# QUÉBEC STRATEGY FOR PROTECTED AREAS



Réserve de biodiversité projetée des Caribous-Forestiers-de-Manouane-Manicouagan

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### 1 Protection status and toponym

The legal protection status of the territory described below is that of "proposed biodiversity reserve", a status governed by the *Natural Heritage Conservation Act* (chapter C-61.01).

The permanent protection status to be granted at the end of the process is that of "biodiversity reserve", this status also being governed by the *Natural Heritage Conservation Act.* 

The provisional toponym is "Réserve de biodiversité projetée des Caribous-Forestiers-de-Manouane-Manicouagan". The official toponym will be determined when the territory is given permanent protection status.

#### 2 Conservation objectives

Réserve de biodiversité projetée des Caribous-Forestiers-de-Manouane-Manicouagan was created specifically to protect the woodland caribou and its habitat. This ecotype of the woodland caribou (Rangifer tarandus caribou) is designated vulnerable in Québec, under the Act respecting threatened or vulnerable species (chapter E-12.01), and threatened in Canada, under the Species at Risk Act (SC 2002, c 29). Given the close association between the woodland caribou and culture of the Innus, the proposed reserve will also contribute to the protection and advancement of their traditional activities<sup>1</sup>. The proposed reserve will also protect representative ecosystems of several large

<sup>1</sup> "Innu Aitun" in the Entente de principe d'ordre général entre les Premières Nations de Mamuitun et de Nutashkuan et le gouvernement du Québec et le gouvernement du Canada (2004). ecological units of this part of Québec (see section 3.2).

## 3 Plan and description

# *3.1* Geographical location, boundaries and dimensions

Réserve biodiversité de projetée des Caribous-Forestiers-de-Manouane-Manicouagan will eventually be enlarged to include, in whole or in part, the adjacent Réserve de territoire aux fins d'aire protégée des Caribous-Forestiers-de-Manouane-Manicouagan (land reserve for purposes of a protected area). The boundaries and location of the proposed reserve and adjacent land reserve are illustrated in Schedule 1. Where they adjoin Réservoir Manicouagan, these boundaries correspond to the maximum critical water level of the reserve, which is 362.7 m.

The proposed reserve covers an area of 7,814 km<sup>2</sup> split almost equally between the regions of Côte-Nord (49%) and Saguenay–Lac-Saint-Jean (51%). Ultimately, with the annexation of the land reserve for purposes of a protected area, its total area will be more than 10,000 km<sup>2</sup>, with the largest part being in Côte-Nord. The proposed reserve extends between 50°32' and 52°29' north latitude and between 68°18' and 70°58' west longitude.

To the west, the proposed reserve is in the MRC (regional county municipality) of Fjord-du-Saguenay, in the region of Saguenay–Lac-Saint-Jean. To the east, it is split between Caniapiscau MRC (to the north) and Manicouagan MRC (to the south), in Côte-Nord. The proposed reserve is mostly in the Nitassinan of the Innu community of Pessamit, with a portion to the west being in

the Nitassinan of the community of Mashteuiatsh<sup>2</sup>. Northeastern portion coincides with a territory of interest for the Innu communities of Matimekush-Lac John and Uashat mak Mani-Utenam.

The proposed reserve is composed of five sectors. The first sector extends from Réservoir Manouane to the west bank of Rivière Mouchalagane and includes some of the islands in Réservoir Manouane, lakes Double and Manouanis, part of the Montagnes Blanches, and lakes À la Croix and Plétipi. It covers 5,995 km<sup>2</sup> and includes (to the southeast) an arm running the upper slopes of the west bank of Rivière aux Outardes. The second sector (235 km<sup>2</sup>) is on the other side of the same river. The third sector is to the west of Réservoir south of Rivière Manicouagan and Mouchalagane (756 km<sup>2</sup>). The fourth sector is north of Réservoir Manicouagan (222 km<sup>2</sup>), while the fifth (606 km<sup>2</sup>) straddles a stretch of Rivière de la Racine de Bouleau.

Three of the sectors are linked by the Réserve de territoire aux fins d'aire protégée des Caribous-Forestiers-de-Manouane-Manicouagan (2,377 km<sup>2</sup>). The five sectors combined, together with the land reserve for purposes of a protected area, form a protected area of 10,194 km<sup>2</sup>, which is within the range recommended in the literature for a protected area to be able to sustain a population of woodland caribou, namely from 9,000 km<sup>2</sup> to 13,000 km<sup>2</sup> (Wilkinson, 2008).

The following sections describe the combined territories of the proposed reserve and land

reserve. The latter covers 2,377 km<sup>2</sup> and is located north of Réservoir Manicouagan, nearly 200 km northwest of Baie-Comeau and about 85 km southwest of Fermont. For simplicity, the two territories combined will be referred to as "Aire protégée des Caribous-Forestiers-de-Manouane-Manicouagan".

#### 3.2 Ecological portrait

Aire protégée des Caribous-Forestiers-de-Manouane-Manicouagan is for the most part in three natural regions: the Lac Manouane depression, the Manouanis massif and the basin of Réservoir Manicouagan, all of which are in the heart of the Central Laurentian natural province. A small portion to the north of Lac Plétipi is in the Mistassini Highlands natural province.

#### Climate

The territory is subject to a cold subarctic climate (-6.0 °C to 1.5 °C), subhumid with annual precipitation ranging from 800 mm to 1,359 mm, with a medium growing season (150 to 179 days). In the northern part of the protected area and on higher elevations, the growing season is short (120 to 149 days).

<sup>&</sup>lt;sup>2</sup> Entente de principe d'ordre général entre les Premières Nations de Mamuitun et de Nutashkuan et le gouvernement du Québec et le gouvernement du Canada (2004).

#### Geology and geomorphology

The territory of Aire protégée des Caribous-Forestiers-de-Manouane-Manicouagan is in Grenville geological province. The western portion is mostly in the Complexe d'Épervanche, which dates from the Archean and is composed of undivided essentially gneisses, with paragneiss around Lac Plétipi. However, the Montagnes Blanches massif and the Lac Tétépisca sector are part of a complex dating from the Paleoproterozoic that is mostly anorthosite. The Duley Formation, in the Lac Matonipi sector, is characterized by the presence of marbles, dolomites and calcareous rocks of interest for plant life. The eastern portion of the protected area is part of the Gagnon Group (chiefly composed of graphitic schistose paragneiss), and also overlaps the Wabush Formation (composed of iron formations).

With a varied geomorphology due to its large surface area, the proposed protected area is representative of the four main physiographic complexes in which it is located.

The portions that are in the physiographic complexes of the Lac Manouane mounds and Lac Plétipi mounds, which are very similar, essentially consist of mounds and low hills, with undifferentiated glacial deposits. Organic deposits are also present, in hollows and flat areas, while fluvioglacial deposits are found in the valleys and on the banks of water bodies.

Separating the two complexes above, the physiographic complex of Lac Manouanis low hills is quite rugged, corresponding to the part of the massif that is in the protected area. It is composed of low hills in the Lac Manouanis sector, and high hills and mountains in the Montagnes Blanches massif sector, all the way to Lac Tétépisca. The surface deposits are mostly undifferentiated till, thinning with elevation. There are numerous summits and escarpments with outcrops of rock.

Lastly, the most northern physiographic complex is the Gagnon low hills. Most of the land reserve for purposes of a protected area is located here. It consists essentially of knolls, mounds and low hills. East of Rivière Seignelay there are a few high hills around Réservoir Manicouagan. Surface deposits are mostly undifferentiated till, with dead-ice moraines here and there. Organic deposits are also found, in the hollows, though they are more common in the land reserve for purposes of a protected area than in the proposed reserve.

#### Hydrography

Spread across the watersheds of the Manicouagan, Aux Outardes, Betsiamites and Saguenay rivers, the protected area will contribute to the protection of these water courses.

With its large area, the protected area will include more than 8,100 lakes and other bodies of water totalling over 1,000 km<sup>2</sup> of aquatic environments and nearly 9,000 km of shoreline. At about 339 km<sup>2</sup>, the largest body of water is Lac Plétipi. There are some 5,500 km of streams and small rivers.

#### Flora

The territory lies in the bioclimatic domain of black spruce/moss forests in the continuous boreal forest sub-zone. Forests dominated by black spruce (*Picea mariana*) cover almost 62% of the land. There are nearly pure stands of spruce (30% minimum), but the black spruce can also be accompanied by balsam fir (*Abies balsamea*), jack pine (*Pinus banksiana*), paper birch (*Betula papyrifera*), trembling aspen (*Populus tremuloïdes*), tamarack (*Larix laricina*) and white spruce (*Picea glauca*). Beneath these stands of mostly black spruce there are either mosses (69%) or lichens (31%). Stands dominated by jack pine, fir, white birch, trembling aspen and tamarack can also be found, but the proportions of each represent less than 3% of the territory's terrestrial area.

The great majority (79%) of forest stands in the protected area are over 80 years old, a crucial fact because in order to feed in winter, woodland caribou need old coniferous forests that are rich in ground and tree lichens (Hins and coll., 2009). Almost 95% of the forest stands are over 40 years old. Within or on the borders of the protected area, 36 biological refuges have been created to conserve mature or overmature forests and to maintain their biological diversity.

Using the disturbance rate calculation method set out in the Lignes directrices pour l'aménagement de l'habitat du caribou forestier (Équipe de rétablissement du caribou forestier du Québec, 2013b), about 17% of the territory of the protected area can be considered disturbed. However, almost all the disturbances are of a temporary nature. Over 16% of the territory has been disturbed by forest fires, the principal natural disturbance here. Such fires are the chief cause of forest rejuvenation in the area, since it has undergone forestry development. never Permanent disturbances take up only 0.3% of the territory, mostly recreation leases scattered fairly evenly throughout the protected area.

Turning to plant species that are rare, vulnerable, threatened or likely to be so designated, very few plant surveys have been done in the territory. However, a colony of Drummond's mountain-avens (*Dryas drummondii*), a rare calcicolous species, has been found on a cliff on Île Phil, in Lac Matonipis (Cossette et Blondeau, 2006).

#### Fauna

The protected area will chiefly serve to protect sectors of importance for woodland caribou. The boundaries were drawn to include high quality woodland caribou habitats that had been identified previously as priorities for the creation of large protected areas for woodland caribou (Leblond et coll., 2015).

Use of the territory by caribou was confirmed by a survey conducted in 2014. Certain sectors, such as the one stretching from Lac Plétipi to Rivière de la Racine de Bouleau, which includes the land reserve for purposes of a protected area, have the highest levels of caribou use identified in Québec (Heppell, 2015).

In the 2014 survey, the various demographic parameters observed suggest that the sector<sup>3</sup> has a stable caribou population, with 56 males 100 females and 30.3 fawns per per 100 females, for a recruitment rate of 16%. Mortality rates have yet to be determined, which would better define the demographic trend of populations in the protected area (Heppel, 2015). Fortin et al. (2017) have identified three populations that use the territory: the

<sup>&</sup>lt;sup>3</sup> Note that woodland caribou populations in Côte-Nord are currently defined by sector, not by counts of the individuals in common staging areas.

Témiscamie population, which uses the area north of Réservoir Manouane; the population west of the Manicouagan; and the population east of the Manicouagan. The three territories partially overlap. In recent years a large number of caribou have been outfitted with telemetry collars, which will validate and refine our understanding of local populations in the area.

The woodland caribou is considered an "umbrella species" (Bichet and coll., 2016), meaning one whose habitat needs and home range size are such that protecting them will also serve to protect other species using the same ecosystem. Drever *et al.* (2019) have analyzed the value of woodland caribou as an umbrella species (or focal species). Their conclusion underlines the high value of this species for the conservation of wildlife diversity in the boreal forest, a factor to consider when choosing which areas to protect in its range.

Other vulnerable wildlife species have also been identified in the protected area, including occurrences of bald eagle (*Haliaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*) and the eastern population of Barrow's goldeneye (*Bucephala islandica*).

#### 3.3 Sociocultural portrait and land uses

The Ministère de la Culture des et Communications has yet to identify archeological sites that would confirm an Aboriginal presence in the protected area; however, the many place names of Innu origin testify to their presence and ancestral use of the territory. As with lakes Plétipi and Manouane, Rivière aux Outardes and Rivière Betsiamites were important water routes for the Innu. Woodland caribou have always been of great cultural and spiritual importance to the Innu, the caribou being a key symbol in Innu culture. For centuries, caribou and bear have been the only large game animals in this region, making a major contribution to Innu subsistence. Apart from being food, caribou also served in the making of clothing, shelters, tools and handicrafts. A 1982 study by the Conseil Attikamek-Montagnais (CAM) showed that there are Innu cultural and heritage sites throughout the protected area.

Aire protégée des Caribous-Forestiers-de-Manouane-Manicouagan is entirely on Crown lands. It chiefly overlap the Pessamit Nitassinan but also to the west part of the Mashteuiatsh Nitassinan<sup>4</sup>. To the northeast, it also overlies part of the territory of interest to the Innu communities of Matimekush-Lac John and Uashat mak Mani-Utenam.

The protected area is in the Bersimis beaver reserve (fur-bearing animal management unit [FAMU] 56), touching on a small part of Roberval beaver reserve (UGAF 50) to the west, and a small part of Saguenay beaver reserve (UGAF 60) to the east. Note that the *Regulation respecting beaver reserves* (chapter C-61.01, r 28) stipulates that in certain beaver reserves, including Bersimis and Roberval, only Aboriginals may engage in the trapping or hunting of fur-bearing animals.

Some 87 land rights have been granted in the protected area. These include 16 leases for a temporary forest shelter and 61 resort leases. Some are within the territory covered by an authorization granted to Hydro-Québec for the

<sup>&</sup>lt;sup>4</sup> Entente de principe d'ordre général entre les Premières Nations de Mamuitun et de Nutashkuan et le gouvernement du Québec et le gouvernement du Canada (2004).

operation of Réservoir Manicouagan. Relocation of these authorized leases, with or without construction, will be possible in both the proposed reserve and the land reserve for purposes of a protected area. However, notwithstanding the provisions of Schedule 2 of this conservation plan, such relocation will require (administratively) that new rights be issued for the new location, to be agreed between the MERN and the MELCC, including buildings and improvements associated with the use for which the rights are issued. In addition to the above, there are six outfitters in the protected area, all dating from before it was given protected status. The Lac Matonipi outfitter has exclusive fishing rights in lakes Matonipis and Matonipi; all of its territory is in the protected area. The Plétipi and Normandin outfitters, also entirely inside the protected area, do not have exclusive hunting or fishing rights, offering fishing or big game hunting with accommodation. The remaining three outfitters have most of their territory outside the protected area. Finally, there is one lease for forest conservation and protection.

Three sites in the protected area have been placed at the disposal of Hydro-Québec<sup>5</sup>. The first is a meteorological station near Rivière Seignelay; the second is a snow-measuring site near Lac la Bouille; and the third is a proposed snow-measuring site. The eastern part of the protected area is in hunting and fishing zone 19, while the western part is in hunting and fishing zone 29.

On the subject of accessibility, no roads of any kind offer overland access to the protected area. The territory is only accessible by air, snowmobile or canoe. However, there is a nonpassable track connecting buildings on the shores of lakes Matonipi and Matonipis.

In winter, off-trail snowmobilers from Lac Manouane can follow the south-north axis of Lac Plétipi to reach the Monts Otish massif to the north. Another off-trail snowmobile route from Relais-Gabriel goes from west to east to join the trail to the Monts Otish.

The lakes and water courses of the protected area are occasionally used by canoe-camping enthusiasts. After reaching Lac Bacouel by seaplane, they descend the Matonipi and Aux Outardes rivers, crossing lakes Matonipis and Matonipi.

# 4 Activities framework applicable to the proposed biodiversity reserve

The purpose of the reserve is to protect the woodland caribou and its habitat, together with natural environments and their components. For this reason, activities that could have a significant impact on ecosystems and biodiversity, especially of an industrial nature, are prohibited. For the moment, all activities and occupations present in the proposed reserve are maintained. Since woodland caribou are sensitive to human disturbance<sup>6</sup>, activities and applications

<sup>&</sup>lt;sup>5</sup> Under section 32 of the *Hydro-Québec Act* (chapter H-5), the Minister of Energy and Natural Resources or the Minister of Environment and the Fight against Climate Change, each according to his competence, may, with the authorization of the Government and on the conditions it may fix, place at the disposal of the Company, for purposes of development, any immovables or water powers forming part of the domain of the State and required for the objects of the Company.

<sup>&</sup>lt;sup>6</sup> For further details, see the *Plan de rétablissement du caribou forestier (*Rangifer tarandus caribou) au *Québec* (Équipe de rétablissement du caribou forestier du Québec, 2013a).

for authorization will be studied in terms of their impact on the caribou.

When permanent protection status is granted to this territory, more precise protection objectives will be adopted and the compatibility of these activities and occupations will be evaluated.

# 4.1 Activities framework established by the Natural Heritage Conservation Act

Activities carried out within the biodiversity reserve are primarily governed by the provisions of the *Natural Heritage Conservation Act* (chapter C-61.01).

Under section 34 of the Act, the activities prohibited in an area with the status of proposed biodiversity reserve are primarily the following:

- mining and gas or oil extraction
- forest management within the meaning of section 4 of the Sustainable Forest Development Act (chapter A-18.1)
- the exploitation of hydraulic resources and any production of energy on a commercial or industrial basis

Though fundamental to protecting the territory and its ecosystems, the above prohibitions do not cover all of the standards considered desirable to ensure the proper management of the proposed reserve and the conservation of its natural environment. The *Natural Heritage Conservation Act* allows the conservation plan to detail the legal framework applicable on the territory of the proposed reserve.

# 4.2 Activities framework established by the present conservation plan

The provisions contained in Schedule 2 of the present conservation plan set out additional prohibitions beyond those already stipulated in the Act. They also provide a framework for certain permitted activities, to ensure the protection of the natural environment in accordance with the principles of conservation and other management objectives of the proposed reserve. Certain activities are therefore subject to prior authorization by the Minister.

The measures presented in Schedule 2 concern new interventions in particular, and generally do not affect activities that are already being practised or facilities that are already present. Many existing uses are thus preserved.

In listing the activities requiring authorization, Schedule 2 does not identify which ones would be considered incompatible with the vocation of the reserve and could therefore be refused authorization. A proposed biodiversity reserve is managed in a very similar way to a permanent biodiversity reserve. Thus, basic information about the compatibility or incompatibility of each type of activity can be found in the document *Activity Framework for Biodiversity Reserves and Aquatic Reserves, which is available on the website of the* Ministère de l'Environnement et de la Lutte contre les changements climatiques at:

http://www.environnement.gouv.qc.ca/biodiversit e/aires\_protegees/regime-activites/regimeactivite-reserve-bio-aqua-en.pdf Note that certain activities are exempted from the requirement to obtain authorization. These exemptions are also presented in Schedule 2.

When permanent protection status is granted, the activities framework of the biodiversity reserve could be modified, based on knowledge acquired and public consultations, to optimize protection of the woodland caribou.

#### 4.3 Zoning

Since the common objective of the entire territory is to protect the habitat of the woodland caribou, the proposed reserve has a single zone. When permanent protection status is granted, zoning could be adapted if necessary, based on knowledge acquired and public consultations.

#### 5 Activities governed by other laws

Certain activities that could potentially be practised in the biodiversity reserve are also governed by other applicable legislative and regulatory provisions, and some require a permit or authorization or the payment of certain fees. Certain activities could be prohibited or limited under other laws or regulations applicable on the territory of the proposed reserve.

In the territory of the proposed reserve, a particular legal framework may govern permitted activities under the following categories:

#### Protection of the environment

Measures stipulated by the *Environment Quality Act* (chapter Q-2) and its regulations.

#### - Biological refuges

Protection measures stipulated by the *Sustainable Forest Development Act* (chapter A-18.1, sections 27 to 30).

## Plant species designated as threatened or vulnerable

Measures prohibiting the harvesting of such species under the *Act respecting threatened or vulnerable species* (chapter E-12.01).

## Exploitation and conservation of wildlife resources

Measures stipulated by the Act respecting the Conservation and Development of Wildlife (chapter C-61.1) and its regulations, including provisions relating to threatened or vulnerable wildlife species, wildlife habitats, outfitters, controlled harvesting zones (ZECs), leases with exclusive hunting and fishing rights, and beaver reserves; and measures in the applicable federal laws and regulations, including the legislation and regulations on fisheries.

#### - Archeological research and discoveries

Measures stipulated by the *Cultural Heritage Act* (chapter P-9.002).

# Access and property rights related to the domain of the State

Measures set out in particular by the Act Respecting the Lands in the Domain of the State (chapter T-8.1) and the Watercourses Act (chapter R-13).

 Issuance and oversight of forest development permits (harvesting of firewood for domestic purposes, wildlife development, recreational development) and delivery of authorizations (forest roads)

Measures stipulated by the *Sustainable Forest Development Act* (chapter A-18.1).

#### - Travel

Measures stipulated by the Act Respecting the Lands in the Domain of the State and by the regulations on motor vehicle travel in fragile environments, under the Environment Quality Act.

#### - Construction and development standards

Regulatory measures adopted by local and regional municipal authorities in accordance with the applicable laws.

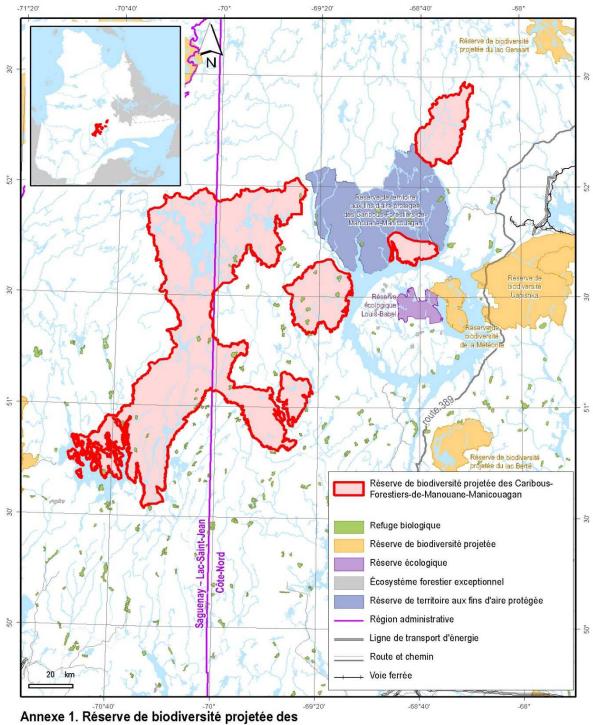
# 6 Responsibilities of the Minister of Environment and the Fight against Climate Change

The Minister of Environment and the Fight against Climate Change is responsible for the conservation and management of Réserve de biodiversité projetée des Caribous-Forestiers-de-Manouane-Manicouagan. Among other things, the Minister sees to the control and supervision of activities that take place there. In his management, the Minister enjoys the collaboration and participation of other government representatives that have specific responsibilities in or adjacent to the territory, including the Minister of Energy and Natural Resources and the Minister of Forests, Wildlife and Parks, and their delegates. In performing their functions they will take into account the protection desired for these natural environments and the protection status they are now granted.

# **Bibliography**

- BICHET, O., A. DUPUCH, C. HÉBERT, H. LEBORGNE and D. FORTIN. 2016. "Maintaining animal assemblages through single-species management: the case of threatened caribou in boreal forest". *Ecological Applications*, Vol. 26, No. 2, pp. 612-623.
- COSSETTE, N., and M. BLONDEAU. 2006. "Deux nouvelles stations de dryade de Drummond (*Dryas drummondii*) sur la Côte-Nord (Québec)". La Société Provencher d'histoire naturelle du Canada, dans *Le Naturaliste canadien*, Vol. 130, No. 2, pp. 28-32.
- DREVER, CR, C. HUTCHISON, MC DREVER, D. FORTIN, C.A. JOHNSON and Y.F. WIERSMA. 2019. Conservation through co-occurrence: Woodland caribou as a focal species for boreal biodiversity. Biological Conservation. 232: 238-252
- ÉQUIPE DE RÉTABLISSEMENT DU CARIBOU FORESTIER DU QUÉBEC. 2013a. *Plan de rétablissement du caribou forestier (*Rangifer tarandus caribou*) au Québec 2013-2023.* Produit pour le compte du ministère du Développement durable, de l'Environnement, de la Faune et des Parcs du Québec, Faune Québec, 110 pages.
- ÉQUIPE DE RÉTABLISSEMENT DU CARIBOU FORESTIER DU QUÉBEC. 2013b. Lignes directrices pour l'aménagement de l'habitat du caribou forestier (Rangifer tarandus caribou). Produites pour le compte du ministère du Développement durable, de l'Environnement, de la Faune et des Parcs, 24 pages et 1 annexe.
- FORTIN, D., F. BARNIER, P. DRAPEAU, T. DUCHESNE, C. DUSSAUL, S. THEPPELL, M.-C. PRIMA, M.-H. ST-LAURENT and G. SZOR. 2017. Forest productivity mitigates human disturbance effects on late-seral prey exposed to apparent competitors and predators. Scientific Reports, 7, 6370 10.1038/s41598-017-06672-4
- HEPPELL, S. 2015. *Inventaire aérien du caribou forestier (*Rangifer tarandus caribou*) au nord du réservoir Manicouagan en mars 2014.* Québec, ministère des Forêts, de la Faune et des Parcs, Direction de la gestion de la faune Côte-Nord, 18 pages et annexes.
- HINS, C., J.-P. OUELLET, C. DUSSAULT and M.-H. ST-LAURENT. 2009. "Habitat selection by forestdwelling caribou in managed boreal forest of eastern Canada: Evidence of a landscape configuration effect". *Forest Ecology and Management*, Vol. 257, No. 2, pp. 636-643.
- LEBLOND, M., and COLL. 2015. *Identification de secteurs prioritaires pour la création de grandes aires protégées pour le caribou forestier*. Groupe de mise en œuvre sur les aires protégées de l'Équipe de rétablissement du caribou forestier au Québec, 28 pages et annexe.
- WILKINSON, C. J. A. 2008. "An examination of recovery planning for forest-dwelling woodland caribou (*Rangifer tarandus caribou*) in Ontario, Canada". *Rangifer,* Vol. 28, No. 1, pp. 13-32.

# SCHEDULE 1: MAP OF RÉSERVE DE BIODIVERSITÉ PROJETÉE DES CARIBOUS-FORESTIERS-DE-MANOUANE-MANICOUAGAN



Caribous-Forestiers-de-Manouane-Manicouagan Localisation et contexte régional

# SCHEDULE 2: ACTIVITIES FRAMEWORK

PROHIBITIONS, PRIOR AUTHORIZATIONS AND OTHER CONDITIONS GOVERNING CERTAIN ACTIVITIES IN THE RÉSERVE DE BIODIVERSITÉ PROJETÉE DES CARIBOUS-FORESTIERS-DE-MANOUANE-MANICOUAGAN

#### §1 – Protection of resources and the natural environment

1. No person may remove, capture, displace, disturb or harm a fauna or flora species designated as threatened, vulnerable or likely to become so in the proposed biodiversity reserve, unless the person has been authorized by the Minister.

Despite the first paragraph, the Minister of Forests, Wildlfie and Parks is not required to obtain an authorization to capture or disturb woodland caribou for inventory and follow-up purposes.

2. Subject to the prohibition in the second paragraph, no person may introduce native or non-native species of fauna into the proposed biodiversity reserve, including by stocking, unless the person has been authorized by the Minister.

No person may stock a lake or watercourse for aquaculture, commercial fishing or any other commercial purpose.

No person may introduce a non-native species of flora into the proposed biodiversity reserve, unless the person has been authorized by the Minister.

**3.** No person may use fertilizer or fertilizing material in the proposed biodiversity reserve. Compost for domestic purposes is permitted if used at least 20 metres from a lake or watercourse measured from the highwater mark.

The high-water mark is determined in accordance with the Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains (chapter Q-2, r. 35).

4. No person may remove in the proposed biodiversity reserve species of flora, small fruits or any other nontimber forest product by mechanical means.

**5.** No person may in the proposed biodiversity reserve, unless the person has been authorized by the Minister,

(1) intervene in a wetland area, including a marsh, swamp or peatlands;

(2) modify the natural drainage or water regime, including by creating or developing lakes or watercourses;

(3) dig, fill, obstruct or divert a lake or watercourse;

(4) install or erect any structure, infrastructure or new works in or on the littoral zone, banks, shores or floodplain of a lake or watercourse, although no authorization is required for minor works — wharf, platform or boathouse — erected for private purposes and free of charge under section 2 of the Regulation respecting the water property in the domain of the State (chapter R-13, r. 1);

(5) carry on any activity other than those referred to in paragraphs 1 to 4 that is likely to directly and substantially affect the quality or biochemical characteristics of wetlands and bodies of water in the proposed biodiversity reserve, including by discharging or dumping residual materials or pollutants therein;

(6) carry out soil development work or carry on an activity that is likely to degrade the soil or a geological formation or damage the vegetation cover, such as stripping, the digging of trenches or excavation work, including any burial, earthwork, removal or displacement of surface materials or vegetation cover, for any purpose;

(7) install or erect any structure, infrastructure or new works;

(8) reconstruct or demolish a structure, infrastructure or works;

(9) use a pesticide, although no authorization is required for the use of personal insect repellent;

(10) carry on educational or research-related activities if the activities are likely to directly or significantly damage or disturb the natural environment, in particular because of the nature or size of the samples taken or the invasive character of the method or process used;

(11) hold a sports event, tournament, rally or similar event if, as the case may be,

- (a) fauna or flora species are removed or likely to be removed;
- (b) vehicles or crafts are used.

**6.** Despite paragraphs 6, 7 and 8 of section 5, no authorization is required to carry out the following work when the requirements of the second paragraph are met:

(1) work to maintain, repair or upgrade a structure, infrastructure or works such as a camp, cabin, road or trail, including ancillary facilities such as lookouts or stairs;

(2) the construction or erection of

(a) an appurtenance or ancillary facility of a trapping camp, rough shelter, shelter or cabin, including a shed, a water withdrawal facility or a discharge and disposal of waste water, grey water and toilet effluents;

(b) a trapping camp, a rough shelter, a shelter or a cabin if, on the effective date of the status as a proposed biodiversity reserve, such a building was allowed under the right of use or occupancy granted, but was not yet carried out;

(3) the demolition or reconstruction of a trapping camp, rough shelter, shelter or cabin, including an appurtenance or facility ancillary to such a construction, including a shed, a water withdrawal facility or a discharge and disposal of waste water, grey water and toilet effluents.

The work referred to in the first paragraph must comply with the following requirements:

(1) the work involves a structure, infrastructure or works permitted within the proposed biodiversity reserve;

(2) the work is carried out within the area of land or right of way subject to the right to use or occupy the land in the proposed biodiversity reserve, whether the right results from a lease, servitude or other form of title, permit or authorization;

(3) the nature of the work or elements erected by the work will not operate to increase the area of land that may remain deforested beyond the limits permitted under the provisions applicable to the sale, lease and granting of immovable rights under the Act respecting the lands in the domain of the State (chapter T-8.1) and, if applicable, the limits allowed under an authorization for the structure, works or infrastructure;

(4) the work is carried out in compliance with the conditions of a permit or authorization issued for the work or in connection with the structure, infrastructure or works involved, and in accordance with the laws and regulations that apply;

(5) in the case of forest roads, the work must not operate to alter or exceed the existing right of way, widen the roadway or convert the road to a higher class.

For the purposes of this section, repair and upgrading work includes work to replace or erect works or facilities to comply with the requirements of an environmental regulation.

7. No person may bury, incinerate, abandon or dispose of residual materials or snow elsewhere than in waste disposal containers, facilities or sites determined by the Minister or in another place with the authorization of the Minister.

Despite the first paragraph, an outfitting operation does not require an authorization to use a disposal facility or site in compliance with the Environment Quallity Act (chapter Q-2) and its regulations if the operation was already using the facility or site on the effective date of the status as a proposed biodiversity reserve.

### §2 – Rules of conduct for users

**8.** No person may enter, carry on an activity or operate a vehicle in a given sector of the proposed biodiversity reserve if the signage erected by the Minister restricts access, traffic or certain activities in the sector in order to protect the public from a danger or to avoid placing the fauna, flora or other components of the natural environment at risk, unless the person has been authorized by the Minister.

**9.** No person may destroy, remove, move or damage any poster, sign, notice or other types of signage posted by the Minister within the proposed biodiversity reserve.

#### §3 – Activities requiring an authorization

**10.** No person may occupy or use the same site in the proposed biodiversity reserve for a period of more than 90 days in the same year, unless the person has been authorized by the Minister.

For the purposes of the first paragraph,

(1) the occupation or use of a site includes

- (a) staying or settling in the proposed biodiversity reserve, including for vacation purposes;
- (b) installing a camp or shelter in the proposed biodiversity reserve;

(c) installing, burying or leaving property in the proposed biodiversity reserve, including equipment, any device or a vehicle;

(2) "same site" means any other site within a radius of 1 kilometre from the site.

Despite the first paragraph, no authorization is required if a person,

(1) on the effective date of the status as a proposed biodiversity reserve, was a party to a lease or had already obtained another form of right or authorization allowing the person to legally occupy the land under the Act respecting the lands in the domain of the State (chapter T-8.1) or, if applicable, the Act respecting the conservation and development of wildlife (chapter C-61.1), and whose right to occupy the land is renewed or extended on the same conditions, subject to possible changes in fees;

(2) in accordance with the law, has entitlement under a sublease, an assignment of a lease or a transfer of a right or authorization referred to in subparagraph 1, and whose right to occupy the land is renewed or extended on the same conditions, subject to possible changes in fees; or

(3) elects to acquire land the person legally occupies on the effective date of the status as a proposed biodiversity reserve, pursuant to the Act respecting the lands in the domain of the State.

**11.** No person may carry on forest management activities to meet domestic needs or for the purpose of maintaining biodiversity, unless the person has been authorized by the Minister.

Despite the first paragraph, the authorization of the Minister is not required if a person staying or residing in the proposed biodiversity reserve collects wood to make a campfire.

An authorization is also not required if a person collects firewood to meet domestic needs where the wood is collected to supply a trapping camp or a rough shelter permitted within the proposed biodiversity reserve in the following cases and on the following conditions:

(1) the wood is collected by a person in compliance with the conditions set out in the permit for the harvest of firewood for domestic purposes under the Sustainable Forest Development Act (chapter A-18.1);

(2) the quantity of wood collected does not exceed 7 apparent cubic metres per year;

(3) in all other cases:

(*a*) the wood is collected within a sector designated by the Minister of Forests, Wildlife and Parks as a sector for which a permit for the harvest of firewood for domestic purposes under the Sustainable Forest Development Act may be issued, and for which, on the effective date of the protection status as a proposed biodiversity reserve, a designation as such had already been made by the Minister;

(*b*) the wood is collected by a person who, on the effective date of the protection status as a proposed biodiversity reserve or in any of the 3 preceding years, held a permit for the harvest of firewood for domestic purposes allowing the person to harvest firewood within the proposed biodiversity reserve;

(c) the wood is collected by a person in compliance with the conditions set out in the permit for the harvest of firewood for domestic purposes issued by the Minister of Forests, Wildlife and Parks under the Sustainable Forest Development Act.

In addition, an authorization to carry on a forest management activity is not required if a person authorized by lease to occupy land within the proposed reserve in accordance with this conservation plan carries on the forest management activity for the purpose of (1) clearing, maintaining or creating visual openings, or any other similar removal work permitted under the provisions governing the sale, lease and granting of immovable rights under the Act respecting the lands in the domain of the State, including work for access roads, stairs and other trails permitted under those provisions; or

(2) clearing the necessary area for the installation, connection, maintenance, repair, reconstruction or upgrading of facilities, lines or mains for water, sewer, electric power or telecommunications services.

If the work referred to in subparagraph 2 of the fourth paragraph is carried on for or under the responsibility of an enterprise providing any of those services, the work requires the prior authorization of the Minister, other than in the case of the exemptions in sections 13 and 15.

**12.** No person may carry on commercial activities in the proposed biodiversity reserve, unless the person has been authorized by the Minister.

Despite the first paragraph, no authorization is required

(1) if the activity does not imply removal of fauna or flora resources or the use of a motor vehicle;

(2) to carry on commercial activities which, on the effective date of the status as a proposed biodiversity reserve, was the subject of a right to use the land for such a purpose, whether the right results from a lease or other form of title, permit or authorization, within the limits of the right.

## §4 – Authorization exemptions

**13.** Despite the preceding provisions, an authorization is not required for an activity or other form of intervention within the proposed biodiversity reserve if urgent action is necessary to prevent harm to the health or safety of persons, or to repair or prevent damage caused by a real or apprehended catastrophe. The person concerned must, however, immediately inform the Minister of the activity or intervention that has taken place.

**14.** Despite the preceding provisions, an authorization is not required for a member of a Native community for an intervention within the proposed biodiversity reserve where that intervention is part of the exercise of rights covered by section 35 of the Constitution Act, 1982 (Schedule B of the Canada Act, chapter 11 in the 1982 volume of the Acts of the Parliament of the United Kingdom) and those rights are credibly asserted or established.

**15**. Despite the preceding provisions, the following activities and interventions carried out by Hydro-Québec (hereinafter the "Société") or by any other person for Hydro-Québec do not require the prior authorization of the Minister under this plan:

(1) any activity or intervention required within the proposed biodiversity reserve to complete a project for which express authorization had previously been given by the Government and the Minister, or only by the latter, in accordance with the requirements of the Environment Quality Act (chapter Q-2), if the activity or intervention is carried out in compliance with the authorizations issued;

(2) any activity or intervention necessary for the preparation and presentation of a pre-project report for a project requiring an authorization under the Environment Quality Act;

(3) any activity or intervention relating to a project requiring the prior authorization of the Minister under the Environment Quality Act if the activity or intervention is in response to a request for a clarification or for additional information made by the Minister to the Société and it is carried out in accordance with the request.

The Société informs the Minister of the various activities or interventions referred to in this section it proposes to carry out before the work is begun within the proposed biodiversity reserve.

For the purposes of this section, the activities and interventions of the Société include but are not restricted to pre-project studies, analysis work or field research, work required to study and monitor the impact of electric power transmission and distribution line corridors, geological or geophysical surveys and survey lines, and the opening and maintenance of roads required for the purposes of access, construction or traffic incidental to the work.