Protected areas in Québec:

A Lifelong Heritage

Réserve de biodiversité des Caribous-de-Val-d'Or

CONSERVATION PLAN

Québec

Cover page photos: Andrée Giroux and Société de la faune et des parcs

Reference:

Québec, Ministère du Développement durable, de l'Environnement et des Parcs, Direction du patrimoine écologique et des parcs. 2009. *Conservation plan, Réserve de biodiversité des Caribous-de-Val-d'Or*. Québec: Gouvernement du Québec.

TABLE OF CONTENTS

Introduction

By granting permanent protection status to the Réserve de biodiversité des Caribous-de-Val-d'Or, the Québec government intends to ensure the definitive protection of representative samples of biological diversity in the natural province of the Abitibi and James Bay Lowlands and, more specifically, of representative ecosystems in the natural region of the Abitibi plain. The reserve is part of the physiographic unit known as the Sabourin lake plain, and is one of a network of protected areas that constitute representative and exceptional examples of the various types of ecosystem in Québec.

The biodiversity reserve was selected mainly on the basis of the plant communities it shelters, including black spruce stands with lichen, white birch stands and jack pine stands, in addition to a few old-growth stands and larch stands. The biodiversity reserve protects part of an esker, as well as various aquatic and shoreline ecosystems, especially in and around Sabourin lake.

The particularity of the area is that the peat bogs and black spruce stands with lichen that it contains together make up the habitat of the Val-d'Or herd of woodland caribou. The herd is on the list of wildlife species designated as vulnerable, and the land in the biodiversity reserve contains habitat that is essential to the herd's survival and growth.

1. Official toponym

The official toponym of the Biodiversity Reserve is "Réserve de biodiversité des Caribous-de-Val-d'Or", a name that indicates the presence of the woodland caribou, a forest ecotype, in a herd located close to the town of Val-d'Or.

2. Plan and description

2.1 Geographical location, boundaries and area

The location and boundaries of the Réserve de biodiversité des Caribous-de-Val-d'Or are shown on the map in Schedule 1.

The Réserve de biodiversité des Caribous-de-Val-d'Or is located in the territory of Ville de Val-d'Or, in the Abitibi-Témiscamingue administrative region, between 47°45' and 48°02' latitude north and 77°22' and 77°52' longitude west, less than 20 km southeast of downtown Val-d'Or. It covers an area of 434,19 km^2. Access is provided by Chemin Twin (a major forest road) and an access road to the Sabourin lake cottage sector, which is built on the esker. The area is also served by a network of forest roads accessible from the north and the east via Highway 117.

The exact boundaries of the reserve are based on natural or manmade elements that can be easily located in the field such as watercourses, lakes, the edges of peat bogs and forest roads. The southwest boundary runs along the Réserve écologique des Caribous-de-Jourdan and the Decelles reservoir, while part of the southeast boundary runs along the Outaouais river. Close to the Decelles reservoir, the boundary of the biodiversity reserve follows the 309.68-metre highwater mark. The Chemin Twin and the

cottage sector around Sabourin lake are excluded from the biodiversity reserve.

2.2 Ecological overview

The Réserve de biodiversité des Caribous-de-Val-d'Or is part of the natural province of the Abitibi and James Bay Lowlands. According to Li and Ducruc (1999), this natural province is a plain sloping slightly down to James Bay. The reserve protects ecosystems that are representative of the natural region of the Lac Témiscamingue Lowlands and is part of the physiographic unit known as the Vaudray lake hummocky plain. Its southwestern section touches on the natural region of the Lac Témiscamingue Lowlands and the physiographic unit of the Decelles reservoir buttes.

2.2.1. Representative elements

***Geology*:** To the east, the substratum is mainly formed by metasedimentary rocks (paragneiss, biotite schist, garnet, orthopyroxene, sillimanite, andalousite), while to the west it mainly comprises granitic rocks (granite, granodiorite, monzonite, syenite). There are several bands of ultramafic rocks (komatiite, magnesian basalt). This assembly of rock types belongs to the Pontiac geological subprovince, which is bounded on the north by the Cadillac fault marking the start of the Abitibi subprovince to the north. The Pontiac and Abitibi subprovinces belong to the Superior Province, the geological province that forms the central part of the Canadian Shield and contains archean bedrock (over 2.5 billion years old). The Canadian Shield contains assemblies of rock types that are among the oldest on the planet.

Geomorphology: Around 8,500 years ago, the bedrock was covered by a thick layer of imperfectly drained glacial lacustrine sediments (clay and silt) and fluvioglacial sediments (sand and gravel) deposited by the Ojibway-Barlow glacial lake. A sub-glacial river left the long, sinuous deposit of sand and gravel that forms the esker located east of Sabourin lake. Next, erosion caused by the waves of the Ojibway-Barlow lake stripped the highest buttes of the silt that covered them (Veillette, 2000). Where the currents were strongest, the finest sediments were carried away and only sand remained. When the level of the glacial lake fell, it exposed stretches of sand.

Today, the observable landscape is a plain sloping slightly northwards, with occasional residual hillocks, a small number of buttes, and intermittent glacial deposits (ground moraine). Most of the area, however, is covered by organic deposits (peat bogs).

The biodiversity reserve has two main sectors. The southwest sector comprises a series of hills, between which lie small peat bogs. The east sector comprises flat silt deposits mostly covered by peat bogs. The bedrock rises to the surface in areas to the west. The average altitude is 348 metres, ranging from 319 to 421 metres.

The most common surface deposit, covering over half the total area of the biodiversity reserve, is the organic deposit that dominates in

the east sector. The hills to the southwest are covered by a thin till and rock on the summits, on which humo-ferric podzols have developed. Those podzols support open forests of jack pine or black spruce, generally with lichen at their bases.

Twelve kettles are found within the biodiversity reserve. A kettle is a bowl-shaped depression in a fluvioglacial deposit, such as an esker. Some of these kettles are deeper than the underlying watertable, and a kettle lake has formed. Other kettles are also filled with water, even though their bed lies well above the level at which water circulates through the esker and they are not fed by streams. These are known as perched lakes.

***Hydrography*:** The biodiversity reserve overlaps three different hydrographic basins. Water in the Sabourin lake basin flows towards James Bay via the Harricana river; to the east, water from the biodiversity reserve flows into the Nottaway river, which also empties into James Bay; to the south, the biodiversity reserve overlaps the hydrographic basin of the Outaouais river. Most of the watercourses in the biodiversity reserve are intermittent and, because they have formed in the main bedrock fractures, are subparallel and run mainly in a north-south direction. The main watercourses are the south and north Marrias rivers, and the Crémazie, Kâmicitikweyak ("broad stream" in algonquin), Kâmagiskineciwâk ("stream with hooks"), Bertrand and Vaillancourt streams. The biodiversity reserve has around sixty lakes, covering roughly 7% of its total area. The largest is Sabourin lake, which covers an area of 26.5 km². The second largest is Crémazie lake, which covers 4 km². The remaining lakes are smaller; they include the Mîjacko ("hay lake" in algonquin), Zidler, Okiwakamik ("return lake"), Moreau, Ozit, Marrias and Kâmackawâkâmagak lakes.

Lakes in the Abitibi region often have clay beds that increase the turbidity of the water. At first, Sabourin lake appears to be typical of this type of lake in a clay plain, but it differs in several respects: its regular shape, it is shallow (3.5 metres at most), and it has only a few islands. A depth transparency reading of 1.5 metres is one of the highest recorded for the clay plain lakes examined. In addition, Sabourin lake is relatively acid (5.6) compared to the other clay plain lakes.

There are ten kettle lakes. Kâmackawâkâmagak lake ("where the ground is very hard" in Algonquin), known locally as "Lac au Brochet", is surprisingly deep at 50 metres, with a total area of 0.2 km². Another small kettle lake, known locally as "Lac à la Truite", has an area of 0.1 km². Two other lakes have been given names by locals: lakes "Félix" and "Thierry". The latter, whose water surface is at an altitude of 340 metres, is apparently a perched lake.

***Climate*:** The 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 reserve belongs to the bioclimatic field of fir stands with white birch.

***Vegetation*:** Almost 50% of the biodiversity reserve is covered by forest, and three-quarters of the forest cover is composed of softwood stands, most of which (46% of the forested area of the reserve) are black spruce stands. Black spruce (*Picea mariana*) is the dominant species, sharing the area with jack pine (*Pinus banksiana*) and larch (*Larix laricina*). There is a high concentration of black spruce stands with Cladonia (a lichen important as caribou food). Mixed stands occupy 17% of the forested area, marked by the presence of white birch, especially on the till-covered buttes in the west sector. Just under 5% of the forest land in the biodiversity reserve is dominated by larch, often on peaty soils. Although balsam fir could be expected to be the dominant species, the alternating dry and humid soils do not promote its growth. In addition, spruce budworm epidemics have killed many fir trees in the Abitibi region, and balsam fir is now rare in the biodiversity reserve (Ducruc *et al*., 1988). White spruce and aspen are also found, and black ash and cedar grow on some river and stream banks. Stands over 90 years old constitute 22% of the forested area.

Logging has been carried out in the biodiversity reserve for almost a century, much of it in the last twenty years. The second-growth forests are dominated by white birch, sometimes by aspen. Tree-planting operations were conducted from 1994 to 1998 in the northern end of the west sector of the biodiversity reserve. Over 100 000 black spruce seedlings were planted on seven parcels of land covering 62 hectares. Pre-commercial thinning was carried out on 272 hectares, mainly along Chemin Twin. Last, between 1996 and 1998, plantation thinning was carried out on roughly 5 hectares of land close to Chemin Twin. In all, only one percent of the biodiversity reserve has been subjected to intensive operations, planned with Faune Québec to reduce the influx of deciduous species to the caribou habitat.

Despite the omnipresence of the boreal forest, in specific conditions yellow birch, sugar maple and red maple can be found. It is surprising to find a sugar maple stand close to Val-d'Or: although isolated sugar maples can be observed in the region, generally covered by balsam fir stands with white birch, the presence of a sugar maple-dominated stand this far north is exceptional.

Forests of shade-tolerant hardwoods are found only in the sector between Chemin Twin and Sabourin lake, mainly made up of stands of sugar maple with red maple, and stands of yellow birch. Two sugar maple stands in particular attract attention. The first, Érablière Lemieux, covers 14 hectares and has been harvested for sap for 25 years. It is located on the summit of the highest hill in the biodiversity reserve. The second is a stand of trees over 80 years in age and covers 17 hectares. It is not harvested.

Heaths and wooded heaths cover only a small part of the biodiversity reserve and are round on rock, thin tills and, occasionally, over-drained sandy deposits (Ducruc *et al*., 1988). These environments are typical of a more northern location and are found on soils that are

extremely dry compared to the soils supporting forest cover elsewhere in the biodiversity reserve.

The heaths contain open stands. The most heavily-forested heath areas are open black spruce or balsam fir-Cladonia stands, home to numerous shrubs in the Ericaceae family and lichens. These include dwarf birch (*Betula pumila*), sheep laurel (*Kalmia angustifolia*), bog laurel (*Kalmia polifolia*) and Labrador tea (*Ledum groenlandicum*), in addition to a wide range of plants from the Graminaceae and Cyperaceae families. The lichens present include *Cladonia uncialis* and three species from the *Cladina* subgenus: *C. stellaris, C. rangiferina* and *C. mitis*. These habitats with sparse tree cover are found on hilltops in the west sector. A single group of lichens growing on sand is found in the biodiversity reserve, visible on either side of the track from Sabourin lake to the lake known as “Lac à la Truite”.

The impermeable layer of lacustrine clay and the relatively flat terrain have led to the development of numerous wetlands in the low-lying areas (33% of the biodiversity reserve). Most are ombotrophic peat bogs, a type of bog that receives water only from rain and snowfall and contains few nutritional elements. Some acid-loving species grow there, and the bogs are composed of carpets of peat moss with isolated black spruce and larch. The largest bog is located south of Sabourin lake and covers 17 km². Two other gigantic bogs covering over 10 km^2 are found further east, the two largest in the entire Abitibi region (Miron, 2000). The east sector is almost entirely composed of bogs. Several wetlands have been created by beaver dams.

Wildlife: The mammals known to live in the biodiversity reserve are black bear, American porcupine, long-tailed weasel, beaver, red squirrel, snowshoe hare, wolf, river otter, lynx, American marten, fisher, raccoon, muskrat, ermine, red fox, mink, coyote, moose and woodland caribou.

Of the 51 species of bird identified, 43 nest in the protected area (SLOA, 2004b). One unusual species, the sandhill crane, is occasionally spotted feeding in the large peat bogs around Sabourin lake. A small colony of common terns (*Sterna hirundo*) is found on an island in Sabourin lake.

Twelve species of fish have been identified in Sabourin lake, but only five in Crémazie lake, all species commonly found in walleye lakes. In Sabourin lake, walleye can grow to up to 503 mm in six years, compared to 340 mm in other lakes in the Abitibi region. This remarkable productivity is attributed by biologists to the higher transparency of the water in Sabourin lake. The abundance and diversity of prey species could also be a factor in rapid growth. Other factors are the large area of the lake and its shallow water, which can heat up in the summer to temperatures as high as 20^oC (Girard and Jourdain, 1993).

2.2.2. Outstanding elements

The biodiversity reserve has great interest from an ecological point of view, since it is home to a residual population of Woodland Caribou

(*Rangifer tarandus caribou*) that were formerly more abundant in southern Québec. At the start of the last century the herd was found from north of La Sarre to the centre of the La Vérendrye wildlife sanctuary. The herd, living in the boreal forest, is sedentary in both summer and winter, a feature that distinguishes it from the population in northern Québec, which migrates and lives in the tundra. Another feature is that the Val-d'Or Woodland Caribou is part of the forest ecotype. The herd is currently found between Highway 117 and the northern boundary of the La Vérendrye wildlife sanctuary. The tiny herd of around thirty individuals is in a precarious situation, both because of its small size and because of its isolation. The decline of the species has been caused mainly by changes to its habitat and predation by wolves; the local wolf population has grown in proportion to the increase in the moose population which uses logged areas. The Val-d'Or Woodland Caribou, a forest ecotype, was entered in February 2005 on the list of wildlife species designated as vulnerable.

2.3 Land occupation and use

Land occupations and uses in the Réserve de biodiversité des Caribous-de-Val-d'Or are shown on the map in Schedule 2.

Land rights have been granted on 35 sites:

- 3 private cottage sites;
- 32 leases for rough shelters.

In the cottage sector around Sabourin lake, there are 32 private cottage sites and 6 cottage leases on public land. A boat ramp on Sabourin lake is located in this sector.

One maple sugar producer has a permit to use 14 hectares of the sugar maple stand named Érablière Lemieux which is located at the southwest of Sabourin lake, close to Chemin Twin.

Almost all of the proposed reserve (over 90%) 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.

The northeast part of the biodiversity reserve covers two trapping sectors, in one case over 20% of its total area, and in the other case over 10% of its total area.

No trails with right-of-way authorization from the MRNF are found in the biodiversity reserve, but many different trails provide access to hunting camps in the biodiversity reserve or simply cross the area. The Outaouais, Marrias and Sabourin rivers are used for canoeing and kayaking.

Sabourin lake is used for various waterborne activities and for fishing.

The road network has a total linear length of 190 km, mostly made up of unpaved roads and trails not suitable for road vehicles.

The habitat fragmentation score is calculated by dividing the total length of forest roads and trails by the area of the reserve. The biodiversity

reserve has a low fragmentation sore of around 0.44 km of roads and trails per square kilometre.

3. Conservation and development of the Réserve de biodiversité des Caribous-de-Val-d'Or

This section sets out conservation and development guidelines and specific objectives for the Réserve de biodiversité des Caribous-de-Val-d'Or.

Biodiversity protection

The biodiversity reserve should be managed in a way that protects ecosystems and the species that depend on those ecosystems, to ensure that the processes governing their lives continue to exist. In addition, ecosystems that are currently subjected to disturbance must be allowed to return to their natural dynamics and characteristics.

In addition, biodiversity protection includes protection of the landscapes. The existing modes of land occupation and use that are compatible with the protection objectives of the biodiversity reserve will be maintained. Current modes of land occupation and activities should be managed in a way that ensures that they have a minimum negative impact on biodiversity.

Specific objectives:

1. Help ensure the growth of the woodland caribou herd

The woodland caribou herd, currently composed of around thirty individuals, is in a critical situation. The creation of the biodiversity reserve, which covers 434 km^2, is a key element in the strategy to ensure the growth of the herd. Protection for the terrestrial ecosystems of the biodiversity reserve and particularly for the habitats used by the caribou, which roam over an estimated area of 1 200 km^2 or 2 000 km^2 if wintering grounds are considered, will complement the wildlife site development plan for woodland caribou south of Val-d'Or ("Plan d'aménagement du site faunique du caribou au sud de Val-d'Or"). The biodiversity reserve could also act as a refuge and even a nursery area for the herd.

Several factors may cause disturbance to the habitat used by woodland caribou and also, in some cases, change the behaviour of the species. The disturbance caused by motor vehicles, the noise of firearms and the fragmentation caused by trail development are all examples of this. The MDDEP, in its management of the biodiversity reserve, will focus on reducing this type of disturbance, not by prohibiting or restricting activities, but by working with the users concerned to draw up a strategy to reduce impacts by adapting the way the land and its resources are used. Information and awareness will be a key part of this strategy to involve all biodiversity reserve residents, users and visitors. The sites of most importance for the woodland caribou, such as winter feeding, summer feeding, calving and rutting grounds, will be managed in this way, in collaboration with Faune Québec. The proposed zoning for the biodiversity reserve will be used as a tool to achieve this objective.

Section 4, on zoning, adds details concerning the measures that will be applied to limit the disturbance to the woodland caribou and its habitat, and describes the zones and time periods concerned.

2. Restore the natural dynamics of forest ecosystems:

Given that around 142 km^2 of the biodiversity reserve, or over one-third of its total area, is covered by peat bogs and that other areas are unproductive forest, the logging carried out over the last thirty years on around 83 km^2 of land has affected over 30% of the potentially productive woodland in the reserve. The forest ecosystems that have been disturbed must be allowed to recover their natural characteristics, and the banning of all forms of logging will improve their resilience. In addition, activities that have a less severe impact on the natural environment will have to be supervised. The network of trails that criss-crosses practically all the reserve, fragmenting its area and leading to the erosion of fragile soils (peat bogs and poorly drained silt and clay), will be rationalized. However, the trails providing access to sites covered by existing rights will be maintained.

Areas of ecological interest, such as the jack pine stands in the southwest area of the biodiversity reserve, the sugar maple stands to the east of Chemin Twin, the yellow birch stands, the kettle lakes, the lichen groups and the forests 90 years old and over, will be a particular focus of conservation efforts.

3. Protect lake and shoreline ecosystems:

Almost forty cottages are found around Sabourin lake, all on the east shore. The number of motorized vessels that use the lake has been estimated at over 70. Cottage development can have an impact on the aquatic and shoreline environment when septic systems fail to work properly or when more than the permitted area of shoreline vegetation is cleared.

The MDDEP will ensure that lake and shoreline environments are protected, and that the water quality in Sabourin lake remains high. The MDDEP expects to meet this objective by raising awareness about sound practices (use and maintenance of motorized vessels, clearing and planting of shoreline, and maintenance of septic systems) and insuring the application of current and future standards concerning the protection of bodies of water. Cottage dwellers and all other users of lakes and shorelines will have access to the necessary information to get there collaboration.

<u>Knowledge acquisition and monitoring of the natural environment</u>

More knowledge about the natural environment will not only help achieve specific protection objectives, but will also ensure better monitoring of biodiversity and help in the drafting of reports. The knowledge acquired will also be used to develop nature discovery, educational and awareness-raising activities. Last, it will help mangers analyze development projects and facilitate a shared understanding of issues with other management partners.

Ecological knowledge, especially concerning the support capacity of each environment, and

knowledge about the impact of recreational and tourism-related activities on the natural environment, must be developed in order to appreciate the wealth of resources in the territory and to provide the data and tools needed for sound management, thereby ensuring the conservation of the territory's characteristic biodiversity.

Specific objectives:

1. Monitor the natural environment:

To determine whether the biodiversity reserve and its management model achieve the objective of biodiversity protection, the natural environment will be monitored and the results will be published in a regular report by the MDDEP. The first report will be issued seven years after the creation of the biodiversity reserve, and other reports will follow every ten years. The monitoring will begin with a report on the current state of the natural environment and the definition of indicators. Changes in biodiversity will be assessed using the indicators. Objectives, as well as protection and management methods, may be revised after the publication of each report.

Sustainable development based on educational activities

The level of land use and land occupation in the biodiversity reserve is relatively low. However, since the reserve contains many sensitive habitats of great importance for the woodland caribou population, sustainable development is only possible if it is limited to educational and discovery activities in the natural environment, which have a low impact.

In this context, new activities and new development in the territory must not conflict with existing activities or, when added to existing impacts, exceed the support capacity of the natural environment. In addition, development in the biodiversity reserve should be carried out in such a way that the increased human presence does not change the dynamics of the natural environment, to avoid any negative impacts on its ecological and cultural integrity and to maintain the quality of the "nature-oriented" experience for visitors and users. In short, the development of activities should be designed to maintain or improve the quality of the natural structure and the harmonious interactions between human beings and nature. All development activities in key woodland caribou habitat will be exhaustively assessed to ensure minimum disturbance.

Given the current occupation and use of the territory, the MDDEP does not intend to encourage the development of new activities. However, if development projects are presented, it will give priority to educational projects and will deal strictly with projects likely to have an impact on the natural environment. The biodiversity reserve offers development potential for

education and interpretation, based on the presence of woodland caribou, maple stands at the northern limit of their distribution area, including one operated at a craft level, and some of the largest peatbogs in the Abitibi region.

Integrated management and stakeholder involvement in the management process

The presence of woodland caribou in and around the biodiversity reserve will require the integrated management of activities. The best way to achieve this is to involve other stakeholders in discussions on the choice of management approaches for the biodiversity reserve to promote conservation and comply with the *Natural Heritage Conservation Act*.

Specific objective:

1. ***Establish participatory management and a joint approach:***

The characteristics of the territory of the biodiversity reserve and adjacent land will require the MDDEP to implement a type of management based on the participation of all stakeholders, in order to achieve the objectives of conservation of the natural environment and harmonious development of recreational activities. The MDDEP and its government's partners will identify the individuals and groups concerned by the conservation and development of the territory, and will invite them to take part in various kinds of studies and discussions. Multiple use, conflicting uses and development projects will be discussed. An action plan will be drawn up by the MDDEP regional office, in collaboration with the community. The action plan will, in particular, specify actions, selected methods, the stakeholders who will implement specific actions, the timeframe for implementation and the mechanism used to assess results.

4. Zoning

The Réserve de biodiversité des Caribous-de-Val-d'Or covers an area that also includes a cottage sector, although it is excluded from the actual territory of the reserve. In addition, given that the biodiversity reserve is located close to the urban centre of Val-d'Or and contains a high proportion of the habitats considered vital for the woodland caribou, the management of existing activities and the development of new activities and projects will be closely controlled. Taking into account ecosystems, habitats and their use, land occupation and use, the current state of the natural environment, and the protection and management objectives, the biodiversity reserve has been subdivided into four zones. The zones share similar protection levels and activity frameworks, but the protection and development measures take their particularities into consideration.

The boundaries of the zones are shown on the map in Schedule 3. The Minister will take the zoning into account in the management of the biodiversity reserve and when authorizing activities and development. In addition, the prohibitions and restrictions applying with regard to the woodland caribou match those in the *Act respecting threatened or vulnerable species* and the objectives defined by Faune Québec for the growth of the Val-d'Or herd.

The land in the biodiversity reserve, and mainly the land in Zone I, is used more by the woodland caribou during the months when it is free from snow, in other words from April to mid-

November. The winter habitats vary more from year to year, and the forest management plan for the area around the biodiversity reserve attempts to meet the need to protect these generally more critical habitats.

Throughout the protected area, big game hunting will be maintained so as not to increase the number of predators such as wolves and black bears who can threaten the survival of the caribou. An ongoing effort should be made to maintain awareness among users.

Zone I

This zone protects important sectors for the woodland caribou herd. It includes winter feeding grounds, calving grounds, and the areas where the caribou assemble during the rutting season. Zone I covers a total of 327.3 km^2, or over 75% of the territory of the biodiversity reserve. It contains one of the highest telemetrically-observed densities of caribou in the distribution area of the Val-d'Or herd. Most of the zone is covered by extensive peat bogs. The human occupation level is low, and concentrated on the non-bog sections. Almost all the forests 90 years old or older of the biodiversity reserve are found in this zone, although the proportion of mature forests is low. Most stands contain black spruce, with a few white birch stands. The other species found in the zone are aspen, along some watercourses, and jack pine on the till hillocks to the east of Crémazie lake. Larch is relatively abundant, growing alongside black spruce in the wooded bog sectors and poorly-drained sites.

The woodland caribou use many different habitats at various times of the year. Sometimes, the herd uses the same area as a winter feeding ground, calving ground and rutting ground. Since the use of the habitats often overlaps in Zone I and also varies over time, it was not considered necessary to determine sub-zones with temporal restrictions.

For all of Zone I, no development likely to increase the impact on woodland caribou habitats or on individual herd members will be encouraged. Management of existing activities and development on new activities, installations and infrastructures will be controlled. Education or interpretation projects and special forest management work to improve habitats and ensure the growth of the caribou herd will be privileged.

The objective for this zone is to minimize disturbance for individual members of the herd, and to minimize disturbance for the components of the natural environment in the caribou habitats. Activities and interventions in Zone I must comply with the following time restrictions:

December 1 to March 31: For the winter feeding grounds, in addition to the protection of lichen-covered areas and the forest canopy, quiet is important. Disturbance by quadbikes and snowmobiles should be avoided. Access to existing buildings will be maintained. Outside this critical period, hunting and trapping will be managed in a way designed to reduce the number of caribou predators, such as wolves and black bears, and also to reduce their habitual prey, such as moose.

May 15 to June 30: On the calving grounds used during this period, the herd is scattered over a wide area. Disturbances must be avoided, especially quadbike use outside existing trails and in boggy areas.

September 15 to November 30: On the gathering and rutting grounds used during this period, the herd gathers in small groups of various sizes, from 2 to 20 individuals, mainly on boggy ground. No specific disturbance rules have been proposed. Making users aware of the possibility of disturbance, and providing information on the rutting grounds, are the main measures that will be applied.

Zone II

This zone covers 60.3 km^2, or almost 14% of the total area of the biodiversity reserve, and is situated southwest of Chemin Twin. Its main characteristic is the presence of a high density of lichen islands suitable for caribou feeding. The main tree species are black spruce and white birch, with stands of jack pine on till-covered hillocks and rocky outcrops. Occupation, use and disturbance levels are all low. Because of the presence of lichen islands, the management of this zone will be based on knowledge of how it is used by the woodland caribou herd. Like Zone I, development and activities will be closely supervised to minimize impacts on the natural environment and the lifestyle of the caribou. Special forest management work to improve certain habitats and promote the growth of the caribou herd may be considered.

Zone II includes caribou winter feeding grounds. Winter activities and traffic will be managed, from December 1 to March 31, to reduce circulation and maintain traffic, as possible, only on existing trails and roads. Outside this critical period, hunting and trapping will be managed in a way designed to reduce the number of caribou predators, such as wolves and black bears, and also to reduce their habitual prey, such as moose.

Zone III

This zone covers 14.4 km^2 and is located on either side of Chemin Twin. The environment is composed of till buttes whose soil is less sensitive to disturbance than clay or peaty soils. The occupation level is low, and the area is home to a diversified forest in which black spruce, white birch, aspen and jack pine grow alongside each other. One key feature is that the zone contains two stands of sugar maple, and two stands of yellow birch. One of the two sugar maple stands (14 hectares) is operated at a craft level, with 1 500 to 1 800 taps. The presence of an operating sugar bush and the proximity of a forest road of key importance for forest traffic, Chemin Twin, mean that this zone is more likely to be disturbed. The management approach will target the protection of the yellow birch and sugar maple stands, while allowing for the ongoing operation of the sugar bush subject to a lease.

Zone IV

This zone covers 32.2 km^2. It includes Sabourin lake and part of the esker on which the access road to the cottage sector on Sabourin lake is constructed. The zone can be considered as a recreational zone, and could be used, if necessary, as a reception and service area. Human presence and use are already high. The sandy soils are less sensitive to vehicle traffic (automobiles, quadbikes), and recreational activities will suit in this zone.

The forest cover is mainly made up of stands of black spruce and white birch; it is relatively young, and has been disturbed.

The zone includes sites used by woodland caribou, especially for winter feeding (December 1 to March 31) and rutting (September 15 to November 30). Quiet is important, and disturbances by quadbikes and snowmobiles should be avoided during those sensitive periods.

5. Activities within the reserve

5.1 Legislative framework under the *Natural Heritage Conservation Act*

Activities in a biodiversity reserve are generally governed by the provisions of the *Natural Heritage Conservation Act*.

A biodiversity reserve is intended to protect natural environments and their components. For this reason, activities that may have a major impact on ecosystems and biodiversity are prohibited, especially those of an industrial nature. In this type of protected area, however, less harmful activities and modes of land occupation are permitted, such as recreational, wildlife-related and educational activities.

The biodiversity reserve must be considered as an area devoted to the protection of the natural environment, the enjoyment of nature and recreation.

Under the *Natural Heritage Conservation Act*, the main activities prohibited in an area with biodiversity reserve status are:

- mining, gas and petroleum exploration and development;
- 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.

Although these prohibitions are essential for the long-term protection of the land and its ecosystems, they do not introduce all the standards required for the proper management of the biodiversity reserve and the conservation of the environment. Under the Act, the government may specify, in the conservation plan, the legal framework that will apply in the territory of a reserve.

Provisions in Schedule 4 prohibits activities in addition to those prohibited under the Act and provides the framework for the various activities permitted so as to better protect the natural environment in keeping with the conservation principles and other management objectives established for the biodiversity reserve. Accordingly, certain activities require the prior

authorization of the Minister and compliance with the conditions determined by the Minister.

Several of the provisions in Schedule 4 provide for authorization from the Minister, an approach that allows for the introduction of appropriate conditions in specific circumstances.

For example, the construction of some types of buildings (such as a reception centre or shelter) and trails may fall within the management and conservation objectives of the reserve, while other types of construction may have a negative impact on the environment and biodiversity and will not be considered appropriate – and will not be authorized.

Many of the standards in Schedule 4 have been designed to allow the Minister to exercise an appropriate level of supervision, taking the context into account and with the flexibility needed when the circumstances and the characteristics of the target environment allow, so as to provide adequate guidance for various activities.

It is important to note that the measures in the Schedule target new interventions in particular within the reserve, and do not generally affect existing facilities or current activities, preserving many compatible existing land uses.

Since the terms of the legal framework set out in Schedule 4 cannot indicate whether an application for authorization will be accepted or refused, the MDDEP will make public the criteria it will use in its management to analyze the applications made. Guides, instructions or directives will be drawn up and made public.

For example, the MDDEP will establish a list of activities mentioned in Schedule 4 that will only be authorized in exceptional circumstances, or only in a few cases, because they are considered *a priori* to have a negative impact.

In contrast, despite the introduction of control mechanisms, many other activities may be seen as compatible with the objectives of the protection status. For these cases, the authorization process will be used to ensure that the MDDEP is aware of the activities, and is able where necessary to impose improvements to the approach proposed by the applicant.

Last, to avoid the imposition of control measures of little use because of the low risk of a negative impact, or because they duplicate other control measures under other legislation, Schedule 4 also lists exemptions to the requirement of obtaining authorization for certain activities: routine maintenance work, for example, on existing facilities.

5.2 Activities governed by other statutes

Certain activities likely to be carried on within the reserve are also governed by other legislative and regulatory provisions, including provisions that require the issue of a permit or authorization or the payment of fees. Certain activities may also be prohibited or limited by other Acts or regulations that are applicable within the reserve.

A special legal framework may govern permitted activities within the reserve in connection with the following matters:

- **Environmental protection**: measures set out in particular in the Environment Quality Act (R.S.Q., c. Q-2) and its regulations.

- **Archaeological research**: measures set out in particular in the Cultural Property Act (R.S.Q., c. B-4).

- **Development and conservation of wildlife resources**: measures set out in particular in the Act respecting the conservation and development of wildlife (R.S.Q., c. C-61.1), including the provisions pertaining to threatened or vulnerable wildlife species, to outfitting operations and beaver reserves and the measures contained in applicable federal legislations or regulations, in particular the fishery legislation and regulation.

-- **Flora species designated as threatened or vulnerable**: measures set out in the Act respecting threatened or vulnerable species (R.S.Q., c. E-12.01) prohibiting the removal of such species.

Access and land rights related to the domain of the State: measures set out in particular in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1) and in the Watercourses Act (R.S.Q., c. R-13).

- **Issue and supervision of forest management permits** (harvest of firewood for domestic purposes, for sugar bush management for acericultural purposes, or for a wildlife or recreational development project): measures set out in the Forest Act (R.S.Q., c. F-4.1).

- **Operation of vehicles**: measures set out in particular in the Act respecting the lands in the domain of the State (R.S.Q., c. T-8.1) and in the regulation on motor vehicle traffic in certain fragile environments made under the Environment Quality Act (R.S.Q., c. Q-2).

- **Construction and layout standards**: regulatory measures adopted by regional and local municipal authorities under the Acts applicable to them.

6. Management

6.1 Responsibilities of the Minister of Sustainable Development, Environment and Parks

The management of the Réserve de biodiversité des Caribous-de-Val-d'Or is under the responsibility of the Minister of Sustainable Development, Environment and Parks who will, in particular, monitor and control activities within the reserve, and enforce the law. The management responsibilities will be entrusted to the MDDEP regional office for analysis and expertise in the Abitibi-Témiscamingue and Nord-du-Québec regions (DRAE-08). In managing the reserve, the MDDEP will work with other government stakeholders with specific responsibility for the area concerned or for adjacent areas.

6.2 Monitoring

As mentioned in the section "Conservation and development of the Réserve de biodiversité des Caribous-de-Val-d'Or", the state of the natural environment will be monitored with the regional and local partners concerned in the municipal, environmental, recreation and education

sectors, as well as cottage dwellers, hunters, fishers and trappers.

6.3 Stakeholder participation

As mentioned in the section “Conservation and development of the Réserve de biodiversité des Caribous-de-Val-d’Or”, the MDDEP will receive assistance for the management of the biodiversity reserve from the stakeholders concerned. The MDDEP intends to draft an action plan to guide the management of the biodiversity reserve in keeping with the protection and development of the land and its resources. The MDDEP will draft the action plan in collaboration with regional stakeholders. The mechanism for the participation and involvement of stakeholders in the community will be developed by the MDDEP regional office on the basis of regional and local realities.

The biodiversity reserve will be managed in keeping with the following conservation principles:

- maintain natural ecosystem dynamics;
- restore damaged ecosystems, as required and over the medium term;
- respect the ecosystem support capacity;
- maintain non-industrial harvesting activities, without encouraging their development;
- gather and disseminate knowledge about the natural and cultural heritage;
- participate in the management of adjacent areas to ensure harmonization with the conservation objectives pursued within the biodiversity reserve.

Bibliography

Bellehumeur, P., C. Brassard and A. Lachapelle. 1985. *Répartition et habitat du caribou de la région de Val-d'Or, perspective d'avenir*. MLCP, SAEF, Direction régionale de l'Abitibi-Témiscamingue.

Ducruc, J.-P., P. Dubois and G. Audet. 1988. *Le troupeau de caribou de Val-d'Or : caractérisation écologique du territoire et évaluation des superficies improductives pour la forêt*. Planification écologique, Contribution de la cartographie écologique. ICN 88-01.

Li, T and J.-P. Ducruc. 1999. *Les provinces naturelles. Niveau I du cadre écologique de référence du Québec*. Ministère de l'Environnement.

Mathieu, E. 1974. *Inventaire aérien du caribou dans les secteurs sud de Val-d'Or*. MLCP, Service de l'aménagement de la faune, District du Nord-Ouest.

Miron, F. 2000. *Abitibi-Témiscamingue : de l'emprise des glaces à un foisonnement d'eau et de vie : 10 000 ans d'histoire*. Éditions Multimondes.

MDDEP. 2004. *Les réserves de biodiversité de biodiversités des lacs Vaudray et Joannès et du lac Sabourin : Cadres de protection et de gestion*.

MRN-FAPAQ. 1999. *Plan d'aménagement du site faunique du caribou au sud de Val-d'Or 1999-2004*. Ministère des ressources naturelles and Société de la faune et des parcs.

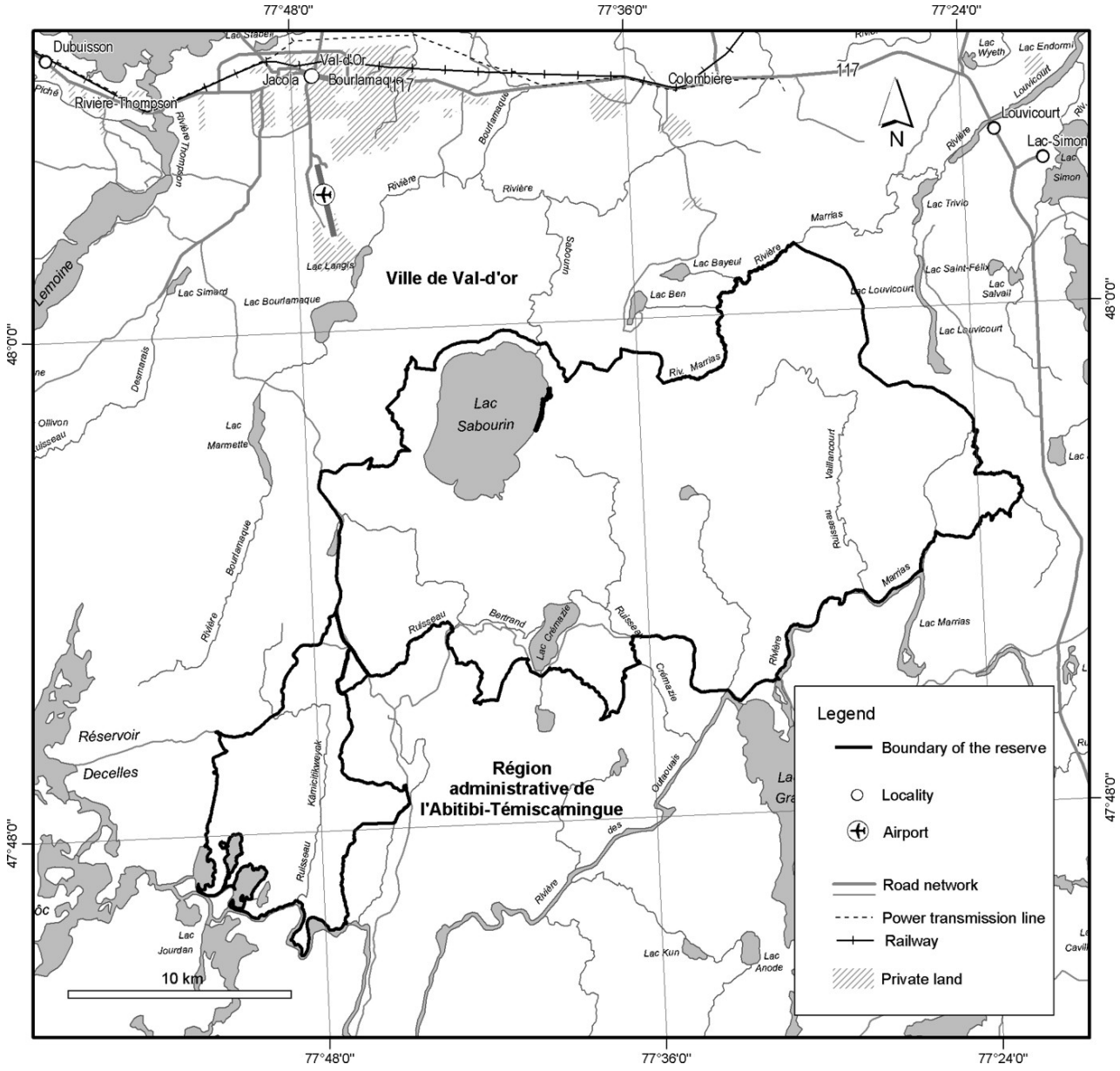
Paré, M. and C. Brassard. 1993. *Écologie et plan de protection de la population de caribous de Val-d'Or*. Ministère de l'Environnement et de la Faune, Service de l'aménagement et de l'exploitation de la faune, Rouyn-Noranda, Québec.

Saint-Martin, G. 1989. *Rapport sur la situation du troupeau de caribous (Rangifer tarandus caribou) de Val-d'Or, Québec*. Ministère du Loisir, de la Chasse et de la Pêche, Direction régionale de l'Abitibi-Témiscamingue, Service de l'aménagement et de l'exploitation de la faune.

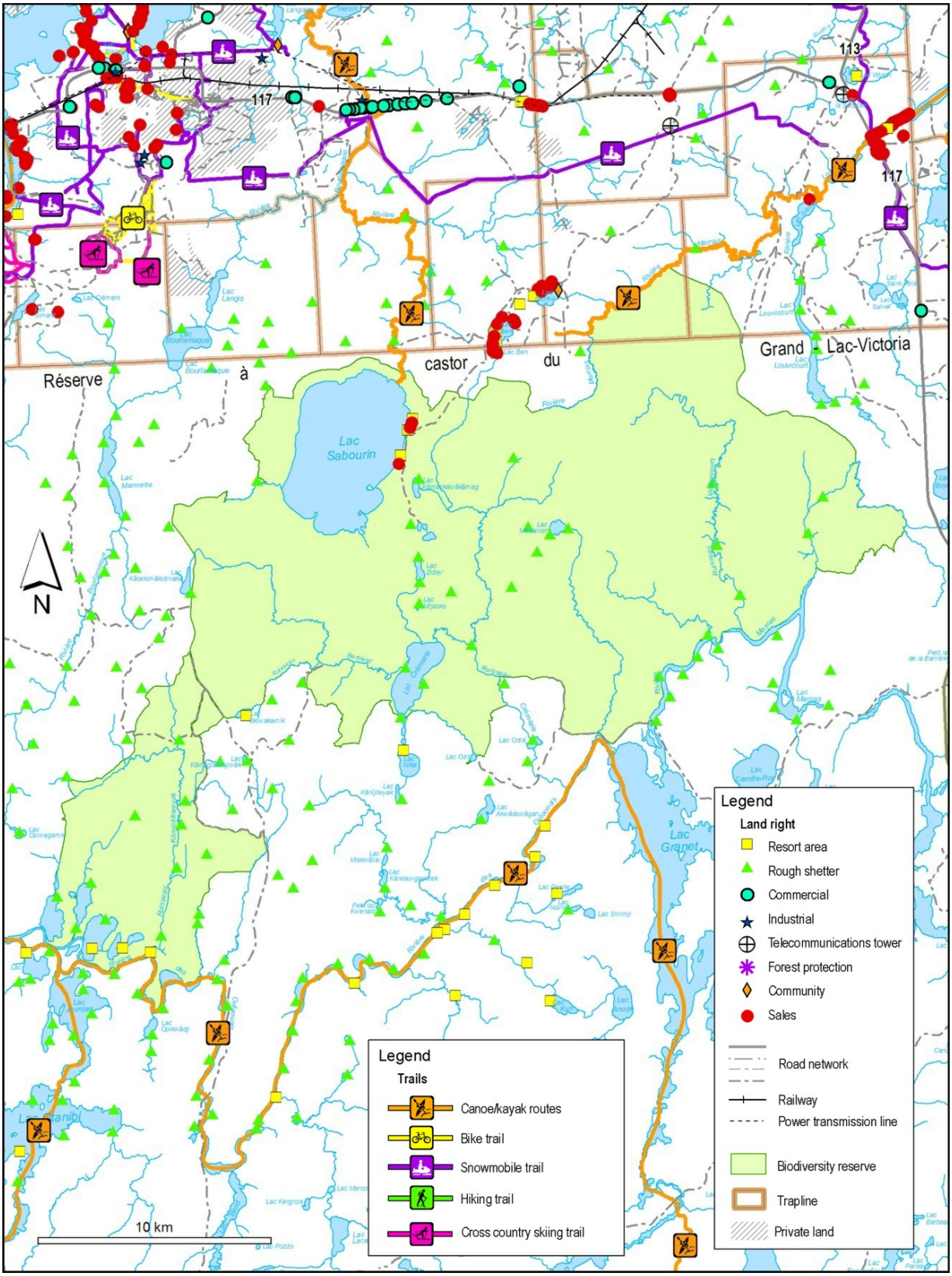
SLOA. 2004a. *Observations réalisées dans le secteur de la réserve de biodiversité du lac Sabourin*. Étude des populations d'Oiseaux du Québec (ÉPOQ). Report prepared by Louis Imbeau.

Veillette, J. 2000. "Un roc ancien rajeuni par les glaciers", in *Abitibi-Témiscamingue, de l'emprise des glaces à un foisonnement de vie*, 1-38. Éditions Multimondes.

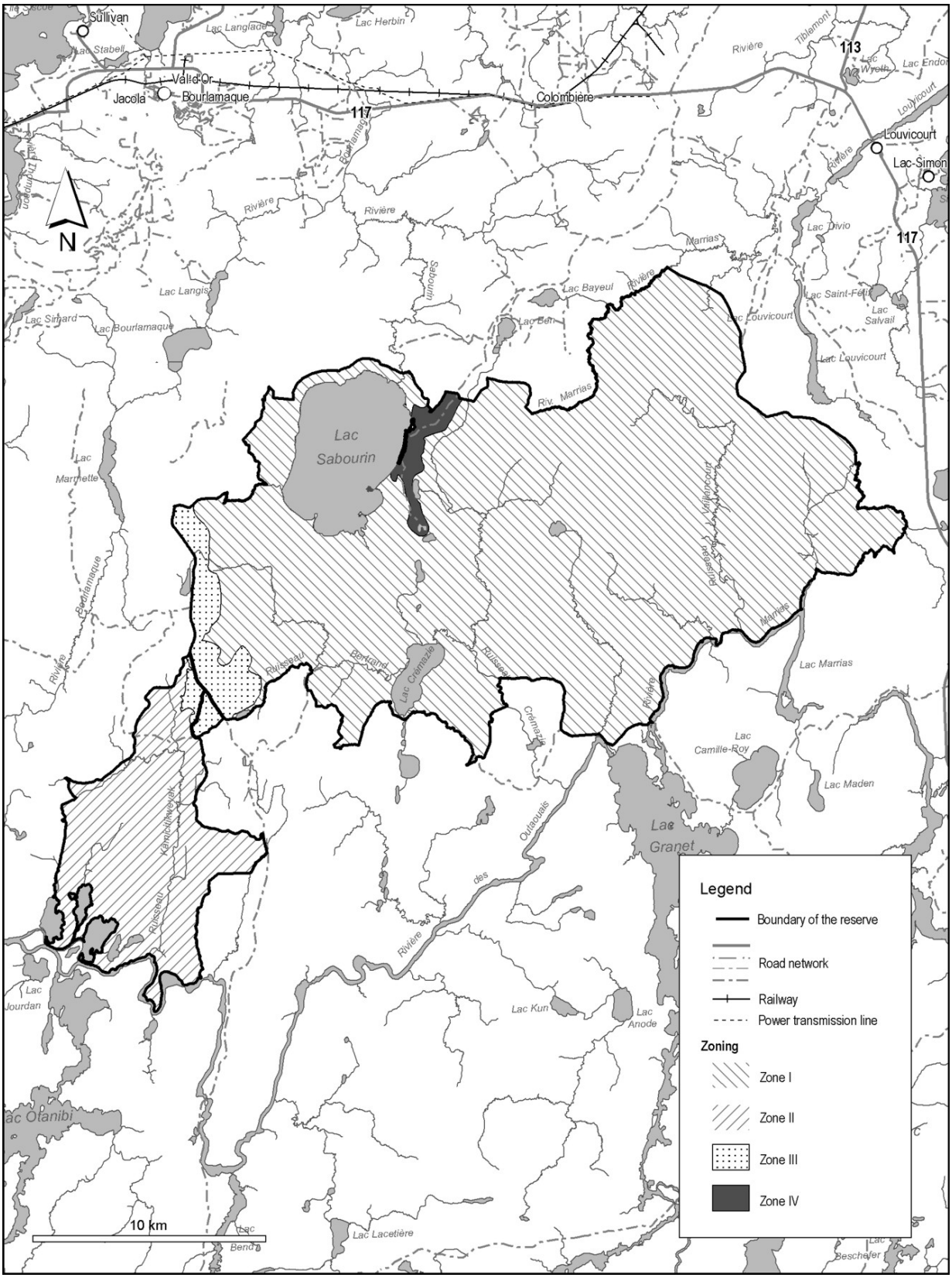
Schedule 1 — Réserve de biodiversité des Caribous-de-Val-d'Or : Boundaries and location



Schedule 2 — Réserve de biodiversité des Caribous-de-Val-d'Or: Land occupation and use



Schedule 3 — Réserve de biodiversité des Caribous-de-Val-d'Or : Zoning



Schedule 4
(S 5.1)

ACTIVITIES FRAMEWORK FOR THE RÉSERVE DE BIODIVERSITÉ DES CARIBOUS-DE-VAL-D'OR
— STANDARDS ADDITIONAL TO THOSE IN THE ACT

PROHIBITIONS, PRIOR AUTHORIZATIONS AND OTHER CONDITIONS GOVERNING ACTIVITIES IN THE BIODIVERSITY RESERVE

Natural Heritage Conservation Act
(R.S.Q., c. C-61.01, ss. 46 and 49)

DIVISION I
PROTECTION OF RESOURCES AND THE NATURAL ENVIRONMENT

1. Subject to the prohibition in the second paragraph, no person may establish in the biodiversity reserve any specimens or individuals of a native or non-native species of fauna, including by stocking, unless the person has been authorized by the Minister and complies with the conditions the Minister determines.

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

No person may establish in the biodiversity reserve a non-native species of flora, unless the person has been authorized by the Minister and complies with the conditions the Minister determines.

Before issuing an authorization under this section, the Minister is to take into consideration, in addition to the characteristics and the number of species involved, the risk of biodiversity imbalance, the importance of conserving the various ecosystems, the needs of the species in the ecosystems, the needs of rehabilitating degraded environments or habitats within the biodiversity reserve, and the interest in reintroducing certain species that have disappeared.

2. No person may use fertilizer or fertilizing material in the biodiversity reserve. Compost for domestic purposes is permitted if used at least 20 metres from a watercourse or body of water measured from the high-water mark.

The high-water mark means the high-water mark defined in the Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains, adopted by Order in Council 468-2005 dated 18 May 2005.

3. No person may, unless the person has been authorized by the Minister and carries on the activity in compliance with the conditions the Minister determines,

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

(2) modify the reserve's natural drainage or water regime, including by creating or developing watercourses or bodies of water;

(3) dig, fill, obstruct or divert a watercourse or body of water;

(4) install or erect any structure, infrastructure or new works in or on the bed, banks, shores or floodplain of a watercourse or body of water, although no authorization is required for minor works such as a 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 made by Order in Council 81-2003 dated 29 January 2003;

(5) carry on any activity other than those referred to in the preceding subparagraphs that is likely to degrade the bed, banks or shores of a body of water or watercourse or directly and substantially affect the quality of the biochemical characteristics of aquatic or riparian environments or wetland areas in the biodiversity reserve, including by discharging or dumping waste or pollutants into those areas;

(6) carry out soil development work, including any burial, earthwork, removal or displacement of surface materials or vegetation cover, for any purpose including recreational and tourism purposes such as trail development;

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

(8) reconstruct or demolish an existing structure, infrastructure or works,

(9) carry on an activity that is likely to severely degrade the soil or a geological formation or damage the vegetation cover, such as stripping, the digging of trenches or excavation work;

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

(11) carry on educational or research-related activities if the activities are likely to 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; or

(12) hold a sports event, tournament, rally or similar event if more than 15 persons are likely to participate in the activity and have access to the biodiversity reserve at the same time; no authorization may be issued by the Minister if the activity involves motor vehicle traffic, unless it has been shown to the Minister that it is impossible to organize the activity elsewhere or that bypassing the biodiversity reserve is highly unfeasible.

The conditions determined by the Minister for the authorization may pertain to the location of the authorized activity, the methods used, the areas that may be cleared or deforested, the types of material that may be used including on-site materials, and the presence of ancillary works or facilities. The conditions may also include a requirement to ensure periodic follow-up or to report to the Minister, in particular as regards the results obtained from the research to which subparagraph 11 of the first paragraph refers.

4. Despite subparagraphs 6, 7, 8 and 9 of the first paragraph of section 3, no authorization is required to carry out work referred to in subparagraph 1 of this section when the requirements of subparagraph 2 are met.

(1) The work involves

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

(*b*) the construction or erection of

i. an appurtenance or ancillary facility of a trapping camp, rough shelter, shelter or cottage such as a shed, well, water intake or sanitary facilities; or

ii. a trapping camp, rough shelter, shelter or cottage if such a building was permitted under the right to use or occupy the land but had not been constructed or installed on the effective date of the status as a biodiversity reserve; or

(*c*) the demolition or reconstruction of a trapping camp, rough shelter, shelter or cottage, including an appurtenance or ancillary facility such as a shed, well, water intake or sanitary facilities.

(2) The work is carried out in compliance with the following requirements:

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

(*b*) 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 biodiversity reserve, whether the right results from a lease, servitude or other form of title, permit or authorization;

(*c*) 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 (R.S.Q., c. T-8.1) and, if applicable, the limits allowed under an authorization for the structure, works or infrastructure; and

(*d*) 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.

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.

5. No person may bury, abandon or dispose of waste, snow or other residual materials elsewhere than in waste disposal containers, facilities or sites determined by the Minister or in another place with the authorization of the Minister and in compliance with the conditions the Minister determines.

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

DIVISION II
RULES OF CONDUCT FOR USERS

6. Every person staying, carrying on an activity or travelling in the biodiversity reserve is required to maintain the premises in a satisfactory state and before leaving, return the premises to their natural state to the extent possible.

7. Every person who makes a campfire must

(1) first clear an area around the fire site sufficient to prevent the fire from spreading by removing all branches, scrub, dry leaves and other combustible material;

(2) ensure that the fire is at all times under the immediate supervision of a person on the premises; and

(3) ensure that the fire is completely extinguished before leaving the premises.

8. In the biodiversity reserve, no person may

(1) cause any excessive noise;

(2) behave in a manner that unduly disturbs other persons or interferes with their enjoyment of the biodiversity reserve; or

(3) harass wildlife.

For the purposes of subparagraphs 1 and 2 of the first paragraph, behaviour that significantly disturbs other persons and constitutes unusual or abnormal conditions for the carrying on of an activity or for the permitted use of property, a device or an instrument within the biodiversity reserve is considered excessive or undue.

9. No person may enter, carry on an activity or travel in a vehicle in a given sector of the biodiversity reserve if the signage erected by the Minister restricts access, traffic or certain activities 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 and complies with the conditions the Minister determines.

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

DIVISION III
ACTIVITIES REQUIRING AN AUTHORIZATION

11. No person may occupy or use the same site in the biodiversity reserve for a period of more than 90 days in the same year, unless the person has been authorized by the Minister and complies with the conditions the Minister determines.

(1) For the purposes of the first paragraph,

(*a*) the occupation or use of a site includes

i. staying or settling in the biodiversity reserve, including for vacation purposes;

ii. installing a camp or shelter in the biodiversity reserve; and

iii. installing, burying or leaving property in the biodiversity reserve, including equipment, any device or a vehicle;

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

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

(*a*) on the effective date of the protection status as a 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 or, if

applicable, the Act respecting the conservation and development of wildlife (R.S.Q., c. C-61.1), and whose right to occupy the land is renewed or extended on the same conditions, subject to possible changes in fees;

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

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

12. (1) 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 and carries on the activities in compliance with the conditions the Minister determines.

The conditions determined by the Minister for the authorization may pertain, among other things, to species of trees or shrubs, the size of the stems that may be cut, the quantities authorized and the places where the activities may be carried on.

(2) Despite subsection 1, the authorization of the Minister is not required if a person staying or residing in the biodiversity reserve collects wood to make a campfire.

An authorization is also not required if a person collects firewood to meet domestic needs in the following cases and on the following conditions:

(*a*) the wood is collected to supply a trapping camp or a rough shelter permitted within the biodiversity reserve if

i. 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 Natural Resources and Wildlife under the Forest Act;

ii. the quantity of wood collected does not exceed 7 apparent cubic metres per year;

(*b*) in all other cases if

i. the wood is collected within a sector designated by the Minister of Natural Resources and Wildlife as a sector for which a permit for the harvest of firewood for domestic purposes under the Forest Act may be issued, and for which, on the effective date of the protection status as a biodiversity reserve, a designation as such had already been made by the Minister;

ii. the wood is collected by a person who, on the effective date of the protection status as a biodiversity reserve or in any of the three preceding years, held a permit for the harvest of firewood for domestic purposes allowing the person to harvest firewood within the biodiversity reserve;

iii. 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 Natural Resources and Wildlife under the Forest Act.

(3) Despite subsection 1, an authorization to carry on a forest management activity is not required if a person authorized by lease to occupy land within the biodiversity reserve in

accordance with this conservation plan carries on the forest management activity for the purpose of

(a) clearing the permitted areas, maintaining them 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

(b) 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 paragraph *b* of subsection 3 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.

(4) Despite subsection 1, an authorization to carry on a forest management activity to maintain a sugar bush and harvest maple products for domestic needs is not required if

(*a*) the activity is carried on by a person who, on the effective date of the protection status as a biodiversity reserve or in any of the three preceding years, held a sugar bush management permit issued by the Minister of Natural Resources and Wildlife under the Forest Act allowing the person to carry on within the biodiversity reserve the activities associated with operating a sugar bush;

(*b*) the activity is carried on within a zone for which the permit obtained allowed the carrying on of sugar bush operations on the effective date of the protection status as a biodiversity reserve or in any of the three preceding years; or

(*c*) the activity is carried on by a person in compliance with the conditions set out in the sugar bush management permit issued by the Minister of Natural Resources and Wildlife under the Forest Act.

DIVISION IV
AUTHORIZATION EXEMPTIONS

13. Despite the preceding provisions, an authorization is not required for an activity or other form of intervention within the 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 disaster. The person concerned must, however, immediately inform the Minister of the activity or intervention that has taken place.

14. The members of a Native community who, for food, ritual or social purposes, carry on an intervention or an activity within the biodiversity reserve are exempted from obtaining an authorization.

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

(1) any activity or intervention required within the biodiversity reserve to complete a project for which express authorization had previously been given by the Government and the Minister,

or only by the Minister, in accordance with the Environment Quality Act (R.S.Q., c. 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 the activity or intervention is carried out in conformity with the request; and

(4) any activity or intervention by the Société, if the conditions for the carrying out of the activity or intervention have been determined in an agreement between the Minister and the Société and the activity or intervention is carried out in compliance with those conditions.

The Société is to keep the Minister informed of the various activities or interventions referred to in this section it proposes to carry out before the work is begun in the 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 ascertain the impact of electric power transmission and distribution line corridors and rights-of-way, geological or geophysical surveys and survey lines, and the opening and maintenance of roads required for the purpose of access, construction or equipment movement incidental to the work.

DIVISION V
GENERAL PROVISIONS

16. Every person who applies to the Minister for an individual authorization or an authorization for a group or a number of persons must provide all information or documents requested by the Minister for the examination of the application.

17. The Minister's authorization, which is general or for a group, may be communicated for the benefit of the persons concerned by any appropriate means including a posted notice or appropriate signage at the reception centre or any other location within the biodiversity reserve that is readily accessible to the public. The Minister may also provide a copy to any person concerned.