



# Proposed Matamec ecological reserve (northern portion)

**Conservation plan**



October 2003

# 1. Plan and description

## 1.1. Geographic location, boundaries and dimensions

The plans of the proposed Matamec ecological reserve (northern portion) and its location are shown on the maps in Schedules A.1 and A.2.

The proposed Matamec ecological reserve (northern portion) is located on the North Shore, between 50°15' and 50°42' north latitude and 65°42' and 66°10' west longitude, within the unorganized territory of Rivière-Nipissis in the north and in Municipalité de Sept-Îles in the south. The proposed ecological reserve is wholly within Municipalité régionale de comté de Sept-Rivières.

The proposed ecological reserve covers an area of 546 km<sup>2</sup>. The southern boundary coincides with the northern boundary of the Matamec ecological reserve. The proposed protected area will contribute to ensuring the ecological integrity of almost the entire Matamec river watershed.

## 1.2. Ecological overview

The greater part of the proposed protected area lies in the Lower North Shore Plateau natural province and protects ecosystems characteristic of the Magpie lake massif natural region. The sector to the south and west of the river known as Rivière aux Rats Musqués, however, lies in the Sainte-Marguerite Plateau natural region, which is part of the Central Laurentian natural province.

### 1.2.1. Representative elements

**Climate:** The proposed ecological reserve straddles three distinct climate zones. From north to south, it is characterized by a cold subpolar, subhumid climate with a short growing season, a wet subpolar climate with a short growing season, and a subpolar, subhumid climate with a medium growing season. The area lies almost wholly within the bioclimatic field of mossy spruce stands, with the southern extremity lying at the transition with the balsam fir-white birch bioclimatic field.

**Geology and geomorphology:** The proposed ecological reserve is in the Grenville geologic province. The bedrock is formed mainly by Precambrian mafic and ultra-mafic igneous rocks such as diorite, gabbro and anorthosite. The geologic substrate in the southern part of the proposed ecological reserve, however, also consists of migmatites and felsic igneous rocks. In terms of its geomorphology, the area can be described as a group of low hills and knolls situated on the southern edge of the Laurentian Plateau. The altitude relief in the area ranges from 110 m to 685 m. The topography of the Laurentian Plateau is rugged and mountainous. Where the bedrock does not outcrop, it is covered with a thin layer of moderately drained till; talus is frequently found at the base of the steepest slopes. The valley bottom of the Matamec river is covered by well-drained to moderately-well-drained sandy fluvio-glacial material.

**Hydrography:** The proposed ecological reserve covers close to three-quarters of the Matamec drainage basin, which has an area of approximately 669 km<sup>2</sup>. It protects over 20 kilometres of the river, which empties into the St. Lawrence approximately 25 km east of Sept-Îles after a course of 66 km. The Matamec river flows over the bedrock through a deep, narrow valley. Its course is relatively straight because it follows a network of suborthogonal faults. The proposed ecological reserve also has numerous lakes and headwater watercourses characteristic of the North Shore.

**Vegetation:** Forest is the main vegetation cover in the proposed Matamec ecological reserve (northern portion). The stands are generally between 90 and 120 years old, dominated by softwood species, in particular black spruce (*Picea mariana*), balsam fir (*Abies balsamea*) and white spruce (*Picea glauca*). Krummholz black spruce and fir are sometimes found in extremely wind-exposed topographic positions. Dry heath occupies the rocky outcrops on certain summits and the colluvial deposits on the steep slopes. A few peat bogs dot the plateau; these peat bogs may be bogs consisting of clusters of shrubs or open stands of black spruce, or fens containing larch, alder, bog-myrtle and a number of species from the sedge family. The territory has not been affected by any disturbances, whether natural (fire, windfalls, insect infestations) or anthropogenic (silviculture).

### 1.2.2. Outstanding elements

In the summer, the waters of the Matamec river are populated by Atlantic salmon (*Salmo salar*). The watercourse has the status of salmon river protected area. The proposed Matamec ecological reserve is also the only reserve within the network of ecological reserves that has as one of its objectives the protection of the habitat of the Atlantic salmon. The creation of the proposed ecological reserve, while ensuring the integrity of the natural environments at the watershed level, will allow for the reinforcement of protection measures having regard to this particularly fragile species.

It is estimated that the flora in the Matamec drainage basin includes some 325 species of vascular plants well-adapted to boreal regions and over 100 species of mosses and lichens. At least 25 of these species are believed to be at the northern limit of their distribution area. Also found in the proposed ecological reserve are a number of relatively rare or scarce species including bog aster (*Aster nemoralis*), common harebell (*Campanula rotundifolia*), bush honeysuckle (*Diervilla lonicera*), purple crowberry (*Empetrum atropurpureum*), pinesap (*Monotropa hypopithys*) and green pyrola (*Pyrola chlorantha*).

### 1.3. Land occupation and uses

The land occupations and uses in the proposed Matamec ecological reserve (northern portion) are shown on the map in Schedule A.3.

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

Apart from the mining claims held on a portion of the territory, no land rights have been granted within the perimeter of the proposed ecological reserve.

The territory is served by forest roads accessible from Route 138.

## 2. Protection status

The proposed ecological reserve, together with the existing ecological reserve, contributes to ensuring the preservation of the entire area drained by the Matamec river. Situated at the confluence of three distinct ecoregions, the territory constitutes an exceptional environment by reason of its biodiversity. Furthermore, the absence of anthropogenic disturbances associated with resource development makes it a choice site for fundamental and applied research in the ecological sciences.

## 3. Activities within the reserve

The activities carried on within the proposed Matamec ecological reserve (northern portion) are governed by the Natural Heritage Conservation Act (R.S.Q., c. C-61.01).

This conservation plan does not specify any prohibited activity other than those prohibited in ecological reserves by the Act; it authorizes, subject to certain conditions, the carrying on of mining exploration.

### 3.1. Prohibited activities

It is important to note that under the Natural Heritage Conservation Act, the main activities prohibited in an area designated as a proposed ecological reserve are:

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

### 3.2. Authorized mining exploration

Mining exploration, including prospecting, digging and boring, where those activities necessitate stripping, the digging of trenches, excavation or deforestation, may be carried on within the territory of the proposed Matamec ecological reserve (northern portion) provided that:

- (1) the activities are carried on by or on behalf of a person who is entitled to carry on mining exploration, prospecting, digging or boring within the territory of the proposed ecological reserve, in accordance with the measures set forth in the Mining Act (R.S.Q., c. M-13.1);
- (2) the activities are carried on by or on behalf of a person who is expressly authorized in writing by the Minister responsible for the application of the Mining Act to carry on mining exploration within the territory of the proposed ecological reserve, this authorization having been issued in conformity with the provisions of the Entente établissant certaines conditions régissant l'exercice d'activités d'exploration minière à l'intérieur de la réserve écologique projetée de la Matamec (partie nord) entered into by the Minister and the Minister of the Environment;
- (3) the activities, where they necessitate deforestation, are carried on by or on behalf of a person who is entitled to carry on such activities, in accordance with the measures set forth in sections 20 and 21 of the Forest Act (R.S.Q., c. F-4.1); and
- (4) the activities are carried on in conformity with the authorization issued by the Minister responsible for the application of the Mining Act, and where those activities necessitate deforestation, in conformity with the terms and conditions set forth in sections 21 and 22 of the Forest Act.

A copy of the above agreement may be obtained from the Direction du développement minéral of the Ministère des Ressources naturelles, de la Faune et des Parcs (Ministère des Ressources naturelles, de la Faune et des Parcs, 5700, 4<sup>e</sup> Avenue Ouest, bureau C-408, Charlesbourg (Québec) G1H 6R1) or from the Direction du patrimoine écologique et du développement durable of the Ministère de l'Environnement, Édifice Marie-Guyart, 4<sup>e</sup> étage, 675, boulevard René-Lévesque Est, Québec (Québec), G1V 5R7, case 21.

### 3.3. Activities governed by other statutes

All activities permitted within the boundaries of the proposed Matamec ecological reserve (northern portion) 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 ecological reserve.

In particular, in addition to the legal framework under the Mining Act and the Forest Act as described in paragraph 3.2 as regards mining exploration, the carrying on of certain activities may be subject to the provisions of the Act respecting the conservation and development of wildlife (R.S.Q., c. C-61.1) and the Environment Quality Act (R.S.Q., c. Q-2).

### **3.4. Supervision of activities**

The Minister of the Environment is responsible for the application of the Natural Heritage Conservation Act, and is therefore responsible for proposed ecological reserves and those established under that Act.

The Minister will supervise and monitor the measures contained in the Act with regard to permitted activities in protected areas.

The Minister has authority over these lands which form part of the domain of the State.

All other government departments and bodies will retain their responsibilities for the management of the activities entrusted to them under the legislative and regulatory texts that apply within the territory and that are not inconsistent with the status of proposed ecological reserve.

## **4. Permanent protection status**

The permanent protection status currently envisaged for the territory is "ecological reserve" status. This status may be reassessed after the public consultation to be held with the Uashatmak Mani-Utenam Native community. The status of "biodiversity reserve" may then be envisaged for a portion of the territory. Protection status as a biodiversity reserve and as an ecological reserve is governed by the Natural Heritage Conservation Act (R.S.Q., c. C-61.01).



A.2. Map showing the location of the proposed Matamec ecological reserve (northern portion)



