



Protected areas
in Québec:

A Lifelong Heritage

Réserve de biodiversité du Plateau-du-Lac- des-Huit-Chutes



CONSERVATION PLAN

Québec 

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Introduction

By Order in Council No. 81-2007 of February 6, 2007, pursuant to section 27 of the *Natural Heritage Conservation Act* (chapter C-61.01), the government authorized the Minister of Sustainable Development, Environment and Parks to create Réserve de biodiversité projetée du Plateau-du-Lac-des-Huit-Chutes, and approved the boundaries and conservation plan proposed for it. The creation of this provisional protected area by the ministerial order of February 20, 2007 (2007, G.O. 2, 1192) came into force on March 7, 2007 for a duration of four years. This provisional protection status was extended twice, first until March 7, 2015 by order of the Minister of Sustainable Development, Environment and Parks on February 17, 2011 (2011, G.O. 2, 631), and then until March 7, 2023 by order of the Minister of Sustainable Development, Environment and the Fight against Climate Change on February 10, 2015 (2015, G.O. 2, 178).

On January 26, 2012 the Minister of Sustainable Development, Environment and Parks (MDDEP) mandated the Bureau d'audiences publiques sur l'environnement (BAPE) to hold public consultations on ten proposed protected areas in the Saguenay–Lac-Saint-Jean region, one of them being Réserve de biodiversité projetée du Plateau-du-Lac-des-Huit-Chutes. This mandate was given to the BAPE in accordance with section 39 of the *Natural Heritage Conservation Act*, which provides for a public consultation process before permanent protection status is recommended to the Gouvernement du Québec for a territory reserved for the creation of a new protected area. The BAPE's mandate began on February 13, 2012 and concluded on July 20 of

the same year. The consultation was held in March and April 2012 in Saguenay and Saint-Félicien. The BAPE's inquiry and public hearing report (No. 287) was submitted to the Minister on July 20, 2012 (BAPE, 2012). In its report, the commission recommended giving permanent protection status to Réserve de biodiversité projetée du Plateau-du-Lac-des-Huit-Chutes.

The boundaries of the permanent protected area are the same as those for the provisional version (Réserve de biodiversité projetée du Plateau-du-Lac-des-Huit-Chutes).

1 The territory of Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes

1.1 Official toponym

The overall terrain and the name of the largest lake in the protected area determined the choice of toponym: *Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes*.

1.2 Boundaries and location

The boundaries and location of Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes are shown on the map comprising Appendix 1. Covering an area of 102.7 km², the reserve lies between 48° 50' and 48° 57' north latitude and between 70° 44' and 70° 54' west longitude, about 45 km north of the borough of Chicoutimi in the city of Saguenay, and 15 km north of the municipality of Saint-David-de-Falardeau. The reserve is located in the unorganized territory of Mont-Valin (MRC Le Fjord-du-Saguenay), in the administrative region of Saguenay–Lac-Saint-Jean.

Wherever possible, the boundaries of the reserve were defined on the basis of natural or anthropic elements that are easily identified on the ground, such as watercourses, lakes, forest roads and the edges of bogs. For sections along the banks of a water body (e.g. Lac des Huit Chutes in the south), the real boundary is the natural high-water mark. Where the boundary corresponds to a forest road, the right of way of the road is excluded from the protected area. The legal boundaries of the reserve are defined in the technical description and the survey map prepared by land surveyor Pierre Hains with the following minutes 11514 (February 15, 2018) and filed in the surveying archives of the Surveyor General of Québec (Greffes de l'arpenteur général du Québec), Ministère de l'Énergie et des Ressources naturelles under document number 536701.

1.3 Ecological portrait

1.3.1 Physical environment

The biodiversity reserve is in the southern part of Central Laurentian natural province (Li, T. and J.-P. Ducruc, 1999¹), in Grenville geological province. The latter corresponds to the roots of a mountain chain formed nearly a billion years ago, during the Grenville orogeny.

The sector where the reserve is located is on the western edge of the Monts-Valin natural region, which includes the southernmost of the three great massifs of the natural province. The Monts-Valin massif, whose summits approach 1000 metres, constitutes the southwestern

portion of the natural region that bears its name. The reserve itself is in the northwestern part of the massif, at the centre of a plateau whose summits are almost always over 700 m, though generally under 800 m. Within the biodiversity reserve, the elevation ranges from 630 to 830 m (average 741 m). The bedrock is mostly anorthosite and orthopyroxene granitoids. Undifferentiated till (a glacial deposit with no particular morphology) is the dominant surface deposit (77%) in the reserve. Fluvioglacial deposits (mainly ice-marginal, but also proglacial) are rare, as are organic deposits, and scattered across the territory. In the south there are also a few dead-ice moraines, near Lac du Manitou and Lac du Chef. Thin soils with rocky outcrops cover 1.5% of the area of the reserve. Almost 90% of the reserve's soils enjoy good to moderate drainage, with bogs being small to rare (< 1.5% of the reserve).

The waters of the western, southern and eastern margins of the Monts-Valin massif drain toward Rivière Saguenay (via the Shipshaw, Valin, Sainte-Marguerite and Sainte-Marguerite Nord-Est rivers), while those of the centre and north flow toward the St. Lawrence through the Côte-Nord region (via the Betsiamites, Portneuf and Des Escoumins rivers). Located in the western part of the Monts-Valin massif, the reserve has numerous bodies of water (over 300) accounting for 17.6% of its total area. The waters of the reserve mostly drain into Rivière Shipshaw (via Rivière à la Tête Blanche and Rivière des Huit Chutes), with only the southeastern portion

¹ http://www.mddelcc.gouv.qc.ca/biodiversite/cadre-ecologique/rapports/Provinces_Internet_16-12-2014.pdf

(with lakes Tuzo, Matuetin and Mercier) being in the Rivière Betsiamites watershed. The main water bodies of the reserve, apart from Lac des Huit Chutes, are lakes Dobe, Mandan, Pauvre, Léger, Nicole, Gagnon, Du Bois Sec, De la Petite Hache, De l'Irlandais, De l'Ouragan, Boiteux and Revolver. However, a multitude of dams control the drainage of the Shipshaw basin, three of them being inside the reserve (where they form lakes Ramier, Ricken and Mandan) with several others on the immediate periphery.

According to Gerardin and McKenney (2001), the territory of the reserve is subject to a cold subarctic continental climate, subhumid with a medium growing season. Average temperatures are on the order of -9.4 to -6.0 °C. The average annual precipitation ranges from 800 to 1359 mm, while the average growing season is 150 to 179 days.

1.3.2 Biological environment

The landscape is characterized by productive forest environments, with forests occupying 81.2% of the area of the reserve (Table 1). Due to the logging of recent decades, young and regenerating forests dominate the landscape, although old-growth forests (> 90 years) are relatively well represented (30% of the forest cover). Two species dominate the forest cover, which is almost entirely coniferous: balsam fir (59.3%) and black spruce (20.2%). Over a third of the territory has been logged in the last two decades.

Table 1: Forest summary of the territory of Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes (MFFP, SIEF, 4th 10-year survey)

Type of cover		Area (ha)	Proportion (%)
Forest	Deciduous	0	0
	Mixed	1050.1	10.2
	Coniferous	7151.7	69.6
	Regeneration	148.4	1.4
Other	Alder stands	2.6	0.0
	Wet barrens	91.0	0.9
	Water	1810.5	17.6
	Island	10.5	0.1
	Flooded	6.9	0.1
	Other	1.0	0.0
Total		10 272.8	100.0%

In 2008 the MELCC conducted a summary plant survey in the territory of the reserve. The following species were observed: *Gaultheria hispidula*, *Clintonia borealis*, *Coptis groenlandica*, *Picea mariana*, *Maïenthemum canadense*, *Larix laricina*, *Hypericum ellipticum*, *Oxalis montana*, *Rubus chamaemorus*, *Abies balsamea* and *Smilacina trifolia*.

With regard to wildlife, no survey specific to the reserve has been done, but the presence of three species that are vulnerable in Québec has been noted: Barrow's goldeneye, woodland caribou and Bicknell's thrush. Also, the reserve is part of the largest territory of allopatric (geographically isolated) brook trout in the region (MRNF, 2012), one of the two largest known in Québec. Given its high density of water bodies, the area has strong potential for the conservation and development of brook trout.

1.3.3 Ecological representativeness

Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes will enrich the representation of the characteristic ecosystems of the Monts-Valin natural region in Québec's protected areas network. Together with Réserve de biodiversité Akumunan, Réserve aquatique de la Vallée-de-la-Rivière-Sainte-Marguerite and Parc national des Monts-Valin, Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes completes the representation of the characteristic ecosystems of the uplands (elevations > 600 m) of the southwest part of the natural region, which basically correspond to the Lac-Tremblay low hills physiographic complex (level 3 in the ecological reference framework of Québec). While some of the protected areas mentioned above also include low-elevation ecosystems (< 500 m), the biodiversity reserves of Plateau-du-Lac-des-Huit-Chutes and Akumunan are on the heights of the massif (basically between 500 and 800 m). These two protected areas are highly representative of the types of physical environments and surface deposits characteristic of the Lac-Tremblay low hills physiographic complex. On the other hand, in terms of hydrography, Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes stands out for its high proportion of wetlands, twice that of the natural region (17.6% versus 8.2%). This concentration of wetlands is characteristic of the western half of the natural region, where there are not only big lakes but a high density of them.

With regard to biology, the present-day forests of the biodiversity reserve and the areas around it differ considerably, in structure and composition, from the natural forest landscapes (Grondin *et al.*

2010). The latter authors recommend that the stands of balsam fir/white birch and fir/black spruce (mixed Eastern forest) be the focus of forest restoration efforts, to gradually bring their structure and composition closer to those of natural landscapes. The cessation of logging will contribute to that end by letting the young forests (fir and spruce stands) to age.

Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes is in the Eastern bioclimatic subdomain, whose climate, wetter than its counterpart to the west, results in a longer forest fire cycle. For this reason it normally contains more old-growth forests. The current presence of a high proportion of such forests (which will increase over time) heightens the reserve's ecological value, since the surrounding forests are considerably younger because of logging.

In this respect, the biodiversity reserve forms a conservation nucleus of over 100 km², in which the biodiversity components expressed across the landscape (types of physical environments and assemblages of associated species) will continue evolving with greater ecological integrity (see sidebar).

Having a conservation nucleus of good size will ensure the long-term effectiveness of the reserve in protecting ecosystem functionality, while reducing its vulnerability to natural disturbances and changes in the surrounding landscape.

1.4 Land occupation and uses

The principal occupations and uses of the territory of Réserve de biodiversité du Plateau-

du-Lac-des-Huit-Chutes are shown on the map comprising Appendix 2.

Though relatively remote, the reserve can be accessed via forest roads, which among other things are used in winter by snowmobilers. The reserve can be entered from the east by R0201 (branches at kilometres 25, 29 and 35), from the west by the main access road to Onatchiway ZEC, where branches at kilometres 3, 14 and 18 lead into the reserve. The branch at km 3 leads to Lac des Huit Chutes, and is also a snowmobile trail. The easiest access is at kilometre 35 of R0201, an unpaved passable road that crosses the reserve but is excluded from the protected area (40 m right of way), which is a snowmobile trail in winter. Also excluded from the reserve are the two surface material extraction sites along this road (SMS 22D15-50 and SMS 22D15-51). A dense and well-developed network of unpaved roads and non-passable forest roads covers nearly all the southern half of the reserve, as a result of logging done shortly before provisional protection status was granted.

Lying entirely inside Onatchiway ZEC, the biodiversity reserve overlaps seven trapping grounds (MRNF, 2012). It is part of fur-bearing animal management unit 53 and of hunting zone 28. In some sectors there is a fair amount of vacation development (45 resort leases), notably at the western end of Lac des Huit Chutes and around the lakes accessed by the forest road that crosses the reserve in the north (lakes Léger, Pauvre, Nicole, etc.). A lease enlargement has been granted on the perimeter of the reserve. There are three trapping camps on the territory, but no trails with land rights. Note that the reserve

ECOLOGICAL INTEGRITY

The condition of a protected area that is considered characteristic of its natural region and likely to persist, including abiotic [non-living] components and the composition and abundance of native species and biological communities, rates of change and supporting processes.

Adapted from the definition in the Canada National Parks Act (S.C. 2000, c. 32).

CONSERVATION NUCLEUS

An area where the protection of biodiversity, ecological integrity, the natural environment and other similar values take precedence over usage values.

Brassard et al., 2010.

is entirely within the Nitassinan of the Mashteuiatsh First Nation, as demarcated in Schedule 4.1 of the *Agreement-in-Principle of General Nature between the First Nations of Mamuitun and Nutashkuan and the Government of Québec and the Government of Canada*.

In summary, the territory of Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes is mostly used for vacationing, hunting, fishing and trapping, but the level of use can be considered relatively light, since the cottages are concentrated around lakes accessible by land and most of the reserve has no cottages at all.

1.4.1 Particular heritage elements

Historic trails and portages used by First Nations people have been identified by the Pekuakamiulnuatsh Takuhikan, notably between Lac des Huit-Chutes and Lac Dobe, and along Rivière à la Hache.

2 Conservation and management issues

2.1 Introduction

Generally, a biodiversity reserve is dedicated to protection of the natural environment, nature discovery and recreation. For this reason, activities that could have a significant impact on ecosystems and biodiversity, particularly of an industrial nature, are prohibited. Less harmful activities, such as those involving recreation, wildlife, ecotourism or education, are permitted in this type of protected area. However, the management framework to which they are subject is conditioned by conservation issues specific to each biodiversity reserve. The conservation and other issues to be taken into account for Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes, and the orientations and objectives to which they give rise, are set out in the sections that follow.

2.2 Protection of biodiversity

Restoration of forest ecosystems

For this conservation issue, the corresponding objective is: *Promote the gradual restoration of the characteristic ecosystems of the Monts-Valin natural region.* The absence of industrial activities will allow the average age of forest stands to gradually increase. Ultimately, old stands of balsam fir (with black spruce and white birch) should cover most of the reserve's land surface. The next objective is therefore: *Avoid any development that could reduce the age of the forest cover.*

Protection of lacustrine ecosystems and near-shore environments

Containing the headwaters of the Tête Blanche and Huit Chutes watersheds, the reserve's hydrographic network has excellent ecological integrity and water quality. Accordingly, maintaining the integrity of aquatic, wetland and near-shore environments is another conservation issue for the reserve. The corresponding objective is: *Avoid any new development that could degrade the quality of aquatic, wetland or near-shore environments.*

Protection of threatened or vulnerable species

Due to its small size and the number of cottages present, Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes is unlikely to make a significant contribution to the conservation of woodland caribou, which require a large home range and minimal human presence. However, since they still appear to frequent the area, the potential contribution of the protected area to maintaining the species in the surrounding (developed) forest will have to be evaluated over the coming years.

Another species to protect is the Barrow's goldeneye, considered an arboreal duck because it usually nests in natural cavities in trees (Savard and Robert, 1997). Large trees that could offer nesting cavities are generally rare in the north, and current practices in forestry favor the production of healthy trees (without cavities). Special attention should therefore be given to the reserve's intact forests and small headwater lakes, which these ducks seem to prefer. Lastly, to maintain the habitat of Bicknell's thrush,

infrastructure work (e.g. on roads) should be minimized in the environments favoured by this species, particularly stands of balsam fir at higher elevations. Accordingly, the next objective is: *Adapt the management of the reserve to protect threatened or vulnerable species for which it provides a habitat.*

2.3 Development activities

The territory of the reserve offers numerous attractions for recreation (hunting, fishing, vacationing). The reserve is also easy to access, especially from kilometre 35 on R0201. At present it is mostly used by hunters, fishers, trappers and those who have cottages there. The Onatchiway ZEC, a controlled hunting and fishing zone, is responsible for wildlife development, harvesting and conservation, and for facilitating access to the territory.

Practised in accordance with the applicable laws and regulations, these activities by users of the territory are compatible with the status of biodiversity reserve, and can continue to be practised normally.

The MELCC wants all concerned stakeholders to be involved in preparing an action plan to carry out these conservation objectives, in particular the protection of sensitive or fragile natural environments, the recovery of old-growth forests and the protection of threatened or vulnerable species. To encourage participation by all stakeholders, the following objectives have been set: (1) *Establish participative and collaborative management.* (2) *Inform all users as to the conservation and management objectives being pursued in the protected area.*

2.4 Knowledge acquisition and environmental monitoring

Existing information about the ecosystems of Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes (section 1.3) is fragmentary. Knowledge acquisition, besides being crucial to the achievement of objectives specific to natural heritage protection, will make it possible to monitor the natural environment. The knowledge acquired could also be used in developing activities for nature discovery, education and public awareness. It will facilitate the analysis of development projects, and ensure that management partners have a common understanding of the issues.

Ecological knowledge, especially about the support capacity of natural environments, and about the impact of recreational and tourist activities on ecosystems, must also be developed. The corresponding objective is: *Promote knowledge building, in particular by conducting targeted surveys and monitoring biodiversity.*

The MELCC will target certain needs related to knowledge building on biodiversity. With the help of regional partners, the MELCC aims to establish an inventory of the plant and animal species found in the reserve. The subjects of surveys and research to prioritize will be determined later, and will concern both existing and expected ecological problems.

2.5 Conservation and management objectives

Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes is a “protected area” as defined in the *Natural Heritage Conservation Act*, and appears

in the *Registre des aires protégées du Québec* constituted under the Act. Thus, it was primarily created to ensure the protection and maintenance of the area's biological diversity, with the associated natural and cultural resources. In addition, protecting this territory enhances the representativeness of the national and regional protected areas network, since it holds numerous ecological components of interest that are representative of the characteristic ecosystems of the Monts-Valin natural region. For the government, the protection of these components and ecosystems, described in section 1.3, is a major objective. Note that this protection will allow the pursuit of traditional activities by members of the Aboriginal communities who frequent the land, as well as the recreotourism activities currently practised there.

Taking into account the issues explained in sections 2.1 to 2.4, and the geographical sectors of interest corresponding to the elements described in section 1 (see Appendix 3), the conservation and management objectives specific to Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes are as follows:

- *Avoid any development that could reduce the age of the forest cover.*
- *Avoid any new development that could degrade the quality of aquatic, wetland or near-shore environments.*
- *Adapt the management of the reserve to protect threatened or vulnerable species for which it provides a habitat.*
- *Establish participative and collaborative management.*
- *Inform all users as to the conservation and management objectives being pursued in the protected area.*

- *Promote knowledge building, in particular by conducting targeted surveys and monitoring biodiversity.*

To achieve those objectives, the conservation and management of the reserve will be guided by an activity framework whose several dimensions are set out in sections 4, 5 and 6 of this plan.

3 Zoning

In light of its ecosystems, occupation and uses, the current condition of its natural environment, and its protection and management objectives, the reserve has been subdivided into two zones. While both enjoy the same degree of legal protection and have the same activity framework, their protection measures and development possibilities reflect their respective features.

The two zones are presented in the map comprising Appendix 4. The MELCC will consider this zoning in managing the reserve and when evaluating applications for authorization concerning activities or developments.

The two zones are:

Zone I: The Lac des Huit Chutes uplands

Zone II: The Lac Nicole mounds and hillocks

Zone I: The Lac des Huit Chutes uplands

Occupying the southern part of the reserve, Zone I is mostly suited to stands of balsam fir/white birch as its potential vegetation. Due to recent logging, at present the forest cover is almost totally in regeneration, except for a few areas of old-growth forest, such as the north slope of the chain of elongated lakes that form an arc at the zone's south end: Lac des Huit Chutes, Lac Dobe, Lac du Marmiton, Lac du Cuisinier and Lac

Mandan. Threatened or vulnerable species may frequent the zone, since one occurrence of Barrow's goldeneye has been noted and Bicknell's thrush has been seen nearby. Since Zone I is fairly inaccessible and little used (with just two resort leases), it will be managed to ensure a high level of protection.

Zone II: The Lac Nicole mounds and hillocks

Occupying the northern part of the reserve, Zone II is suited to stands of balsam fir/black spruce and balsam fir/white birch as its potential vegetation, along with a few black spruce stands. The logging of recent years has not affected the forest cover, which presents a more varied age structure and a good proportion of old-growth forests. The zone is cut in two by a class I forest road, making it very accessible and well used, with many resort leases. Zone II is suitable for recreation activities compatible with the reserve's conservation objectives.

4 Activity framework applicable to Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes

The activity framework applicable to Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes follows from the provisions of the *Natural Heritage Conservation Act* and the Regulation respecting the Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes.

4.1 Activity framework established by the *Natural Heritage Conservation Act*

Activities carried out within the biodiversity reserve are primarily governed by the provisions of the *Natural Heritage Conservation Act*.

Under the Act, the principal activities prohibited in a territory with the status of biodiversity reserve are the following:

- mining and gas or oil extraction or exploration;
- forest management within the meaning of section 4 of the *Sustainable Forest Development Act* (chapter A-18.1);
- the development of hydraulic resources and any production of energy on a commercial or industrial basis.

Though fundamental to protecting the territory and its ecosystems, the above prohibitions do not cover all of the standards considered desirable to ensure the proper management of the reserve and the conservation of its natural environment. The *Natural Heritage Conservation Act* allows the Regulation to detail the legal framework applicable on the territory of a biodiversity reserve.

4.2 Activity framework established by the Regulation respecting the Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes

Accordingly, the provisions set out in Regulation respecting the Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes present additional prohibitions beyond those already stipulated in the Act. Their purpose is to set conditions for the performance of certain permitted activities, thus ensuring better protection of the natural environment in accordance with the principles of conservation and other management objectives for the biodiversity reserve. Certain activities are therefore subject to prior authorization by the Minister.

The measures contained in Regulation specifically concern new interventions. They do not affect activities that are already being practised or facilities that are already present, so many existing uses are therefore preserved.

However, for activities subject to authorization, the provisions set out in Regulation do not identify which activities could be refused authorization, being considered incompatible with the vocation of the biodiversity reserve. Basic information about the compatibility or incompatibility of each type of activity is provided in the document *Activity Framework for Biodiversity Reserves and Aquatic Reserves*, which is available on the website of the MELCC at:

http://www.mdelcc.gouv.qc.ca/biodiversite/aires_protegees/regime-activites/regime-activite-reserve-bio-aqua-en.pdf.

For certain activities, Regulation also includes exemptions to the requirement for prior authorization.

5 Activities governed by other laws

Certain activities that could potentially be practised in the biodiversity reserve are also governed by other applicable legislative and regulatory provisions, and some require a permit or authorization or the payment of certain fees. Certain activities could be prohibited or limited under other laws or regulations applicable on the territory of the reserve.

Within the biodiversity reserve, a particular legal framework may govern permitted activities under the following categories:

- **Protection of the environment:** measures set out in particular by the *Environment Quality Act* (chapter Q-2) and its regulations.
- **Archeological research and discoveries:** measures set out in particular by the *Cultural Heritage Act* (chapter P-9.002).
- **Exploitation and conservation of wildlife resources:** measures stipulated by the *Act respecting the conservation and development of wildlife* (chapter C-61.1) and its regulations, including provisions relating to threatened or vulnerable wildlife species, outfitters and beaver reserves; and measures in the applicable federal laws and regulations, including the legislation and regulations on fisheries.
- **Plant species designated as threatened or vulnerable:** measures prohibiting the harvesting of such species under the *Act respecting threatened or vulnerable species* (chapter E-12.01).
- **Access and property rights related to the domain of the State:** measures set out in particular by the *Act respecting the lands in the domain of the State* (chapter T-8.1) and the *Watercourses Act* (chapter R-13).
- **Issuance and oversight of forest development permits** (harvesting of firewood for domestic purposes, wildlife development, recreational development); and **delivery of authorizations** (forest roads): measures stipulated by the *Sustainable Forest Development Act* (chapter A-18.1).
- **Travel:** measures stipulated by the *Act respecting the lands in the domain of the*

State and by the regulations on motor vehicle travel in fragile environments, under the *Environment Quality Act*.

- **Construction and development standards:** regulatory measures adopted by local and regional municipal authorities in accordance with the applicable laws.

6 Management

6.1 Responsibilities of the Minister of the Environment and the Fight against Climate Change

The Minister of the Environment and the Fight against Climate Change is responsible for the management of Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes. Among other things, the Minister sees to the application of the *Natural Heritage Conservation Act* (chapter C-61.01) and the Regulation respecting the Réserve de biodiversité du Plateau-du-Lac-des-Huit-Chutes. In its management, the MELCC enjoys the collaboration and participation of other government representatives that have specific responsibilities in or adjacent to the territory. Since the territory is accessible and often frequented by humans, the MELCC intends to take a “participative” approach to management. The principal local and regional stakeholders concerned will be invited to participate in management activities. Depending on needs, their participation could take place through the creation of a management committee, a zoning plan, the development and implementation of an action plan, and follow-up on actions taken.

6.2 Monitoring

As mentioned in section 2, measures will be taken toward monitoring the status of the natural environment, in collaboration with the various stakeholders. Botanical and wildlife surveys may also be conducted.

6.3 Participation of stakeholders

To fulfill its management responsibilities, the MELCC will seek the collaboration and participation of the principal actors concerned by the territory, including the MRC of Fjord-du-Saguenay, the community of Mashteuiatsh, Onatchiway ZEC, the holders of land rights, and the regional units of other government departments that have responsibilities in the biodiversity reserve.

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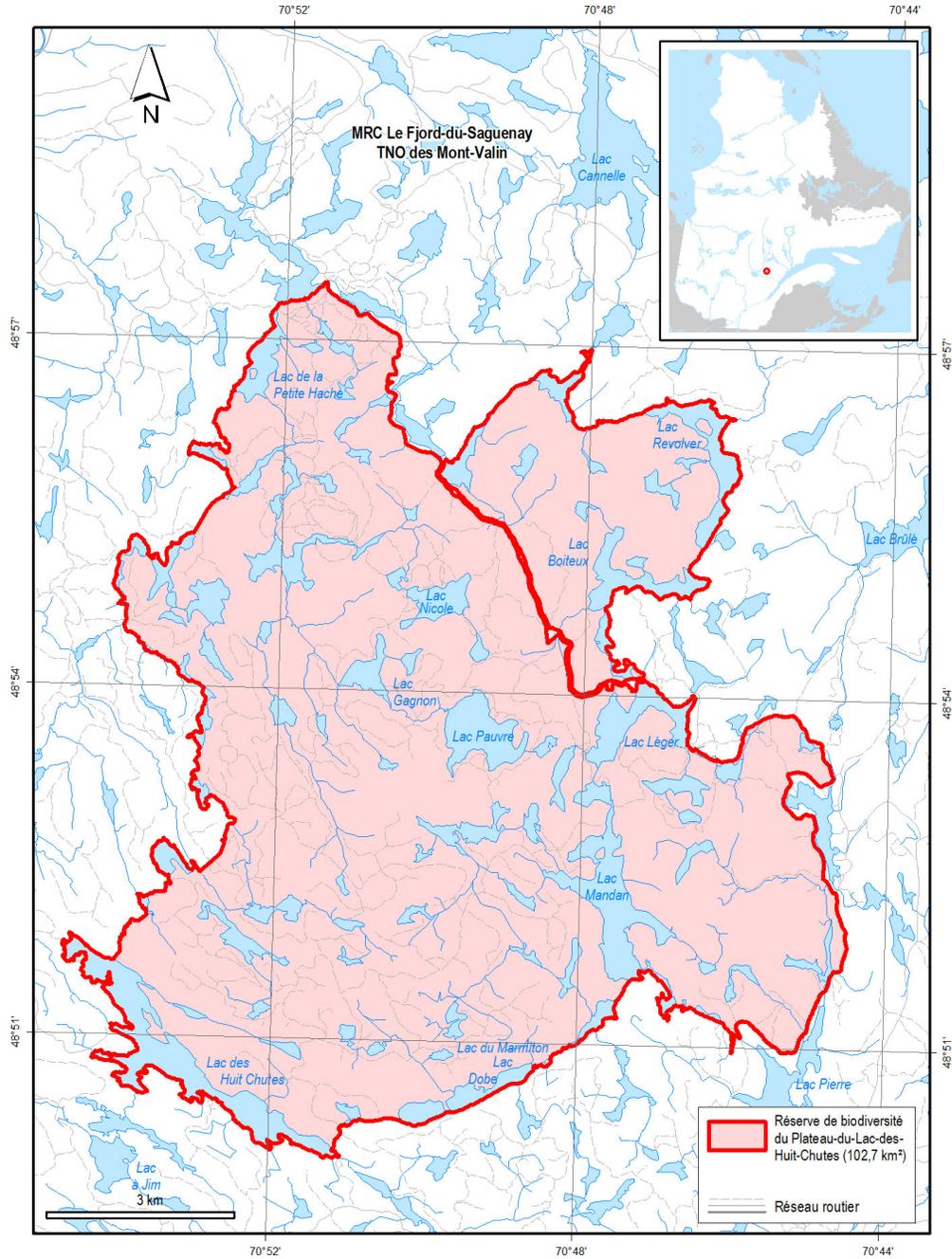
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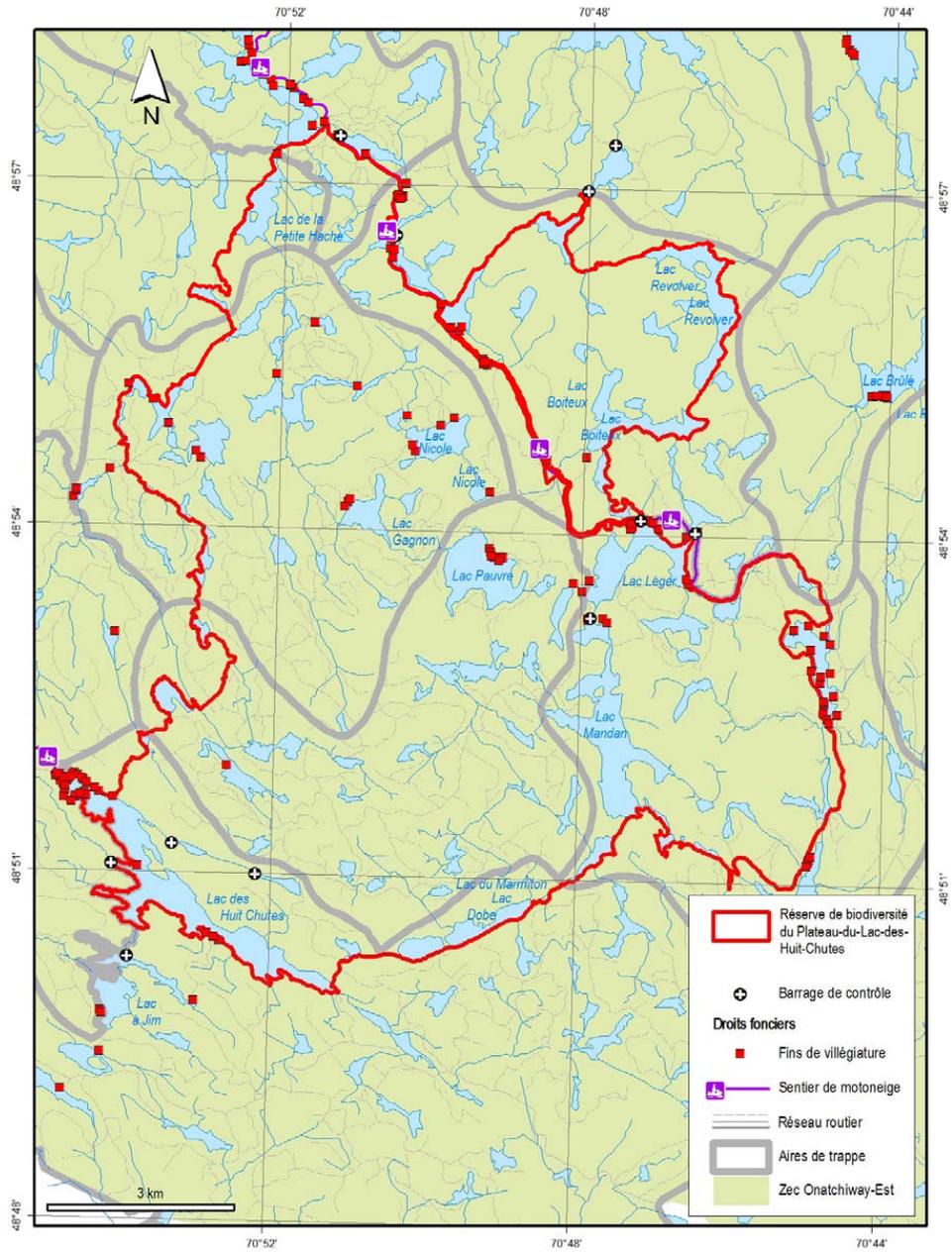
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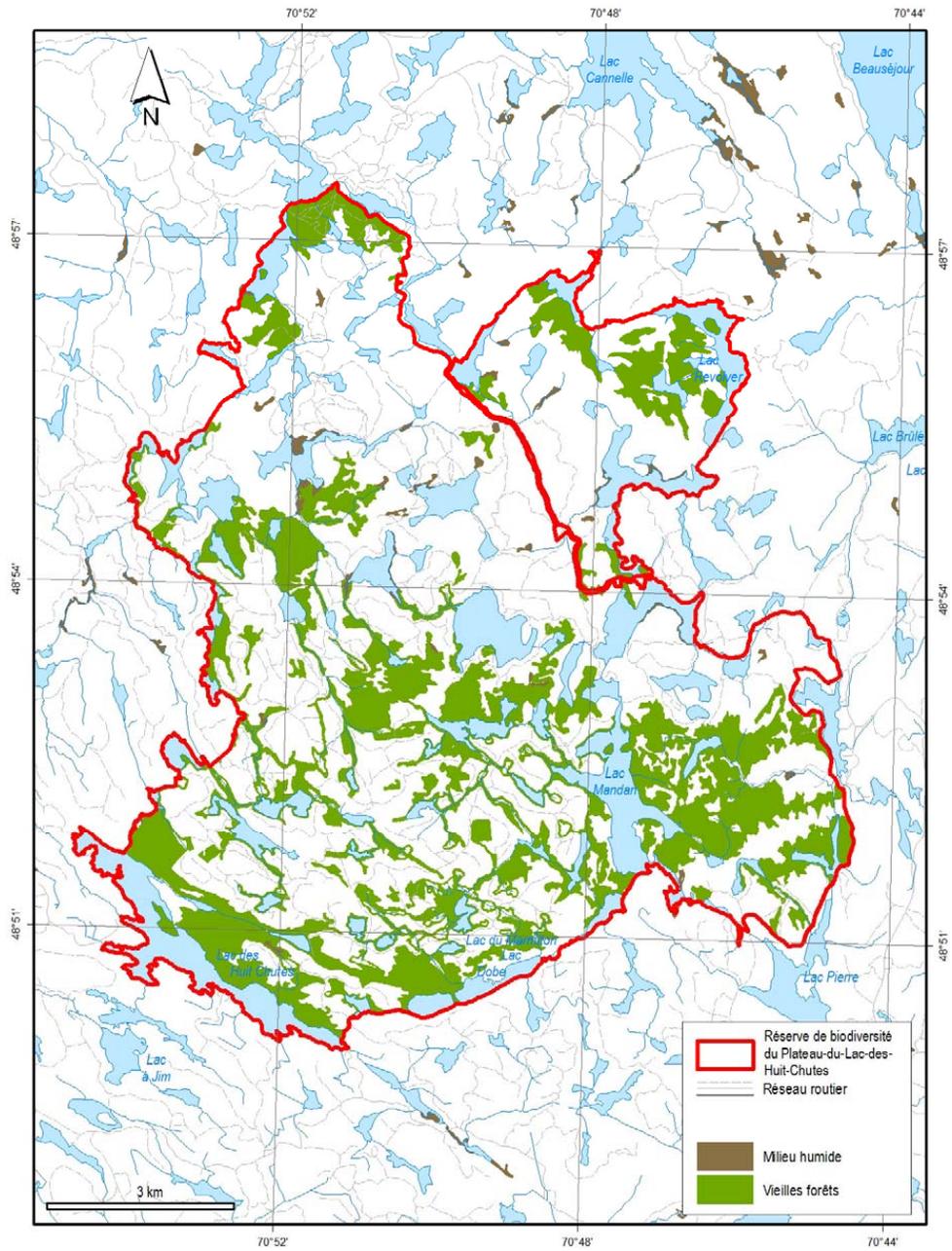
Appendix 1 — Boundaries and location



Appendix 2 — Occupation and uses



Appendix 3 — Location of sectors of interest



Appendix 4 — Zoning

