



# Moisie river aquatic reserve

**Conservation plan**



February 2003

# 1. Plan and description

## 1.1. Geographic location, boundaries and dimensions

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

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

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

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

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

## 1.2. Ecological overview

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

### 1.2.1. Representative elements

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

**Geology and geomorphology:** The reserve is in the Grenville geologic province. It is part of the Canadian Shield, and constitutes the foothills of a powerful mountain range created almost one billion years ago. The substratum is mainly formed by crystalline rocks, in this instance gneiss and paragneiss. Upstream, the bedrock contains occasional carbonate rock, in this instance marble. In the downstream sector of the proposed aquatic reserve, the bedrock contains occasional mafic (anorthosite) and felsic (charnockitic) rocks. Upstream, the bedrock is covered by a thin till, and downstream surface deposits

mainly comprise rock and peat. The valley bottom of the Moisie river is covered by glaciofluvial sand and gravel. The overall landscape presents a complex assembly of high and low hills, mounds and hummocks. The average altitude is 437 m, varying between 8 m and 991 m.

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

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

### 1.2.2. Outstanding elements

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

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

### 1.3. Land occupation and use

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

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

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

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

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

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

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

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

- ensure that action is taken to protect the wildlife resources of the river and its tributaries;
- plan and implement research activities on the biology of the Atlantic salmon and the anadromic speckled trout;
- define the parameters for the establishment of a management council for the Moisie river.

## 2. Protection status

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

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

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

### 3. Activities within the reserve

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

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

#### 3.1. Prohibited activities

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

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

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

### 3.1.2. Additional prohibitions

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

### 3.2. Activities governed by other Acts

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

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

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

### 3.3. Supervision of activities

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

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

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

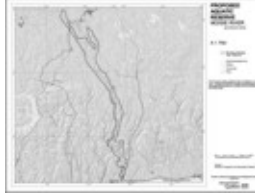
The Société de la faune et des parcs du Québec (FAPAQ) remains responsible for supervising the activities relating to wildlife protection and management that are under its responsibility.

#### 4. Permanent protection status

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

## Schedules

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



[Click to enlarge](#)

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



[Click to enlarge](#)

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



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