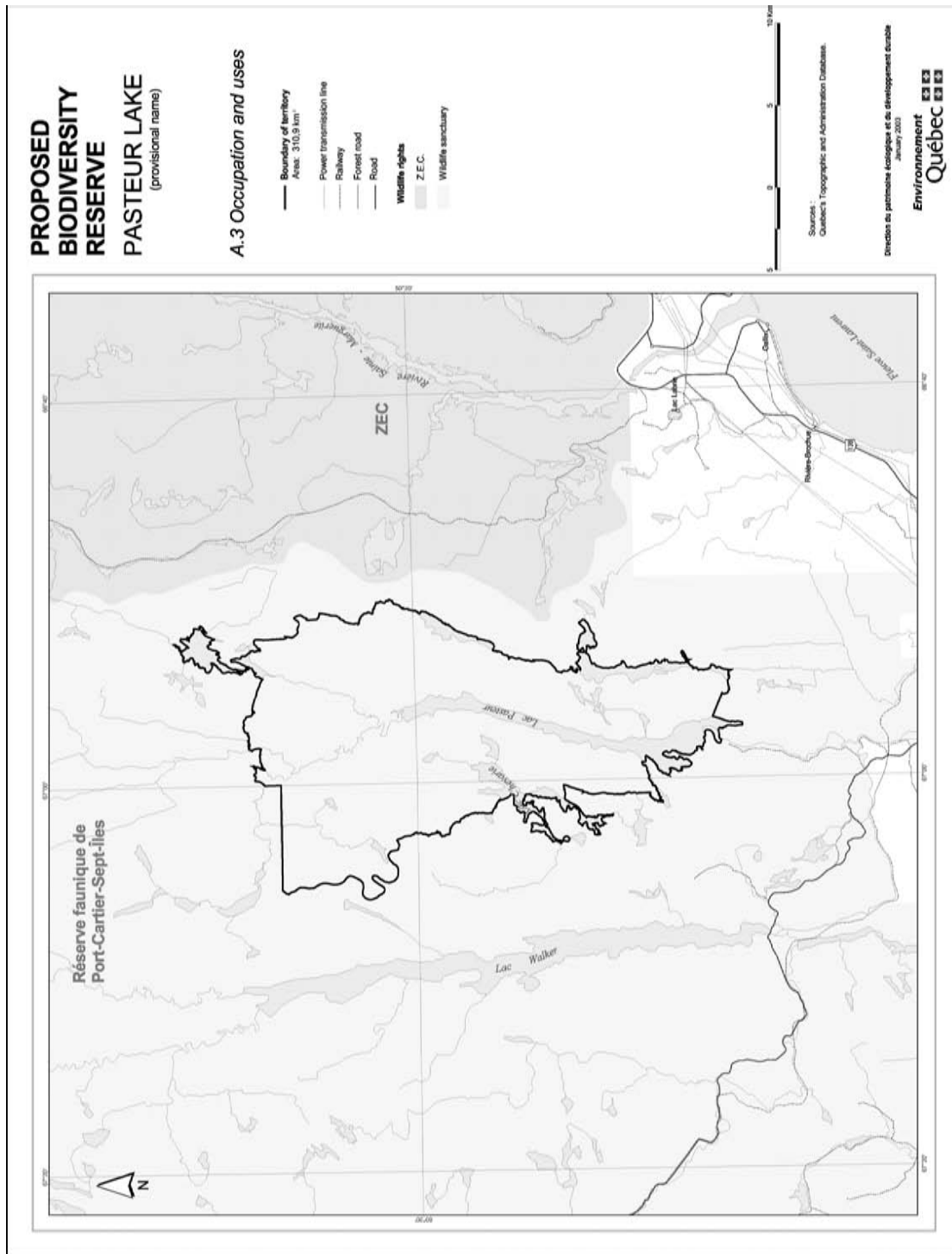
**SCHEDULES**

**A.1. Plan of the proposed Pasteur lake biodiversity reserve (provisional name)**



**A.2. Map showing the location of the proposed Pasteur lake biodiversity reserve (provisional name)**

A.3. Map showing land occupation and use in the proposed Pasteur lake biodiversity reserve (provisional name)



## CONSERVATION PLAN OF THE PROPOSED BOATSWAIN BAY BIODIVERSITY RESERVE

### 1. Plan and description

#### 1.1. Geographic location, boundaries and dimensions

The plan of the proposed Boatswain bay biodiversity reserve and its location are shown on the maps in Schedules A.1 and A.2.

The proposed Boatswain bay biodiversity reserve is located in the Nord-du-Québec administrative region, between 51°42' and 51°56' latitude north and 78°47' and °03' longitude west. It is situated roughly 30 km north of Municipalité de Waskaganish. To the west, the boundary runs along the shore of the bay, and then runs between 1 and 5 km inland.

It lies within the territory of Municipalité de Baie James.

The protected zone covers an area of 108.7 km<sup>2</sup>.

#### 1.2. Ecological overview

The area is in the natural province of the Abitibi and James Bay Lowlands. It protects peat bogs, representative of the natural region of the James Bay Coastal Plain.

##### 1.2.1. Representative elements

**Climate:** The land is characterized by a subpolar, subhumid continental climate, with a middle growing season. It belongs to the bioclimatic field of mossy spruce stands.

**Geology and geomorphology:** The land is part of the Superior geologic province, whose bedrock is archaic (> 2.5 billion years). The substratum is formed by paragneissic rock covered by organic deposits on the lakeshore plain. The geologic base rises to the surface in places, and is covered by glaciofluvial deposits, especially blocks, pebbles, sand and clay. The average altitude is 13.5 m, varying between 0 and 160 m.

**Hydrography:** The protected area is a peaty wetland belonging to the James Bay and Hudson Bay watershed. It is crossed by the Maquet river and several smaller watercourses, such as the Mistusipan and Uspiseukan Kawimeikach streams, which feed into James Bay. One small lake is found in the southwestern part of the area.

**Vegetation:** Two-thirds of the land is covered by oligotrophic, minerotrophic peat bogs. The higher land, covered by mineral deposits, is home to low-density stands of black spruce (*Picea mariana*) and dry heaths. These vegetations groups cover respectively one-quarter and one-tenth of the land area. In terms of natural disturbances, the protected area has been only slightly affected by forest fires (3%).

##### 1.2.2. Outstanding elements

The proposed biodiversity reserve is home to a threatened plant species, Macoun's Fringed Gentian (*Gentianopsis procera* subsp. *macounii* var. *macounii*), a herbaceous plant of limited distribution found in fresh and brackish water environments. The reserve is also home to Whiteberry (*Elaeagnus commutata*), a shrub likely to be designated as a threatened or vulnerable species.

The proposed biodiversity reserve is a migration stop for many aquatic birds (Snow Goose, Canada Goose, Brant, American Black Duck and various species of scoter and duck), and shorebirds (White-rumped Sandpiper and Hudsonian Godwit).

The Boatswain bay is one of the few nesting sites in Québec for the Sandhill Crane (*Grus canadensis*).

#### 1.3. Land occupation and use

The land occupations and uses in the proposed Boatswain bay biodiversity reserve are shown on the map in Schedule A.3.

Almost 70% of the proposed reserve has been classified as a "migratory bird sanctuary".

The proposed biodiversity reserve is classified as Category III land under the James Bay and Northern Québec Agreement signed in 1975 and the Act respecting the land regime in the James Bay and New Québec territories (R.S.Q., c. R-13.1). In addition, the whole area is part of the Rupert beaver reserve. The Cree community of Waskaganish has special rights special rights regarding the hunting, fishing and trapping in the area, in particular as regards fur-bearing animals.



## 2. Protection status

The proposed biodiversity reserve safeguards a wetland of great ornithological interest. It is a migration and nesting site for many different species of aquatic birdlife. The land also contains a landscape mosaic of high quality.

Biodiversity reserve status would allow the pursuit of the following conservation objectives :

- the protection of migratory bird habitats ;
- the preservation of biodiversity in aquatic and peat-based ecosystems ;
- the ongoing sustainable management of fur-bearing animals ;
- the acquisition of new knowledge concerning natural heritage.

## 3. Activities within the reserve

All activities carried on within the proposed Boatswain bay biodiversity reserve are governed by the provisions of the Natural Heritage Conservation Act (2002, c. 74).

This conservation plan does not specify any prohibited activity other than those prohibited in biodiversity reserves by the Act; nor does it authorize any other activities, or set any additional constraints on the activities permitted by the Act.

### 3.1. Prohibited activities

For reference purposes, it is important to note that under the Natural Heritage Conservation Act, the main activities prohibited in an area designated as a proposed biodiversity reserve are :

- mining, and gas or petroleum development ;
- mining, gas or petroleum exploration, brine and underground reservoir exploration, prospecting, and digging or boring, where such activities necessitate strip-ping, the digging of trenches, excavation or deforestation ;
- forest management activities within the meaning of section 3 of the Forest Act (R.S.Q., c. F-4.1) ;

— the development of hydraulic resources and any production of energy on a commercial or industrial basis ;

— any new allocation of a right to occupy land for vacation resort purposes ;

— earthwork, backfilling or construction work.

### 3.2. Activities governed by other Acts

All activities carried on within the boundaries of the proposed Boatswain bay biodiversity reserve remain governed by the other applicable legislative and regulatory provisions, including those that require the issue of a permit or authorization or the payment of fees. The carrying on of certain activities may also be prohibited or limited by other Acts or regulations applicable within the boundaries of the proposed biodiversity reserve.

In particular, within the boundaries of the proposed biodiversity reserve, special legal rules may govern permitted and prohibited activities in connection with :

— Archaeological research (especially the measures contained in the Cultural Property Act (R.S.Q., c. B-4)) ;

— Utilisation of wildlife resources (especially the measures contained in the Act respecting the conservation and development of wildlife (R.S.Q., c. C-61.1), the regulation on beaver reserves, and the Act respecting hunting and fishing rights in the James Bay and New Québec territories (R.S.Q., c. D-13.1)) ; activities relating to the management of the migratory bird sanctuary at Boatswain bay are authorized on the conditions prescribed by the federal regulations on migratory bird sanctuaries ;

— Access (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1)) ;

— Land rights (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1) and, where applicable, in leases issued by the Minister of Natural Resources).

### 3.3. Supervision of activities

The Minister of the Environment is responsible for the application of the Natural Heritage Conservation Act, and is also responsible for the proposed biodiversity reserves established under that Act. The Minister will supervise and monitor the measures contained in the Act with regard to permitted activities in protected areas.

All other government departments and bodies will retain their responsibilities as set out in all the legislative and regulatory texts that apply within a proposed biodiversity reserve.

The Minister of Natural Resources will supervise all activities subject to the Minister's authority within the territory of the proposed Boatswain bay biodiversity reserve, in particular as regards permitted forms of land occupation.

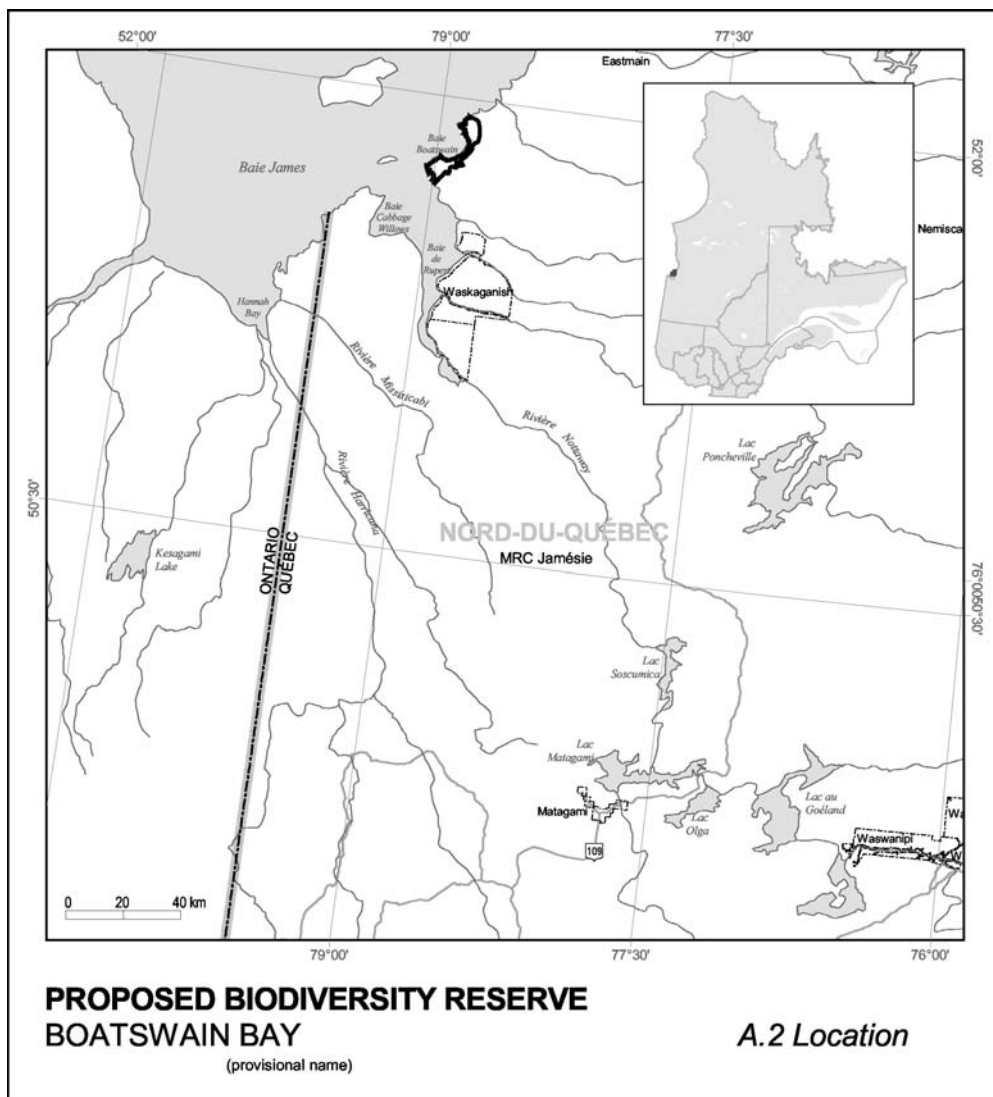
The Société de la faune et des parcs du Québec (FAPAQ) remains responsible for supervising the activities relating to wildlife protection and management that are under its responsibility.

Environment Canada will remain responsible for the migratory bird sanctuary at Boatswain bay and will oversee the application of the federal wildlife legislation under its authority.

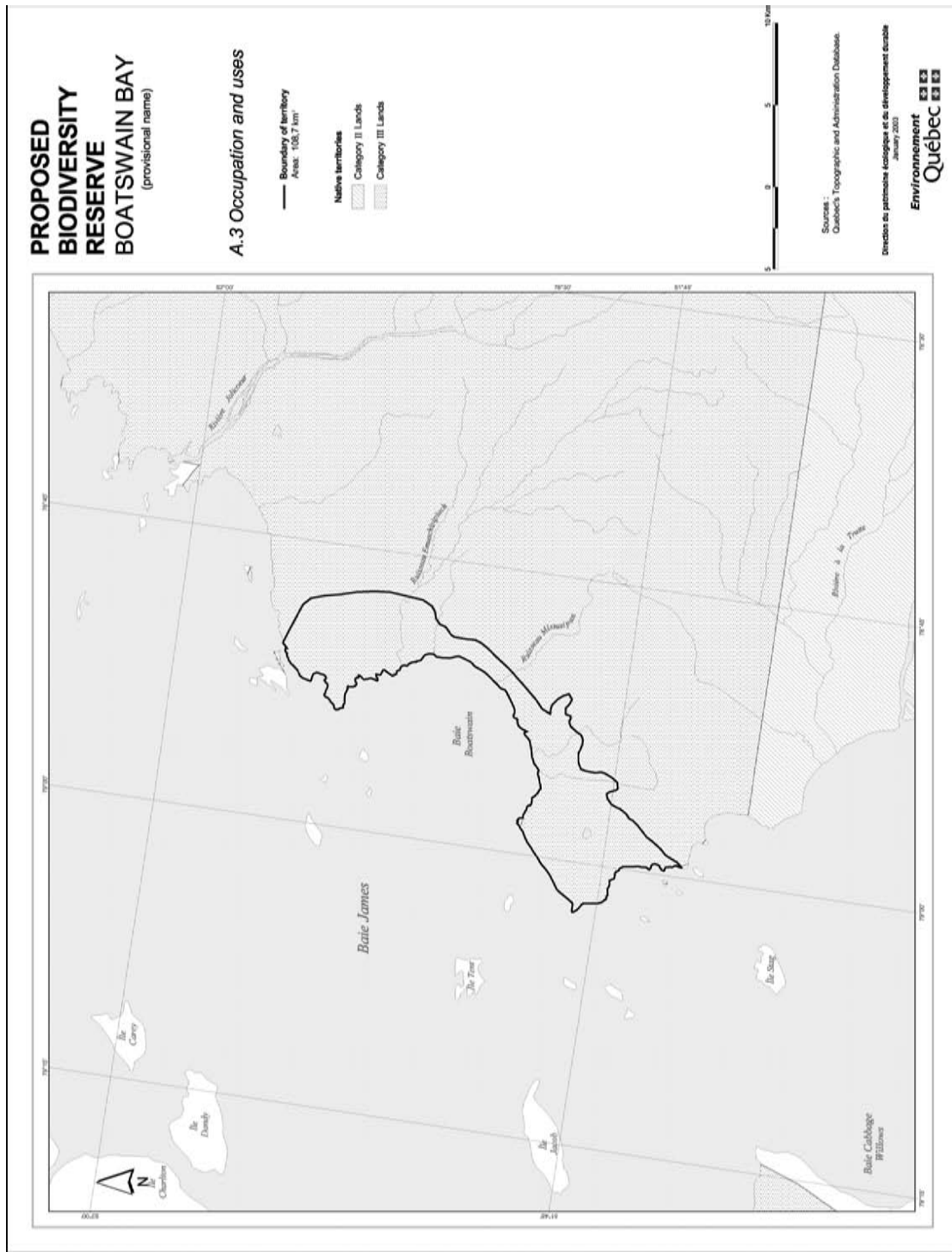
#### 4. Permanent protection status

The permanent protection status envisaged for the reserve is "biodiversity reserve" status under the Natural Heritage Conservation Act.



**A.2. Map showing the location of the proposed Boatswain bay biodiversity reserve (provisional name)**

A.3. Map showing land occupation and use in the proposed Boatswain bay biodiversity reserve (provisional name)



## CONSERVATION PLAN OF THE PROPOSED MINISTIKAWATIN PENINSULA BIODIVERSITY RESERVE

### 1. Plan and description

#### 1.1. Geographic location, boundaries and dimensions

The plan of the proposed Ministikawatin peninsula biodiversity reserve and its location are shown on the maps in Schedules A.1 and A.2.

The proposed Ministikawatin peninsula biodiversity reserve is located in the Nord-du-Québec administrative region, between 51°09' and 51°40' latitude north and 78°59' and 79°31' longitude west. It is situated 40 km west of the territory of the community of Waskaganish.

It lies within the territory of Municipalité de Baie James.

The proposed biodiversity reserve covers an area of 894.9 km<sup>2</sup>. To the west, its boundary follows the boundary between Québec and Ontario. To the north, it follows the shoreline of James Bay, and to the east the shoreline of Cabbage Willows bay and Rupert bay. To the south, it skirts the tributaries on the left bank of the Novide river.

#### 1.2. Ecological overview

The proposed biodiversity reserve is in the natural province of the Abitibi and James Bay Lowlands. It protects peat bogs representative of the natural region of the James Bay Coastal Plain.

##### 1.2.1. Representative elements

**Climate:** The proposed reserve is characterized by a cold, subpolar and subhumid continental climate, with a middle growing season. It belongs to the bioclimatic field of mossy spruce stands.

**Geology and geomorphology:** The land in the proposed reserve is part of the Superior geologic province, whose bedrock is archaic (> 2.5 billion years). The substratum is formed by carbonate rock, mainly limestone and dolomite. This geological base is covered by organic deposits on the coastal plain, and by sand and glaciofluvial clay on the higher ground. The average altitude is 15 m, varying between 0 m and 72 m.

**Hydrography:** The protected area is a peaty wetland that is part of the watershed of Hannah and Rupert bays. The drainage system is well developed, with mainly small watercourses. The largest watercourse is the Novide river. The watercourses follow mainly rectilinear and parallel paths, in a general north-south direction. A small lake is found in the western part of the area.

**Vegetation:** Two-thirds of the proposed reserve is covered by oligotrophic and minerotrophic peat bogs. The higher ground, covered in mineral deposits, is home to very low-density stands of black spruce (*Picea mariana*) and dry heathland. These vegetation groups cover 10% and 2% of the area, respectively. In terms of natural disturbances, 10% of the protected area has been affected by forest fires.

##### 1.2.2. Outstanding elements

The proposed biodiversity reserve is home to five plants likely to be designated as threatened or vulnerable species: *Salix maccalliana*, Whiteberry (*Elaeagnus commutata*), *Thalictrum dasycarpum*, *Carex prairea* and Sartwell's Sedge (*Carex sartwellii*).

The Ministikawatin Peninsula is a mosaic of habitats used for nesting or as staging areas by the Sandhill Crane (*Grus canadensis*), a wader that is rare in Québec.

There is also a species of amphibian, the Boreal Chorus Frog (*Pseudacris maculata*). This small frog species was formerly quite abundant in Québec, but is now a vulnerable species because of a worrying decline in its population, caused by habitat destruction.

##### 1.3. Land occupation and use

The land occupations and uses in the proposed Ministikawatin peninsula biodiversity reserve are shown on the map in Schedule A.3.

No rights in land have been granted within the perimeter of the protected area.

Half of the proposed reserve is classified as Category II land under the James Bay and Northern Québec Agreement signed in 1975 and the Act respecting the land regime in the James Bay and New Québec territories (R.S.Q., c. R-13.1). The western part of the proposed reserve is on Category III land, and the entire area is part of a beaver reserve. The Cree community of Waskaganish has special rights with regard to hunting, fishing and trapping, in particular for fur-bearing animals.

## 2. Protection status

The proposed Ministikawatin peninsula biodiversity reserve safeguards a wetland of great ecological interest. The habitats it contains are home to several species in a precarious situation province-wide. The area also constitutes a landscape mosaic of high quality.

Biodiversity reserve status would allow the pursuit of the following conservation objectives :

- the conservation of environments representative of the natural region of the James Bay Coastal Plain ;
- the protection of threatened or vulnerable species of flora and fauna ;
- the preservation of biodiversity in aquatic and peat-based ecosystems ;
- the ongoing sustainable management of fur-bearing animals ;
- the acquisition of new knowledge concerning natural heritage.

## 3. Activities within the reserve

All activities carried on within the proposed Ministikawatin peninsula biodiversity reserve are governed by the provisions of the Natural Heritage Conservation Act (2002, c. 74).

This conservation plan does not specify any prohibited activity other than those prohibited in biodiversity reserves by the Act; nor does it authorize any other activities, or set any additional constraints on the activities permitted by the Act.

### 3.1. Prohibited activities

For reference purposes, it is important to note that under the Natural Heritage Conservation Act, the main activities prohibited in an area designated as a proposed biodiversity reserve are :

- mining, and gas or petroleum development ;
- mining, gas or petroleum exploration, brine and underground reservoir exploration, prospecting, and digging or boring, where such activities necessitate striping, the digging of trenches, excavation or deforestation ;

— forest management activities within the meaning of section 3 of the Forest Act (R.S.Q., c. F-4.1) ;

— the development of hydraulic resources and any production of energy on a commercial or industrial basis ;

— any new allocation of a right to occupy land for vacation resort purposes ;

— earthwork, backfilling or construction work.

### 3.2. Activities governed by other Acts

All activities carried on within the boundaries of the proposed Ministikawatin peninsula biodiversity reserve remain governed by the other applicable legislative and regulatory provisions, including those that require the issue of a permit or authorization or the payment of fees. The carrying on of certain activities may also be prohibited or limited by other Acts or regulations applicable within the boundaries of the proposed biodiversity reserve.

In particular, within the boundaries of the proposed biodiversity reserve, special legal rules may govern permitted and prohibited activities in connection with :

— Archaeological research (especially the measures contained in the Cultural Property Act (R.S.Q., c. B-4)) ;

— Utilisation of wildlife resources (especially the measures contained in the Act respecting the conservation and development of wildlife (R.S.Q., c. C-61.1), the regulation on beaver reserves and the Act respecting hunting and fishing rights in the James Bay and New Québec territories (R.S.Q., c. D-13.1)) ;

— Access (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1)) ;

— Land rights (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1) and, where applicable, in leases issued by the Minister of Natural Resources).

### 3.3. Supervision of activities

The Minister of the Environment is responsible for the application of the Natural Heritage Conservation Act, and is also responsible for the proposed biodiversity reserves established under that Act. The Minister will supervise and monitor the measures contained in the Act with regard to permitted activities in protected areas.

All other government departments and bodies will retain their responsibilities as set out in all the legislative and regulatory texts that apply within a proposed biodiversity reserve.

The Minister of Natural Resources will supervise all activities subject to the Minister's authority within the territory of the proposed Ministikawatin peninsula biodiversity reserve, in particular as regards permitted forms of land occupation.

The Société de la faune et des parcs du Québec (FAPAQ) remains responsible for supervising the activities relating to wildlife protection and management that are under its responsibility.

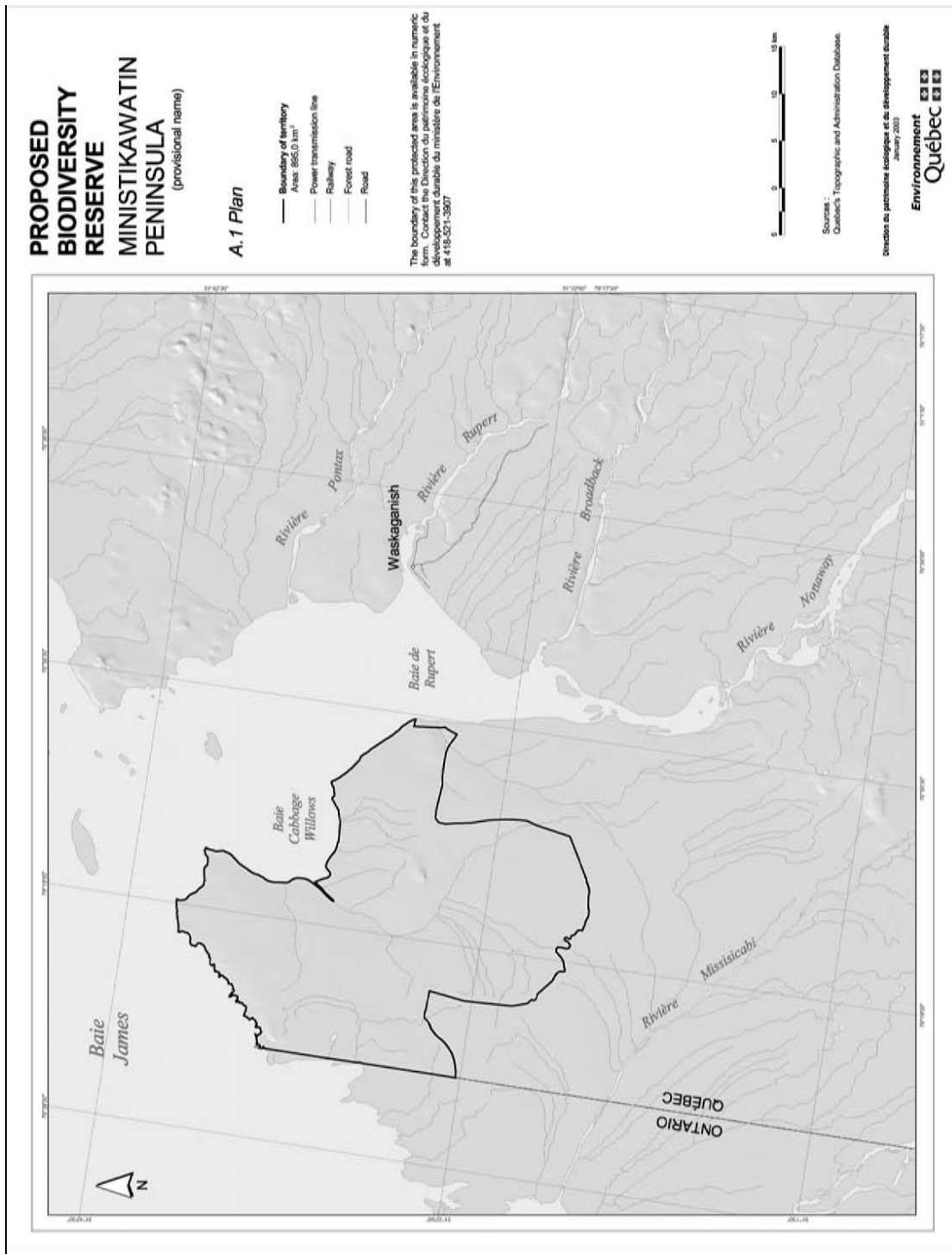
#### 4. Permanent protection status

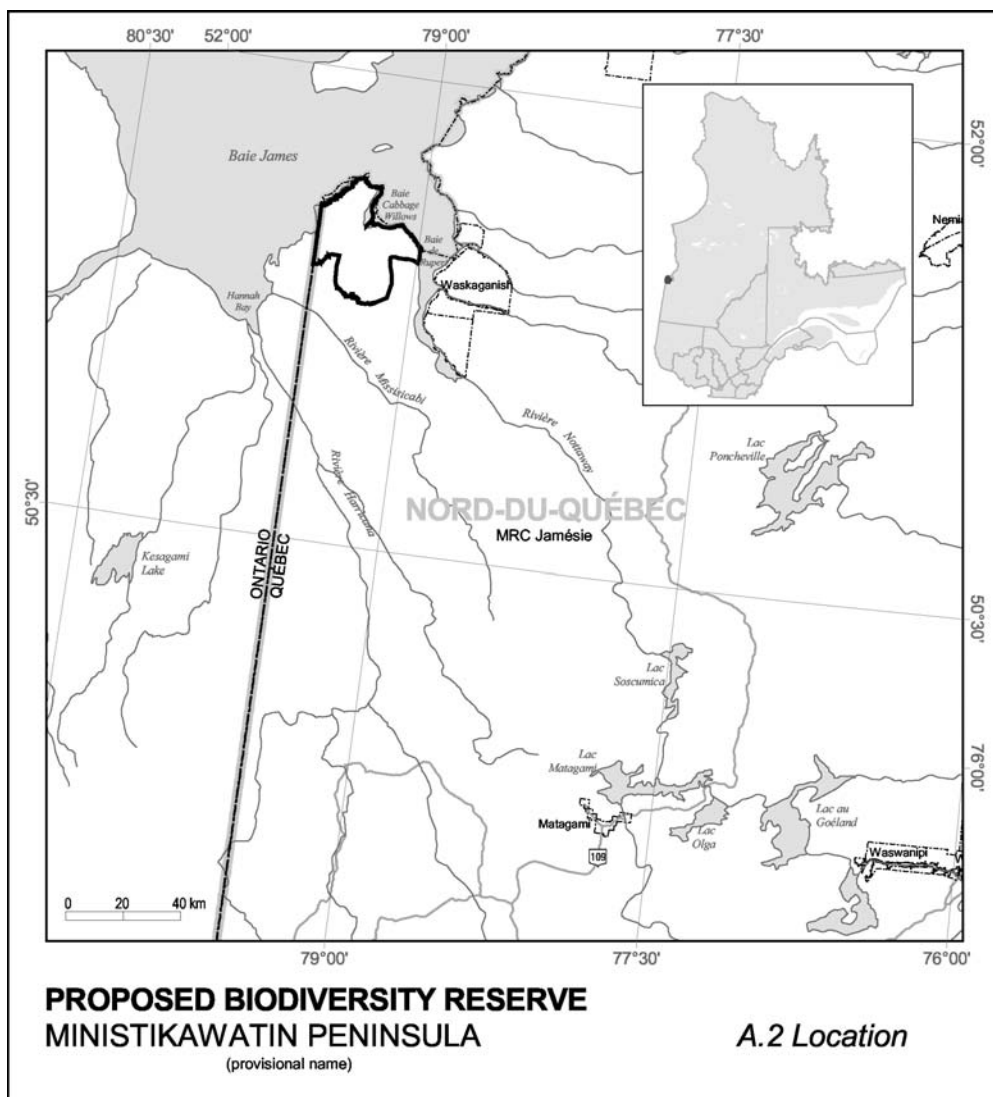
The permanent protection status envisaged for the reserve is "biodiversity reserve" status under the Natural Heritage Conservation Act.



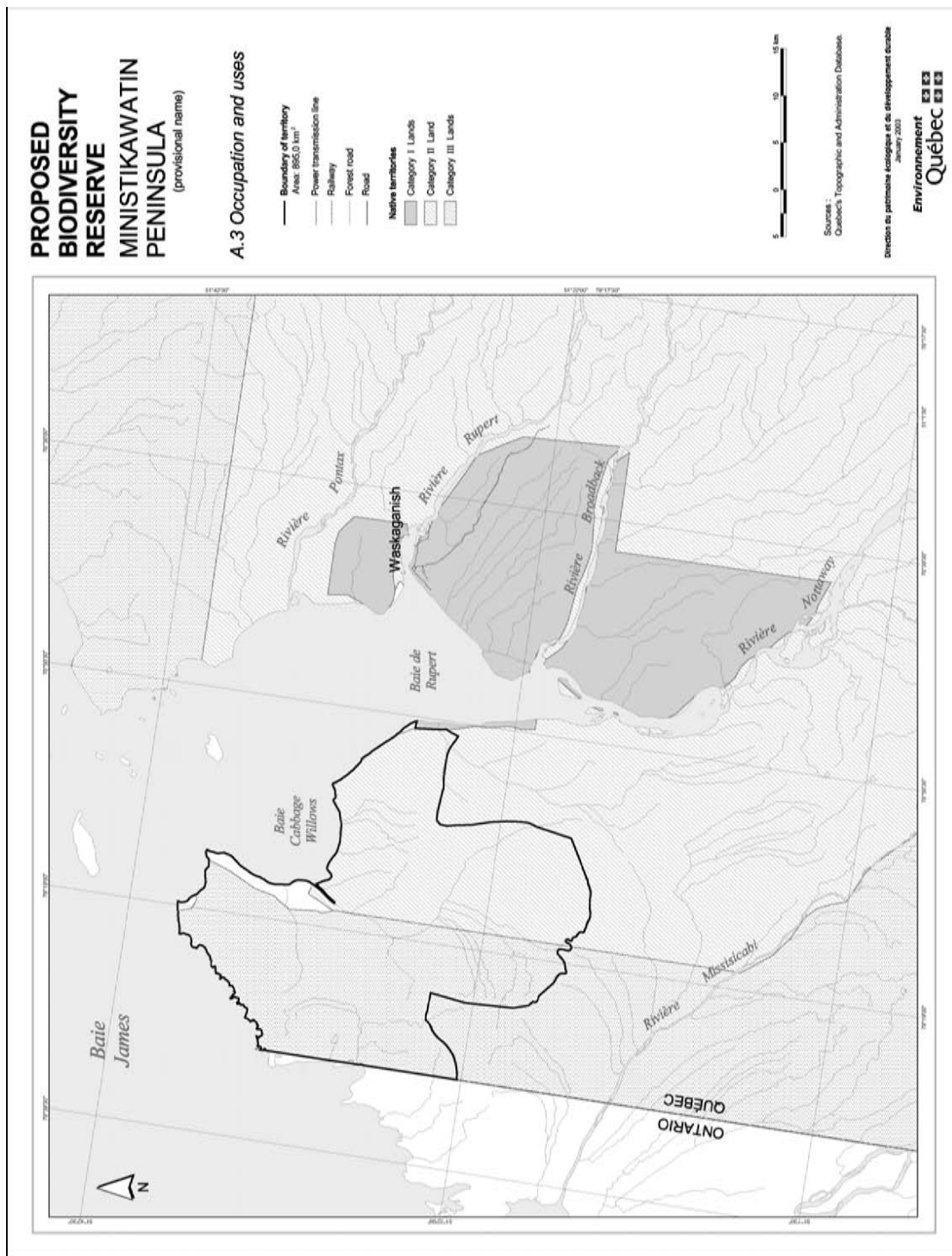
**SCHEDULES**

**A.1. Plan of the proposed Ministikawatin peninsula biodiversity reserve (provisional name)**



**A.2. Map showing the location of the proposed Ministikawatin peninsula biodiversity reserve (provisional name)**

A.3. Map showing land occupation and use in the proposed MinistikawatIn peninsula biodiversity reserve (provisional name)



## CONSERVATION PLAN OF THE PROPOSED MISSISICABI PLAIN BIODIVERSITY RESERVE

### 1. Plan and description

#### 1.1. Geographic location, boundaries and dimensions

The plan of the proposed Missisicabi plain biodiversity reserve and its location are shown on the maps in Schedules A.1 and A.2.

The proposed Missisicabi plain biodiversity reserve is located in the Nord-du-Québec administrative region, between 50°28' and 50°44' latitude north and 78°29' and 79°54' longitude west. It is situated 125 km north-west of Ville de Matagami and 85 km south of the Cree village of Waskaganish.

It lies within the territory of Municipalité de Baie James.

The proposed biodiversity reserve covers an area of 668.8 km<sup>2</sup>. To the west, its boundary mainly follows the course of the Missisicabi river. To the north, it runs along the southern limit of existing mining rights to the Obamsca river, and then to the east follows the course of the river. To the south, the boundary of the proposed biodiversity reserve ends at Pimapuwesu and Tissot lakes.

#### 1.2. Ecological overview

The proposed biodiversity reserve is in the natural province of the Abitibi and James Bay Lowlands. It protects peaty zones representative of the natural regions of the Turgeon River Plain and the Lower Rupert River Plain.

##### 1.2.1. Representative elements

**Climate:** The land is characterized by a subpolar, subhumid continental climate, with a middle growing season. It belongs to the bioclimatic field of mossy spruce stands.

**Geology and geomorphology:** The land is part of the Superior geologic province, whose bedrock is archaic (> 2.5 billion years). The substratum is mainly formed by felsic rocks, covered mainly by organic deposits, but also by glacial and glaciofluvial sediments of sand, silt or clay. Cochrane till, a limestone deposit of glacial origin, covers 10% of the total area and is found almost exclusively in the natural region of the Turgeon River Plain. The proposed reserve is located on a broad plain whose altitude increases gradually from 115 m to 250 m along a northwest/southeast axis.

**Hydrography:** The protected area is a peaty wetland that is part of the watershed of Hannah and Rupert bays. The drainage system is well developed, comprising major watercourses whose sinuous, subparallel courses follow a general north-north-east – south-south-east orientation. Several lakes dot the area, the largest of which are Tissot and Pauli lakes in the south.

**Vegetation:** Almost three-quarters of the proposed biodiversity reserve is covered by oligotrophic and minerotrophic peat bogs. The vegetation includes stands of black spruce (*Picea mariana*), dry heathlands and groups of jack pine (*Pinus banksiana*). These vegetation groups, generally established on mineral deposits, cover 25.5% and 1% of the area, respectively.

#### 1.3. Land occupation and use

The land occupations and uses in the proposed Missisicabi plain biodiversity reserve are shown on the map in Schedule A.3.

No rights in land have been granted within the perimeter of the protected area.

60% of the land in the proposed biodiversity reserve is classified as Category II land, and the remaining 40% is Category III land under the James Bay and Northern Québec Agreement signed in 1975 and the Act respecting the land regime in the James Bay and New Québec territories (R.S.Q., c. R-13.1). In addition, the entire area is part of the Rupert beaver reserve. The Cree community of Waskaganish has special rights regarding hunting, fishing and trapping in the area, in particular with respect to fur-bearing animals.

### 2. Protection status

The proposed Missisicabi plain biodiversity reserve safeguards a wetland of great ecological and landscape interest.

Biodiversity reserve status would allow the pursuit of the following conservation objectives:

— the conservation of representative environments in the natural regions of the Turgeon River Plain and the Lower Rupert River Plain;

— the maintenance of biodiversity in peat-based and forest ecosystems;

— the ongoing sustainable management of fur-bearing animals;

— the acquisition of new knowledge concerning natural heritage.

### 3. Activities within the reserve

All activities carried on within the proposed Missisicabi plain biodiversity reserve are governed by the provisions of the Natural Heritage Conservation Act (2002, c. 74).

This conservation plan does not specify any prohibited activity other than those prohibited in biodiversity reserves by the Act; nor does it authorize any other activities, or set any additional constraints on the activities permitted by the Act.

#### 3.1. Prohibited activities

For reference purposes, it is important to note that under the Natural Heritage Conservation Act, the main activities prohibited in an area designated as a proposed biodiversity reserve are :

- mining, and gas or petroleum development ;
- mining, gas or petroleum exploration, brine and underground reservoir exploration, prospecting, and digging or boring, where such activities necessitate stripping, the digging of trenches, excavation or deforestation ;
- forest management activities within the meaning of section 3 of the Forest Act (R.S.Q., c. F-4.1) ;
- the development of hydraulic resources and any production of energy on a commercial or industrial basis ;
- any new allocation of a right to occupy land for vacation resort purposes ;
- earthwork, backfilling or construction work.

#### 3.2. Activities governed by other Acts

All activities carried on within the boundaries of the proposed Missisicabi plain biodiversity reserve remain governed by the other applicable legislative and regulatory provisions, including those that require the issue of a permit or authorization or the payment of fees. The carrying on of certain activities may also be prohibited or limited by other Acts or regulations applicable within the boundaries of the proposed biodiversity reserve.

In particular, within the boundaries of the proposed biodiversity reserve, special legal rules may govern permitted and prohibited activities in connection with :

— Archaeological research (especially the measures contained in the Cultural Property Act (R.S.Q., c. B-4)) ;

— Utilisation of wildlife resources (especially the measures contained in the Act respecting the conservation and development of wildlife (R.S.Q., c. C-61.1), the regulation on beaver reserves and the Act respecting hunting and fishing rights in the James Bay and New Québec territories (R.S.Q., c. D-13.1)) ;

— Access (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1)) ;

— Land rights (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1) and, where applicable, in leases issued by the Minister of Natural Resources).

#### 3.3. Supervision of activities

The Minister of the Environment is responsible for the application of the Natural Heritage Conservation Act, and is also responsible for the proposed biodiversity reserves established under that Act. The Minister will supervise and monitor the measures contained in the Act with regard to permitted activities in protected areas.

All other government departments and bodies will retain their responsibilities as set out in all the legislative and regulatory texts that apply within a proposed biodiversity reserve.

The Minister of Natural Resources will supervise all activities subject to the Minister's authority within the territory of the proposed Missisicabi plain biodiversity reserve, in particular as regards permitted forms of land occupation.

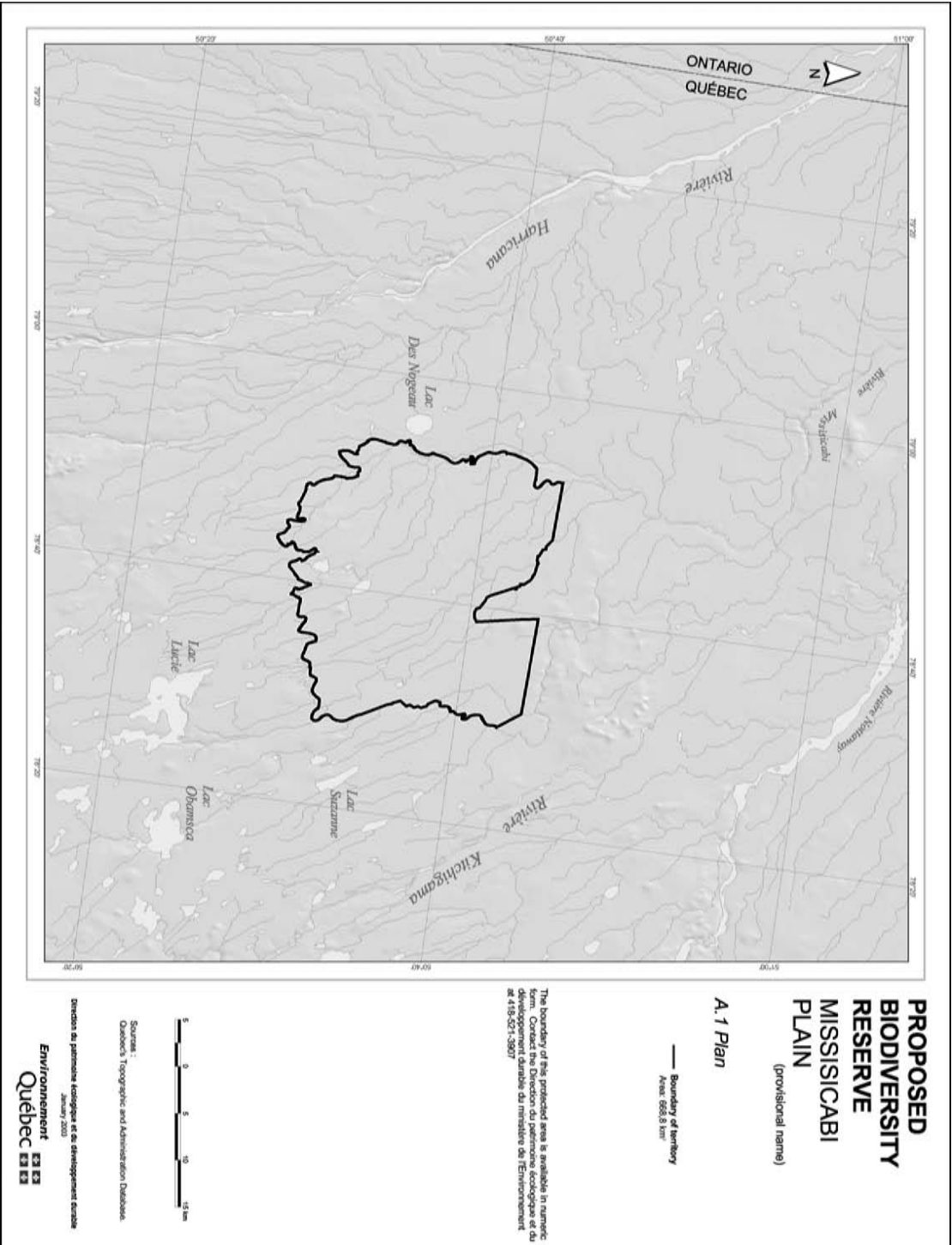
The Société de la faune et des parcs du Québec (FAPAQ) remains responsible for supervising the activities relating to wildlife protection and management that are under its responsibility.

### 4. Permanent protection status

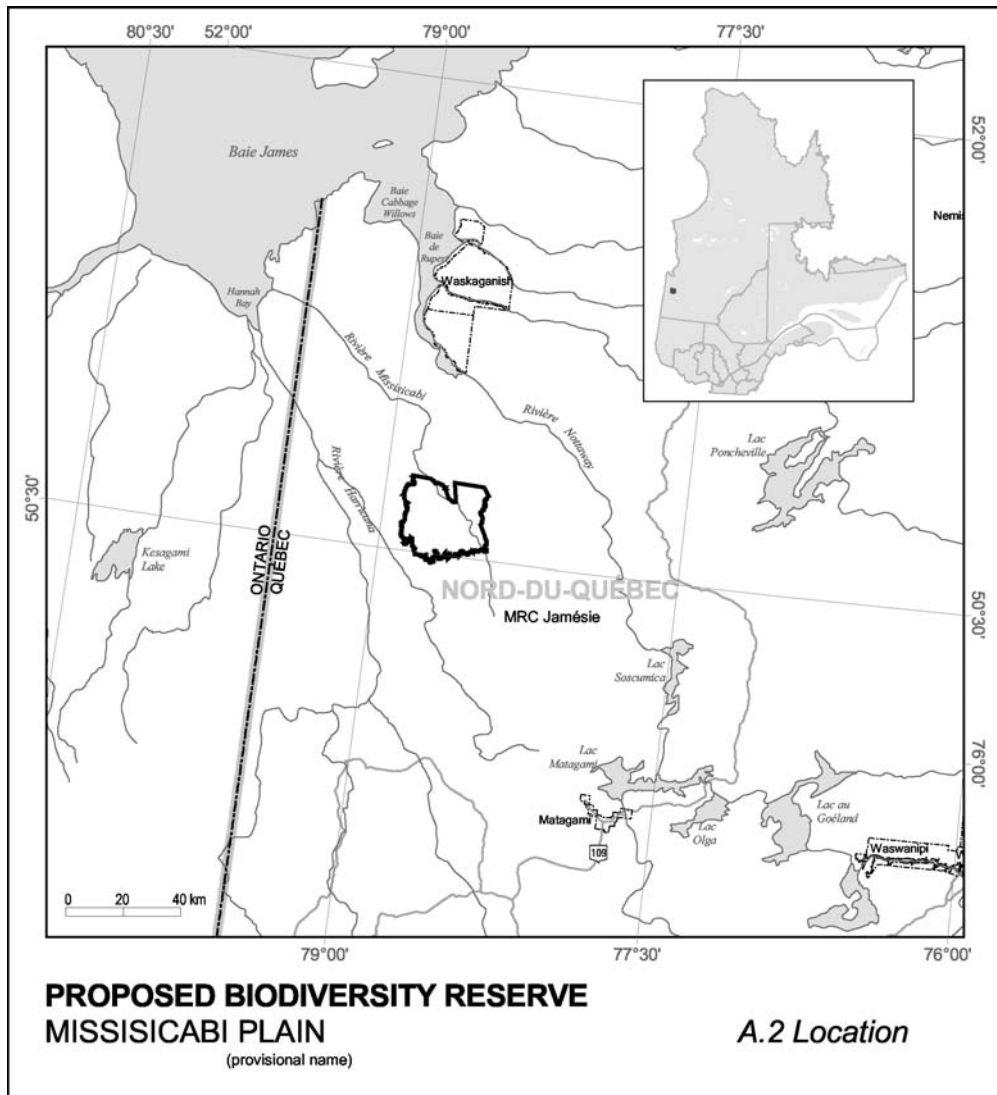
The permanent protection status envisaged for the reserve is "biodiversity reserve" status under the Natural Heritage Conservation Act.

SCHEDULES

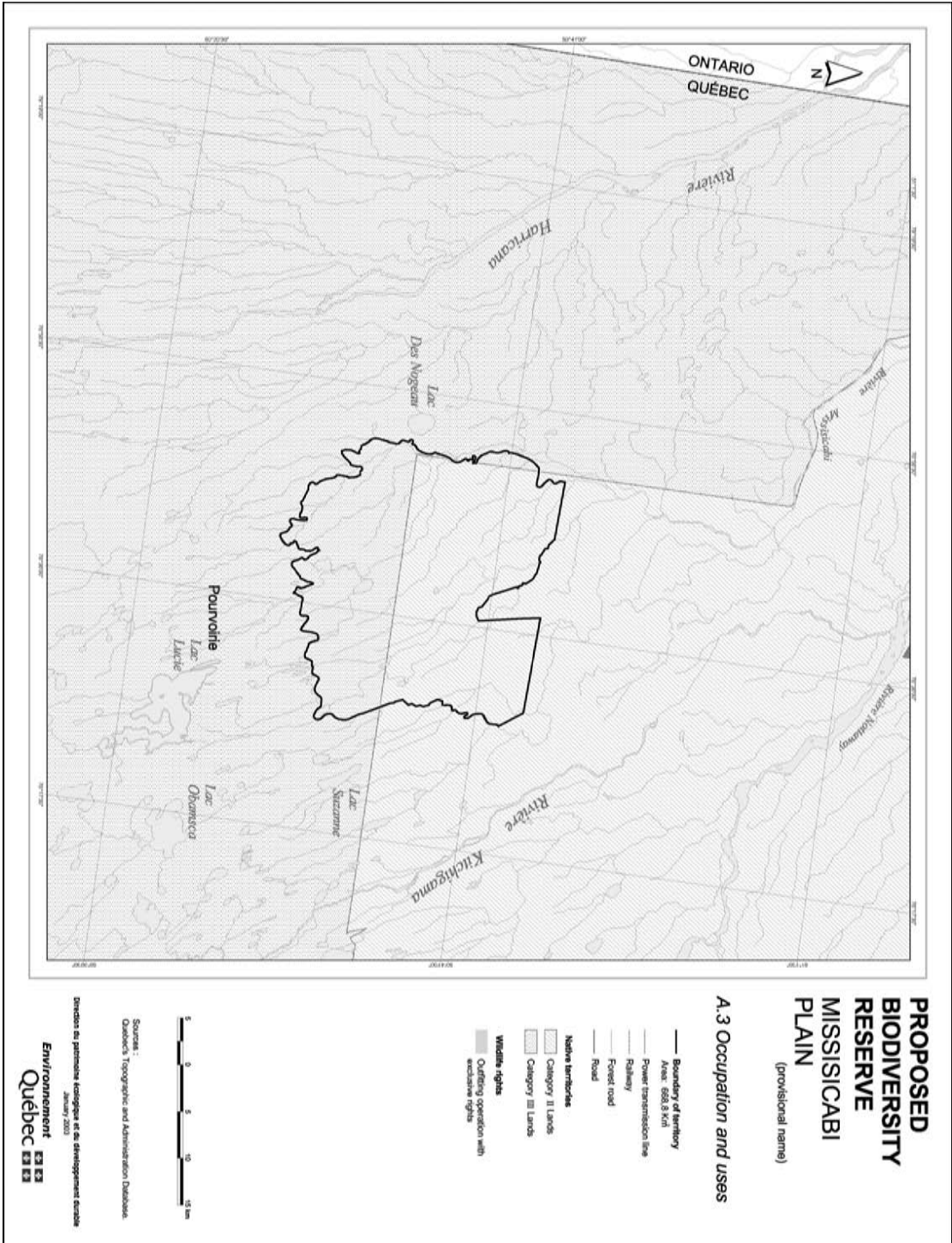
A.1. Plan of the proposed Missisicabi plain biodiversity reserve (provisional name)



**A.2. Map showing the location of the proposed Missisicabi plain biodiversity reserve (provisional name)**



A.3. Map showing land occupation and use in the proposed Mississicabi plain biodiversity reserve (provisional name)





## CONSERVATION PLAN OF THE PROPOSED MUSKUUCHII HILLS BIODIVERSITY RESERVE

### 1. Plan and description

#### 1.1. Geographic location, boundaries and dimensions

The plan of the proposed Muskuuchii hills biodiversity reserve and its location are shown on the maps in Schedules A.1 and A.2.

The proposed Muskuuchii hills biodiversity reserve is located in the Nord-du-Québec administrative region, between 50°04' and 50°26' latitude north and 78°22' and 78°56' longitude west. It is situated 90 km north-north-west of Ville de Matagami and 105 km south of the Cree village of Waskaganish.

It lies within the territory of Municipalité de Baie James.

The proposed biodiversity reserve covers an area of 735 km<sup>2</sup>. The western boundary runs along the Harricana river for two or three kilometres; to the north it ends at the junction of Des Aulnes river and Kaikuscheshich stream, at Gérard lake.

#### 1.2. Ecological overview

The proposed biodiversity reserve is in the natural province of the Abitibi and James Bay Lowlands. It protects peaty and clayey zones representative of the natural region of the Turgeon River Plain.

##### 1.2.1. Representative elements

**Climate:** The land is characterized by a cold subpolar, subhumid continental climate, with a middle growing season. It belongs to the bioclimatic field of mossy spruce stands.

**Geology and geomorphology:** The land of the proposed reserve is part of the Superior geologic province, whose bedrock is archaic (> 2.5 billion years). The substratum is formed almost exclusively of felsic rock. In the plain, the bedrock is covered with organic deposits and poorly drained Cochrane till. The terraces and hills are covered with well-drained Cochrane till, well-drained sand and fine sediments. The higher land constitutes one segment of the northern portion of the interlobate Harricana moraine. It forms a unique, remarkable feature in the surrounding clayey plain. Cochrane till is a clayey, limestone deposit of glacial origin that covers almost 40% of the area and is almost exclusively found in the natural region of the Turgeon River Plain.

The average altitude is 244 m, varying between 170 m and 340 m.

**Hydrography:** The protected area is a peaty wetland environment that is part of the watershed of the Hannah and Rupert bays. The drainage system comprises major watercourses. Four lakes spread along a north-south axis occupy the upper part of an esker.

**Vegetation:** Almost half of the area of the proposed reserve is covered by oligotrophic and minerotrophic peat bogs. They are established on organic deposits, which are also home to stands of black spruce with peat moss of varying density. On mesic sites and rocky outcrops, dry heathlands have developed with groups of black spruce (*Picea mariana*) and balsam fir (*Abies balsamea*). The presence of jack pine (*Pinus banksiana*), white birch (*Betula papyrifera*) and trembling aspen (*Populus tremuloides*) reveals that the area has experienced a forest fire, the main natural disturbance in the region.

##### 1.2.2. Outstanding elements

The Muskuuchii hills have great cultural and historical importance for the Crees, especially because of the role they played in times of famine, when they “generously” provided game for several families, allowing them to survive.

#### 1.3. Land occupation and use

The land occupations and uses in the proposed Muskuuchii hills biodiversity reserve are shown on the map in Schedule A.3.

The proposed reserve is covered by a network of forest roads.

Land rights have been granted on seven sites within the perimeter of the proposed reserve: 1 cottage lease, 5 leases for rough shelters, 1 telecommunications tower.

The proposed biodiversity reserve is classified as Category III land under the James Bay and Northern Québec Agreement signed in 1975 and the Act respecting the land regime in the James Bay and New Québec territories (R.S.Q., c. R-13.1). In addition, the entire area is part of a beaver reserve. The Cree community of Waskaganish has special rights regarding hunting, fishing and trapping, in particular for fur-bearing animals.

## 2. Protection status

The proposed biodiversity reserve safeguards peat bog and forest habitats of great ecological value. It is also home to forests of black spruce over 200 years in age, and stands of jack pine and trembling aspen that are three times more common than in the surrounding area. In addition, some features of the landscape have clear heritage value, such as the sandy hills of the Harricana moraine.

Biodiversity reserve status would allow the pursuit of the following conservation objectives :

- the conservation of environments representative of the natural province and natural region ;
- the preservation of biodiversity in peat-based ecosystems ;
- the ongoing sustainable management of fur-bearing animals ;
- the survival of Native heritage sites ;
- the acquisition of new knowledge concerning natural and cultural heritage.

## 3. Activities within the reserve

All activities carried on within the proposed Muskuuchii hills biodiversity reserve are governed by the provisions of the Natural Heritage Conservation Act (2002, c. 74).

This conservation plan does not specify any prohibited activity other than those prohibited in biodiversity reserves by the Act; nor does it authorize any other activities, or set any additional constraints on the activities permitted by the Act.

### 3.1. Prohibited activities

For reference purposes, it is important to note that under the Natural Heritage Conservation Act, the main activities prohibited in an area designated as a proposed biodiversity reserve are :

- mining, and gas or petroleum development ;
- mining, gas or petroleum exploration, brine and underground reservoir exploration, prospecting, and digging or boring, where such activities necessitate strip-ping, the digging of trenches, excavation or deforestation ;

- forest management activities within the meaning of section 3 of the Forest Act (R.S.Q., c. F-4.1) ;

- the development of hydraulic resources and any production of energy on a commercial or industrial basis ;

- any new allocation of a right to occupy land for vacation resort purposes ;

- earthwork, backfilling or construction work.

### 3.2. Activities governed by other Acts

All activities carried on within the boundaries of the proposed Muskuuchii hills biodiversity reserve remain governed by the other applicable legislative and regulatory provisions, including those that require the issue of a permit or authorization or the payment of fees. The carrying on of certain activities may also be prohibited or limited by other Acts or regulations applicable within the boundaries of the proposed biodiversity reserve.

In particular, within the boundaries of the proposed biodiversity reserve, special legal rules may govern permitted and prohibited activities in connection with :

- Archaeological research (especially the measures contained in the Cultural Property Act (R.S.Q., c. B-4)) ;

- Utilisation of wildlife resources (especially the measures contained in the Act respecting the conservation and development of wildlife (R.S.Q., c. C-61.1), the regulation on beaver reserves and the Act respecting hunting and fishing rights in the James Bay and New Québec territories (R.S.Q., c. D-13.1)) ;

- Access (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1)) ;

- Land rights (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1) and, where applicable, in leases issued by the Minister of Natural Resources).

### 3.3. Supervision of activities

The Minister of the Environment is responsible for the application of the Natural Heritage Conservation Act, and is also responsible for the proposed biodiversity reserves established under that Act. The Minister will supervise and monitor the measures contained in the Act with regard to permitted activities in protected areas.

All other government departments and bodies will retain their responsibilities as set out in all the legislative and regulatory texts that apply within a proposed biodiversity reserve.

The Minister of Natural Resources will supervise all activities subject to the Minister's authority within the territory of the proposed Muskuuchii hills biodiversity reserve, in particular as regards permitted forms of land occupation.

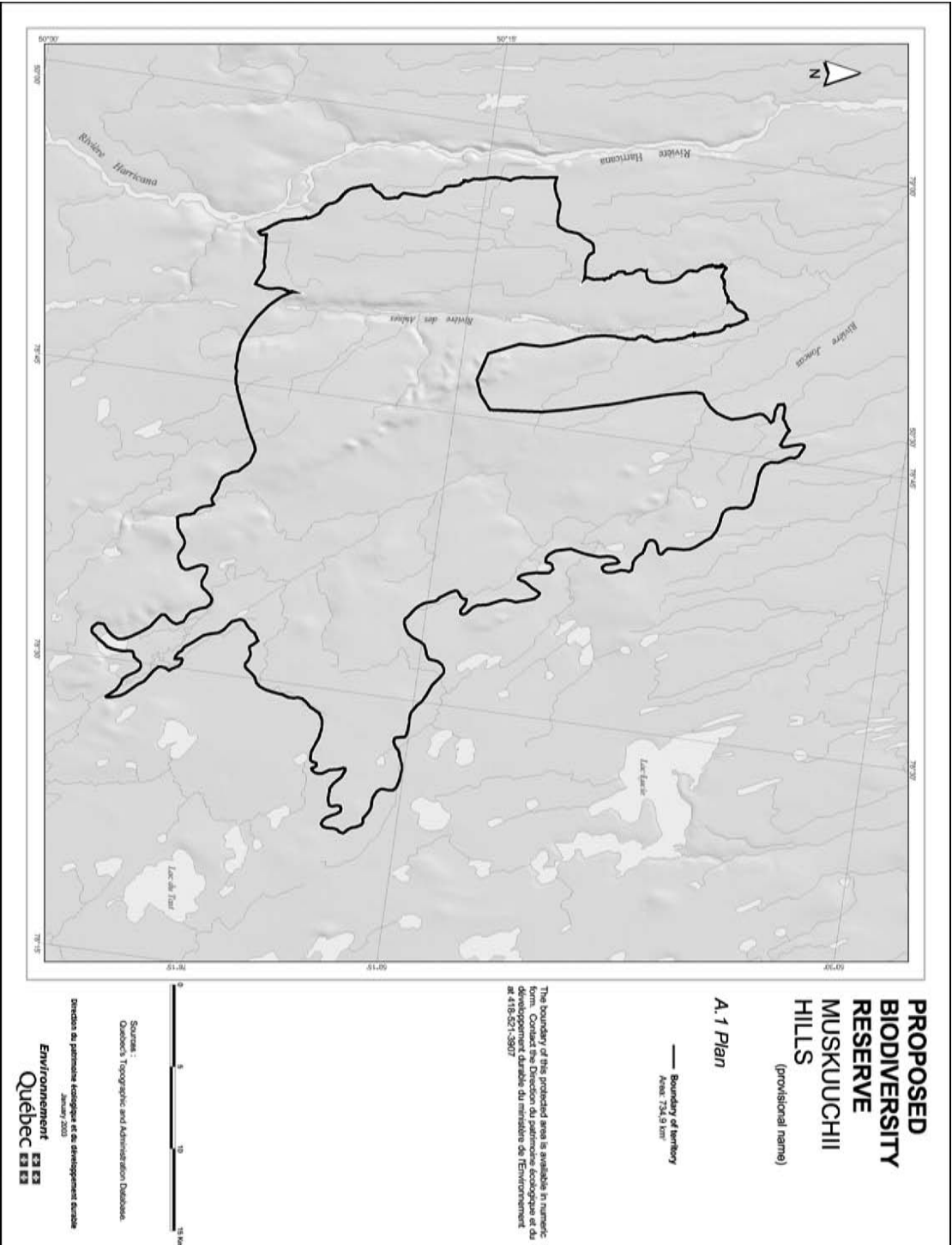
The Société de la faune et des parcs du Québec (FAPAQ) remains responsible for supervising the activities relating to wildlife protection and management that are under its responsibility.

#### 4. Permanent protection status

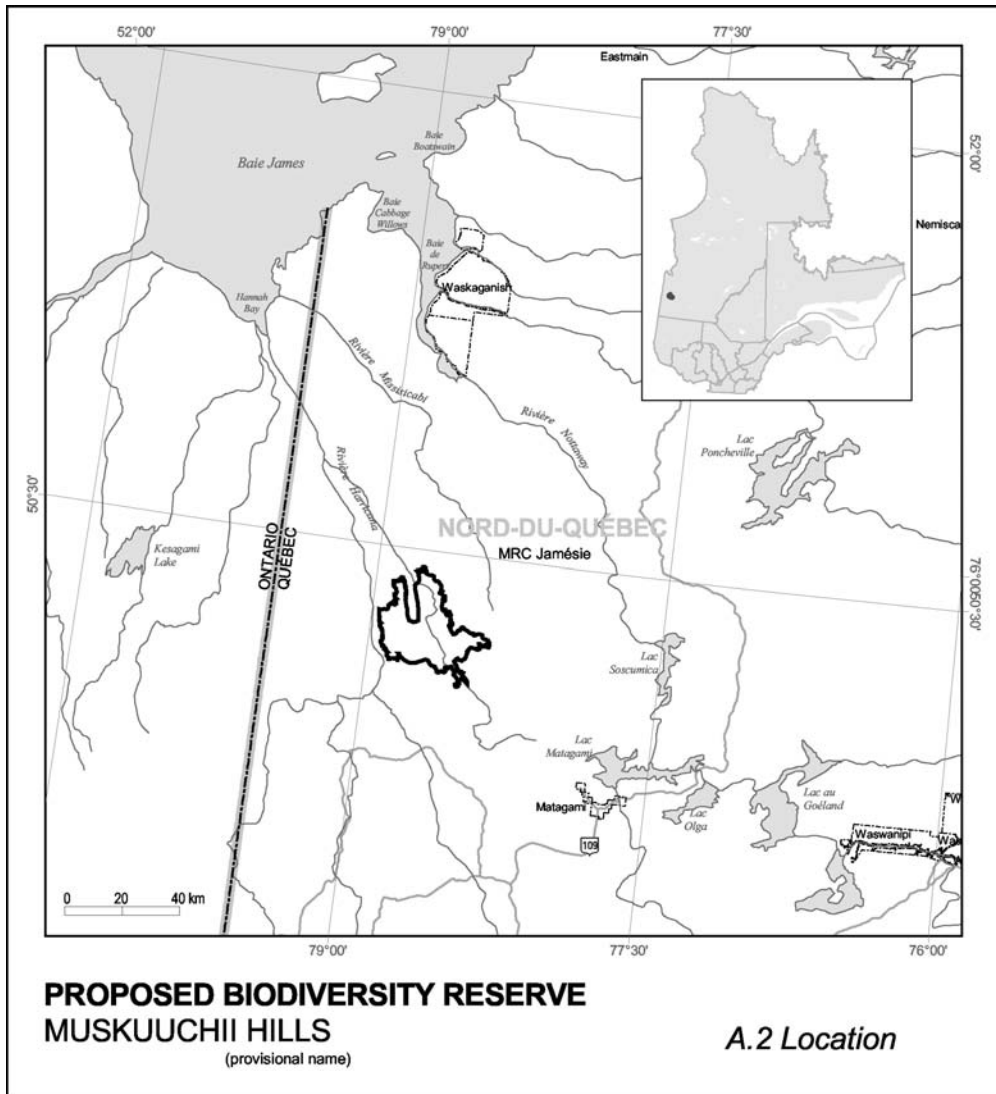
The permanent protection status envisaged for the reserve is "biodiversity reserve" status under the Natural Heritage Conservation Act.

**SCHEDULES**

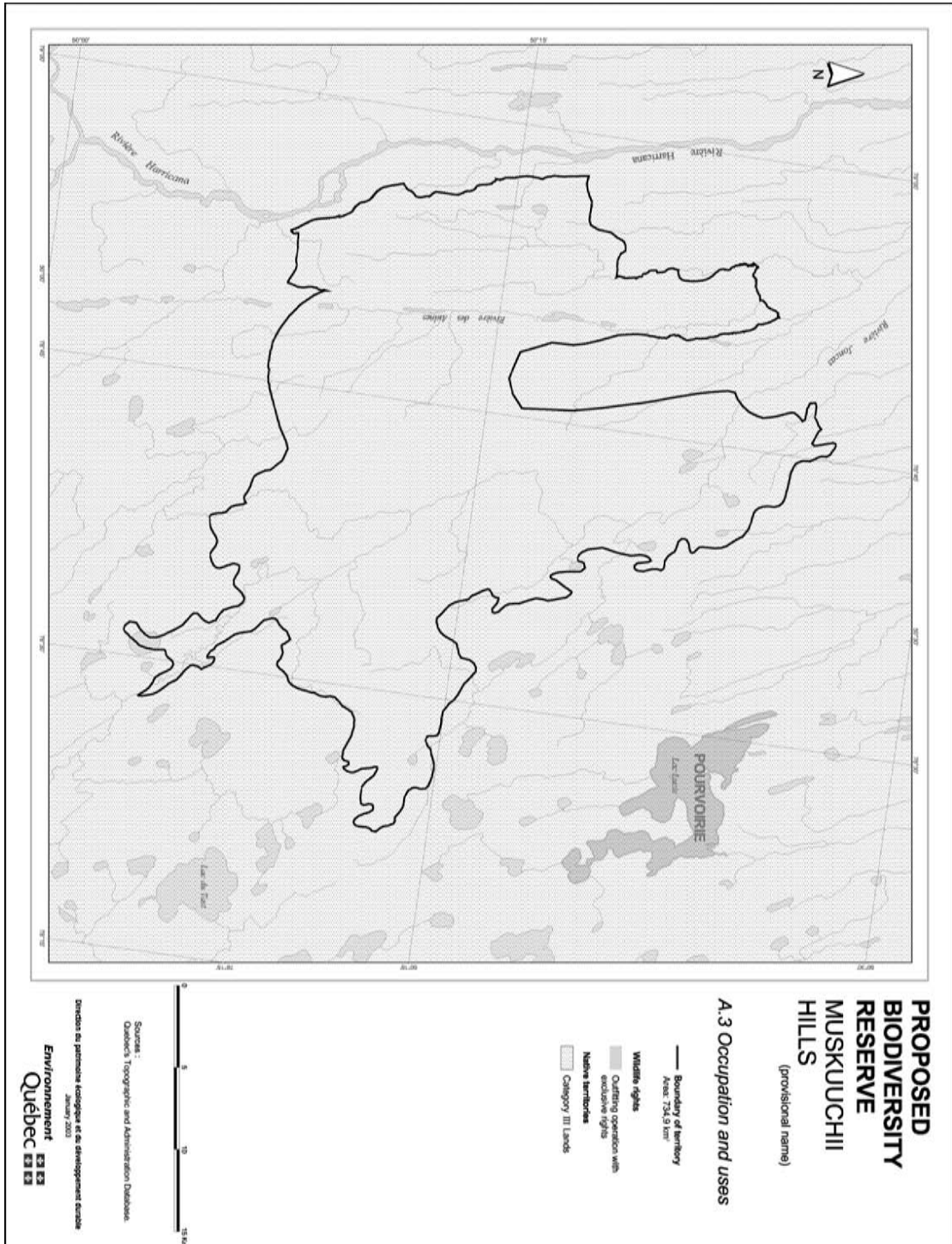
**A.1. Plan of the proposed Muskuchii hills biodiversity reserve (provisional name)**



**A.2. Map showing the location of the proposed Muskuuchii hills biodiversity reserve (provisional name)**



A.3. Map showing land occupation and use in the proposed Muskunuchi hills biodiversity reserve (provisional name)



## CONSERVATION PLAN OF THE PROPOSED VAUDRAY AND JOANNÈS LAKES BIODIVERSITY RESERVE

### 1. Plan and description

#### 1.1. Geographic location, boundaries and dimensions

The plan of the proposed Vaudray and Joannès lakes biodiversity reserve and its location are shown on the maps in Schedules A.1 and A.2.

The proposed Vaudray and Joannès lakes biodiversity reserve is located in the Abitibi-Témiscamingue administrative region, between 48° 1' and 48° 13' latitude north and 78° 36' and 78° 45' longitude west. It is situated to the south of Highway 117, roughly 37 km east of Rouyn-Noranda.

It lies within the territory of Municipalité de Rouyn-Noranda, which is also the territory of the regional county municipality of the same name.

The proposed biodiversity reserve covers a total area of 181 km<sup>2</sup>. It includes the watersheds of both Vaudray and Joannès lakes, which represent respectively 33.5% and 24% of the total area. To the north, the proposed biodiversity reserve borders on the Canadian National railway linking Rouyn-Noranda to Val-d'Or.

#### 1.2. Ecological overview

The area is in the natural province of the Abitibi and James Bay Lowlands. It protects ecosystems representative of the natural region of the Lake Témiscamingue Lowlands.

##### 1.2.1. Representative elements

**Climate:** The watersheds of Vaudray and Joannès lakes are at the interface of two types of continental climate: the western sector is characterized by a mild subpolar, subhumid climate with a long growing season, while the eastern sector is characterized by a subpolar, subhumid climate with a medium growing season. The proposed reserve belongs to the bioclimatic field of fir stands with white birch.

**Geology and geomorphology:** The proposed reserve is part of the Abitibi geologic sub-province, attached to the Superior geologic province, whose bedrock is archaic (> 2.5 billion years). The substratum is mainly formed by silicic rock, with some felsic rock, such as tonalite. When the Ojibway-Barlow glacial lake melted, around 8,500 years ago, the bedrock was covered by a thick layer of glacial lacustrine sediments (silt and clay), poorly drained. An esker lies parallel to Vaudray and Joannès lakes.

A group of till hummocks, moderately well drained, encircles the depression where Vaudray and Joannès lakes are situated. The average altitude is 318 m, varying between 268 m and 402 m.

**Hydrography:** The proposed biodiversity reserve is part of the watershed of the Outaouais river. It includes 28 lakes, which occupy 7% of the total area. The lakes are kettle lakes, in other words they occupy pits of glaciofluvial origin. Vaudray and Joannès lakes are the two largest, covering a respective area of 7.6 and 4.5 km<sup>2</sup>. They lie along a generally north-south line. The drainage system is well developed, and is made up mainly of intermittent watercourses. The Vaudray river which runs through the area over a distance of around 12 km is the main watercourse. The impermeability of the lacustrine clay and the low relief have led to the development of wetlands on the lower-lying ground; they cover 8.6 km<sup>2</sup>, or roughly 5% of the area of the proposed reserve.

**Vegetation:** Over three-quarters of the proposed reserve is forest-covered, mainly by softwood stands on the high ground and mixed stands on the slopes. Black spruce (*Picea mariana*) is the dominant species, often accompanied by white spruce (*Picea glauca*), balsam fir (*Abies balsamea*), white birch (*Betula papyrifera*) and trembling aspen (*Populus tremuloides*). Stands over 90 years in age represent 12% of the forest cover. The depressions, poorly drained, are occupied by peat bogs and alder groves. One-tenth of the area has been logged.

##### 1.2.2. Outstanding elements

Joannès lake is a potentially favourable nesting site for the Red-necked Grebe (*Podiceps grisegena*). This web-footed species, common in central and western Canada, has recently begun nesting in Québec. Most of the nesting sites have been observed on lakes in the Abitibi-Témiscamingue region, including Joannès lake. Because of its rarity, the Red-necked Grebe is likely to be designated as a threatened or vulnerable species under the Act respecting threatened or vulnerable species (R.S.Q., c. E-12.01).

#### 1.3. Land occupation and use

The land occupations and uses in the proposed Vaudray and Joannès lakes biodiversity reserve are shown on the map in Schedule A.3.

The road network is the only human disturbance. It comprises 98% of unpaved roads suitable for road vehicles, and has a total length of 114 km.

Land rights have been granted on 101 sites :

- 25 private cottages;
- 37 cottage leases;
- 37 leases for rough shelters;
- 1 telecommunications tower;
- 1 holiday camp (Centre récréatif du Lac Joannès);

The Centre récréatif forestier du lac Joannès operates under the authority of a private charter.

The whole proposed biodiversity reserve lies within management unit 04 for fur-bearing animals (UGAF 04). It covers a total of twelve traplines.

The head of the Vaudray river is classified as a wild-life habitat, under “water fowl gathering area”. The zone concerned has an area of 0.3 km<sup>2</sup>.

## 2. Protection status

The proposed biodiversity reserve safeguards several lakes in the head of the watershed of the Ouataouais river, including Vaudray and Joannès lakes. The proposed reserve offers a forest landscape of great interest, both from an ecological perspective and for its beauty.

Biodiversity reserve status would allow the pursuit of the following conservation objectives:

- the preservation of kettle lakes and the esker at Vaudray and Joannès lakes, representative of the natural region of the Lake Témiscamingue Lowlands;
- ongoing biodiversity in lake and forest ecosystems;
- the promotion of remarkable landscapes;
- the acquisition of new knowledge concerning natural heritage.

## 3. Activities within the reserve

All activities carried on within the proposed Vaudray and Joannès lakes biodiversity reserve are governed by the provisions of the Natural Heritage Conservation Act (2002, c. 74).

This conservation plan does not specify any prohibited activity other than those prohibited in biodiversity reserves by the Act; nor does it authorize any other activities, or set any additional constraints on the activities permitted by the Act.

## 3.1. Prohibited activities

For reference purposes, it is important to note that under the Natural Heritage Conservation Act, the main activities prohibited in an area designated as a proposed biodiversity reserve are:

- mining, and gas or petroleum development;
- mining, gas or petroleum exploration, brine and underground reservoir exploration, prospecting, and digging or boring, where such activities necessitate strip-ping, the digging of trenches, excavation or deforestation;
- forest management activities within the meaning of section 3 of the Forest Act (R.S.Q., c. F-4.1);
- the development of hydraulic resources and any production of energy on a commercial or industrial basis;
- any new allocation of a right to occupy land for vacation resort purposes;
- earthwork, backfilling or construction work.

## 3.2. Activities governed by other Acts

All activities carried on within the boundaries of the proposed Vaudray and Joannès lakes biodiversity reserve remain governed by the other applicable legislative and regulatory provisions, including those that require the issue of a permit or authorization or the payment of fees. The carrying on of certain activities may also be prohibited or limited by other Acts or regulations applicable within the boundaries of the proposed biodiversity reserve.

In particular, within the boundaries of the proposed biodiversity reserve, special legal rules may govern permitted and prohibited activities in connection with:

- Archaeological research (especially the measures contained in the Cultural Property Act (R.S.Q., c. B-4));
- Utilisation of wildlife resources (especially the measures contained in the Act respecting the conservation and development of wildlife (R.S.Q., c. C-61.1), and, where applicable, the measures contained in any applicable federal legislation);
- Access (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1));



— Land rights (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1) and in leases issued by the Minister of Natural Resources).

### 3.3 Supervision of activities

The Minister of the Environment is responsible for the application of the Natural Heritage Conservation Act, and is also responsible for the proposed biodiversity reserves established under that Act. The Minister will supervise and monitor the measures contained in the Act with regard to permitted activities in protected areas.

All other government departments and bodies will retain their responsibilities as set out in all the legislative and regulatory texts that apply within a proposed biodiversity reserve.

The Minister of Natural Resources will supervise all activities subject to the Minister's authority within the territory of the proposed Vaudray and Joannès lakes biodiversity reserve, in particular as regards permitted forms of land occupation.

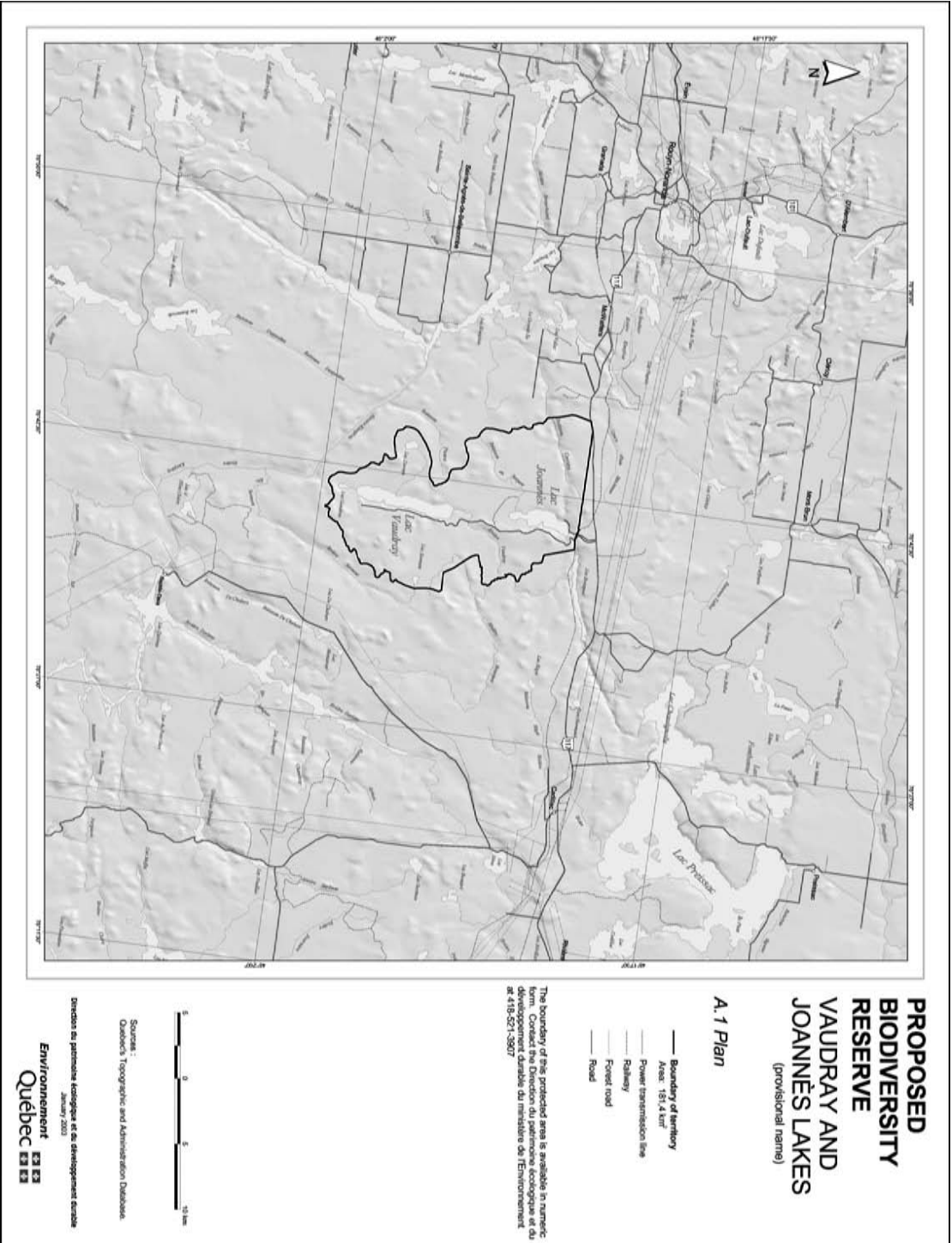
The Société de la faune et des parcs du Québec (FAPAQ) remains responsible for supervising the activities relating to wildlife protection and management that are under its responsibility.

### 4. Permanent protection status

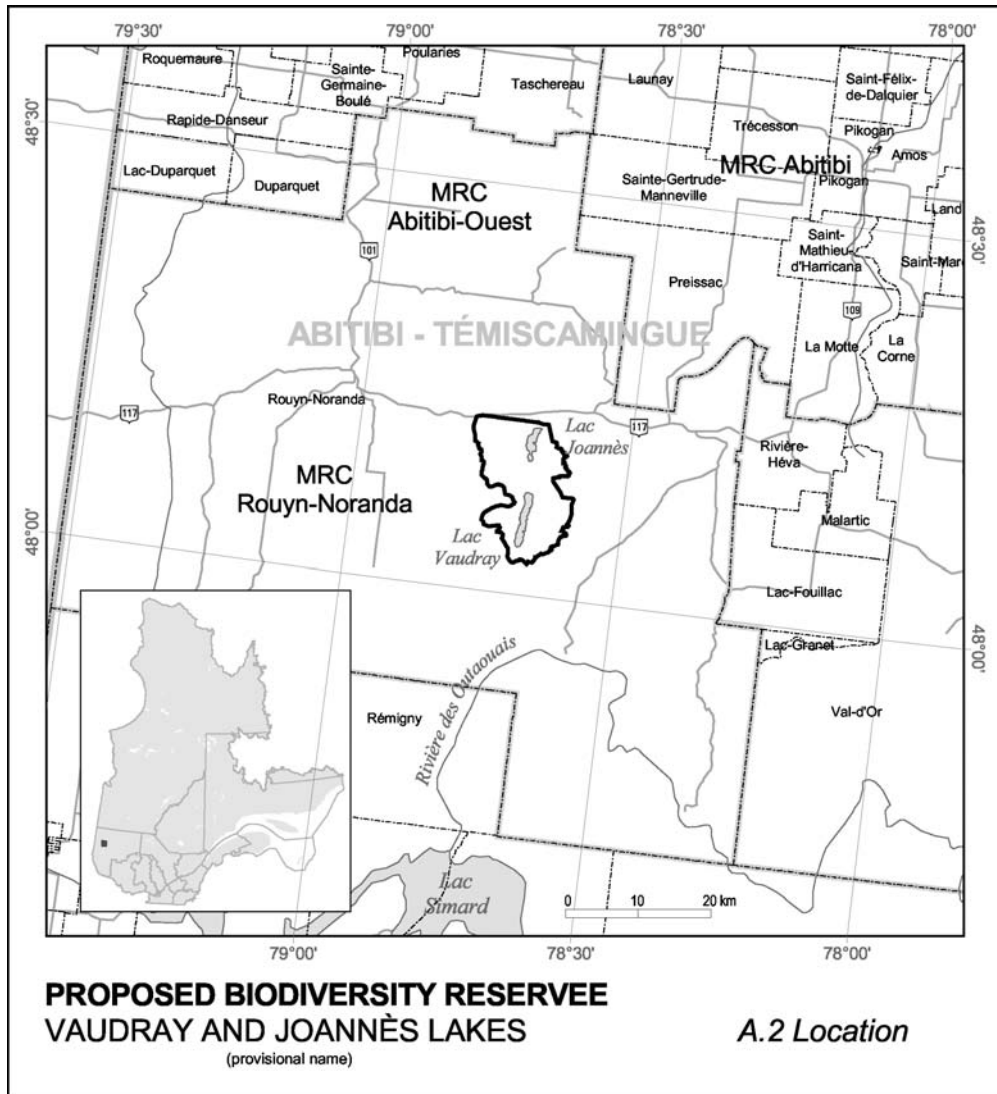
The permanent protection status envisaged for the reserve is "biodiversity reserve" status under the Natural Heritage Conservation Act.

SCHEDULES

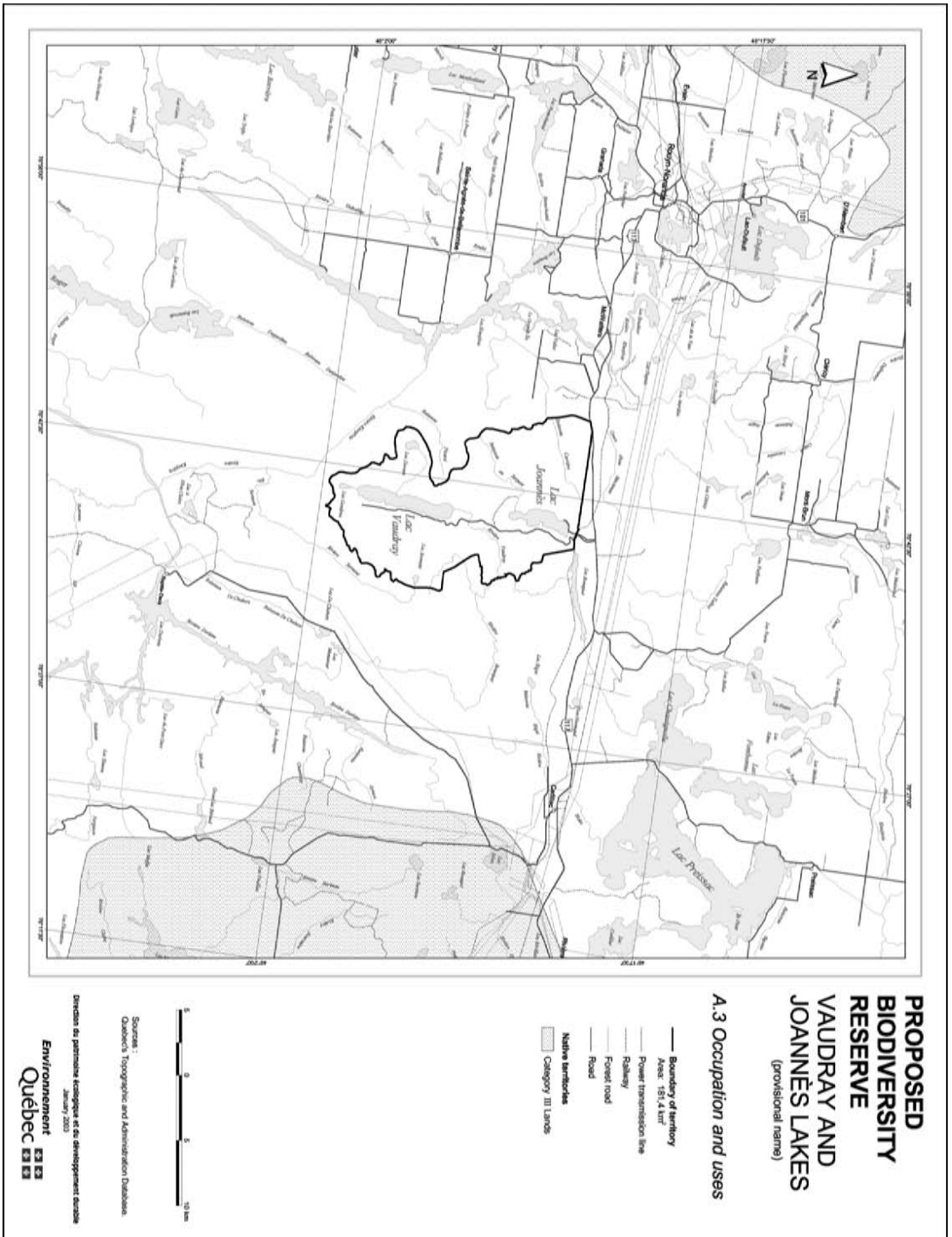
A.1. Plan of the proposed Vaudray and Joannès lakes biodiversity reserve (provisional name)



**A.2. Map showing the location of the proposed Vaudray and Joannès lakes biodiversity reserve (provisional name)**



A.3. Map showing land occupation and use in the proposed Vaudray and Joannès lakes biodiversity reserve (provisional name)



## CONSERVATION PLAN OF THE PROPOSED SABOURIN LAKE BIODIVERSITY RESERVE

### 1. Plan and description

#### 1.1. Geographic location, boundaries and dimensions

The plan of the proposed Sabourin lake biodiversity reserve and its location are shown on the maps in Schedules A.1 and A.2.

The proposed Sabourin lake biodiversity reserve is located in the Abitibi-Témiscamingue administrative region, between 47°44' and 48°2' latitude north and 77°22' and 77°56' longitude west. It is situated roughly 10 km to the south of Val-d'Or. The southwest boundary is adjacent to the Caribous-de-Jourdan ecological reserve, and the Decelles reservoir.

The proposed biodiversity reserve is entirely within the territory of Ville de Val-d'Or, which is part of Municipalité régionale de comté de la Vallée-de-l'Or.

The proposed reserve has a network of forest roads accessible from the north and from the east, off Highway 117.

The proposed reserve covers a total area of 378 km<sup>2</sup>. The boundaries have been defined, as far as possible, using natural elements easily identified in the field, such as watercourses, lakes and the edges of peat bogs.

#### 1.2. Ecological overview

The proposed biodiversity reserve is in the natural province of the Abitibi and James Bay Lowlands. It protects habitats representative of the natural region of the Abitibi Plain.

##### 1.2.1. Representative elements

**Climate:** The proposed biodiversity reserve is at the interface of two major types of continental climate: two-thirds of the reserve, to the south, is characterized by a mild, subpolar and subhumid climate with a long growing season, while the northern third of the reserve is characterized by a subpolar, subhumid climate with a medium growing season. The proposed reserve belongs to the bioclimatic field of fir stands with white birch.

**Geology and geomorphology:** The reserve is part of the Superior geologic province, whose bedrock is archaic (> 2.5 billion years). To the east, the substratum is mainly formed by silicic rock, while to the west it is mainly formed by felsic rock. The bedrock rises to the surface in places and is covered by glacial lacustrine

sediments (clay, sand and gravel) deposited by the waters of the proglacial Barlow-Ojibway lake. The landscape forms a plain sloping slightly northwards with occasional hummocks. The average altitude is 348 m, varying between 331 m and 367 m.

**Hydrography:** The proposed reserve straddles the watersheds of the Outaouais river to the south and the Harricana river to the north. It has around sixty lakes, which occupy roughly 7% of the total area. The largest is Sabourin lake, covering an area of 26.5 km<sup>2</sup>. The proposed biodiversity reserve also includes a small part (4.5 km<sup>2</sup>) of the Decelles hydroelectric reservoir. The drainage system is fairly well developed, and is made up mainly of intermittent watercourses. It is subparallel, generally oriented north-south, and follows the main fractures in the bedrock.

**Vegetation:** Over half the proposed reserve is covered by forest, and two-thirds of the forest cover comprises groups of tolerant softwoods. Black spruce (*Picea mariana*), jack pine (*Pinus banksiana*) and larch (*Larix laricina*) are the dominant species. Mixed stands occupy 7% of the land. Stands aged 90 years or more constitute 15% of the forest cover. Many peat bogs have developed in the eastern section, because of the low relief and the impermeability of the surface deposits. One third of the proposed reserve is covered by peat bogs. Logging has been carried out in recent years in the sectors of Kâmackawâkâmagak, Okiwakamik and Crémazie lakes, and in the zone to the east of Médaillon lake. In addition, replanting work was carried out between 1994 and 1998 to the west of Okiwakamik lake and to the south of Kâockimâkidinak lake.

#### 1.2. Outstanding elements

The proposed reserve has great interest from an ecological point of view, since it is home to a residual population of Woodland Caribou (*Rangifer tarandus*) that were formerly more abundant in southern Québec. The herd is sedentary, in both summer and winter, a feature that distinguishes it from the population in northern Québec, which migrates. Another feature is that the Val-d'Or Woodland Caribou is a forest ecotype, whereas the northern species is tied to the tundra. The herd is found between Highway 117, to the north, and the northern boundary of the La Vérendrye wildlife sanctuary to the south; according to the census taken in 1999, it contains around fifty individuals. The decline of this species has been caused mainly by the changes to its habitat caused by logging. The size of the herd continues to fall, and the situation of this forest population is precarious. The Val-d'Or caribou has, since 1996, been on the list of the wild species likely to be designated as threatened or vulnerable (M.O. 2000-015 dated 16 May 2000).

The proposed Sabourin lake biodiversity reserve includes, to the north, part of the habitat used by the Woodland Caribou between April and November. Regularly, each year, a number of individuals disperse in this area to calve. The proposed biodiversity reserve also includes, to the south, stands of softwoods that are often used as a food source by the whole herd.

### 1.3. Land occupation and use

The land occupations and uses in the proposed Sabourin lake biodiversity reserve are shown on the map in Schedule A.3.

The road network is the only human disturbance. It has a total length of 111 km, and comprises 51% of unpaved roads and 45% of roads unsuitable for road vehicles. Paved roads suitable for road vehicles make up only 4% of the network.

Land rights have been granted on 47 sites :

- 3 private cottage sites ;
- 14 cottage leases ;
- 30 leases for rough shelters.

Almost all the proposed reserve lies within the Grand-Lac-Victoria beaver reserve, where the Algonquin community of Anishnabe residing on the west shore of Simon lake, 32 km to the southeast of Val-d'Or, has special rights regarding the hunting and trapping of fur-bearing animals.

Some parts of the land were logged before the reserve was created.

### 2. Protection status

The proposed Sabourin lake biodiversity reserve protects part of the vital habitat for one of only three herds of Woodland Caribou remaining in Québec south of the 49th parallel.

The conservation objectives are :

- the sustainability of the Val-d'Or population of Woodland Caribou through the protection of the habitats essential to its survival, especially calving, rutting and wintering areas ;
- the preservation of biodiversity in wetland and forest ecosystems ;
- the development of certain key elements in the landscape ;

- the maintenance of traditional Native subsistence activities ;

- the acquisition of new knowledge concerning the ecology of the Val-d'Or population of Woodland Caribou.

### 3. Activities within the reserve

All activities carried on within the proposed Sabourin lake biodiversity reserve are governed by the provisions of the Natural Heritage Conservation Act (2002, c. 74).

This conservation plan does not specify any prohibited activity other than those prohibited in biodiversity reserves by the Act; nor does it authorize any other activities, or set any additional constraints on the activities permitted by the Act.

#### 3.1. Prohibited activities

For reference purposes, it is important to note that under the Natural Heritage Conservation Act, the main activities prohibited in an area designated as a proposed biodiversity reserve are :

- mining, and gas or petroleum development ;
- mining, gas or petroleum exploration, brine and underground reservoir exploration, prospecting, and digging or boring, where such activities necessitate stripping, the digging of trenches, excavation or deforestation ;
- forest management activities within the meaning of section 3 of the Forest Act (R.S.Q., c. F-4.1) ;
- the development of hydraulic resources and any production of energy on a commercial or industrial basis ;
- any new allocation of a right to occupy land for vacation resort purposes ;
- earthwork, backfilling or construction work.

#### 3.2. Activities governed by other Acts

All activities carried on within the boundaries of the proposed Sabourin lake biodiversity reserve remain governed by the other applicable legislative and regulatory provisions, including those that require the issue of a permit or authorization or the payment of fees. The carrying on of certain activities may also be prohibited or limited by other Acts or regulations applicable within the boundaries of the proposed biodiversity reserve.

In particular, within the boundaries of the proposed biodiversity reserve, special legal rules may govern permitted and prohibited activities in connection with:

— Archaeological research (especially the measures contained in the Cultural Property Act (R.S.Q., c. B-4);

— Utilisation of wildlife resources (especially the measures contained in the Act respecting the conservation and development of wildlife (R.S.Q., c. C-61.1) and the regulation on beaver reserves, and, where applicable, the measures contained in any applicable federal legislation);

— Access (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1));

— Land rights (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1) and in leases issued by the Minister of Natural Resources).

### 3.3. Supervision of activities

The Minister of the Environment is responsible for the application of the Natural Heritage Conservation Act, and is also responsible for the proposed biodiversity reserves established under that Act. The Minister will supervise and monitor the measures contained in the Act with regard to permitted activities in protected areas.

All other government departments and bodies will retain their responsibilities as set out in all the legislative and regulatory texts that apply within a proposed biodiversity reserve.

The Minister of Natural Resources will supervise all activities subject to the Minister's authority within the territory of the proposed Sabourin lake biodiversity reserve, in particular as regards permitted forms of land occupation.

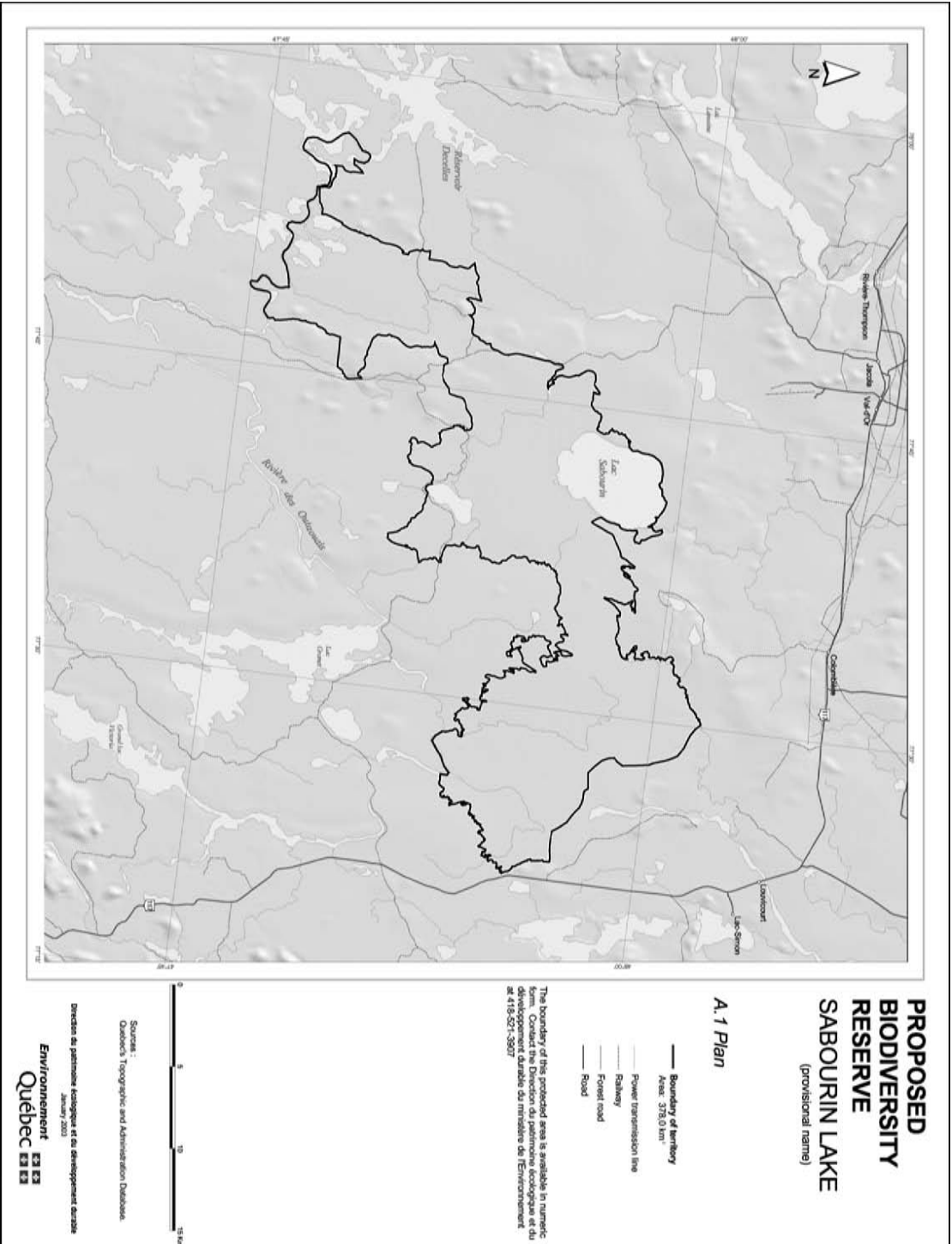
The Société de la faune et des parcs du Québec (FAPAQ) remains responsible for supervising the activities relating to wildlife protection and management that are under its responsibility.

### 4. Permanent protection status

The permanent protection status envisaged for the reserve is "biodiversity reserve" status under the Natural Heritage Conservation Act.

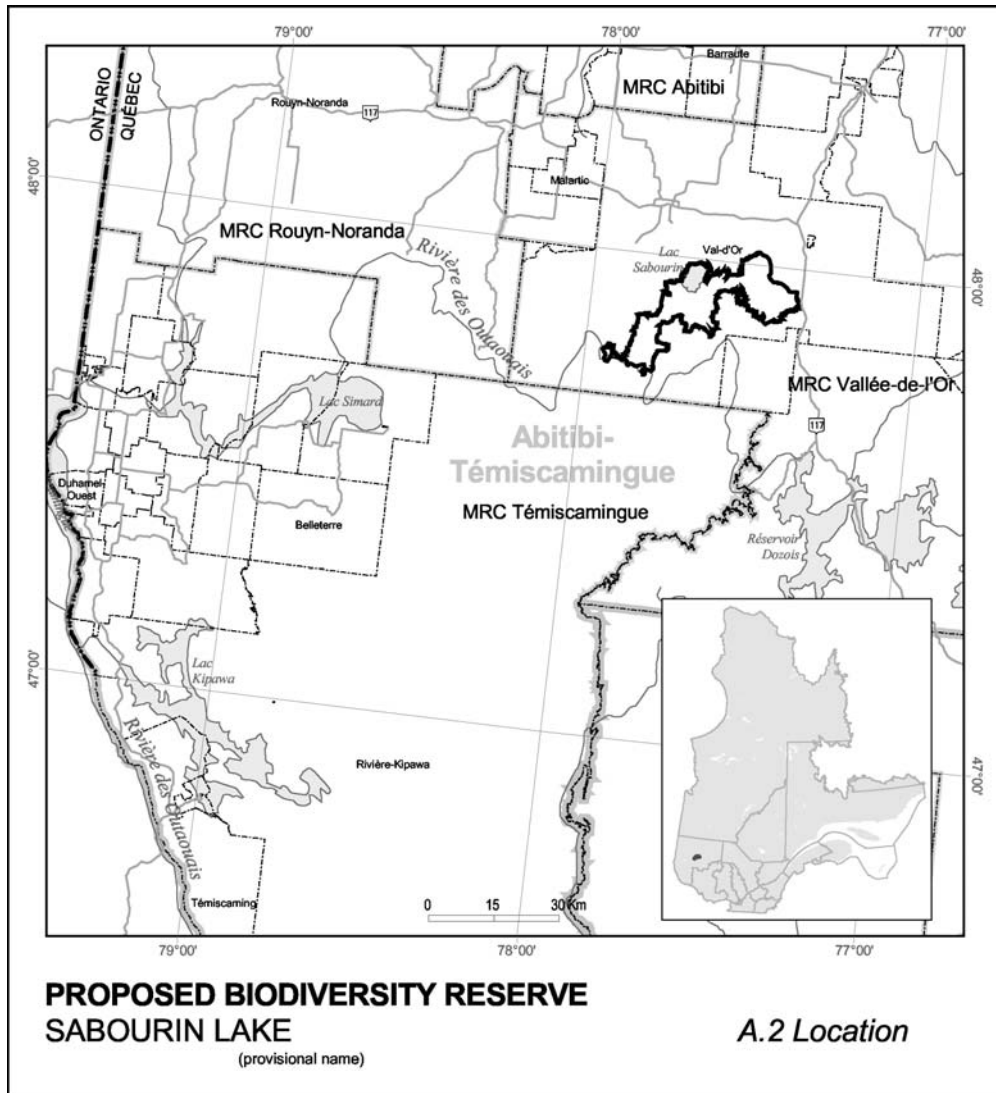
**SCHEDULES**

**A.1. Plan of the proposed Sabourin lake biodiversity reserve (provisional name)**

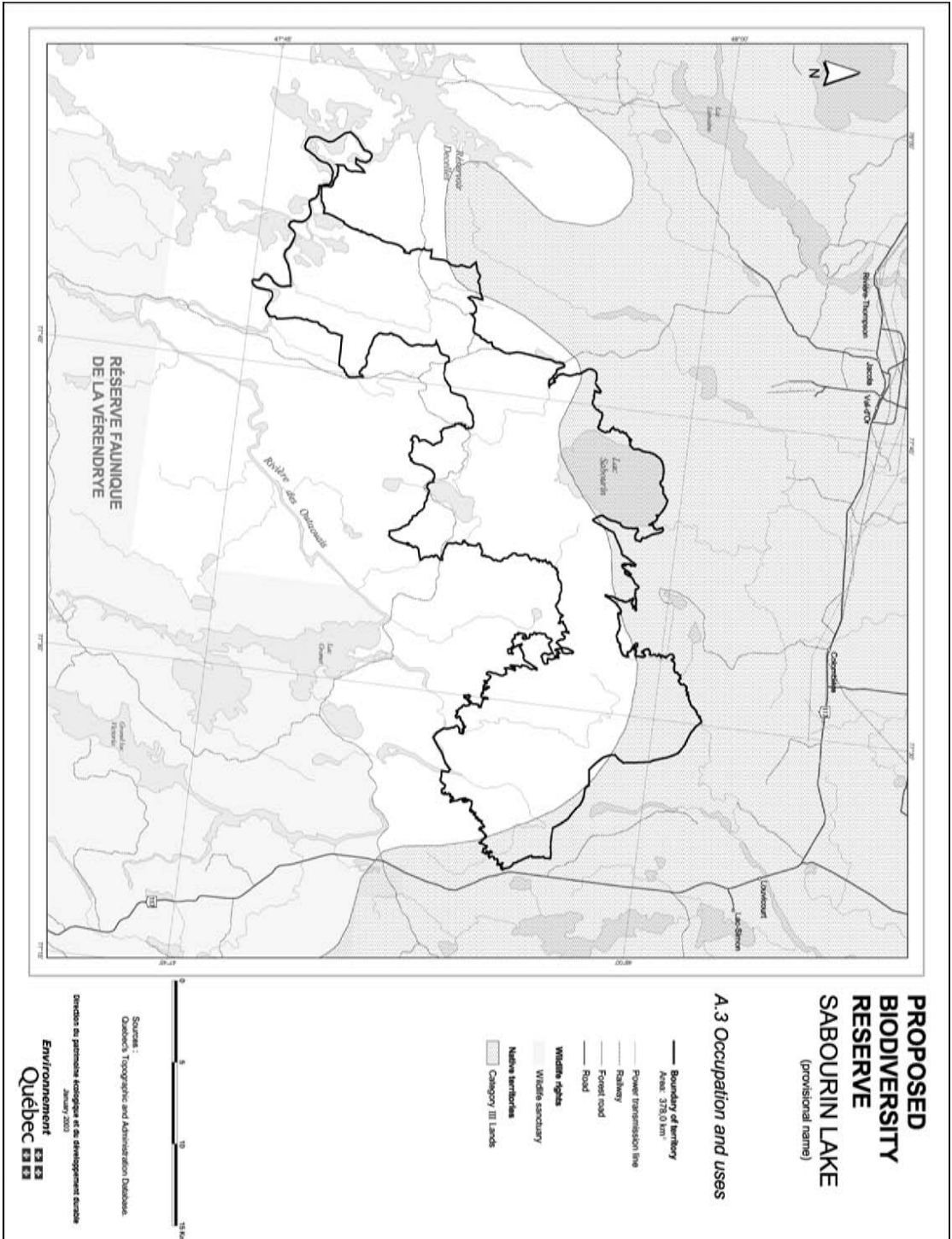




**A.2. Map showing the location of the proposed Sabourin lake biodiversity reserve (provisional name)**



A.3. Map showing land occupation and use in the proposed Sabourin lake biodiversity reserve (provisional name)



## CONSERVATION PLAN OF THE PROPOSED ASHUAPMUSHUAN RIVER AQUATIC RESERVE

### 1. Plan and description

#### 1.1. Geographic location, boundaries and dimensions

The plan of the proposed Ashuapmushuan river aquatic reserve and its location are shown on the maps in Schedules A.1 and A.2.

The proposed Ashuapmushuan river aquatic reserve is located in the Saguenay–Lac Saint-Jean region, between 48°40' and 50°45' latitude north and 73°42' and 72°44' longitude west. It is at the northwestern end of Lac Saint-Jean, roughly thirty kilometres from Ville de Saint-Félicien.

It lies within the territory of the regional municipal counties of Le Domaine-du-Roy (to the south of the river and to the west of Du Chef river) and Maria-Chapdelaine (to the north of the river and to the east of Du Chef river).

From upstream to downstream, the reserve covers the non-municipalized territories of Lac-Ashuapmushuan and Rivière-Mistassini, and extends to the southwestern boundary of Municipalité de Saint-Thomas-Didyme.

The proposed aquatic reserve covers an area of 276.6 km<sup>2</sup>. Its boundaries were defined using a visibility model to simulate what can be perceived from a canoe on the Ashuapmushuan river. It comprises a corridor between 600 m and 6 km wide, taking in the main bed of the Ashuapmushuan river and the slopes of its valley from km 177 to km 51 from its mouth.

#### 1.2. Ecological overview

The area is in the Central Laurentian natural province. It protects a river that is characteristic of the natural region of the Manouane lake depression.

##### 1.2.1. Representative elements

**Climate:** The Ashuapmushuan river watershed is characterized by a subpolar, subhumid continental climate, with a middle growing season. Its upstream portion belongs to the bioclimatic field of mossy spruce stands, and its downstream portion to the bioclimatic field of fir stands with white birch.

**Geology and geomorphology:** The territory is part of the Laurentian highlands, attached to the Canadian Shield. Its average altitude is 335 m, varying between 155 m and 509 m. The substratum mainly comprises felsic rock. The valley slopes are covered by moderately drained till. The valley bottom is covered with glaciofluvial deposits (sand and gravel), except where there are rapids, where rock and washed till are found.

**Hydrography:** The Ashuapmushuan river is a Strahler 7 river. It is, after the Mistassini and the Péribonka, the largest of the 45 tributaries flowing into Lac Saint-Jean. It carries a little over one-fifth of the inflow into the lake. Its source is in the lake of the same name at an altitude of 360 m. Over most of its length it flows in narrow valleys. It is fed by some thirty permanent tributaries, the most important of which are the Du Chef, Normandin, Chigoubiche, Marquette, Aux Saumons and Du Cran rivers. It has around twelve waterfalls, the most spectacular being the De la Chaudière waterfall at km 82. The extensive hydrographic features cover 10% of the territory. The protected area also includes 92 islands covering a total area of 0.8 km<sup>2</sup>, or 0.3% of its total area.

**Vegetation:** The land in the proposed Ashuapmushuan river aquatic reserve is forest-covered, with trees growing on nine-tenths of the protected area. Half of the land is covered by young, mainly softwood stands, and one-third by mixed stands. Black spruce (*Picea mariana*) and balsam fir (*Abies balsamea*) are the main species on high ground, while jack pine (*Pinus banksiana*) is found on sandy terraces. Hardwood stands and wetlands (peat bogs and alder groves) are generally found in valley bottoms. One-quarter of the reserve was recently logged.

##### 1.2.2. Outstanding elements

The Ashuapmushuan is a major habitat for landlocked salmon (*Salmo salar* ouananiche), a freshwater form of the Atlantic salmon, which is found as a native northern species in the northern hemisphere. The Ashuapmushuan river is accessible to salmon up to the De la Chaudière falls. It contains several spawning and parr raising sites, and makes a substantial contribution (70% to 90%) to the salmon production in Lac Saint-Jean. It is also a key biological corridor between Lac Saint-Jean and other salmon rivers (such as the Aux Saumons, À l'Ours, Pémonca and Du Cran rivers). The landlocked salmon population has been in a worrying decline since the 1900s. The implementation of regulatory measures and a stocking program have helped re-establish the salmon, but over the last two years the situation has once again become a cause for concern.

The Ashuapmushuan river is also important in terms of heritage. The Ashuapmushuan basin contains several archaeological sites that bear witness to occupation at an early date (6,500 to 7,000 B.C.), especially old Amerindian cemeteries and celebration sites used by the first inhabitants of North America. The river also played a major role in expeditions along the fur route between Tadoussac and Hudson Bay. The remains of the religious and commercial settlement built in 1686 on the eastern shore of Ashuapmushuan lake, at the western edge of the protected area, are one of the most outstanding and best-preserved remnants of the fur-trading period in

Québec. In later times, the Ashuapmushuan was used for timber driving. The heritage value of the river is also confirmed by the presence in its waters of over twenty species of fish, including the landlocked salmon that, in 1988, became the regional emblem of the Saguenay–Lac Saint-Jean region.

### 1.3. Land occupation and use

The land occupations and uses in the proposed Ashuapmushuan river aquatic reserve are shown on the map in Schedule A.3.

Four power transmission lines, 19 km in total length, cross the zone from the west to the south. To the west, the area is bounded over a distance of 4.5 km by paved Highway 167.

The road network comprises 78% of roads unsuitable for road vehicles (220 km) and 20% of unpaved roads (58 km). The longest unpaved road follows the southern bank of the Ashuapmushuan for 30 km, from km 120.

Land rights have been granted on four sites on the perimeter of the protected area (3 Native camps and 1 commercial tourism lease).

The entire area is also an integral part of the Roberval beaver reserve, where the Inuit community of Mashteuatsh residing at Pointe-Bleue has special rights regarding the hunting and trapping of fur-bearing animals.

The land located to the south of the Ashuapmushuan river, and a 200m wide band along the northern bank, is in the Ashuapmushuan wildlife sanctuary. The sector managed by the Société des établissements de plein air du Québec (SÉPAQ) covers 190 km<sup>2</sup>, or a little over two-thirds of the total area (68.7%). Recreational activities (small and big game hunting, fishing, blueberry picking, wildlife observation, hiking, canoeing, canoe-camping, etc.) are subject to the regulations in force (such as visitor registration and payment of the applicable fees).

The land located on the eastern bank of the Ashuapmushuan river, from Damville lake to Bouchain lake, is subject to the exclusive rights of the Damville outfitting operation. The wildlife management zone covers 11.2 km<sup>2</sup>, or 4% of the total area.

Some river banks are part of the Lac Saint-Jean community wildlife area, covering an area of 11.2 km<sup>2</sup>, or 1.9% of the proposed area.

Some sections of the territory were logged before the reserve was created.

## 2. Protection status

The proposed aquatic reserve safeguards the main bed of the Ashuapmushuan river and some of the slopes of its valley. The area includes landscapes of high quality and an outstanding cultural heritage. The river offers, in addition, habitats that are essential to the maintenance of the landlocked salmon population, the regional emblem.

Aquatic reserve status would allow the pursuit of the following conservation objectives :

— the conservation of a representative river in the natural region of the Manouane lake depression ;

— the protection of essential landlocked salmon habitats ;

— the preservation of biodiversity in aquatic and land-based ecosystems ;

— the ongoing sustainable management of fur-bearing animals ;

— the development of certain key elements in the landscape (such as the De la Chaudière waterfall) ;

— the preservation of sites of recognized or potential archaeological interest, and of the landscape visible from the bottom of the Ashuapmushuan valley ;

— the acquisition of new knowledge concerning natural and cultural heritage.

## 3. Activities within the reserve

All activities carried on within the proposed Ashuapmushuan river aquatic reserve are governed by the provisions of the Natural Heritage Conservation Act (2002, c. 74).

Except for the prohibition mentioned in item 3.1.2, this conservation plan does not specify any prohibited activity other than those prohibited in proposed aquatic reserves by the Act; nor does it authorize any other activities, or set any additional constraints on the activities permitted by the Act.

### 3.1. Prohibited activities

#### 3.1.1. General prohibitions enacted by law

For reference purposes, it is important to note that under the Natural Heritage Conservation Act, the main activities prohibited in an area designated as a proposed aquatic reserve are :

— mining, and gas or petroleum development;

— mining, gas or petroleum exploration, brine and underground reservoir exploration, prospecting, and digging or boring, where such activities necessitate strip-ping, the digging of trenches, excavation or deforestation;

— forest management activities within the meaning of section 3 of the Forest Act (R.S.Q., c. F-4.1);

— the development of hydraulic resources and any production of energy on a commercial or industrial basis;

— any new allocation of a right to occupy land for vacation resort purposes;

— earthwork, backfilling or construction work.

### 3.1.2. Additional prohibitions

In the proposed Ashuapmushuan river aquatic reserve, any type of activity likely to degrade the bed, banks or shores or to otherwise affect the integrity of any body of water or watercourse in the reserve is also prohibited.

### 3.2. Activities governed by other Acts

All activities carried on within the boundaries of the proposed Ashuapmushuan river aquatic reserve remain governed by the other applicable legislative and regulatory provisions, including those that require the issue of a permit or authorization or the payment of fees. The carrying on of certain activities may also be prohibited or limited by other Acts or regulations applicable within the boundaries of the proposed aquatic reserve.

In particular, within the boundaries of the proposed aquatic reserve, special legal rules may govern permitted and prohibited activities in connection with:

— Archaeological research (especially the measures contained in the Cultural Property Act (R.S.Q., c. B-4));

— Utilisation of wildlife resources (especially the measures contained in the Act respecting the conservation and development of wildlife (R.S.Q., c. C-61.1), the regulation on beaver reserves and the management plan for the Ashuapmushuan wildlife reserve and, where applicable, the measures contained in the applicable federal legislation);

— Access (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1));

— Land rights (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1) and in leases issued by the Minister of Natural Resources).

### 3.3. Supervision of activities

The Minister of the Environment is responsible for the application of the Natural Heritage Conservation Act, and is also responsible for the proposed aquatic reserves established under that Act. The Minister will supervise and monitor the measures contained in the Act with regard to permitted activities in protected areas.

All other government departments and bodies will retain their responsibilities as set out in all the legislative and regulatory texts that apply within a proposed aquatic reserve.

The Minister of Natural Resources will supervise all activities subject to the Minister's authority within the territory of the proposed Ashuapmushuan river aquatic reserve, in particular as regards permitted forms of land occupation.

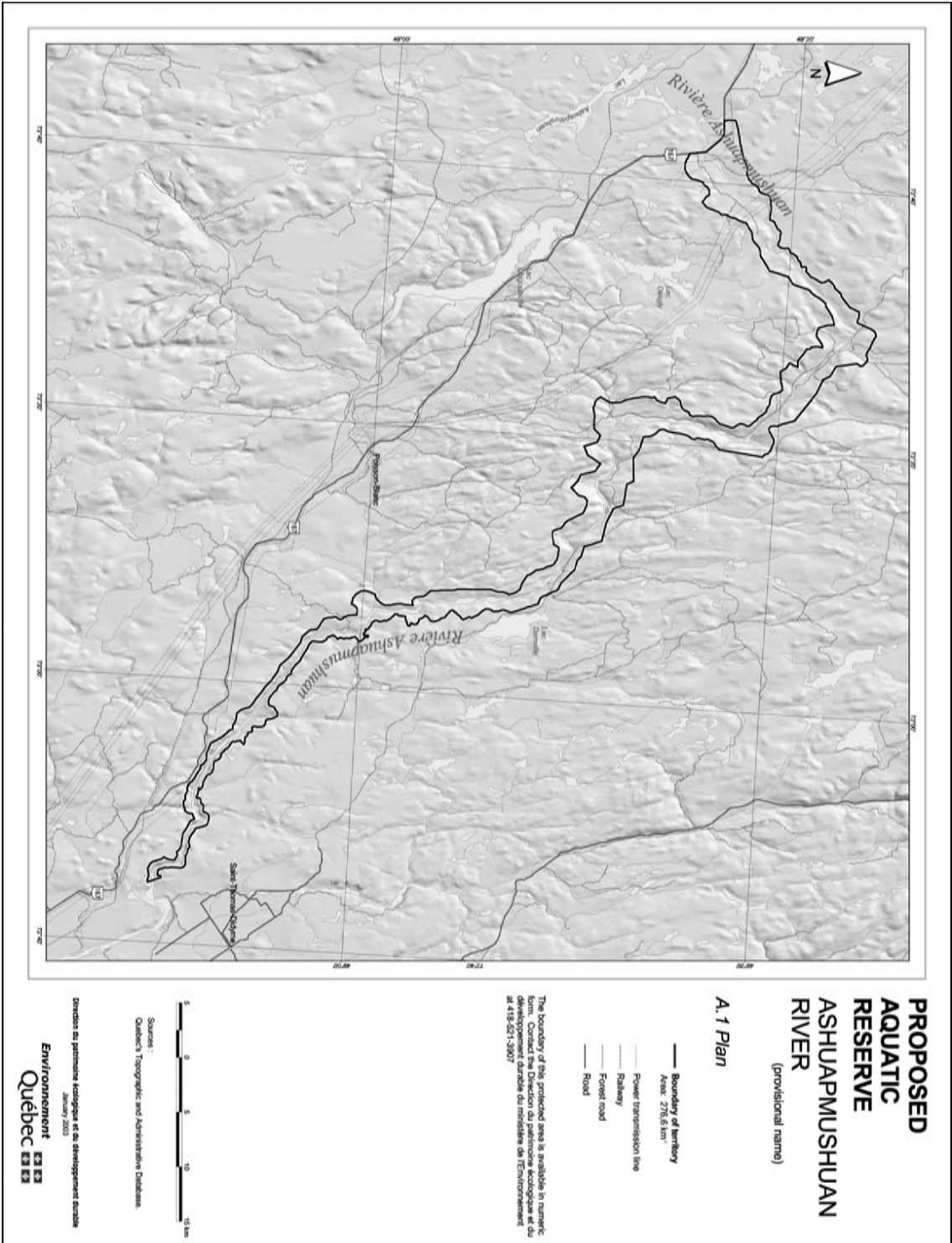
The Société de la faune et des parcs du Québec (FAPAQ) remains responsible for supervising the activities relating to wildlife protection and management that are under its responsibility, and the Société des établissements de plein air du Québec (SÉPAQ) remains responsible for the Ashuapmushuan wildlife sanctuary.

### 4. Permanent protection status

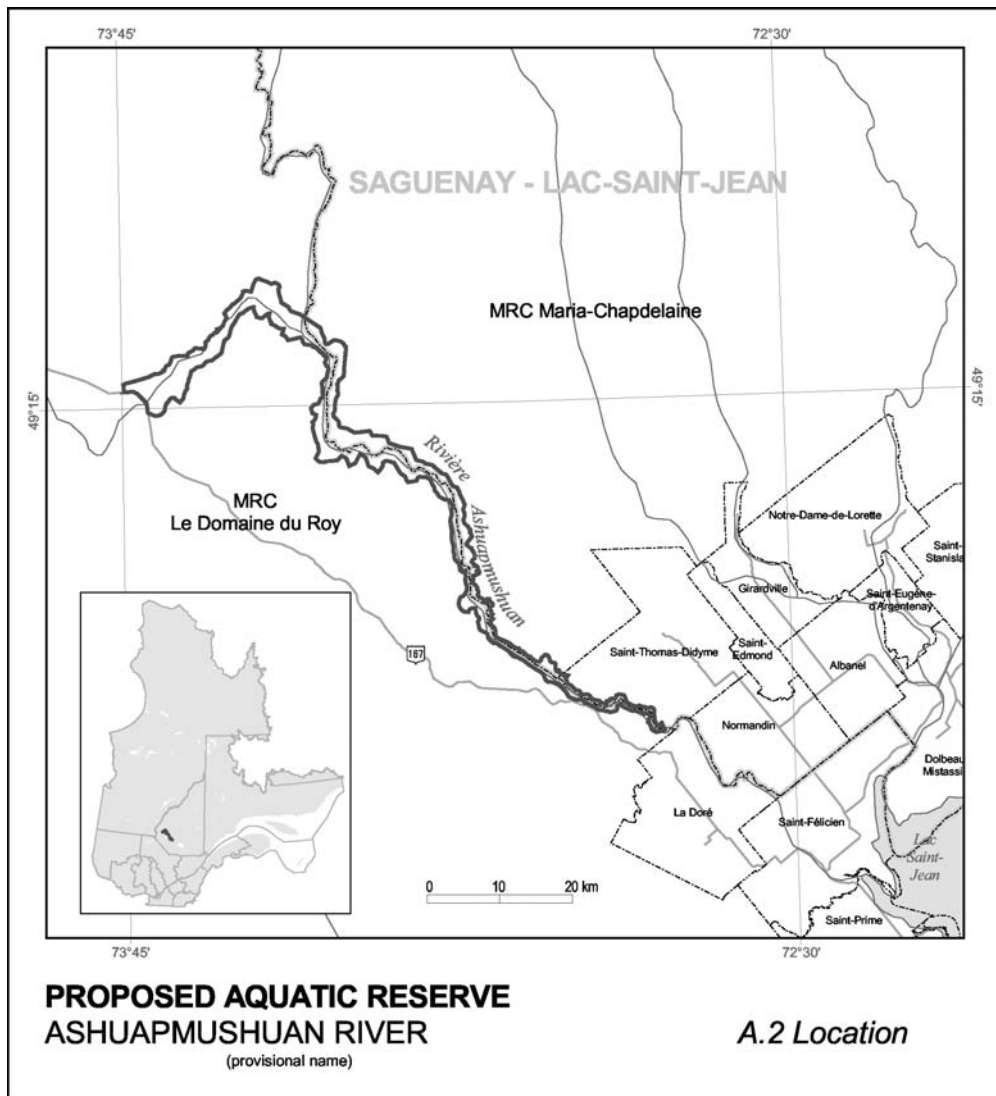
The permanent protection status envisaged for the reserve is "aquatic reserve" status under the Natural Heritage Conservation Act.

**SCHEDULES**

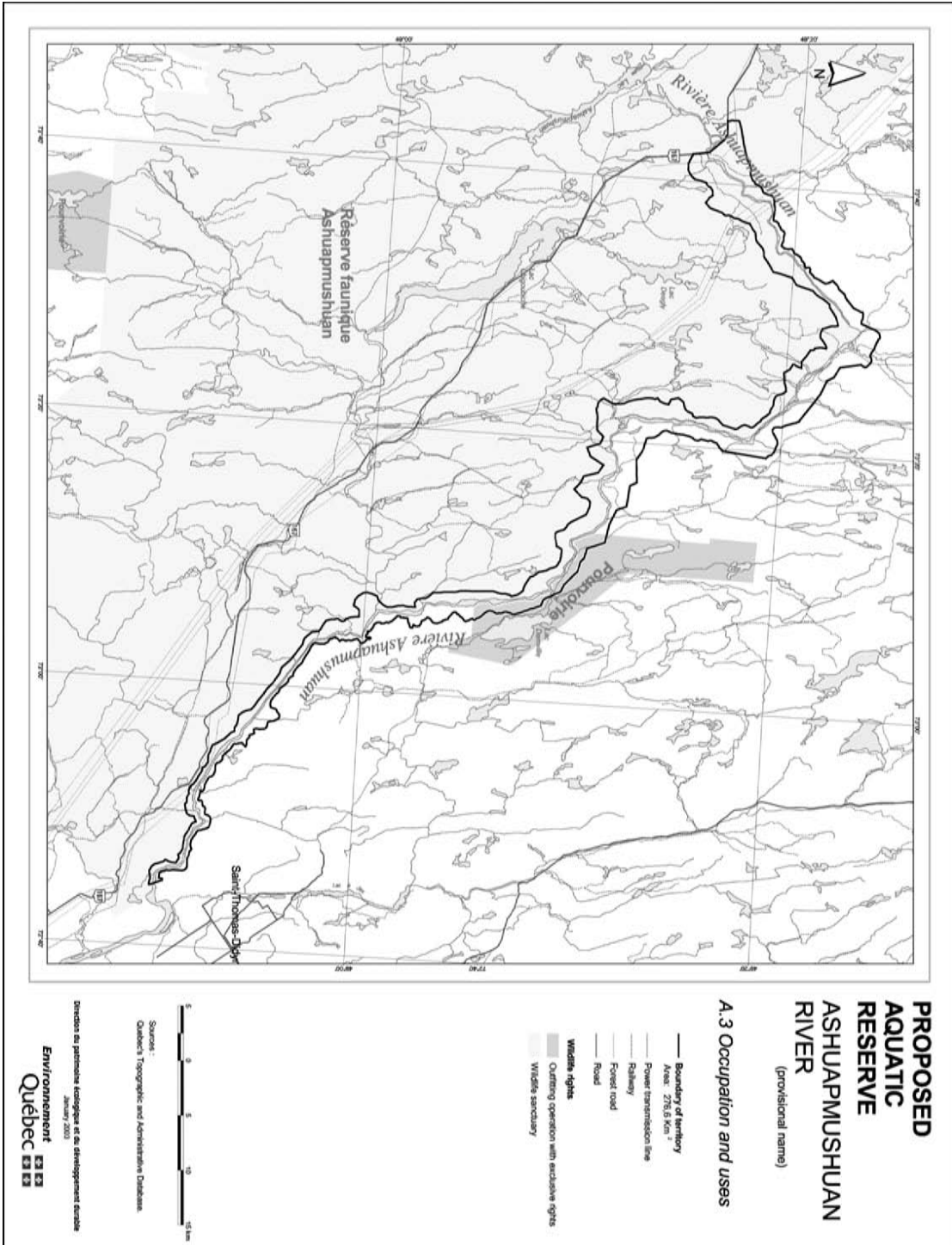
**A.1. Plan of the proposed Ashuapmushuan river aquatic reserve (provisional name)**



**A.2. Map showing the location of the proposed Ashuapmushuan river aquatic reserve (provisional name)**



A.3. Map showing land occupation and use in the proposed Ashuapmushuan river aquatic reserve (provisional name)





## CONSERVATION PLAN OF THE PROPOSED MOISIE RIVER AQUATIC RESERVE

### 1. Plan and description

#### 1.1. Geographic location, boundaries and dimensions

The plan of the proposed Moisie river aquatic reserve and its location are shown on the maps in Schedules A.1 and A.2.

The proposed Moisie river aquatic reserve is located in the Côte-Nord administrative region, between 50°19' and 52°29' latitude north and 65°58' and 67°33' longitude west. It is situated on the north shore of the Gulf of St. Lawrence, roughly 25 km from Ville de Sept-Îles. It has a network of roads suitable for road vehicles that are accessible from Highway 138.

It lies within the territory of the regional county municipalities of Caniapiscau, upstream, and Sept-Rivières, downstream.

From upstream to downstream, the river runs through the non-municipalized territories of Rivière-Mouchalagane, Rivière-Nipissis and Lac-Walker, and through the territory of Ville de Moisie.

The proposed aquatic reserve covers an area of 3 897,5.8 km<sup>2</sup>. It comprises a corridor between 6 km and 30 km wide, taking in the main bed of the Moisie river from km 37 to km 358 from its mouth, along with a broad strip of its adjacent watershed among which 115 km of Aux Pékans river.

#### 1.2. Ecological overview

The area is in the Central Laurentian natural province. It protects a river that is characteristic of the natural regions of the Manicouagan Reservoir Basin and the Sainte-Marguerite River Plateau.

##### 1.2.1. Representative elements

Climate: The watershed of the Moisie river straddles three distinct climate zones. From upstream to downstream, it is characterized by a cold, subpolar and subhumid climate with a short growing season, a subpolar, humid climate with a middle growing season, and a subpolar, subhumid climate with a middle growing season. The entire proposed aquatic reserve belongs to the bioclimatic field of mossy spruce stands.

Geology and geomorphology: The reserve is in the Grenville geologic province. It is part of the Canadian Shield, and constitutes the foothills of a powerful mountain range created almost one billion years ago. The substratum is mainly formed by crystalline rocks, in this instance gneiss and paragneiss. Upstream, the bedrock contains occasional carbonate rock, in this instance marble. In the downstream sector of the proposed aquatic reserve, the bedrock contains occasional mafic (anorthosite) and felsic (charnockitic) rocks. Upstream, the bedrock is covered by a thin till, and downstream surface deposits mainly comprise rock and peat. The valley bottom of the Moisie river is covered by glaciofluvial sand and gravel. The overall landscape presents a complex assembly of high and low hills, mounds and hummocks. The average altitude is 437 m, varying between 8 m and 991 m.

Hydrography: The Moisie river is a Strahler 6 river. Its source is in Ménistouc lake at an altitude of 520 m. It flows into the St. Lawrence estuary, and has a total length of 363 km. Its mouth is situated about 25 km to the east of Sept-Îles. The drainage system of the Moisie river drains a vast area of 19,196 km<sup>2</sup>. The river is fed by nine tributaries draining an area of over 300 km<sup>2</sup>. The two largest are Aux Pékans river to the north (3,419 km<sup>2</sup>) and Nipisso river to the south (4,196 km<sup>2</sup>). The river bed drops by an average of 1.4m per kilometre. It zigzags through inset gorges over much of its length, with scattered waterfalls and rapids. The annual average flow is 401 m<sup>3</sup>/s. The Moisie river has water of an exceptional quality compared to the other Québec rivers flowing off the Canadian Shield.

Vegetation: One-third of the proposed reserve is forest-covered, mainly by mature softwood stands. Black spruce (*Picea mariana*) predominates, often with balsam fir (*Abies balsamea*). Jack pine (*Pinus banksiana*) is restricted to sandy terraces. White birch (*Betula papyrifera*) is the mostly frequently encountered hardwood in the small number of mixed stands. Upstream, the steeper valley slopes are covered by heathland.

##### 1.2.2. Outstanding elements

The Moisie river is clearly the most renowned salmon river (for *Salmo salar*) on the North Shore, because of the high average weight (roughly 7kg) of the individual catches. The spawning run on the Moisie river involves a high proportion of salmon that have spent several seasons at sea, and some fish return to spawn several seasons running. The Atlantic salmon population is currently in an alarming decline throughout its distribution area. On the Moisie river, salmon is fished on the lower 170 km and on the southern part of the Nipisso river. The annual harvest is between 1,000 and 1,500 fish, for roughly 6,500 fishing days. The economic spin-offs generated amount to around \$2 million.

Lastly, the Moisie river has high heritage value: it runs through grandiose, well-preserved scenery, and has not been harnessed to produce hydroelectric power. Its waterfalls, rapids and source, and the absence of any industrial or residential development, make it one of the last wild rivers on the North Shore.

### 1.3. Land occupation and use

The land occupations and uses in the proposed Moisie river aquatic reserve are shown on the map in Schedule A.3.

Two power transmission lines, 16 km in total length, cross the southern end of the proposed aquatic reserve.

Land rights have been granted on 57 sites within the perimeter of the proposed aquatic reserve. They involve

- 37 cottage leases;
- 15 leases for the construction of temporary forest shelters;
- 2 leases for trapping camps;
- 1 lease for community purpose;
- 1 lease for the construction and/or reconstruction of a trail.

Almost all of the proposed reserve lies within the Saguenay beaver reserve, where the Sept-Îles Inuit community residing at Uashat and Malioténam has special rights regarding the hunting and trapping of fur-bearing animals.

The part of the proposed aquatic reserve situated outside the beaver reserve includes traplines that are part of management unit 60 for fur-bearing animals (UGAF 60).

The proposed aquatic reserve includes the territory of four exclusive-right outfitting operations, covering 58.6 km<sup>2</sup>, or 2% of the total area.

An agreement to manage fishing on the Moisie river is currently being negotiated by the Société de la faune et des parcs du Québec and the Uashat Malioténam Nation in order to

- ensure that action is taken to protect the wildlife resources of the river and its tributaries;

- plan and implement research activities on the biology of the Atlantic salmon and the anadromic speckled trout;

- define the parameters for the establishment of a management council for the Moisie river.

### 2. Protection status

The Moisie river is one of the most important salmon rivers in Québec. It flows through a natural, wild landscape and offers remarkable scenery.

Aquatic reserve status would allow the pursuit of the following conservation objectives:

- the conservation of a representative river in the natural region of the Manicouagan Reservoir Basin and the Sainte-Marguerite River Plateau;
- the protection of the Atlantic salmon population;
- ongoing biodiversity in aquatic and riverbank ecosystems;
- the development of certain key elements in the landscape;
- the preservation of the landscape visible from the bottom of the Moisie river valley;
- the acquisition of new knowledge on salmon ecology and on the natural heritage of the Moisie river.

### 3. Activities within the reserve

All activities carried on within the proposed Moisie river aquatic reserve are governed by the provisions of the Natural Heritage Conservation Act (2002, c. 74).

Except for the prohibition mentioned in item 3.1.2, this conservation plan does not specify any prohibited activity other than those prohibited in proposed aquatic reserves by the Act; nor does it authorize any other activities, or set any additional constraints on the activities permitted by the Act.

#### 3.1. Prohibited activities

##### 3.1.1. General prohibitions enacted by law

For reference purposes, it is important to note that under the Natural Heritage Conservation Act, the main activities prohibited in an area designated as a proposed aquatic reserve are:

— mining, and gas or petroleum development;

— mining, gas or petroleum exploration, brine and underground reservoir exploration, prospecting, and digging or boring, where such activities necessitate stripping, the digging of trenches, excavation or deforestation;

— forest management activities within the meaning of section 3 of the Forest Act (R.S.Q., c. F-4.1);

— the development of hydraulic resources and any production of energy on a commercial or industrial basis;

— any new allocation of a right to occupy land for vacation resort purposes;

— earthwork, backfilling or construction work.

### 3.1.2. Additional prohibitions

In the proposed Moisie river aquatic reserve any type of activity likely to degrade the bed, banks or shores or to otherwise affect the integrity of any body of water or watercourse in the reserve is also prohibited.

### 3.2. Activities governed by other Acts

All activities carried on within the boundaries of the proposed Moisie river aquatic reserve remain governed by the other applicable legislative and regulatory provisions, including those that require the issue of a permit or authorization or the payment of fees. The carrying on of certain activities may also be prohibited or limited by other Acts or regulations applicable within the boundaries of the proposed aquatic reserve.

In particular, within the boundaries of the proposed aquatic reserve, special legal rules may govern permitted and prohibited activities in connection with:

— Archaeological research (especially the measures contained in the Cultural Property Act (R.S.Q., c. B-4);

— Utilisation of wildlife resources (especially the measures contained in the Act respecting the conservation and development of wildlife (R.S.Q., c. C-61.1) and the regulation on beaver reserves and, where applicable, the measures contained in the applicable federal legislation);

— Access (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1));

— Land rights (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1) and in leases issued by the Minister of Natural Resources).

### 3.3. Supervision of activities

The Minister of the Environment is responsible for the application of the Natural Heritage Conservation Act, and is also responsible for the proposed aquatic reserves established under that Act. The Minister will supervise and monitor the measures contained in the Act with regard to permitted activities in protected areas.

All other government departments and bodies will retain their responsibilities as set out in all the legislative and regulatory texts that apply within a proposed aquatic reserve.

The Minister of Natural Resources will supervise all activities subject to the Minister's authority within the territory of the Moisie river, in particular as regards permitted forms of land occupation.

The Société de la faune et des parcs du Québec (FAPAQ) remains responsible for supervising the activities relating to wildlife protection and management that are under its responsibility.

### 4. Permanent protection status

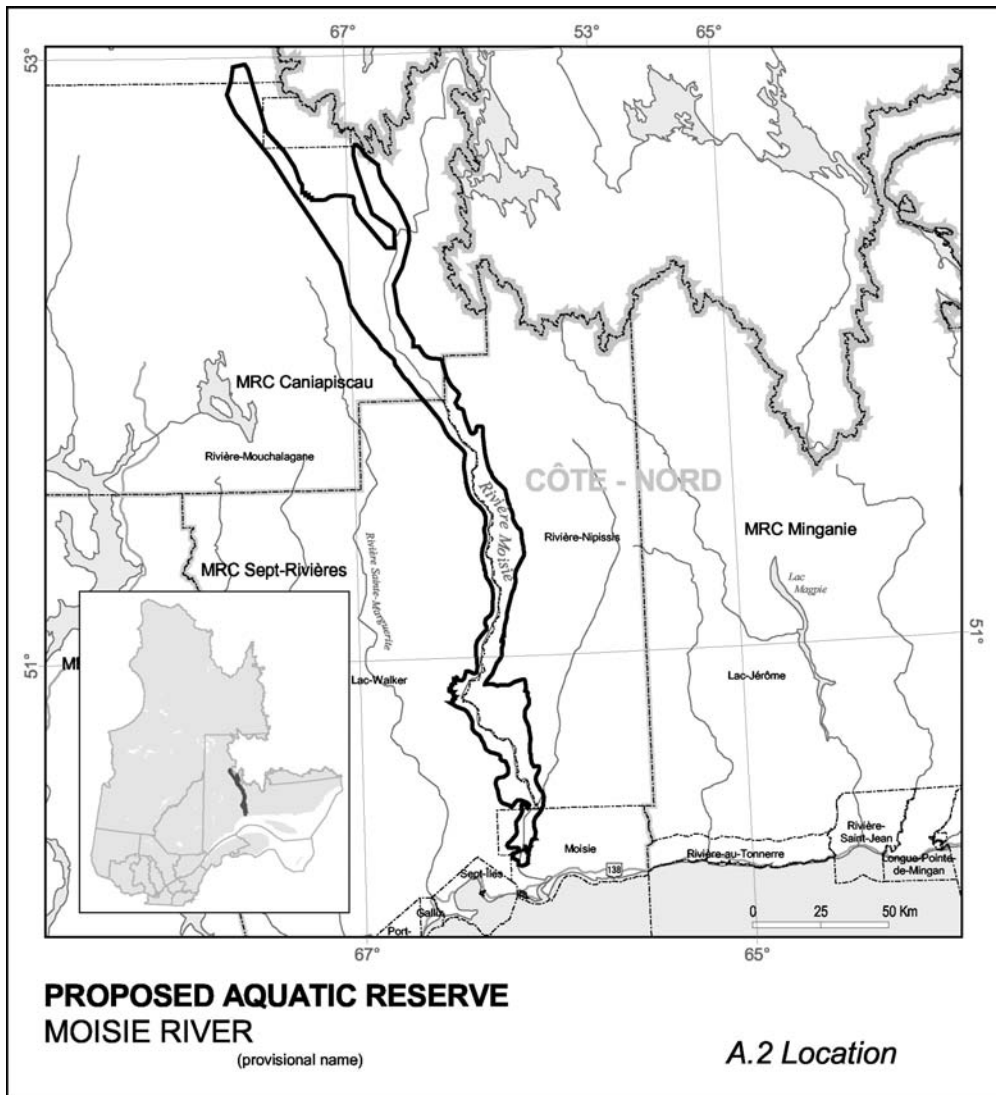
The permanent protection status envisaged for the reserve is "aquatic reserve" status under the Natural Heritage Conservation Act.

**SCHEDULES**

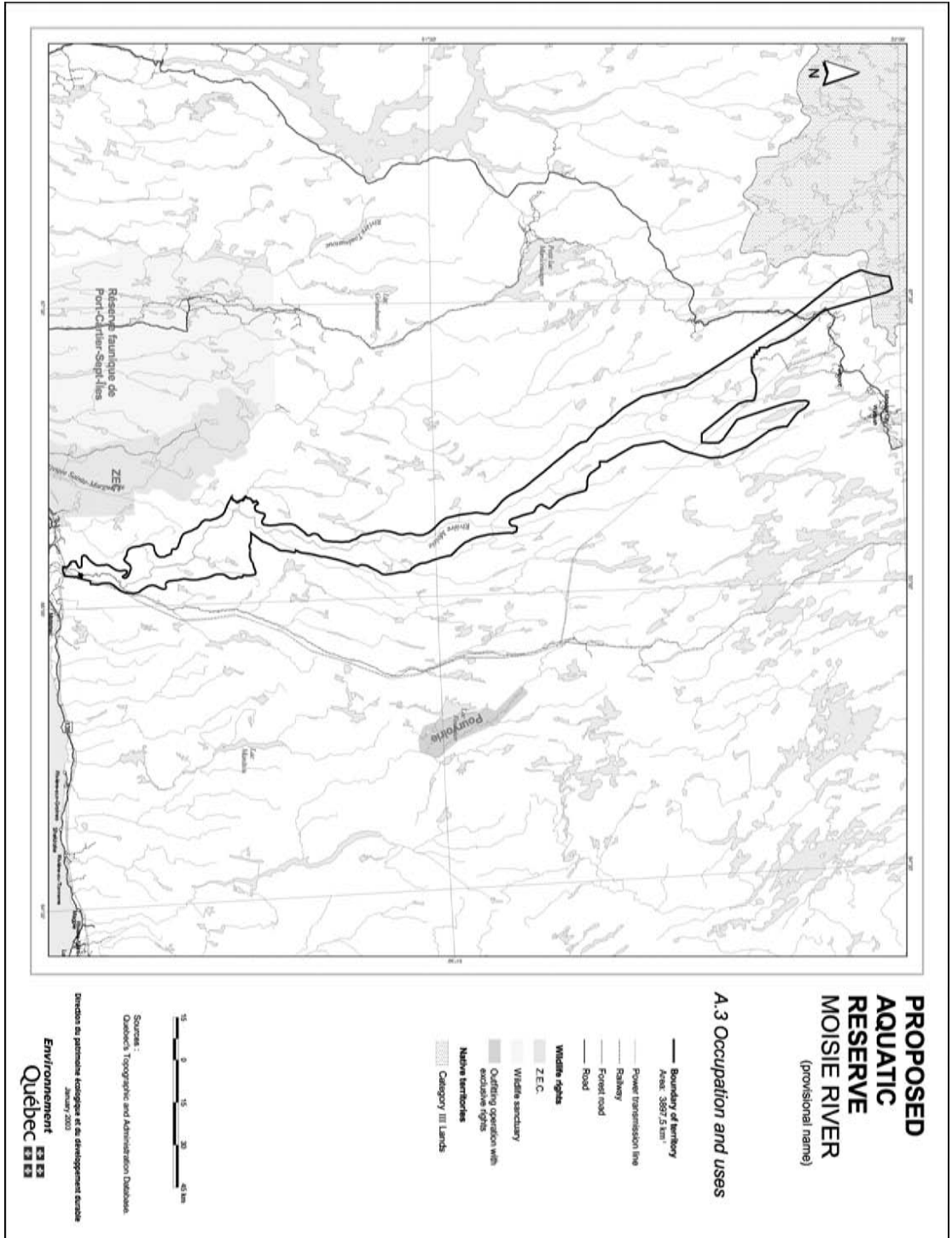
**A.1. Plan of the proposed Moisie river aquatic reserve (provisional name)**



**A.2. Map showing the location of the proposed Moisie river aquatic reserve (provisional name)**



A.3. Map showing land occupation and use in the proposed Moisie river aquatic reserve (provisional name)



## CONSERVATION PLAN OF THE PROPOSED NORTH HARRICANA RIVER AQUATIC RESERVE

### 1. Plan and description

#### 1.1. Geographic location, boundaries and dimensions

The plan of the proposed Harricana river aquatic reserve and its location are shown on the maps in Schedules A.1 and A.2.

The proposed north Harricana river aquatic reserve is located in the Nord-du-Québec region, between 50°0' and 50°11' latitude north and 79°7' and 79°20' longitude west. It is situated to the south of James Bay, roughly 110 km north-north-west of Ville de Matagami.

It lies within the territory of Municipalité de Baie James.

The proposed aquatic reserve covers an area of 250.8 km<sup>2</sup>. Its boundaries coincide roughly with what is visible to an observer from the centre of the river. It comprises a corridor between 1.5 km and 4.5 km wide, taking in the main bed of the Harricana river and the slopes of its valley, from km 125 to km 32 from its mouth, in other words the northern section of the river. The proposed aquatic reserve stops at the Ontario boundary, at roughly 30 km from the river mouth.

#### 1.2. Ecological overview

The area is in the natural province of the Abitibi and James Bay Lowlands. It protects part of a river that is characteristic of the natural region of the James Bay Coastal Plain and the natural region of the Turgeon River Plain.

##### 1.2.1. Representative elements

**Climate:** The watershed of the Harricana river is characterized by a cold subpolar, subhumid continental climate, with a middle growing season. It belongs to the bioclimatic field of mossy spruce stands.

**Geology and geomorphology:** The land in the proposed aquatic reserve is part of the Superior geologic province, whose bedrock is archaic (> 2.5 billion years). The substratum is formed, in the upstream portion, by felsic rock, with an intrusion of mafic rock, namely basalt. The river then runs over a base of mudrock, and then over carbonate rock (limestone and dolomite). During the various phases of the Quaternary, this geological

base was covered by thick deposits of silt and clay. The geomorphological formations are of glacial origin in the upstream portion, and of organic origin in the downstream portion. The surrounding landscape is a plain, sloping slightly to the north. The average altitude is 85 m, varying between sea level and 233 m.

**Hydrography:** The Harricana river is a Strahler 7 river. Along with the Nottaway, Broadback, Rupert and Eastmain rivers, is one of the main watercourses in the natural province. Its source lies in the Blouin, De Montigny, Lemoine and Mourier lakes, close to Val d'Or. It flows northward, crosses the Ontario border and empties into James Bay, with a total length of around 553 km. Its course through the proposed aquatic reserve is relatively straight. Its total navigable length of around 170 km makes the Harricana river the second longest navigable river in Canada.

**Vegetation:** Over one-third of the area of the proposed aquatic reserve is composed of peat bogs, most of which have developed on clays and silt and sometimes cover a large area in a single sweep, especially in the downstream portion of the river. Trees grow sparsely on another third of the reserve; the stands are mostly softwoods, with occasional mixed stands. Black spruce (*Picea mariana*) predominates, usually growing alongside balsam fir (*Abies balsamea*). Jack pine (*Pinus banksiana*) is the dominant species in sectors that have been disturbed by fire, especially on the dry sandy terraces. Around one-third of the forest cover is composed of trees over 90 years old.

##### 1.2.2. Outstanding elements

The proposed aquatic reserve is home to two stations of vascular plants living in palustrine habitats that are likely to be designated as threatened or vulnerable because of their limited distribution and the loss of their habitat. They are the Prairie Aster (*Solidago ptarmicoides*) and Richardson's Sedge (*Carex richardsonii*).

#### 1.3. Land occupation and use

The land occupations and uses in the proposed north Harricana river aquatic reserve are shown on the map in Schedule A.3.

The road network comprises only roads unsuitable for road vehicles.

No rights in land have been granted within the perimeter of the proposed aquatic reserve.

The proposed aquatic reserve is classified as Category III land under the James Bay and Northern Québec Agreement signed in 1975 and the Act respecting the land regime in the James Bay and New Québec territories (R.S.Q., c. R-13.1). Native and non-Native people are entitled to hunt and fish in the reserve, subject to the legislative and regulatory provisions governing wildlife development, including those implemented under the James Bay and Northern Québec Agreement. Native people have special rights regarding the utilisation of certain aquatic species and certain fur-bearing animals. The entire area is part of the Nottaway beaver reserve, in which the Cree community of Waskaganish has special rights concerning the hunting and trapping of fur-bearing animals.

## 2. Protection status

The proposed aquatic reserve safeguards the main bed of the Harricana river and some of the slopes of its valley. The area includes landscapes of high quality. The watercourse is, in addition, a high-quality habitat for the Atlantic salmon (*Salmo salar*).

Aquatic reserve status would allow the pursuit of the following conservation objectives:

- the conservation of a representative river in the natural region of the James Bay Coastal Plain;
- the preservation of biodiversity in aquatic and peat-based ecosystems;
- the preservation of the landscape visible from the bottom of the Harricana valley;
- the acquisition of new knowledge concerning natural and cultural heritage.

## 3. Activities within the reserve

All activities carried on within the proposed Harricana river aquatic reserve are governed by the provisions of the Natural Heritage Conservation Act (2002, c. 74).

Except for the prohibition mentioned in item 3.1.2, this conservation plan does not specify any prohibited activity other than those prohibited in proposed aquatic reserves by the Act; nor does it authorize any other activities, or set any additional constraints on the activities permitted by the Act.

## 3.1. Prohibited activities

### 3.1.1. General prohibitions enacted by law

For reference purposes, it is important to note that under the Natural Heritage Conservation Act, the main activities prohibited in an area designated as a proposed aquatic reserve are:

- mining, and gas or petroleum development;
- mining, gas or petroleum exploration, brine and underground reservoir exploration, prospecting, and digging or boring, where such activities necessitate stripping, the digging of trenches, excavation or deforestation;
- forest management activities within the meaning of section 3 of the Forest Act (R.S.Q., c. F-4.1);
- the development of hydraulic resources and any production of energy on a commercial or industrial basis;
- any new allocation of a right to occupy land for vacation resort purposes;
- earthwork, backfilling or construction work.

### 3.1.2. Additional prohibitions

In the proposed Harricana river aquatic reserve any type of activity likely to degrade the bed, banks or shores or to otherwise affect the integrity of any body of water or watercourse in the reserve is also prohibited.

## 3.2. Activities governed by other Acts

All activities carried on within the boundaries of the proposed Harricana river aquatic reserve remain governed by the other applicable legislative and regulatory provisions, including those that require the issue of a permit or authorization or the payment of fees. The carrying on of certain activities may also be prohibited or limited by other Acts or regulations applicable within the boundaries of the proposed aquatic reserve.

In particular, within the boundaries of the proposed aquatic reserve, special legal rules may govern permitted and prohibited activities in connection with:

- Archaeological research (especially the measures contained in the Cultural Property Act (R.S.Q., c. B-4));



— Utilisation of wildlife resources (especially the measures contained in the Act respecting the conservation and development of wildlife (R.S.Q., c. C-61.1), the regulation on beaver reserves and the Act respecting hunting and fishing rights in the James Bay and New Québec territories (R.S.Q., c. D-13.1));

— Access (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1));

— Land rights (especially the measures contained in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1) and in leases issued by the Minister of Natural Resources).

### 3.3. Supervision of activities

The Minister of the Environment is responsible for the application of the Natural Heritage Conservation Act; and is also responsible for the proposed aquatic reserves established under that Act. The Minister will supervise and monitor the measures contained in the Act with regard to permitted activities in protected areas.

All other government departments and bodies will retain their responsibilities as set out in all the legislative and regulatory texts that apply within a proposed aquatic reserve.

The Minister of Natural Resources will supervise all activities subject to the Minister's authority within the proposed Harricana river aquatic reserve, in particular as regards permitted forms of land occupation.

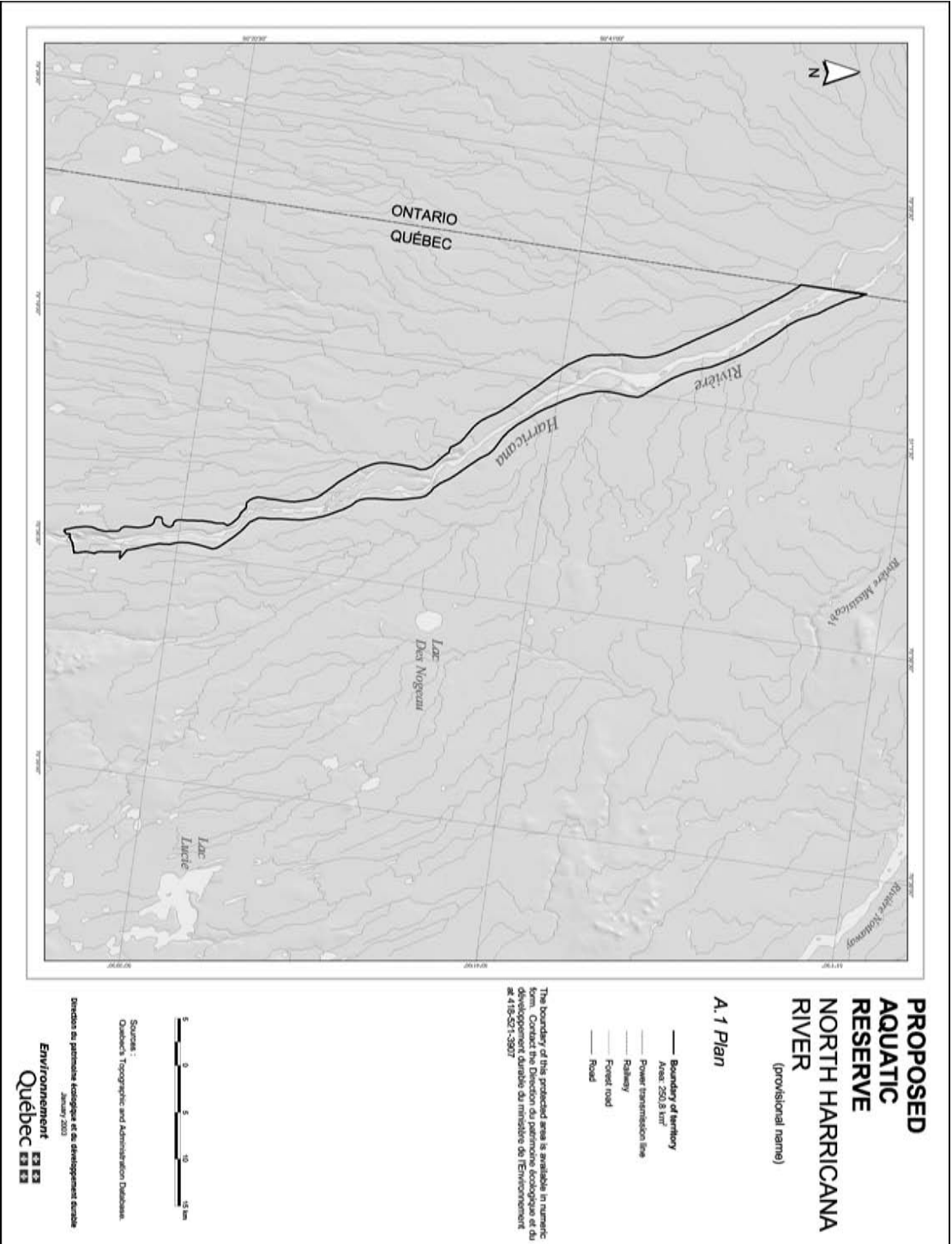
The Société de la faune et des parcs du Québec (FAPAQ) remains responsible for supervising the activities relating to wildlife protection and management that are under its responsibility.

### 4. Permanent protection status

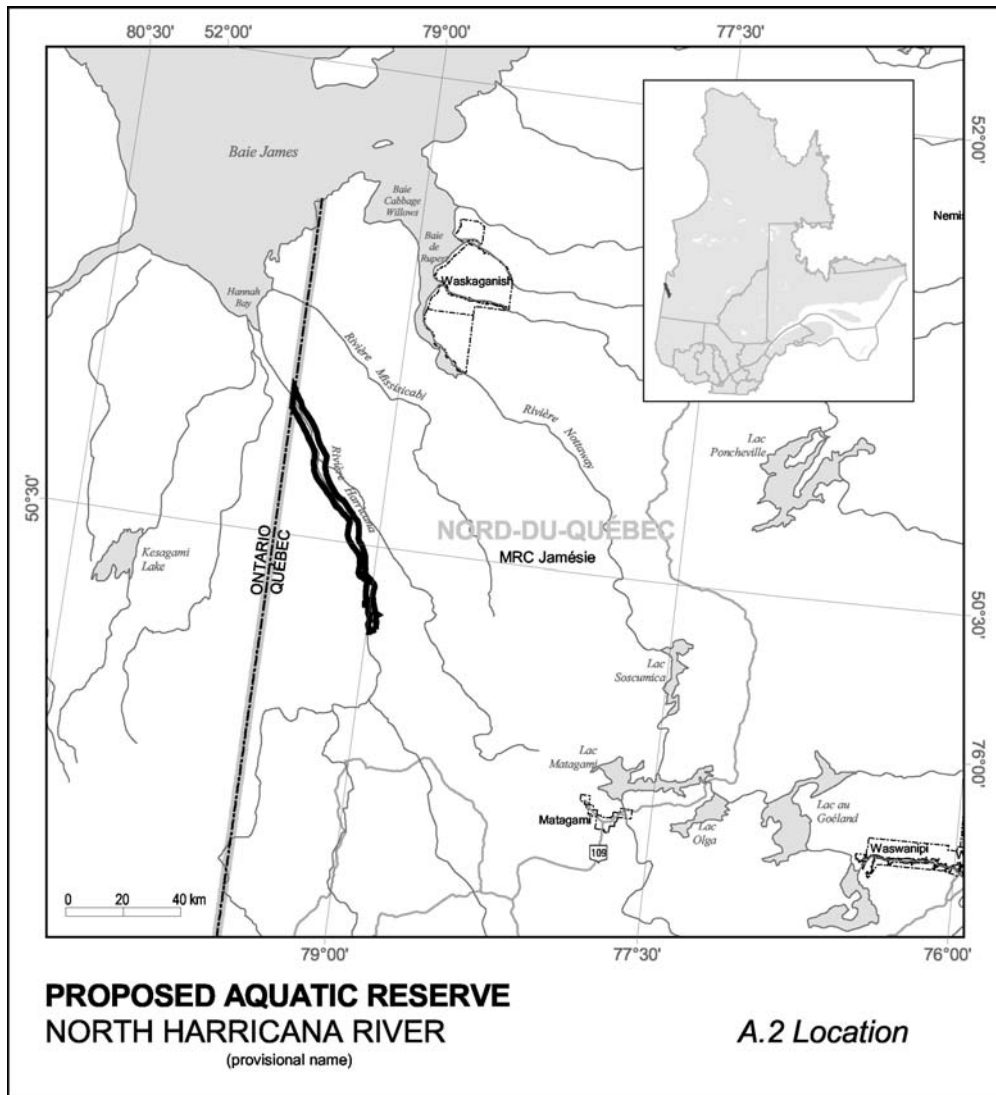
The permanent protection status envisaged for the reserve is "aquatic reserve" status under the Natural Heritage Conservation Act.

SCHEDULES

A.1. Plan of the proposed North Harricana river aquatic reserve (provisional name)



**A.2. Map showing the location of the proposed North Harricana river aquatic reserve (provisional name)**



A.3. Map showing land occupation and use in the proposed North Harricana river aquatic reserve (provisional name)

