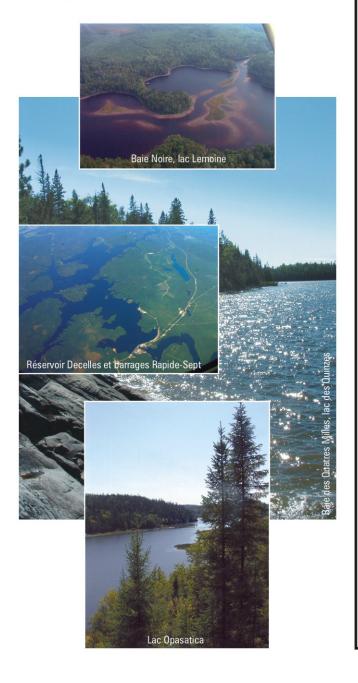
QUÉBEC STRATEGY FOR PROTECTED AREAS





Opasatica lake proposed biodiversity reserve

Des Quinze lake proposed biodiversity reserve

Piché-Lemoine forest proposed biodiversity reserve

Decelles reservoir proposed biodiversity reserve

(Abitibi-Témiscamingue)

Proposed Conservation Plan

Public Consultation Document

March 2007

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Reference

Gouvernement du Québec, Ministère du Développement durable, de l'Environnement et des Parcs, direction du patrimoine écologique et des parcs, *Proposed Conservation Plan: Opasatica lake proposed biodiversity reserve, Des Quinze lake proposed biodiversity reserve, Piché-Lemoine forest proposed biodiversity reserve, Decelles reservoir proposed biodiversity reserve—*Public Consultation Document, 2007, 88 pages.

Abbreviations and acronyms

- ✓ ARTVS: Act respecting threatened or vulnerable species
- BAPE: Bureau d'audiences publiques sur l'environnement
- CCEQ: Centre de contrôle environnemental du Québec of the Ministère du Développement durable, de l'Environnement et des Parcs
- CDPNQ: Centre de données sur le patrimoine naturel du Québec
- ✓ DPÉP: Direction du patrimoine écologique et des parcs of the Ministère du Développement durable, de l'Environnement et des Parcs
- ✓ DRAE: Direction de l'analyse et de l'expertise régionales de l'Abitibi-Témiscamingue et du Nord-du-Québec of the Ministère du Développement durable, de l'Environnement et des Parcs
- ✓ FAMU: Fur-bearing animal management unit
- Faune Québec: Wildlife branch of the Ministère des Ressources naturelles et de la Faune
- ✓ FMU: Forest management unit
- ✓ MDDEP: Ministère du Développement durable, de l'Environnement et des Parcs
- ✓ RCM: Regional County Municipality
- MRNF: Ministère des Ressources naturelles et de la Faune
- ✓ NHCA: Natural Heritage Conservation Act

Definitions

Biodiversity or biological diversity

Under the NHCA, it means "the variability among living organisms from all sources including terrestrial, marine, estruarial and freshwater ecosystems and the ecological complexes of which they are a part; those terms include diversity within species, between species and of ecosystems."

Biodiversity reserve

An area established to maintain biodiversity and in particular an area established to preserve a natural monument—a physical formation or group of formations—and an area established as a representative sample of the biological diversity of the various natural regions of Québec.

This permanent status is attributed, further to a public hearing under the NHCA, to a territory previously protected under the status of proposed biodiversity reserve.

Industrial activities (forestry, energy or mining operations) are therefore prohibited. Depending on the area's ecological issues, this protection status notably allows for such recreational activities as cottaging, hunting, fishing, hiking, canoeing and kayaking.

Conservation

All efforts to protect, manage and restore biodiversity and ecological processes that allow for sustainable and compatible land use.

Ecological reference framework¹

A classification, mapping and interpretation system for hydrosystems and terrestrial ecosystems. Developed by the MDDEP, this tool is used to integrate and use ecological information for the purpose of sustainable and environmentally responsible management of the territory and its resources. It allows for recognizing land management problems at the scale at which the territory is being considered.

Natural province

Level I of Québec's Ecological Reference (Li and Ducruc, 1999). There are 13 natural provinces in Québec. They are generally mapped at a scale of 1:1 000 000. The natural provinces have names but are also identified with letters. Thus, the Abitibi Lowlands and James Bay natural province may be designated as natural province F.

Natural region

A subdivision of the natural provinces, it is Level 2 of Québec's Ecological Reference Framework. There are 81 natural

http://www.mddep.gouv.qc.ca/biodiversite/cadre-ecologique/index.htm

¹ For more information, go to:

regions in Québec. They are generally mapped at a scale of 1:500 000.

Protected area

The NHCA defines *protected area* as a geographically defined area that is designated or regulated and managed to reach specific conservation objectives².

There are 22 protected areas in Québec, 11 of which are managed by the MDDEP (aquatic reserve, biodiversity reserve, ecological reserve, natural reserve, flora habitat, manmade landscape and national park)³ under the NHCA, which took effect on December 19, 2002, the *Act respecting threatened or vulnerable species* (R.S.Q., c. E-12.01) adopted in 1989 and the *Parks Act* (R.S.Q., c. P-9) adopted in 1977. Outstanding geological site (OGS) is a status defined by the *Mining Act*. Although there are none at the moment, some OGSs could be designated as protected areas.

Proposed biodiversity reserve

Protection status given to the territory created under the NHCA which enables land to be legally protected for a period of four years, a period which may be extended by two years. During this period, the MDDEP carries out all the necessary studies and steps to obtain permanent protection status for the territory, including a public hearing.

Representativeness

Accurately illustrating the full range of environment types within an area or at least an adequate sampling thereof. Networks of protected areas must have a balanced sampling of all existing ecosystems (IUCN, 2002).

The contribution to representativeness may be expressed as follows: an index that expresses the proportion of biodiversity that the proposed area protects. The index is based on six variables selected for their capacity to provide an overall picture of the territory's biodiversity (climate, vegetation cover, age of the forests, rivers, lakes, environment types).⁴

² Simplified version of the official definition given in the *Natural Heritage Conservation Act* (R.S.Q. c. C-61.01).

³ This list also includes the following provisional conservation status categories: proposed aquatic status, proposed biodiversity reserve, proposed ecological reserve and proposed man-made landscape.

⁴ Definition taken from *Plan d'action stratégique : premiers résultats* https://www.mddep.gouv.qc.ca/biodiversite/aires_protegees/strategie/resultat-plan/aires_protegees.pdf

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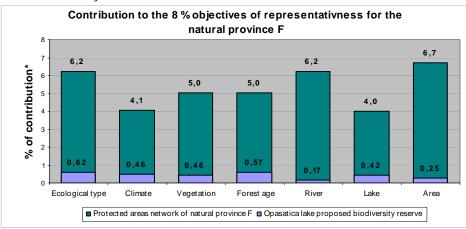
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Summary sheet—Why protect the Opasatica lake territory?

Contribution to the representativeness of the natural province of the Abitibi and James Bay Lowlands

- Addition of 245 km² (0.014%) to Québec's network of protected areas and 0.25% to the network of the natural province of the Abitibi and James Bay Lowlands



* The objective is to protect 8% of the area of natural province F, but also a representative 8% of each class of features. For more details, see section 1.5.

Geomorphology:

- glaciolacustrine plain of silts and clays
- diabase dike forming a rocky ridge and thin colluvium overlying rock at the foot of the slopes
- sector of organic deposits (forest humus) overlying rock

Vegetation:

- important concentration of black spruce stands and white birch stands
- protection of jack pine stands
- includes two recognized exceptional forest ecosystems (EFE):
 - Old-growth forest of Opasatica lake: balsam fir-white birch-eastern white cedar forest containing stands between 225 and 265 years old
 - Old-growth forest of Granville river: balsam fir-white birch-eastern white cedar forest
- includes an EFE project: Lac-Hébert rare forest (white pine and red pine)

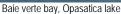
Wildlife:

- includes a heronry
- favourable habitat for the bald eagle

Hydrography:

- protection of the entire Opasatica lake, which is large: 48 km² and 33 km long.=
- Important recreation and tourism potential: proximity of population and good access
- High potential for archeological research
- Linked to two protected areas in Ontario





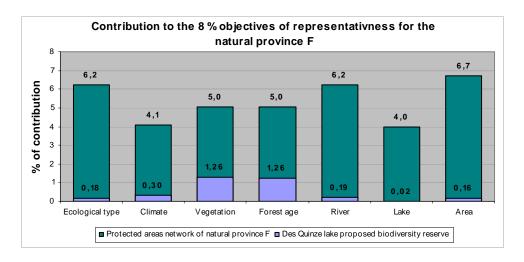


Opasatica lake

Summary sheet – Why protect the Des Quinze lake territory?

Contribution to the representativeness of the natural province of the Abitibi and James Bay Lowlands

- Addition of 159 km² (0.009%) to Québec's network of protected areas and 0.16% to the network of the natural province of the Abitibi and James Bay Lowlands



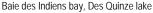
Geomorphology:

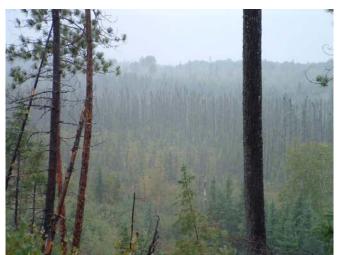
- glaciolacustrine plain of silts and clays
- two eskers
- complex of glacial knolls

Vegetation:

- very old sugar maple and yellow birch forests near the northern boundary of its distribution area and numerous yellow birch stands
- a number of old white pine stands
- includes a high percentage of forests aged 90 years and older (about 45% of the reserve's forest cover)
- Important recreation and tourism potential: large body of water, river access, outfitters nearby
- Native cultural potential





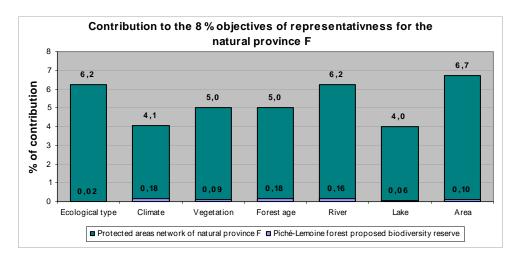


View of black spruce forest from the esker

Summary sheet – Why protect the Piché-Lemoine forest?

Contribution to the representativeness of the natural province of the Abitibi and James Bay Lowlands

- Addition of 94 km² (0.005%) to Québec's network of protected areas and 0.09% to the network of the natural province of the Abitibi and James Bay Lowlands



Geomorphology: - glaciolacustrine plain of silts and clays

- part of an esker

Vegetation: - important concentration of white birch stands

- a number of old yellow birch stands (120 years and more)

- important wooded ombrotrophic bog

- Important regional recreation and tourism potential

- Interpretational and educational potential





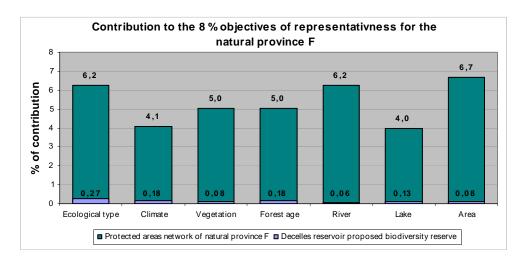


Black spruce forest

Summary sheet – Why protect the Decelles reservoir territory?

Contribution to the representativeness of the natural province of the Abitibi and James Bay Lowlands

- Addition of 81 km² (0.004%) to Québec's network of protected areas and 0.08% to the network of the natural province of the Abitibi and James Bay Lowlands



Geomorphology: - sector of dunes and ombrotrophic bog

- part of the Harricana Interlobate Moraine

Vegetation: - presence of black spruce stands, white birch stands and jack pine stands

Other: - situated on the periphery of the Dunes-de-la-Moraine-d'Harricana ecological reserve







Roy lake

1 Context

1.1 Background

At the Rio de Janeiro Earth Summit held in 1992, the Canadian government signed the Convention on Biodiversity. In November 1992, the Québec government officially subscribed to the Convention's objectives and decided to implement them on its territory. In this way, Québec made a commitment to conservation, notably by establishing a network of protected areas and developing guidelines for selecting and creating protected areas for which special measures are required to protect the biodiversity of these territories.

In view of reaching this objective, the Québec government adopted a biodiversity strategy in 1996, which it reviewed in 2004. Also to apply the Convention, it drew up a profile of Québec's network of protected areas in 1999. This profile showed Québec significantly lagging behind in biodiversity conservation. In fact, in 1999, protected areas totalled less than 3% of Québec's territory. Most of these were small and concentrated in the St. Lawrence Valley. The profile also revealed the absence of a strategy for establishing the network.

This finding led the Québec government to adopt several key directions to do with protected areas in June 2000, namely:

- Set aside 8% of the land in Québec by 2005 for the creation of protected areas⁵;
- Implement a network of protected areas that are representative of Québec's biodiversity;
- Take the socioeconomic concerns of local populations into account.

In December 2002, the National Assembly adopted the *Natural Heritage Conservation Act.* This law marked a turning point in the history of conservation in Québec by creating new statuses for protected areas (biodiversity reserves, aquatic reserves and man-made landscapes), enabling a more efficient approach to be taken to protect the biodiversity of vast territories based on their ecological and social specificities, while allowing sustainable use of some of their constituent elements. This law also allowed for the temporary yet legal

⁵ In Shine among the best, released in March 2004, the government committed to increasing protected areas from 5% to 8% by the end of its mandate

protection (proposed biodiversity reserve and proposed aquatic reserve) of certain territories, which constitutes an effective legislative tool for protecting territories of ecological interest.

In May 2004, the Minister of Sustainable Development, Environment and Parks, with the government's consent, created the Opasatica lake, Des Quinze lake, Piché-Lemoine forest and Decelles reservoir proposed biodiversity reserves, on account of their ecological and landscape interest. This decision had the immediate effect of prohibiting industrial activities (forestry operations, hydroelectric infrastructures and mining work) likely to alter the natural character of these territories.

The Minister of Sustainable Development, Environment and Parks is responsible for coordinating the implementation of Québec's strategy for protected areas and applying the *Natural Heritage Conservation Act.* He works closely with the government's other departments and agencies that are concerned, including the Ministère des Ressources naturelles et de la Faune (MRNF).

1.2 Status on the four proposed biodiversity reserves

Since setting aside the four proposed biodiversity reserves, the Ministère du Développement durable, de l'Environnement et des Parcs (MDDEP) has collected ecological information on the territories and conducted information sessions with target groups (municipalities, RCMs, local parties, outfitters and citizens) with two objectives in mind: to explain the reasons for designating the reserves and to get a better idea of local concerns in order to take them into account in the draft conservation plan it is submitting to the public.

1.3 Consultation provided for under the *Natural Heritage Conservation Act*

Under the *Natural Heritage Conservation Act* (R.S.Q., c. C-61.01, s. 39), before proposing permanent protection status for a territory set aside as a proposed biodiversity reserve, the Minister of Sustainable Development, Environment and Parks must mandate either the Bureau d'audiences publiques sur l'environnement (BAPE) or one or more designated commissioners to hold a public hearing.

1.4 Objective of the consultation document

This consultation document constitutes a conservation plan proposal for Opasatica lake, Des Quinze lake, Piché-Lemoine forest and Decelles reservoir. The document includes the ecological description and social profile of the immediate vicinity, state of the knowledge, conservation issues and preliminary management terms and conditions that the MDDEP considers important in guaranteeing the perennity of the biodiversity of these territories. These questions will be addressed during the consultation process in order to further define and clarify them.

This document does not attempt to answer all the questions arising from the permanent creation and future management of a biodiversity reserve. Accordingly, public consultation is an important step in the decision-making process undertaken by the MDDEP and local communities regarding the conservation and biodiversity of these territories.

The purpose of this document is to encourage debate on the creation and management of these future biodiversity reserves, all four of which are used in vastly different ways and at different levels by the populations. Social acceptability is inherent to the management of these protected territories.

1.5 Objective of the biodiversity reserves

A biodiversity reserve, like an aquatic reserve⁶, distinguishes itself from the other protected area statuses in Québec in two ways: first, by the nature of the natural features it aims to protect and then by the flexibility of the protection measures it is proposing to reach the biodiversity objectives.

a) Protected territories and natural features

Biodiversity reserves and aquatic reserves are of particular importance when they are considered as a whole. They do not protect exceptional features specifically but ensure that as a group of protected areas they protect all the types of ecosystems found in Québec. Therefore, a biodiversity reserve might protect ecosystems that to many are commonplace and unremarkable. However, all ecosystems and features of

⁶ The main feature distinguishing the aquatic biodiversity reserve is the first objective of protecting a given territory. Thus, the biodiversity reserve above all aims to protect terrestrial ecosystems whereas the aquatic reserve aims mainly to protect aquatic and riparian ecosystems. However, in both cases, there are usually both terrestrial and aquatic environments.

the most common natural environments of Québec must also be protected and included in the network of Québec's protected areas. Biodiversity and aquatic reserves are therefore part of a network of protected areas that are representative of all the biodiversity of Québec; a network that corresponds to 8% of Québec's surface area.

Calculation of representativeness is based on Québec's ecological reference framework (see Definitions section). The representativeness of a biodiversity reserve for the natural province of the Abitibi and James Bay lowlands is based on its contribution defined by surface area, ecological types, climate, vegetation, age of the forests, rivers and lakes. This natural province has 43 ecological types, 4 climatic types, 15 vegetation cover types, 5 classes of forest age, 7 Strahler⁷ levels for the rivers and 22 classes of lakes; the objective is to protect each of these variables at a rate of 8% of their respective surface areas.

For example, the Opasatica lake proposed biodiversity reserve contains 15 of the 43 ecological types present in the natural province. Each of these 15 ecological types of the proposed biodiversity reserve contributes in different proportions to this objective. There are 19.3 km² of the ecological type "organic (forest humus) on rock" in this natural province. The 8% objective therefore corresponds to protecting a total of 1.5 km² of this ecological type in this province. The Opasatica lake proposed biodiversity reserve contains 4.95 hectares. It therefore contributes 3.3% to the objective. This calculation is made for each ecological type and each category of representative features.

Thus, this method, which is the basis for determining the contribution of each protected area, serves to establish the representativeness objectives. However, even though this method guides the selection of territories of interest, the creation of biodiversity reserves and aquatic reserves is part of a land management approach that takes land use and occupation and use of natural resources for each region into account. Thus, while aiming for the highest contribution to the representativeness of each biodiversity reserve or aquatic reserve, the MDDEP seeks to minimize the negative socioeconomic impacts, that the boundaries facilitate management of these protected areas and that

⁷ The Strahler Stream Order is a system used to compare stream sections according to their position in a watershed and thus to a certain extent evaluate their flow volume.

each project corresponds as closely as possible to the aspirations of the communities concerned.

Therefore, in some cases, for a given sector, the boundaries of a biodiversity or aquatic reserve might not correspond to optimal representativeness when other factors related to land management or regional and local development are taken into consideration and which might take the form of constraints or potential or future prospects.

b) Management objectives and protection measures

The biodiversity reserve is a protected area that aims to protect natural environments and their ecosystems from key negative impacts, namely of an industrial nature, while allowing the practice of recreational, wildlife and educational activities and occupations. It is a type of protected area, therefore, that considers humans as being part of the ecosystem.

The biodiversity reserves must therefore be interpreted as territories devoted to the protection of the natural environment, to the discovery of nature and to recreation. The activity schedule must be interpreted as a tool allowing managers of these protected areas to evaluate the impact of particular situations and determine their acceptability. As such, these particular situations only apply very rarely to regular users practicing recreational and wildlife activities on these territories. Setting up a biodiversity reserve should therefore affect them very little. The MDDEP considers that generally the residents, users and visitors of these territories will find greater benefit than constraint, if for no other reason than because the forest landscapes will be preserved and perhaps even improved.

Monitoring each biodiversity reserve will determine if human activities significantly hinder the ecosystems, that is, if humans are in balance or not with their ecosystem. If the impacts are too great, additional protection measures would be taken when the conservation plan is reviewed.

2 Geography of the four proposed biodiversity reserves

2.1 Network of the protected areas in Abitibi-Témiscamingue

From February 2003 to February 2007, the network of protected areas in Abitibi-Témiscamingue (see map in appendix 1) increased considerably, from 0.6% to 4.2%. There is 1 biodiversity reserve with permanent protection status, 9 proposed biodiversity reserves, 1 portion of a proposed aquatic reserve, 1 proposed ecological reserve, 8 ecological reserves, 42 areas with concentrations of aquatic birds, 2 confinement areas for white-tailed deer, 12 bird colonies on islands and peninsulas, 15 exceptional forest ecosystems (13 old-growth forests and two rare forests), 1 habitat of a threatened or vulnerable species, 17 habitats of muskrat, 22 heronrys, 2 natural voluntary conservation areas, 1 national park, 1 national park project and 1 natural reserve.

At the moment, in the natural province of the Abitibi and James Bay Lowlands, the protected areas correspond to 6.7% of the territory.

This group, once complete, will protect a diverse range of terrestrial and aquatic ecosystems of the natural province of the Abitibi and James Bay Lowlands.

2.2 Location

The Opasatica lake (appendix 3), Des Quinze lake (appendix 4), Piché-Lemoine forest (appendix 5) and Decelles reservoir (appendix 6) proposed biodiversity reserves are located on the Abitibi-Témiscaminque territory.

The Opasatica lake proposed biodiversity reserve is located between 47°52′ and 48°10′ north latitude and 79°15′ and 79°31′ west longitude, approximately 25 kilometres southwest of downtown Rouyn-Noranda, and runs along part of the border between Québec and Ontario. It extends over a distance of 30 kilometres and covers an area of 245 km².

The Des Quinze lake proposed biodiversity reserve is located between 47°30′ and 47°43′ north latitude and 78°59′ and 79°12′ west longitude, approximately 35 kilometres northeast of downtown Ville-Marie. It covers an area of 159 km².

The Piché-Lemoine forest proposed biodiversity reserve is situated between 47°56′ and 48°06′ north latitude and 77°52′ and 78°02′ west longitude, less than 10 kilometres from downtown Val-d'Or. It covers an area of 94 km².

The Decelles reservoir proposed biodiversity reserve is situated between 47°43′ and 47°50′ north latitude and 78°10′ and 78°31′ west longitude, approximately 25 kilometres southwest of downtown Val-d'Or. It covers an area of 81 km².

2.3 Access

The Opasatica lake proposed biodiversity reserve can be reached by routes 101 and 117. Several forest and municipal roads lead from these routes to the different sectors of the proposed biodiversity reserve.

The Des Quinze lake proposed biodiversity reserve is far less accessible. Main access by land is by a forest road leading in from the outskirts of Rémigny. The territory is much easier to reach by boat via Des Quinze lake.

The Piché-Lemoine forest proposed biodiversity reserve, near Val-d'Or, can be accessed several ways. There are several municipal and forest roads via route 117 to reach it.

The Decelles reservoir proposed biodiversity reserve can be accessed via a main forest road (R815). The Decelles reservoir is another important access route by boat.