



Protected areas  
in Québec:

A Lifelong Heritage

# Réserve écologique de la Tourbière-de-Shannon



CONSERVATION  
PLAN

Québec 

**Bibliographic Reference :**

Gouvernement of Québec, Ministère du Développement durable, de l'Environnement et des Parcs, Direction du patrimoine écologique et des parcs. Réserve écologique de la Tourbière-de-Shannon, Conservation Plan. 2010. 7 p.

## 1. Official toponym

Official toponym: Réserve écologique de la Tourbière-de-Shannon. This toponym refers to the name of the bog protected by the ecological reserve.

## 2. Description of the territory

The Réserve écologique de la Tourbière-de-Shannon is located in the territory of Municipalité de Shannon, Municipalité régionale de comté (MRC) de la Jacques-Cartier, in the Capitale-Nationale administrative region (region 03), approximately 30 km northwest of Ville de Québec. The Tourbière de Shannon covers an area of approximately 250 hectares at an altitude of 180 metres, on the northern flanks of the Jacques-Cartier river. The ecological reserve will allow the major part of the Tourbière de Shannon's ecosystem to be integrally preserved. The area of the Réserve écologique de la Tourbière-de-Shannon is 168.77 hectares. The map of the ecological reserve, prepared by land surveyor Bertrand Bussière, is shown at the end of this document.

The Tourbière de Shannon is mainly ombrotrophic (Buteau, 1989). This type of bog has a convex shape and is characterized by an acid pH between 3.5 and 4.6 and a water and mineral intake that comes solely from precipitation (Gorham & Janssens, 1992). The sphagnum contributes heavily to the acidity of the environment (Clymo, 1964). The seasonal recovery profile of this type of bog is strictly a function of precipitation, except for the summertime when evapotranspiration is significant, and in winter, when the surface of the bog is frozen (Bastien, 2007). A lagg<sup>1</sup> exists on the periphery of the bog and acts as a junction with the surrounding mineral soil. The water intake, after having run through the adjacent mineral soil, flows towards the margin of the bog and enriches it with available minerals. The lagg is characterized by the simultaneous presence of minerotrophic, facultative or even ombrotrophic species.

The ecological reserve is located within the natural province of the Southern Laurentians in the Saint-Joseph Lake Low Hills ecological district. The territory is within the sugar maple-basswood bioclimatic domain. It is characterized by a subpolar and continental climate, subhumid annual precipitation and a long growing season.

The basement rocks below the Tourbière de Shannon is principally composed of gneiss and paragneiss (gneiss whose origin is sedimentary rock) (Grondin P., Leboeuf P., Noël J., Hotte D., 2003).

An administrative document of the Ministère du Développement durable, de l'Environnement et des Parcs entitled *Portrait of territory* groups the ecological information concerning the Réserve écologique de la Tourbière-de-Shannon and is updated according to the state of knowledge of the territory.

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<sup>1</sup> Lagg: the depressed and minerotrophic margin of a raised bog.

### **3. Protection status**

The ecological reserve will assure the complete, permanent protection of a large part of the Tourbière de Shannon.

### **4. Activities framework**

Activities carried on within the Réserve écologique de la Tourbière-de-Shannon are governed by the provisions of the *Natural Heritage Conservation Act* (R.S.Q., c. C-61.01) and include in particular scientific research and educational or management activities. Those activities will be subject to the written authorization of the Minister of Sustainable Development, Environment and Parks.

This conservation plan does not prohibit activities in addition to the activities already prohibited in ecological reserves under the Act; nor does it authorize any other activities, or set any additional constraints on the activities permitted by the Act.

Since the protection status assigned is comprehensive, no other conservation measure is planned for this protected area. As the conservation objectives are the same as for the entire area, the ecological reserve constitutes a single zone.

#### **4.1. Prohibited activities**

As provided in the *Natural Heritage Conservation Act*, the main activities prohibited in an area to which ecological reserve status has been assigned are

- § forest management within the meaning of section 3 of the *Forest Act* (R.S.Q., c. F-4.1);
- § mining, and gas or petroleum development;
- § mining, gas, and petroleum exploration, brine and underground reservoir exploration, prospecting, and digging or boring;
- § the development of hydraulic resources and any production of energy on a commercial or industrial basis;
- § hunting, trapping, fishing, earthwork and construction work, agricultural, industrial, or commercial activities and, generally, any activity likely to alter the state or nature of ecosystems.

No person may be in an ecological reserve, except for an inspection or for the carrying on of an activity authorized under the Act. The Minister of Sustainable Development, Environment and Parks may, however, give written authorization on the conditions the Minister determines for any activity consistent with the purposes of an ecological reserve or with its management.

## 4.2. Activities governed by other statutes

Scientific research and educational or management activities carried on within the Réserve écologique de la Tourbière-de-Shannon are also governed by other applicable legislative and regulatory provisions, including those that require the issue of a permit or authorization or the payment of fees.

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

- Archaeological research: measures set out in particular in the *Cultural Property Act* (R.S.Q., c. B-4);
- Environmental protection: measures set out in particular in the *Environment Quality Act* (R.S.Q., c. Q-2) and its regulations;
- Species of flora designated as threatened or vulnerable: measures prohibiting the removal of such species under the *Act respecting threatened or vulnerable species* (R.S.Q., c. E-12.01);
- Development and conservation of wildlife resources: measures set out in the *Act respecting the conservation and development of wildlife* (R.S.Q., c. C-61.1) and its regulations;
- Access and land rights related to the domain of the State: measures set out 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);
- 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).

## 4.3. Supervision of activities

The Minister of Sustainable Development, Environment and Parks is responsible for the application of the *Natural Heritage Conservation Act*, and is therefore responsible for management of the ecological reserves established under that Act and has authority over these lands, which form part of the domain of the State. The Minister supervises and monitors the measures in the Act as they relate to activities permitted in protected areas. In managing the reserve, the Minister will work collaboratively with other government representatives having specific responsibilities within the boundaries of the reserve or on adjoining land, such as the Minister of Natural Resources and Wildlife and Municipalité de Shannon. In

the exercise of their powers and functions, the Ministers and the municipality will take into consideration the protection sought for these natural environments and the protection status that has been granted.

**MAP OF THE  
RÉSERVE ÉCOLOGIQUE  
DE LA TOURBIÈRE-DE-SHANNON**



PLAN ACCOMPANYING  
THE TECHNICAL DESCRIPTION OF THE  
LA RÉSERVE ÉCOLOGIQUE DE  
LA TOURBIÈRE-DE-SHANNON

Municipality : SHANNON  
Regional county municipality : LA JACQUES-CARTIER  
Administrative region : CAPITALE-NATIONALE  
Registration division : PORTNEUF  
Cadastral : PAROISSE DE SAINTE-CATHERINE

Scale 1 : 5 000  
100 0 100 200 300 400

LEGEND

Boundary of the ecological reserve

Prepared at Québec on March 12, 2009

By : BERTRAND BUSSIÈRE  
Land Surveyor

Minute : 1455 Field sheet 47-385  
Direction du patrimoine écologique et des parcs  
File : 5141-03-03-(3.25)

The original of this document is kept in the office  
of Bertrand Bussière, Land Surveyor

Date : By : I.S.



Area of ecological reserve  
168,77 hectares (1,69 km<sup>2</sup>)

NOTES

Measures in the map expressed in the International System of Units (SI).

The directions indicated on this document are bearings based on the SCOPD system (zone 7) NAD 83.