



Muskuuchii hills biodiversity reserve

Conservation plan



March 2003

1. Plan and description

1.1. Geographic location, boundaries and dimensions

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

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

It lies within the territory of municipalité de Baie James.

The proposed biodiversity reserve covers an area of 735 km². The western boundary runs along the Harricana river for two or three kilometres; to the north it ends at the junction of Des Aulnes river and Kaikuscheshich stream, at Gérard lake.

1.2. Ecological overview

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

1.2.1. Representative elements

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

Geology and geomorphology: The land of the proposed reserve is part of the Superior geologic province, whose bedrock is archean (> 2.5 billion years). The substratum is formed almost exclusively of felsic rock. In the plain, the bedrock is covered with organic deposits and poorly drained Cochrane till. The terraces and hills are covered with well-drained Cochrane till, well-drained sand and fine sediments. The higher land constitutes one segment of the northern portion of the interlobate Harricana moraine. It forms a unique, remarkable feature in the surrounding clayey plain. Cochrane till is a clayey, limestone deposit of glacial origin that covers almost 40% of the area and is almost exclusively found in the natural region of the Turgeon River Plain. The average altitude is 244 m, varying between 170 m and 340 m.

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

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

1.2.2. Outstanding elements

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

1.3. Land occupation and use

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

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

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

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

2. Protection status

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

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

- ✓ the conservation of environments representative of the natural province and natural region;
- ✓ the preservation of biodiversity in peat-based ecosystems;

- ✓ the ongoing sustainable management of fur-bearing animals;
- ✓ the survival of Native heritage sites;
- ✓ the acquisition of new knowledge concerning natural and cultural heritage.

3. Activities within the reserve

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

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

3.1. Prohibited activities

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

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

3.2. Activities governed by other Acts

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

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

- **Archaeological research** (especially the measures contained in the *Cultural Property Act* [R.S.Q., c. B-4]);
- **Utilisation of wildlife resources** (especially the measures contained in the *Act respecting the conservation and development of wildlife* [R.S.Q., c. C-61.1], the regulation on beaver reserves and the *Act respecting hunting and fishing rights in the James Bay and New Québec territories* [R.S.Q., c. D-13.1]);
- **Access** (especially the measures contained in the *Act respecting the lands in the domain of the State* [R.S.Q., c. T-8.1]);
- **Land rights** (especially the measures contained in the *Act respecting the lands in the domain of the State* [R.S.Q., c. T-8.1] and, where applicable, in leases issued by the Minister of Natural Resources).

3.3. Supervision of activities

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

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

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

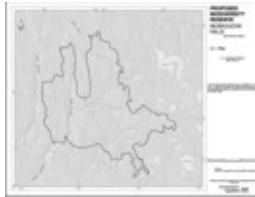
The Société de la faune et des parcs du Québec (FAPAQ) remains responsible for supervising the activities relating to wildlife protection and management that are under its responsibility.

4. Permanent protection status

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

Schedules

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



[Click to enlarge](#)

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



[Click to enlarge](#)

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



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