

Gouvernement du Québec

O.C. 435-2020, 8 April 2020

Natural Heritage Conservation Act
(chapter C-61.01)

Permanent status of the Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache, the Regulation respecting that reserve and its conservation plan

WHEREAS, under the first paragraph of section 43 of the Natural Heritage Conservation Act (chapter C-61.01), the Minister of the Environment and the Fight Against Climate Change may recommend to the Government that all or part of land set aside under section 27 of the Act be assigned a permanent protection status as biodiversity reserve;

WHEREAS, under the second paragraph of section 43 of the Act, the Minister is to submit at the same time to the Government for its approval the conservation plan for the land;

WHEREAS, by Order in Council 445-2008 dated 7 May 2008, the Government authorized the Minister of Sustainable Development, Environment and Parks to assign the status of proposed biodiversity reserve to the territory of the Réserve de biodiversité projetée des Buttes-et-Buttons-du-Lac-Panache and approved the plan of that area and the conservation plan proposed for the area;

WHEREAS, by Minister's Order dated 29 May 2008 (2008, *G.O.* 2, 2124), the Minister of Sustainable Development, Environment and Parks assigned in particular temporary protection status to the territory of the Réserve de biodiversité projetée des Buttes-et-Buttons-du-Lac-Panache, for a term of four years commencing on 11 June 2008;

WHEREAS the setting aside of the territory was extended for eight years, under the Order of the Minister of Sustainable Development, Environment and Parks dated 11 May 2012 (2012, *G.O.* 2, 709);

WHEREAS, in accordance with the first paragraph of section 39 of the Natural Heritage Conservation Act, the Minister of Sustainable Development, Environment and Parks entrusted the mandate to hold a public consultation on the Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache to the Bureau d'audiences publiques sur l'environnement and its inquiry and public hearing report was made public on 20 November 2012;

WHEREAS the report deals in particular with the feasibility of changing the limits of the territory of the Réserve de biodiversité projetée des Buttes-et-Buttons-du-Lac-Panache and concludes, among other things, that permanent protection status may be assigned to the territory;

WHEREAS the limits of the Réserve de biodiversité projetée des Buttes-et-Buttons-du-Lac-Panache were reassessed by the Minister and changed after the public consultation to exclude a larger sector for vacation resort purposes on the shore of lac aux Iroquois and to add 5.8 km² to the centre-east, and to rely, where possible, on natural or man-made elements easily visible on the site to facilitate management;

WHEREAS the plan of the Réserve de biodiversité projetée des Buttes-et-Buttons-du-Lac-Panache and its conservation plan were adjusted based on the changed limits and the technical description corresponding to the new limits has been prepared;

WHEREAS the land included in the territory forms part of the domain of the State and is not part of a reserved area or an agricultural zone established under the Act respecting the preservation of agricultural land and agricultural activities (chapter P-41.1);

WHEREAS, in accordance with the first paragraph of section 151 of the Act respecting land use planning and development (chapter A-19.1), the Minister of Sustainable Development, the Environment and the Fight Against Climate Change notified an opinion describing the planned intervention to the council of Municipalité régionale de comté du Domaine-du-Roy;

WHEREAS, in accordance with the first paragraph of section 152 of that Act, the council of Municipalité régionale de comté du Domaine-du-Roy, by resolution No. 2016-232 dated 8 November 2016, confirmed that the project for the establishment of the Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache complies with the objectives of the revised land use planning and development plan;

WHEREAS the Commission de toponymie sent to the Minister its approval of the name "Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache" to designate that permanent biodiversity reserve;

WHEREAS, under subparagraph *f* of paragraph 1 of section 46 of the Natural Heritage Conservation Act, in an aquatic reserve and a biodiversity reserve, any activity which the Government may prohibit by regulation is prohibited;

WHEREAS, under subparagraph *g* of paragraph 1 of section 46 of the Act, in an aquatic reserve and a biodiversity reserve, subject to measures in the conservation plan authorizing the activities and specifying the conditions on which they may be carried on, any allocation of a right to occupy land for vacation resort purposes, earthwork, backfilling or construction work and commercial activities are prohibited;

WHEREAS, under paragraph 2 of section 46 of the Act, all other activities are permitted, in addition to those prohibited by paragraph 1 of that section, subject to the applicable conditions;

WHEREAS, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), the draft Regulation respecting the Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache was published in Part 2 of the *Gazette officielle du Québec* of 15 May 2019 with a notice that it could be made by the Government on the expiry of 45 days following that publication;

WHEREAS it is expedient to make the Regulation respecting the Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache with amendments, in particular to include the technical description of the territory and to make technical adjustments;

WHEREAS, under paragraph 3 of section 44 of the Natural Heritage Conservation Act, the establishment of a biodiversity reserve and a change in its limits, or its abolishment, is effected by order of the Government, on a proposal by the Minister, subject to the publication of a notice of the decision of the Government to establish a biodiversity reserve in the *Gazette officielle du Québec* with the plan of the area and the conservation plan;

WHEREAS the publication in the *Gazette officielle du Québec* of this Order in Council, of the Regulation respecting the Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache and of its conservation plan constitutes the notice required by that paragraph, including the documents that must accompany it;

WHEREAS, under section 45 of the Natural Heritage Conservation Act, permanent protection status for land, conservation plans and applicable agreements, and amendments or revocations take effect on the date of publication of the order in the *Gazette officielle du Québec* or on any later date specified in the order;

IT IS ORDERED, therefore, on the recommendation of the Minister of the Environment and the Fight Against Climate Change:

THAT permanent biodiversity reserve status be assigned to the territory described in the Regulation attached to Schedule I to this Order in Council, under the name “Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache”;

THAT the Regulation respecting the Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache, attached to Schedule I to this Order in Council, be made;

THAT the conservation plan applicable to the Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache, attached to Schedule II to this Order in Council, be approved;

THAT permanent status of the Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache and its conservation plan take effect on the fifteenth day following the date of their publication in the *Gazette officielle du Québec*.

YVES OUELLET,
Clerk of the Conseil exécutif

SCHEDULE I

Regulation respecting the Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache

Natural Heritage Conservation Act
(chapter C-61.01, s. 43 and s. 46, par. 1, subpars. *e, f* and *g*, and par. 2)

1. The Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache is established in the territory described in the Schedule.

2. For the purposes of this Regulation,

(1) the words or terms “high-water mark”, “littoral zone”, “floodplain”, “lakeshore” and “riverbank” have the meaning given to them in the Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains (chapter Q-2, r. 35);

(2) the term “wetlands and bodies of water” has the meaning given to it in section 46.0.2 of the Environment Quality Act (chapter Q-2);

(3) the term “forest development activity” has the meaning given to it in the Sustainable Forest Development Act (chapter A-18.1).

DIVISION I PROTECTION OF RESOURCES AND THE NATURAL ENVIRONMENT

3. Subject to the prohibition in the second paragraph, no person may introduce any individuals of a native or non-native species of fauna into the biodiversity reserve, including by stocking, unless the person has been authorized by the Minister.

No person may stock a lake or watercourse for aquaculture, commercial fishing or any other commercial purpose.

Except with the authorization of the Minister, no person may introduce non-native species of flora into the biodiversity reserve.

4. No person may use fertilizers in the biodiversity reserve. Compost for domestic purposes is however permitted if it is used at least 20 metres from a lake or watercourse, measured from the high-water mark.

5. No person may remove from the biodiversity reserve species of flora, small fruits or any other non-timber forest product by mechanical means.

6. No person may in the biodiversity reserve, unless the person has been authorized by the Minister,

(1) intervene in a wetland area, in particular a marsh, swamp or peat bog;

(2) modify the natural drainage or water regime, including by creating or developing lakes and watercourses;

(3) dig, fill, obstruct or divert a lake or watercourse;

(4) install or construct a structure, infrastructure or new works in the littoral zone, on the banks or shores or the floodplains of a lake or watercourse; no authorization is however required for minor works — quay or platform, boat shelter — installed for private purposes and may be free of charge under section 2 of the Regulation respecting the water property in the domain of the State (chapter R-13, r. 1);

(5) carry on an activity other than those referred to in paragraphs 1 to 4 likely to directly and substantially affect the biochemical characteristics or quality of wetlands and bodies of water in the biodiversity reserve, including by discharging or dumping residual materials or contaminants into the wetlands or bodies of water;

(6) carry out soil development work or an activity likely to degrade the soil or a geological formation, or to damage the vegetation cover, in particular by stripping, the digging of trenches or excavation work, including any burial, earthwork, removal or displacement of surface materials or vegetation cover, for any purpose;

(7) install or construct a structure, infrastructure or new works;

(8) reconstruct or demolish a structure, infrastructure or works;

(9) use a pesticide; no authorization is required for the use of personal insect repellent;

(10) carry on educational or research-related activities if the activities are likely to directly or significantly damage or disturb the natural environment, in particular because of the nature or size of the samples taken or the invasive character of the method or process used; or

(11) hold a sports event, tournament, rally or any other similar event where

(a) fauna or flora species are taken or are likely to be taken; or

(b) motor vehicles or craft are used.

7. Despite paragraphs 6, 7 and 8 of section 6, if the requirements provided for in the second paragraph are met, no authorization is required to carry out the following work:

(1) the maintenance, repair or improvement of any structure, infrastructure or works, including a camp, a cabin, a road or a trail, including an ancillary facility such as a lookout or stairs;

(2) the construction or installation

(a) of a dependency or a facility ancillary to a trapping camp, a rough shelter, a shelter or a cabin, including a shed, a water withdrawal facility or a system for the discharge and disposal of waste water, grey water and toilet effluents; or

(b) of a trapping camp, a rough shelter, a shelter or a cabin if, on the date of coming into force of this Regulation, such a building was permitted under the right of use or occupancy granted, but had not yet been carried out; or

(3) the demolition or reconstruction of a trapping camp, a rough shelter, a shelter or a cabin, including a dependency or a facility ancillary to such a structure, including a shed, a water withdrawal facility or a system for the discharge and disposal of waste water, grey water and toilet effluents.

The carrying out of the work referred to in the first paragraph must comply with the following requirements:

(1) the work involves a structure, infrastructure or works whose presence is permitted within the biodiversity reserve;

(2) the work is carried out within the area of land or right of way subject to the right to use or occupy the land in the biodiversity reserve, whether the right results from a lease, servitude or other form of title, permit or authorization;

(3) the nature of the work or elements installed by the work will not operate to increase the area of land that may remain deforested beyond the limits permitted under the provisions applicable to the sale, lease and granting of immovable rights under the Act respecting the lands in the domain of the State (chapter T-8.1) and, if applicable, the limits set under an authorization issued in connection with that structure, works or infrastructure;

(4) the work is carried out in accordance with the prescriptions of any permit or authorization issued for the work or in connection with the structure, infrastructure or works to which they are related, and compliance with the laws and regulations that apply;

(5) in the case of forest roads, the work must not operate to alter or exceed the existing right of way, widen the roadway or convert the road to a higher class.

For the purposes of this section, repair and upgrading work includes work to replace or install works or facilities to comply with the requirements of an environmental regulation.

8. No person may bury, incinerate, abandon or dispose of residual materials or snow, except if they are disposed of in waste disposal containers, facilities or sites determined by the Minister or, in other cases, with the authorization of the Minister.

Despite the first paragraph, a controlled zone does not need an authorization to use a disposal facility or site, in compliance with the Environment Quality Act (chapter Q-2) and its regulations, if the controlled zone was already using the facility or site on the date of coming into force of this Regulation.

DIVISION II

RULES OF CONDUCT FOR USERS

9. No person may enter, carry on an activity or operate a vehicle in a given sector of the biodiversity reserve if the signage installed by the Minister restricts access, traffic or certain activities in the sector in order to protect the public from a danger or to avoid placing the fauna, flora or other components of the natural environment at risk, unless the person has been authorized by the Minister.

10. No person may destroy, remove, move or damage any poster, sign, notice or other type of signage posted by the Minister within the biodiversity reserve.

DIVISION III

ACTIVITIES REQUIRING AN AUTHORIZATION

11. No person may, for a period of more than 90 days in the same year, occupy or use the same site of the biodiversity reserve, unless the person has been authorized by the Minister.

For the purposes of the first paragraph,

(1) the occupation or use of a site includes

(a) staying or settling in the biodiversity reserve, for instance for vacation purposes;

(b) setting up a camp or a shelter; and

(c) installing, burying or abandoning any property in the reserve, including equipment, a device or a vehicle; and

(2) the expression “same site” includes any other site within a radius of 1 kilometre from the site.

Despite the first paragraph, an authorization is not required if a person,

(1) on the date of coming into force of this Regulation, was a party to a lease or had already obtained another form of right or another authorization allowing the person to legally occupy the land under the Act respecting the lands in the domain of the State (chapter T-8.1) or, if applicable, the Act respecting the conservation and development of wildlife (chapter C-61.1), and whose right to occupy the land is renewed or extended on the same conditions, subject to possible changes in fees; or

(2) in accordance with the law, has entitlement under a sublease, an assignment of a lease or a transfer of a right or authorization referred to in subparagraph 1, and whose right to occupy the land is renewed or extended on the same conditions, subject to possible changes in fees.

12. No person may carry on forest management activities to meet domestic needs or for the purpose of maintaining biodiversity, unless the person has been authorized by the Minister.

Despite the first paragraph, persons staying or residing within the biodiversity reserve and who collect wood required to make a campfire are not required to obtain the authorization of the Minister.

No such authorization is required if a person collects firewood to meet domestic needs to supply a trapping camp or a rough shelter permitted within the biodiversity reserve in the following cases and on the following conditions:

(1) the wood is collected by a person in compliance with the conditions set out in the permit for the harvest of firewood for domestic purposes issued under the Sustainable Forest Development Act (chapter A-18.1);

(2) the quantity of wood collected does not exceed 7 apparent cubic metres per year.

In addition, no authorization to carry on a forest management activity is required if a person authorized by lease to occupy land within the biodiversity reserve in accordance with this Regulation carries on the activity for the purpose of

(1) clearing, maintaining or creating visual openings, and any other similar removal work permitted under the provisions governing the sale, lease and granting of immovable rights under the Act respecting the lands in the domain of the State (chapter T-8.1), including for access roads, stairs or other trails permitted under those provisions; or

(2) clearing the necessary area for the installation, connection, maintenance, repair, reconstruction or upgrading of facilities, lines or mains for water, sewer, electric power or telecommunications services.

If the work referred to in subparagraph 2 of the fourth paragraph is carried on for or under the responsibility of an enterprise providing any of those services, the work requires the prior authorization of the Minister, other than in the case of the exemptions provided for in sections 14 and 16.

13. No person may carry on commercial activities in the biodiversity reserve, except with the authorization of the Minister.

Despite the first paragraph, no authorization is required

(1) if the activity does not involve the taking of fauna or flora resources, or the use of a motor vehicle; or

(2) to carry on commercial activities which, on the date of coming into force of this Regulation, were the subject of a right to use the land for such a purpose, whether the right results from a lease or other form of title, permit or authorization, within the limits of the right.

DIVISION IV **AUTHORIZATION EXEMPTIONS**

14. Despite the preceding provisions, an authorization is not required for an activity or other form of intervention within the biodiversity reserve if urgent action is necessary to prevent harm to the health or safety of persons, or to repair or prevent damage caused by a real or apprehended catastrophe. The person concerned must, however, immediately inform the Minister of the activity or intervention that has taken place.

15. Despite the preceding provisions, an authorization is not required for a member of a Native community for an intervention within the biodiversity reserve where that intervention is part of the exercise of rights covered by section 35 of the Constitution Act, 1982 (Schedule B of the Canada Act, chapter 11 in the 1982 volume of the Acts of the Parliament of the United Kingdom) and those rights are credibly asserted or established.

16. Despite the preceding provisions, the following activities and interventions carried out by Hydro-Québec (hereinafter the “Société”) or by any other person for Hydro-Québec do not require the prior authorization of the Minister under this Regulation:

(1) any activity or intervention required within the biodiversity reserve to complete a project for which express authorization had previously been given by the Government and the Minister, or only by the latter, in accordance with the requirements of the Environment Quality Act (chapter Q-2), if the activity or intervention is carried out in compliance with the authorizations issued;

(2) any activity or intervention necessary for the preparation and presentation of a pre-project report for a project requiring an authorization under the Environment Quality Act;

(3) any activity or intervention relating to a project requiring the prior authorization of the Minister under the Environment Quality Act if the activity or intervention is in response to a request for a clarification or for additional information made by the Minister to the Société and it is carried out in accordance with the request.

The Société informs the Minister of the various activities or interventions referred to in this section it proposes to carry out before the work is begun within the reserve.

For the purposes of this section, the activities and interventions of the Société include but are not restricted to pre-project studies, analysis work or field research, work required to study and monitor the impact of electric power transmission and distribution line corridors and rights of way, geological or geophysical surveys and survey lines, and the opening and maintenance of roads required for the purposes of access, construction or traffic incidental to the work.

DIVISION V

FINAL

17. This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette officielle du Québec*.

SCHEDULE

TECHNICAL DESCRIPTION

RÉSERVE DE BIODIVERSITÉ DES BUTTES-ET-BUTTONS-DU-LAC-PANACHE (s. 1)

[Translation of the technical description filed in French only at the office of the Surveyor-General of Québec of the ministère de l'Énergie et des Ressources naturelles.]

A territory of irregular shape situated in the townships of Ross and Chabanel, in the watershed of Rivière Saint-Maurice, in the unorganized territory of Lac Ashuapmushuan, in the municipality of Sainte-Hedwidge, in the administrative region of Saguenay-Lac-Saint-Jean, and in the registration division of Lac-Saint-Jean-Ouest. The perimeter of the territory may be described as follows:

PARCEL A

Starting from a point situated on the southwestern right of way of the Chissibi/Jacques-Cartier power transmission line, corresponding to the land placed at the disposal of Hydro-Québec under reference no. 265-T (Right # 638570), being point 1 (5 361 062 m North, 376 084 m East);

Thence, in a southeasterly direction, along the southwestern right of way of the Chissibi/Jacques-Cartier power transmission line, corresponding to the land placed at the disposal of Hydro-Québec under reference no. 265-T (Right #6 38570), to point 2 (5 357 207 m North, 377 027 m East);

Thence, in a southeasterly direction, along the southwestern right of way of the Chissibi/Jacques-Cartier power transmission line, corresponding to the land placed at the disposal of Hydro-Québec under reference no. 265-T (Right # 638570), to the intersection with the southeastern bank of an unnamed stream, being point 3 (5 354 727 m North, 378 007 m East);

Thence, in a generally southwesterly direction, along the southern and eastern bank of several unnamed streams, the southern and eastern shore of Lac des Étangs, and the southern and eastern shore of an unnamed lake and of Lac du Cœur, to the intersection with the southern bank of an unnamed stream, being point 4 (5 354 004 m North, 376 438 m East);

Thence, in a generally southwesterly direction, along the southern and eastern bank of several unnamed streams, of an unnamed lake and of Lac Simon, to the intersection with the southern bank of an intermittent stream, being point 5 (5 353 704 m North, 375 830 m East);

Thence, in a southerly direction, along a straight line on a bearing of 174°49'31" over a distance of approximately 266 metres, to the intersection with the southeastern bank of an intermittent stream, being point 6 (5 353 439 m North, 375 854 m East);

Thence, in a generally southwesterly direction, along the southeastern bank of an intermittent stream and several unnamed streams and the southeastern shore of several unnamed lakes, to point 7 (5 352 551 m North, 375 326 m East);

Thence, in a southwesterly direction, along a straight line on a bearing of 244°55'57" over a distance of approximately 205 metres, to the intersection with the southern shore of an unnamed lake, being point 8 (5 352 464 m North, 375 140 m East);

Thence, in a generally westerly direction, along the southern shore of an unnamed lake, to point 9 (5 352 463 m North, 375 114 m East);

Thence, in a southwesterly direction, along a straight line on a bearing of 253°12'34" over a distance of approximately 121 metres, to the intersection with the northeastern shore of an unnamed lake, being point 10 (5 352 428 m North, 374 998 m East);

Thence, in a generally southeasterly direction, along the northeastern shore of several unnamed lakes and the northeastern bank of Ruisseau Panache, to the intersection with the northwestern shore of an unnamed lake, excluded from the biodiversity reserve, being point 11 (5 350 111 m North, 375 540 m East);

Thence, in a southerly direction, along a straight line on a bearing of 178°28'13" over a distance of approximately 1 424 metres, to the intersection with the southeastern bank of an unnamed stream, being point 12 (5 348 687 m North, 375 580 m East);

Thence, in a generally southwesterly direction, along the southeastern bank of an unnamed stream, to point 13 (5 348 597 m North, 375 139 m East);

Thence, in a southerly direction, along a straight line on a bearing of 190°00'29" over a distance of approximately 639 metres, to the intersection with the northern shore of an unnamed lake, being point 14 (5 347 970 m North, 375 028 m East);

Thence, in a generally southwesterly direction, along the northwestern shore of an unnamed lake, excluded from the biodiversity reserve, to point 15 (5 347 935 m North, 375 005 m East);

Thence, in a southwesterly direction, along a straight line on a bearing of 239°31'51" over a distance of approximately 1 043 metres, to point 16 (5 347 406 m North, 374 106 m East);

Thence, in a northwesterly direction, along a straight line on a bearing of 338°08'06" over a distance of 276.50 metres, to point 17 (5 347 663 m North, 374 004 m East);

Thence, in a southwesterly direction, along a straight line on a bearing of 235°32'50" over a distance of 900.63 metres, to point 18 (5 347 154 m North, 373 261 m East);

Thence, in a southwesterly direction, along a straight line on a bearing of 218°54'33" over a distance of approximately 259 metres, to the intersection with the western bank of an intermittent stream, being point 19 (5 346 952 m North, 373 099 m East);

Thence, in a southwesterly direction, along a straight line on a bearing of 227°41'24" over a distance of 670 metres, to the intersection with the northwestern bank of an intermittent stream, being point 20 (5 346 501 m North, 372 603 m East);

Thence, in a generally southwesterly direction, along the northwestern bank of an intermittent stream excluded from the biodiversity reserve, to point 21 (5 346 376 m North, 372 506 m East);

Thence, in a southwesterly direction, along a straight line on a bearing of 218°00'41" over a distance of approximately 641 metres, to point 22 (5 345 871 m North, 372 111 m East);

Thence, in a southwesterly direction, along a straight line on a bearing of 208°51'54" over a distance of approximately 327 metres, to the intersection with the northeastern bank of an unnamed stream, being point 23 (5 345 584 m North, 371 953 m East);

Thence, in a generally southerly direction, along the eastern bank of several unnamed streams and of an unnamed lake, to the intersection with the northern bank of another unnamed stream, being point 24 (5 345 291 m North, 371 930 m East);

Thence, in a southerly direction, along a straight line on a bearing of 176°14'17" over a distance of approximately 732 metres, to the intersection with the northwestern bank of an intermittent stream, being point 25 (5 344 561 m North, 371 978 m East);

Thence, in a generally southerly direction, along the western bank of an intermittent stream excluded from the biodiversity reserve, to point 26 (5 344 390 m North, 371 976 m East);

Thence, in a southerly direction, along a straight line on a bearing of 177°58'07" over a distance of approximately 141 metres, to the intersection with the western bank of an unnamed stream, being point 27 (5 344 249 m North, 371 981 m East);

Thence, in a generally southerly direction, along the western bank of an unnamed stream, excluded from the biodiversity reserve, to point 28 (5 344 218 m North, 371 972 m East);

Thence, in a southerly direction, along a straight line on a bearing of 189°34'50" over a distance of approximately 637 metres, to the intersection with the northeastern shore of an unnamed lake, being point 29 (5 343 590 m North, 371 866 m East);

Thence, in a generally southerly direction, along the eastern shore of an unnamed lake and the eastern bank of an unnamed stream, to point 30 (5 343 140 m North, 371 916 m East);

Thence, in a westerly direction, along a straight line on a bearing of 279°03'03" over a distance of approximately 114 metres, to point 31 (5 343 158 m North, 371 803 m East);

Thence, in a generally northwesterly direction, along a straight line on a bearing of 285°00'26" over a distance of approximately 627 metres, to the intersection with a line parallel to and at a distance of 80 metres from Rivière Croche, being point 32 (5 343 320 m North, 371 197 m East);

Thence, in a generally southwesterly direction, along a line parallel to and at a distance of 80 metres southeast of Rivière Croche, to the intersection with the southern bank of an unnamed stream, being point 33 (5 342 391 m North, 370 330 m East);

Thence, in a generally southeasterly direction, along the southern bank of an unnamed stream and the western bank of an intermittent stream, excluded from the biodiversity reserve, to point 34 (5 342 207 m North, 370 434 m East);

Thence, in a southwesterly direction, along a straight line on a bearing of 198°32'18" over a distance of approximately 352 metres, to the intersection with biological refuge #02251R025, being point 35 (5 341 874 m North, 370 322 m East);

Thence, in a generally southwesterly direction, along an undulating line corresponding to the southeastern limit of biological refuge #02251R025, to point 36 (5 340 546 m North, 368 664 m East);

Thence, in a southwesterly direction, along a straight line on a bearing of 198°42'27" over a distance of approximately 265 metres, to the intersection with the western bank of an intermittent stream, being point 37 (5 340 295 m North, 368 579 m East);

Thence, in a generally southerly direction, along the western bank of an intermittent stream, excluded from the biodiversity reserve, to the intersection with biological refuge #02251R025, being point 38 (5 340 043 m North, 368 567 m East);

Thence, in a generally southwesterly direction, along an undulating line corresponding to the southeastern limit of biological refuge #02251R025, to the intersection with the northeastern bank of an intermittent stream, being point 39 (5 339 341 m North, 368 421 m East);

Thence, in a generally northwesterly direction, along the northeastern bank of an intermittent stream, excluded from the biodiversity reserve, to the intersection with the eastern bank of Rivière Croche, being point 40 (5 339 416 m North, 368 279 m East);

Thence, in a southwesterly direction, along a straight line on a bearing of 229°23'36" over a distance of approximately 18 metres, to the intersection with the western bank of Rivière Croche, being point 41 (5 339 404 m North, 368 265 m East);

Thence, in a generally northerly direction, along the western bank of Rivière Croche, to the intersection with the western shore of Lac au Ruisseau, being point 42 (5 341 302 m North, 368 175 m East);

Thence, in a generally northeasterly direction, along the western shore of Lac au Ruisseau, to the intersection with biological refuge #02251R025, being point 43 (5 341 684 m North, 368 281 m East);

Thence, in a northerly direction, along the western limit of biological refuge #02251R025, to the intersection with the northwestern right of way of an unnamed road suitable for vehicular traffic, being point 44 (5 341 780 m North, 368 278 m East);

Thence, in a southwesterly direction, along the northwestern right of way of an unnamed road suitable for vehicular traffic, to the intersection with the northeastern right of way of another unnamed road suitable for vehicular traffic, being point 45 (5 341 759 m North, 368 245 m East);

Thence, in a generally northwesterly direction, along the northeastern right of way of an unnamed road suitable for vehicular traffic, to the intersection with the eastern right of way of another unnamed road suitable for vehicular traffic, being point 46 (5 341 982 m North, 368 052 m East);

Thence, in a northeasterly direction, along a straight line on a bearing of 45°48'12" over a distance of approximately 219 metres, to the intersection with the eastern bank of Ruisseau Frog, being point 47 (5 342 135 m North, 368 209 m East);

Thence, in a generally northerly direction, along the eastern bank of Ruisseau Frog, excluded from the biodiversity reserve, to the intersection with the extension of the northeastern bank of an intermittent stream, being point 48 (5 342 607 m North, 368 163 m East);

Thence, in a southeasterly direction, along a straight line on a bearing of $113^{\circ}38'40''$ over a distance of approximately 61 metres, to the intersection with the southwestern right of way of an unnamed road suitable for vehicular traffic, being point 49 (5 342 582 m North, 368 219 m East);

Thence, in a generally southeasterly direction, along the southwestern right of way of an unnamed road suitable for vehicular traffic, to the intersection with the western bank of an unnamed stream, being point 50 (5 342 121 m North, 369 043 m East);

Thence, in a generally northerly direction, along the western bank of an unnamed stream and the western shore of Lac des Frères, to the intersection with the western bank of an intermittent stream, being point 51 (5 342 954 m North, 369 154 m East);

Thence, in a generally northerly direction, along the western bank of an intermittent stream, to point 52 (5 343 336 m North, 369 175 m East);

Thence, in a northeasterly direction, along a straight line on a bearing of $47^{\circ}58'03''$ over a distance of approximately 61 metres, to the intersection with the northern limit of biological refuge #02251R025, being point 53 (5 343 377 m North, 369 220 m East);

Thence, in a generally northeasterly direction, along an undulating line à la northern limit of biological refuge #02251R025, to point 54 (5 343 954 m North, 370 602 m East);

Thence, in a northwesterly direction, along a straight line on a bearing of $343^{\circ}40'39''$ over a distance of approximately 292 metres, to the intersection with the southeastern shore of Lac Arthur, excluded from the biodiversity reserve, being point 55 (5 344 234 m North, 370 520 m East);

Thence, in a northerly direction, along a straight line on a bearing of $3^{\circ}18'58''$ over a distance of approximately 1 003 metres, to the intersection with the southern shore of Lac des Oisillons, being point 56 (5 345 235 m North, 370 578 m East);

Thence, in a generally northwesterly direction, along the western and southwestern shore of Lac des Oisillons, the western and southwestern bank of an unnamed stream and Ruisseau du Jeune Bois, the western and southwestern shore of Lac des Aulnes and the western and southwestern bank of an intermittent stream, to point 57 (5 347 478 m North, 368 665 m East);

Thence, in a northwesterly direction, along a straight line on a bearing of $295^{\circ}10'24''$ over a distance of approximately 110 metres, to the intersection with the southwestern bank of an intermittent stream, being point 58 (5 347 525 m North, 368 565 m East);

Thence, in a generally northwesterly direction, along the southwestern bank of an intermittent stream, the southwestern shore of Lac du Bouleau, the southwestern bank of an unnamed stream, the southwestern shore of Lac des Souches and the southwestern bank of another intermittent stream, to the intersection with the northeastern right of way of an unnamed road suitable for vehicular traffic, being point 59 (5 348 648 m North, 366 784 m East);

Thence, in a generally northerly direction, along the eastern right of way of an unnamed road suitable for vehicular traffic, to the intersection with the northwestern bank of an intermittent stream, being point 60 (5 353 625 m North, 366 124 m East);

Thence, in a generally southwesterly direction, along the southeastern bank of an intermittent stream, to point 61 (5 353 556 m North, 365 873 m East);

Thence, in a southwesterly direction, along a straight line on a bearing of $259^{\circ}52'32''$ over a distance of approximately 484 metres, to the intersection with the southwestern bank of an intermittent stream, being point 62 (5 353 471 m North, 365 397 m East);

Thence, in a generally northwesterly direction, along the southwestern bank of an intermittent stream, the southwestern shore of Lac Merlin and the southwestern bank of several unnamed streams, to the intersection with the southeastern right of way of an unnamed road suitable for vehicular traffic, being point 63 (5 354 216 m North, 364 276 m East);

Thence, in a generally northeasterly direction, along the southeastern right of way of an unnamed road suitable for vehicular traffic, to the intersection with the northeastern bank of an intermittent stream, being point 64 (5 358 670 m North, 366 761 m East);

Thence, in a southeasterly direction, along a straight line on a bearing of $116^{\circ}15'25''$ over a distance of approximately 332 metres, to the intersection with an intermittent stream, being point 65 (5 358 523 m North, 367 059 m East);

Thence, in a northeasterly direction, along a straight line on a bearing of 28°12'50" over a distance of approximately 357 metres, to the intersection with the southwestern right of way of Chemin de la Lièvre, being point 66 (5 358 838 m North, 367 228 m East);

Thence, in a generally easterly direction, along the southern right of way of Chemin de la Lièvre, to the intersection with the southwestern right of way of an unnamed road suitable for vehicular traffic, being point 67 (5 358 730 m North, 368 231 m East);

Thence, in a generally southeasterly direction, along the southwestern right of way of an unnamed road suitable for vehicular traffic, to the intersection with the western bank of an intermittent stream, being point 68 (5 356 576 m North, 370 093 m East);

Thence, in a generally easterly direction, along the western and southeastern bank of several unnamed streams and several intermittent streams and the western and southeastern shore of Lac Philippe, excluded from the biodiversity reserve, to the intersection with the southeastern right of way of an unnamed road suitable for vehicular traffic, being point 69 (5 356 686 m North, 371 500 m East);

Thence, in a generally northeasterly direction along the southeastern right of way of an unnamed road suitable for vehicular traffic, to the intersection with the southeastern right of way of Chemin de la Lièvre, being point 70 (5 358 714 m North, 372 577 m East);

Thence, in a generally easterly direction, along the southern right of way of Chemin de la Lièvre, to the intersection with the eastern bank of an unnamed stream, being point 71 (5 359 134 m North, 375 005 m East);

Thence, in a generally southwesterly direction, along the southeastern bank of several unnamed streams and the southeastern shore of Lac Charley, Lac de l'Abri à Canot and several unnamed lakes, corresponding to the limit of Réserve écologique J.-Clovis-Laflamme, excluded from the biodiversity reserve, to the southern corner of Réserve écologique J.-Clovis-Laflamme, being point 72 (5 353 447.65 m North, 374 386.12 m East);

Thence, in a northeasterly direction, along the surveyed limit of Réserve écologique J.-Clovis-Laflamme, excluded from the biodiversity reserve, to the intersection with the southwestern bank of Lac des Roches, being point 73 (5 354 197.00 m North, 375 355.30 m East);

Thence, in a generally northerly direction, along the western shore of Lac des Roches, corresponding to the limit of Réserve écologique J.-Clovis-Laflamme, excluded from the biodiversity reserve, to point 74 (5 354 808.21 m North, 375 377.21 m East);

Thence, in a northwesterly direction, along the surveyed limit of Réserve écologique J.-Clovis-Laflamme, excluded from the biodiversity reserve, to point 75 (5 354 982.61 m North, 375 242.36 m East), corresponding to survey disk #E placed by Dany Renaud, land surveyor, as illustrated on his plan bearing number 2633 of his minutes;

Thence, in a northeasterly direction, along the surveyed limit of Réserve écologique J.-Clovis-Laflamme, excluded from the biodiversity reserve, to the intersection with the southwestern limit of the township of Ross, being point 76 (5 355 043.78 m North, 375 321.47 m East) corresponding to survey disk #D placed by Dany Renaud, land surveyor, as illustrated on his plan bearing number 2633 of his minutes;

Thence, in a northwesterly direction, along the surveyed limit of Réserve écologique J.-Clovis-Laflamme, excluded from the biodiversity reserve, to point 77 (5 355 769.79 m North, 374 756.40 m East) corresponding to survey disk #C placed by Dany Renaud, land surveyor, as illustrated on his plan bearing number 2633 of his minutes;

Thence, in a northeasterly direction, along the surveyed limit of Réserve écologique J.-Clovis-Laflamme, excluded from the biodiversity reserve, to the intersection with the western right of way of the road unsuitable for vehicular traffic to Lac-Mathabé, being point 78 (5 356 360.22 m North, 375 519.97 m East);

Thence, in a generally northerly direction, along the western right of way of the road unsuitable for vehicular traffic to Lac-Mathabé corresponding to the eastern limit of Réserve écologique J.-Clovis-Laflamme, excluded from the biodiversity reserve, to the intersection with the northeastern limit of Réserve écologique J.-Clovis-Laflamme, being point 79 (5 358 893 m North, 375 820 m East);

Thence, in a generally northerly direction, along the eastern right of way of an unnamed road suitable for vehicular traffic, to starting point 1.

Having an area of 108.76 square kilometres (excluding the parcel to be subtracted as described below).

EXCEPTING PARCEL A-1 TO BE SUBTRACTED AS DESCRIBED BELOW:

PARCEL A-1

A parcel of land known as the experimental forest (FE #1083 Ross C, contrainte 265010) of the Ministère des Forêts, de la Faune et des Parcs, excluded from the biodiversity reserve and being described as follows:

Starting from point 2 (5 357 212 m North, 377 031 m East) of Parcel A as described above, in a northwesterly direction, along a straight line on a bearing of 321°28'19" over a distance of 925 metres, to point 80 (5 357 935 m North, 376 455 m East), being the starting point of the parcel to be described;

Thence, along the limit of the experimental forest (FE #1083 Ross C, contrainte 265010) of the Ministère des Forêts, de la Faune et des Parcs, passing successively through the points having the following approximate coordinates:

- 81 (5 357 926 m North, 376 512 m East);
- 82 (5 357 931 m North, 376 526 m East);
- 83 (5 357 923 m North, 376 565 m East);
- 84 (5 357 891 m North, 376 608 m East);
- 85 (5 357 783 m North, 376 571 m East);
- 86 (5 357 796 m North, 376 513 m East);
- 87 (5 357 792 m North, 376 501 m East);
- 88 (5 357 828 m North, 376 416 m East);

to starting point 80.

Having an area of 0.02 square kilometres (23 095 m²).

PARCEL B

Starting from a point situated on the northeastern right of way of the Chissibi/Jacques-Cartier power transmission line, corresponding to the land placed at the disposal of Hydro-Québec under reference no. 265-T (Right # 151449), being point 89 (5 361 090 m North, 376 246 m East);

Thence, in a generally northeasterly direction, along the southeast right of way of several unnamed roads suitable for vehicular traffic, to point 90 (5 362 141 m North, 379 262 m East);

Thence, in a northeasterly direction, along a straight line on a bearing of 61°06'28" over a distance of approximately 308 metres, to the intersection with the southern bank of an unnamed stream, being point 91 (5 362 290 m North, 379 532 m East);

Thence, in a generally southeasterly direction, along the southwestern bank of an unnamed stream, excluded from the biodiversity reserve, to the intersection with the western right of way of an unnamed road suitable for vehicular traffic, being point 92 (5 362 086 m North, 380 038 m East);

Thence, in a generally southerly direction, along the western right of way of an unnamed road suitable for vehicular traffic, to the intersection with the northwestern right of way of an unnamed road suitable for vehicular traffic, being point 93 (5 362 014 m North, 380 043 m East);

Thence, in a southwesterly direction, along northwestern right of way of an unnamed road suitable for vehicular traffic, to the intersection with the southwestern right of way of an unnamed road unsuitable for vehicular traffic, being point 94 (5 361 993 m North, 380 005 m East);

Thence, in a generally southeasterly direction, along the southwestern right of way of an unnamed road unsuitable for vehicular traffic, to point 95 (5 361 324 m North, 380 274 m East);

Thence, in a southeasterly direction, along a straight line on a bearing of 126°07'46" over a distance of approximately 371 metres, to the intersection with the southwestern bank of an unnamed stream, being point 96 (5 361 105 m North, 380 574 m East);

Thence, in a generally southeasterly direction, along the southwestern bank of an unnamed stream, excluded from the biodiversity reserve, to the northwestern right of way of Chemin de la Lièvre, being point 97 (5 360 048 m North, 381 301 m East);

Thence, in a generally southwesterly direction, along the northwestern right of way of Chemin de la Lièvre, to the intersection with the northwestern bank of an intermittent stream, being point 98 (5 359 183 m North, 379 824 m East);

Thence, in a generally northeasterly direction, along the northwestern bank of an unnamed stream, to the intersection with the southern shore of Lac aux Iroquois, being point 99 (5 359 317 m North, 379 882 m East);

Thence, in a generally northwesterly direction, along the southwestern bank of Lac aux Iroquois, to the north-eastern corner of lot 4 069 116 of the cadastre of Québec, being point 100 (5 360 233 m North, 378 787 m East);

Thence, in a northwesterly direction, along the northern limit of lot 4 069 116 of the cadastre of Québec, to the northwestern corner of the said lot, being point 101 (5 360 261 m North, 378 714 m East);

Thence, in a generally southeasterly direction, along the western limit of lot 4 069 116 and part of the western limit of lot 4 069 114, to the intersection with the northern right of way of an unnamed road suitable for vehicular traffic, being point 102 (5 360 187 m North, 378 737 m East);

Thence, in a generally southwesterly direction, along the northwestern right of way of an unnamed road suitable for vehicular traffic, to the intersection with the southwestern right of way of another unnamed road suitable for vehicular traffic, being point 103 (5 360 014 m North, 378 576 m East);

Thence, in a generally southeasterly direction, along the southwestern right of way of an unnamed road suitable for vehicular traffic, to the intersection with the southern right of way of Chemin de la Lièvre, being point 104 (5 359 234 m North, 378 959 m East);

Thence, in a generally easterly direction, along the southern right of way of Chemin de la Lièvre, to the intersection with the northwestern right of way of Chemin de la Cruche, being point 105 (5 359 202 m North, 379 715 m East);

Thence, in a generally southerly direction, along the western right of way of Chemin de la Cruche, to the intersection with the northern right of way of an unnamed road unsuitable for vehicular traffic, being point 106 (5 356 143 m North, 379 359 m East);

Thence, in a generally westerly direction, along the northern right of way of an unnamed road unsuitable for vehicular traffic, to the intersection with the western bank of an intermittent stream, being point 107 (5 356 145 m North, 379 320 m East);

Thence, in a generally southerly direction, along the northwestern bank of an intermittent stream, excluded from the biodiversity reserve, to point 108 (5 355 295 m North, 379 233 m East);

Thence, in a southerly direction, along a straight line on a bearing of 189°12'21" over a distance of approximately 294 metres, to the intersection with the northern bank of an intermittent stream, being point 109 (5 355 005 m North, 379 186 m East);

Thence, in a generally westerly direction, along the northern bank of an intermittent stream excluded from the biodiversity reserve, to point 110 (5 354 988 m North, 378 752 m East);

Thence, in a southwesterly direction, along a straight line on a bearing of 251°01'14" over a distance of approximately 566 metres, to the intersection with the northwestern bank of an unnamed stream, being point 111 (5 354 804 m North, 378 217 m East);

Thence, in a generally southwesterly direction, along the northwestern bank of an unnamed stream, excluded from the biodiversity reserve, to the intersection with the northeastern right of way of the Chissibi/Jacques-Cartier power transmission line, corresponding to the land placed at the disposal of Hydro-Québec under reference no. 265-T (Right # 151449), being point 112 (5 354 756 m North, 378 173 m East);

Thence, in a northwesterly direction, along the northeastern right of way of the Chissibi/Jacques-Cartier power transmission line, corresponding to the land placed at the disposal of Hydro-Québec under reference no. 265-T (Right # 151449), to point 113 (5 357 258 m North, 377 189 m East);

Thence, in a northwesterly direction, along the northeastern right of way of the Chissibi/Jacques-Cartier power transmission line, corresponding to the land placed at the disposal of Hydro-Québec under reference no. 265-T (Right # 151449), to starting point 89.

Having an area of 20.46 square kilometres (excluding the two parcels to be subtracted as described below).

EXCEPTING PARCELS B-1 AND B-2 TO BE SUBTRACTED AS DESCRIBED BELOW:

PARCEL B-1

A parcel of private land corresponding to lot 4 069 098 of the cadastre of Québec, in the registration division of Lac-Saint-Jean-Ouest, excluded from the biodiversity reserve and described as follows:

Starting from point 99 (5 359 317 m North, 379 882 m East) of Parcel B described above, in a northerly direction, along a straight line on a bearing of 356°59'04" over a distance of approximately 309 metres, to the eastern corner of lot 4 069 098 of the cadastre of Québec, being point 114 (5 359 626 m North, 379 866 m East), being the starting point of the parcel to be described;

Thence, in a southwesterly direction, along the southeastern limit of lot 4 069 098 of the cadastre of Québec, to the southern corner of the said lot, being point 115 (5 359 572 m North, 379 793 m East);

Thence, in a generally northeasterly direction, along the southwestern, northwestern and northeastern limit of lot 4 069 098 of the cadastre of Québec, to the eastern corner of the said lot, being starting point 114.

Having an area of 0.01 square kilometres (7 656 m²).

PARCEL B-2

A parcel of private land corresponding to lot 4 069 097 of the cadastre of Québec, in the registration division of Lac-Saint-Jean-Ouest, excluded from the biodiversity reserve and described as follows:

Starting from point 99 (5 359 317 m North, 379 882 m East) of Parcel B described above, in a northwesterly direction, along a straight line on a bearing of 344°48'51" over a distance of approximately 228 metres, to point 116 (5 359 537 m North, 379 822 m East), being the starting point of the parcel to be described;

Thence, in a southeasterly direction along the northeastern limit of lot 4 069 097 of the cadastre of Québec, to the eastern corner of the said lot, being point 117 (5 359 525 m North, 379 838 m East);

Thence, in a generally northwesterly direction, along the southeastern and northwestern limit of lot 4 069 097 of the cadastre of Québec, to the northern corner of the said lot, being starting point 116.

Having an area of 0.003 square kilometres (2 806 m²).

The whole of the biodiversity reserve having an area of 129.22 square kilometres.

Notes:

— The boundary of the biodiversity reserve shown on the plan accompanying the technical description was determined using the digital files in the Québec topographic database (base de données topographique du Québec, or BDTQ) at a scale of 1:20 000 kept by Québec's ministère de l'Énergie et des Ressources naturelles (MERN), an excerpt from the surveys officialised in the register of lands in the domain of the State as of 17 October 2017, an excerpt from the Québec cadastral database (Base de données cadastrale du Québec) as of 17 October 2017 and the database of the eco-forest information system (système d'information écoforestière, or SIEF) kept by the MERN.

— The right of way 90 metres in width for the Chamouchouane/Jacques-Cartier power transmission line (1st line) corresponds to the land placed at the disposal of Hydro-Québec under reference no. 19-T (right #151449);

— The right of way 75 metres in width for the Chissibi/Jacques-Cartier power transmission line (12th line) corresponds to the land placed at the disposal of Hydro-Québec under reference no. 265-T (right #638570);

— In general, the beds of all watercourses, rivers and lakes are included in the biodiversity reserve. Only those that are excluded are mentioned in this technical description.

— A limit defined by a lakeshore, riverbank or stream-bank runs along the high-water mark.

— The coordinates and areas mentioned in this technical description are approximate. They were determined graphically using the same data as the data used to determine the boundary of the biodiversity reserve. They are expressed in metres with reference to the Québec plane coordinate system (QPCS), Modified Transverse Mercator projection (MTM), Time Zone 8 (central meridian 73°30'), North American Datum 1983 (NAD83).

— Measurements are expressed in International System units.

— The boundary of the biodiversity reserve is based on the actual layout of the elements described in this document and must be legally interpreted on that basis. It was defined by the Direction des aires protégées of Québec's ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques.

— The territory of the biodiversity reserve, as described in this technical description, contains only lands in the domain of the State. Any land that proves to be not part of the domain of the State is excluded from the biodiversity reserve.

— The territory is shown on a plan drawn at a scale of 1:30 000.

— In accordance with the instructions of the Direction des aires protégées of Québec's Ministère de l'Environnement et de la Lutte contre les changements climatiques, the information contained in the source documents provided by the mandator, from which this technical description was prepared, has been accepted as fact.

The whole as shown on the plan prepared by the undersigned on 9 May 2018 and filed with the office of the Surveyor-General of Québec at the ministère de l'Énergie et des Ressources naturelles under document number 536703.

Prepared at Québec on 9 May 2018, under number 11 677 of my minutes.

Digitally signed by:

PIERRE HAINS,
Land surveyor

Ministère du Développement durable,
de l'Environnement et de la Lutte contre
les changements climatiques

Direction des aires protégées

MDDELCC file: 5148-06-02(10)

Original filed at the office of the Surveyor-General of Québec.

SPACE RESERVED FOR THE DIGITAL SIGNATURE OF
THE CERTIFICATE OF FILING ISSUED BY THE
SURVEYOR-GENERAL OF QUÉBEC

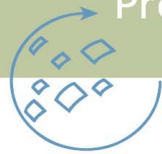
Only the Surveyor-General of Québec is authorized to issue certified copies of this document.

Certified copy issued on

.....
For the Surveyor-General of Québec

SCHEDULE II

**CONSERVATION PLAN FOR THE RÉSERVE DE BIODIVERSITÉ
DES BUTTES-ET-BUTTONS-DU-LAC-PANACHE**



Protected areas
in Québec:

A Lifelong Heritage

Réserve de biodiversité
des Buttes-et-Buttons-
du-Lac-Panache



CONSERVATION PLAN

Québec 

Cover page photos: André R. Bouchard, Ministère de l'Environnement et de la Lutte contre les changements climatiques.

Reference to cite:

Gouvernement du Québec. 2019. Conservation Plan, Réserve de la biodiversité des Buttes-et-Buttons-du-Lac-Panache. Québec, Ministère de l'Environnement et de la Lutte contre les changements climatiques, Direction des aires protégées. 17 pages.

CONTENTS

Introduction

- 1 The territory of Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache
 - 1.1 Official toponym
 - 1.2 Boundaries and location
 - 1.3 Ecological portrait
 - 1.3.1 Physical environment
 - 1.3.2 Biological environment
 - 1.3.3 Ecological representativeness
 - 1.4 Land occupation and uses
 - 1.4.1 Particular heritage element
- 2 Conservation and management issues
 - 2.1 Introduction
 - 2.2 Protection of biodiversity
 - 2.3 Protection of archeological sites
 - 2.4 Development activities
 - 2.5 Knowledge acquisition and environmental monitoring
 - 2.6 Conservation and management objectives
- 3 Zoning
- 4 Activity framework applicable to Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache
 - 4.1 Activity framework established by the Natural Heritage Conservation Act
 - 4.2 Activity framework established by the Regulation respecting the Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache
- 5 Activities governed by other laws
- 6 Management
 - 6.1 Responsibilities of the Minister of the Environment and the Fight against Climate Change
 - 6.2 Monitoring
 - 6.3 Participation of stakeholders

Bibliographical references

Appendix 1 — Boundaries and location

Appendix 2 — Occupation and uses

Appendix 3 — Existing vegetation and potential vegetation

Appendix 4 — Zoning

Introduction

By Order in Council No. 445-2008 of May 7, 2008, 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 des Buttes-et-Buttons-du-Lac-Panache, and approved the boundaries and conservation plan proposed for it. The creation of this provisional protected area by the ministerial order of May 29, 2008 (2008, G.O. 2, 2124) came into force on June 11, 2008 for a duration of four years. This provisional protection status was extended to June 11, 2020 by order of the Minister of Sustainable Development, Environment and Parks on May 11, 2012 (2012, G.O. 2, 1552).

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 des Buttes-et-Buttons-du-Lac-Panache. 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).

With a view toward granting the territory permanent protection status, the Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC), in collaboration with Le Domaine-du-Roy MRC and in accordance with the BAPE's report, modified the boundaries of the protected area along the shore of Lac aux Iroquois, to exclude a larger area for resort purposes. The MELCC, the MRC and the Ministère de l'Énergie et des Ressources naturelles (MERN) also worked out a process for dealing with resort leases that are not in compliance with regulations. Additionally, the protected area was enlarged by 5.8 km² in response to proposals at the public hearings, notably by forestry company Produits Forestiers Résolu.

1 The territory of Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache

1.1 Official toponym

The toponym “Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache” reflects the features that define the relief of the area, as well as the name of its largest lake.

1.2 Boundaries and location

The boundaries and location of Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache are shown on the map comprising Appendix 1. Covering an area of 129.2 km², the reserve lies between 48° 13' and 48° 25' north latitude and between 72° 28' and 72° 42' west longitude, about 25 km southwest of Roberval. It is partly in the unorganized territory of

Lac-Ashuapmushuan and partly in the municipality of Sainte-Hedwige (northeastern point), both of which are in the heart of Le Domaine-du-Roy MRC, in the administrative region of Saguenay–Lac-Saint-Jean. The reserve is divided into two sections by the exclusion of the right of way for power lines 7024 and 7025.

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 Merlin in the northwest), the real boundary is the natural high-water mark. Where the boundary runs along 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 11677 (May 9, 2018) and filed in the surveying archives of the Surveyor General of Québec (Grefte de l'arpenteur général du Québec), Ministère de l'Énergie et des Ressources naturelles under document number 536703.

1.3 Ecological portrait

1.3.1 Physical environment

The biodiversity reserve is in the Southern Laurentian natural province, near its northeastern boundary (Li and Ducruc, 1999). This ecological unit corresponds to a segment of Grenville geological province, the roots of a chain of mountains formed nearly a billion years ago. At a more precise level, the reserve is in the Windigo massif natural region. In the northwestern part of the massif, where various tributaries of the Saint-

Maurice arise (including the Windigo, Trenché, Pierriche and Croche rivers), the highest mountains reach an elevation of 734 metres. The overall surface of the massif gently dips toward the southeast, where it is more or less horizontal until its contact with the Lac-Jacques-Cartier massif natural region, which lies to the east. The reserve itself is at the bottom of that gentle slope, and its elevation ranges between 350 and 525 metres. The landforms of the natural region here consist predominantly of mounds or large hillocks with rounded summits (elevation 450 to 500 m) separated by valleys (elevation 350 to 400 m).

The bedrock of the natural region consists of metamorphic rocks (migmatite and gneiss) along with igneous rocks (granitoids), created before the Grenville orogeny, in an orogenic cycle known to geologists as the “polycyclic allochthonous”. The bedrock of the reserve itself consists essentially of granitoid orthogneiss, migmatite and orthopyroxene granitoids, the last of which underlie the northern part of Lac Panache and the low hill north of it, whose summit is the highest point in the reserve.

The dominant surface deposits of the reserve (67.8%) are undifferentiated till (glacial deposits with no particular morphology). Fluvioglacial and fluvial deposits cover 16% of the reserve, concentrated around Rivière Croche, Ruisseau Frog and lakes Iroquois and Panache. Lastly, organic deposits account for 4.9% of the reserve, while rocky outcrops and thin soil with frequent outcrops account for another 4.5%. More than 82% of the soils of the reserve enjoy good to moderate drainage.

Occupying 6.3% of the territory, the hydrographic network includes nearly 200 bodies of water, most of them quite small, with a great number being the product of beaver dams. Lac Panache (173 ha) and Lac aux Iroquois (59.4 ha) are the largest lakes. The reserve protects the headwaters of Rivière aux Iroquois, which flows toward Lac Saint-Jean, and Rivière Croche, which empties into the Saint-Maurice. In the southeast part of the reserve, a few areas drain into the Rivière Ouïatchouaniche watershed, which flows toward Lac Saint-Jean.

According to Gerardin and McKenney (2001), the territory of the reserve is subject to a subarctic continental climate, subhumid with a medium growing season. Average temperatures are on the order of -1.5 to -1.9°C. The average annual precipitation ranges from 800 mm to 1359 mm, while the average growing season is from 150 to 179 days.

1.3.2 Biological environment

The reserve lies in a band where the natural vegetation is balsam fir/white birch forest, between the fir/yellow birch zones of Saguenay–Lac-Saint-Jean and Mauricie. It is in the bioclimatic subdomain of the western part of the fir/white birch forest, reflecting a dryer continental climate, with a relatively short forest fire cycle. Productive forest environments dominate the landscape, with woodlands occupying 82% of the area of the reserve (Table 1). However, old-growth forests (> 90 years) are nearly absent (just 2.1% of the reserve), while young and regenerating forests predominate (97.9%), as a result of the many natural and anthropic disturbances of the last century.

Table 1: Forest summary of the territory of Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache (MFFP, SIEF, 4th ten-year survey)

Type of cover		Area (ha)	Proportion(%)
Forest	Deciduous	1891.1	14.6
	Mixed	3259.5	25.2
	Coniferous	4749.5	36.7
	Regenerating	712.8	5.5
Other	Alder stands	213.7	1.7
	Wet barrens	545.5	4.2
	Dry barrens	684.3	5.3
	Water	816.6	6.3
	Island	2.8	0.0
	Flooded	45.3	0.4
	Other	0.4	0.0
Total		12 932.8	100.0%

Fires and logging have largely determined the forests that are found today, consisting primarily of grey pine stands (35.9%) and shade-intolerant deciduous stands (35.6%). Practically all the reserve's woodlands have been disturbed in the last century, and 9% of the territory was logged quite recently (1993-2015).

In 2009 the MELCC did a summary plant survey in the territory of the reserve. The following species were observed: lowbush blueberry, Indian-root, large-leaved aster, paper birch, leatherleaf, Canada fly-honeysuckle, creeping snowberry, yellow clintonia, goldthread, bunchberry, northern bush-honeysuckle, trailing arbutus, mountain maple, black spruce, sheep laurel, Labrador tea, twinflower, flat-branched

tree-clubmoss, Canada mayflower, tamarack, interrupted fern, white wood-sorrel, trembling aspen, early meadow-rue, grey pine, red pine, broad-leaved meadowsweet, sessile-leaved twisted-stalk, northern starflower, and wild raisin.

These observations confirmed those made at five observation points studied in 1991 for the MFFP's ecological inventory program (1986-2000), which also reported the following species: velvet-leaved blueberry, serviceberry sp., wild sarsaparilla, American green alder, pin cherry, reindeer moss, lady's slipper, fork moss sp., northern oak fern, skunk currant, knight's-plume moss, red-stemmed feathermoss, running clubmoss, mountain holly, horsetail sp., haircap moss sp., bracken fern, shinleaf, willow sp., goldenrod sp., American mountain-ash, rusty peat moss, peat moss sp., and painted trillium.

Aquatic environments occupy 6.3% of the reserve, while bogs account for 3.9%, one of them being an ombrotrophic bog of nearly 100 hectares, beside Lac Plat in the western part of the reserve. The Ruisseau Frog sector, near the western boundary, is another area of interest for the preservation of wetlands.

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.

With regard to wildlife, no survey specific to the territory of the reserve has been done. Besides the species commonly exploited for fishing, hunting and trapping, the reserve is likely home to a representative sample of species that frequent the southern part of the boreal forest (balsam fir/white birch), except for those more associated with old-growth forests. There are brook trout in nearly every body of water, along with monkfish, minnows (lake chub and common shiner), suckers (white and longnose), fallfish and yellow perch

1.3.3 Ecological representativeness

Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache will enrich the representation of the characteristic ecosystems of the Windigo massif natural region in Québec's protected areas network. Together with Réserve écologique J.-Clovis-Laflamme, the reserve forms a conservation nucleus of nearly 140 km² whose biodiversity components (types of physical environments and assemblages of associated species) will be assured greater ecological integrity as time goes by (see sidebar).

Expanding a conservation nucleus helps to ensure its long-term effectiveness in protecting ecosystem functionality, while reducing its vulnerability to natural disturbances and changes in the surrounding landscape.

In terms of configuration, the edge effect can have a significant impact on protected areas, depending on their size and shape. Ideally, a protected area should be round, limiting the ratio of perimeter to contained area. In addition, conservation biology theory posits that a protected area should be large enough to contain all the successional stages of forest ecosystems, larger therefore than any disturbance that could affect it. However, with its 129.2 km² (139.4 km² including the ecological reserve), the biodiversity reserve is less than half the size of two forest fires that swept nearby in recent decades (fires of over 300 km² in 1983 and 1995, both less than 100 km away).

At level 3 in the ecological reference framework of Québec, the reserve is part of the Buttes-du-lac-des-Commissaires physiographic complex. At level 4 it overlaps four ecological districts, all characterized by the presence of mounds covered by deposits comparable to those in the reserve. Thus, in physiographic terms the reserve is representative of the ecosystems present in these ecological units. Its various types of deposits are also represented in similar proportions to those of the natural region. Its proportion of aquatic environments is slightly greater than that of the natural region (6.3% versus 5.6%, likely due to its location at the bottom of a slope). However, its general

hydrography (numerous lakes of small size) is comparable to that of the natural region.

On the other hand, in biological terms the present-day forest landscapes of the reserve and environs are very different, in both structure and composition, from the natural landscapes that would normally be there (Grondin *et al.* 2010). The latter authors recommend that the white birch/balsam fir stands typical of the Lac St-Jean area (western mixed forest) be the focus of forest restoration efforts, to gradually bring their structure and composition closer to those of natural landscapes. The rarity of certain types of environment (especially old-growth forest and balsam fir stands) and the over-abundance of shade-intolerant deciduous stands, bear out the fact that the present-day situation is not what it should be.

1.4 Land occupation and uses

The principal occupations and uses of the territory of Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache are shown on the map comprising Appendix 2.

Except for a small area to the south of Lac Panache, the reserve is almost entirely inside the ZEC de la Lièvre controlled harvesting zone, which dates from 1978. It is easily accessed by a class 1 forest road that leads to the ZEC's main reception post, about seven kilometres east of the eastern boundary of the biodiversity reserve. In winter, section 83 of the Trans-Québec snowmobile trail between Lac-Saint-Jean and Mauricie runs along two stretches of the northern boundary. Aside from the class 1 forest road, a number of secondary and tertiary forest roads

also provide access to parts of the reserve, particularly in the north, where large areas were stripped of forest just before provisional protection status was granted.

Apart from hunting and fishing, which are managed by the De la Lièvre ZEC, there are a fair number of cottages (44 resort leases) plus three temporary shelters (MRNF, 2012). Excluded from the reserve are the cottage sites along the shores of Lac aux Iroquois and Lac Philippe, the rights of way of power transmission lines MAD 19T and MAD 265T, and experimental forest 1083-Ross "C", where silviculture research is done. There is also single-phase distribution line RBV 237.

The reserve is part of fur-bearing animal management unit 48 (MFFP, Saguenay–Lac-Saint-Jean), and overlies six trapping grounds (leases with exclusive trapping rights). A canoe-kayak route crosses the reserve via Rivière Croche, then continues through Lac Panache. There is a backcountry campground in the northwest extremity of the reserve. ZEC de la Lièvre hopes to further develop recreational activities on its territory, and has prepared a plan to that end (Ouellet and Coté, 2005).

Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache is located entirely in the Nitassinan of the Mashteuiatsh Innu 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 the sector containing the biodiversity reserve, there are territorial overlaps between the Mashteuiatsh Innu First Nation and the Attikamek

First Nation, under the Comprehensive Land Claim Negotiations (MRNF, 2012).

1.4.1 Particular heritage element

The Lac Panache area is rich in Amerindian archeological sites from prehistoric times (12 000 to 450 years B.C.). In the 1960s, Abbé Robert Simard identified 19 archeological sites around Lac Panache (Simard, 1967). His report mentions that his own father, who worked in logging camps there in the early 1900s, had met Aborigines who spent the winter there. He also reports that log driving was done on Rivière Croche and that there was a system of locks on Lac Panache.

The Mashteuiatsh's Innus (also called Pekuakamiulnuatsh or Montagnais) refer to *Rivière Panache*, *Ishkin shipi* [eshkan shipi] in their documentation. A number of documents refer to their occupation of this area. The 1983 study by the Atikamekw Montagnais Council reveals that they too came to Lac Panache. Even in 1926, Montagnais families went to the Lac Panache and La Croche area each year. In 1980 the trip was done by car to the Panache forks, the rest of the journey being on foot through the brush. Historic paths and portages have been identified, notably between lakes Lucien and Philippe, Lac Souche and Grand lac Verreault, and between Ruisseau Frog and Lac de la Galette. Based on data from the Ministère de la Culture et des Communications, there are 21 known archeological sites around Lac Panache. The whole area is a very important part of the heritage of the Mashteuiatsh Innu First Nation (Pekuakamiulnuatsh Takuhikan, 2012).

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 des Buttes-et-Buttons-du-Lac-Panache, 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

The first conservation issue concerns the need to gradually restore the characteristic ecosystems of the Windigo massif natural region. The absence of industrial activities will allow the average age of forest stands to slowly increase. The reserve already includes a territory designated as a “biological refuge” (#02251R025, see Appendix 2) under the *Sustainable Forest Development Act*. Created in 2008, the refuge has preserved one of the rare areas of old-growth forest in the reserve. Based on the ecological types (and potential vegetation) identified in the ecoforestry information system, it can be expected that coniferous forests will eventually

dominate the territory of the reserve. Ultimately, balsam fir stands (fir/black spruce and fir/white birch) could cover up to 55% of the reserve, with black spruce stands occupying another 30%. Fir stands should occupy the uplands, while black spruce stands should be more common on the lower slopes. Appendix 3 illustrates the expected long-term theoretical evolution of the reserve’s forest cover. The corresponding objective for this conservation issue is: *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 Croche, Aux Iroquois and Ouiatchouaniche rivers, the hydrographic network of the reserve has great ecological integrity and excellent 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.*

2.3 Protection of archeological sites

A crucial management issue for the reserve is to ensure the protection of the shores of Lac Panache, where there is a concentration of archeological sites. The corresponding objective is: *Prohibit any new development around Lac Panache.*

2.4 Development activities

Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache offers numerous attractions for recreation (hunting, fishing, vacationing, canoeing). It is readily accessible by a class 1

forest road, and is less than 30 km from provincial Route 169. It is mostly frequented by hunters, fishers and trappers, along with cottagers. ZEC de la Lièvre is responsible for wildlife development, harvesting and conservation, and for facilitating access to users.

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 and refining the zoning outline in the present conservation plan. This will help ensure the achievement of the conservation objectives, in particular the protection of sensitive or fragile natural environments, the recovery of old-growth forest and the protection of Amerindian archeological sites. To encourage participation by all stakeholders who use the territory, 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.*

2.5 Knowledge acquisition and environmental monitoring

As sketched in section 1.3, existing knowledge about the ecosystems of the reserve is fragmentary, so knowledge acquisition will be essential with regard to all objectives concerning the natural heritage. The knowledge acquired will facilitate monitoring of the natural environment, and 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.

Specific objectives:

- Perform targeted surveys and subsequent monitoring.

The MELCC will target needs related to knowledge gaps about biodiversity. With the help of regional partners, the MELCC will establish an inventory of the plant and animal species found in the reserve. The subjects of surveys or research to prioritize will be determined later, but will reflect existing or anticipated ecological problems.

2.6 Conservation and management objectives

Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache 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 Windigo massif

natural region. For the government, the protection of these components and ecosystems, described in section 1.3, is a major objective. However, it is important to 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 set out in sections 2.1 to 2.4, and the geographical sectors of interest corresponding to the elements described in section 1, the conservation and management objectives specific to the reserve are as follows:

- Promote the restoration of forest stands typical of the balsam fir/white birch domain.
- Protect wetlands and maintain water quality.
- Prohibit any additional development around Lac Panache.
- Establish participative and collaborative management.
- Inform all users as to the conservation and management objectives being pursued in the protected area.

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

Taking into account the ecosystems, occupation and use of the territory, along with the present condition of the natural environment and the protection and management objectives, the biodiversity reserve has been subdivided into three zones. While all three enjoy the same degree of legal protection and have the same activity framework, their protection measures and

development possibilities reflect their respective features

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

The zones are:

Zone I: Lac Panache low hill

Zone II: Lac Plat basin

Zone III: Lac aux Iroquois mounds and hillocks

Zone I: Lac Panache low hill

This zone includes all the southern part of the reserve, including Lac Panache and the low hill to the north of it. The main concern in this zone is to protect the known archeological sites and the general archeological potential. The thinness of surface deposits on the heights, and the presence of a few old forests in the south (notably in biological refuge 02251R025), demand special attention in this zone.

Zone II: Lac Plat basin

North of the previous zone and west of Réserve écologique J.-Clovis-Laflamme, this zone features an abundance of wetlands along with fluvio-glacial and fluvial deposits. It has been heavily disturbed by logging, but a few middle-age forests remain. The main concern in this zone will be to protect the wetlands and aquatic environments. Natural restoration of the forests and the maintenance of a buffer around the ecological reserve are also important issues here.

Zone III: Lac aux Iroquois mounds and hillocks

Zone III contains the eastern part of the reserve, and borders on the south and east boundaries of Réserve écologique J.-Clovis-Laflamme. Crossed by a major hydroelectric line, and almost wholly in the municipality of Sainte-Hedwidge, Zone III is the main gateway to the biodiversity reserve. The proximity of the reception post of ZEC De la Lièvre and the Lac Brousseau campground mean that it will be especially important to build awareness about conservation issues. Of all the zones, this is the most heavily disturbed by logging. The area of cottages along Lac aux Iroquois is in this zone, but excluded from the reserve. As with Zone II, restoring natural forests and maintaining a buffer around the ecological reserve are especially important issues here, given the significant human presence. The MELCC will seek the collaboration of all stakeholders in preserving the few remaining old-growth forests and wetlands, and in promoting the natural restoration of regenerating woodlands.

4 Activity framework applicable to Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache

The activity framework applicable to Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache follows from the provisions of the *Natural Heritage Conservation Act* and the Regulation respecting the Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache.

4.1 Activity framework established by the Natural Heritage Conservation Act

Activities carried out within the 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 des Buttes-et-Buttons-du-Lac-Panache

Accordingly, the provisions set out in Regulation respecting the Réserve de biodiversité des Buttes-et-Buttons-du-Lac-Panache 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.mddelcc.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); **delivery of authorizations** (forest roads) and **protection of biological refuges:** 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 des Buttes-et-Buttons-du-Lac-Panache. 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 des Buttes-et-Buttons-du-Lac-Panache. 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 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, zoning refinements, 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 main stakeholder, including Le Domaine-du-Roy MRC, Aboriginal communities whose members frequent the territory, the municipality of Sainte-Hedwige, ZEC De la Lièvre, the holders of land rights, and the regional units of other government departments that have responsibilities in the biodiversity reserve.

Bibliographical references

Brassard, F. A.R. Bouchard, D. Boisjoly, F. Poisson, A. Bazoge, M.- A. Bouchard, G. Lavoie, B.Tardif, M. Bergeron, J. Perron, R. Balej et D. Blais. Portrait du réseau d'aires protégées au Québec. Période 2002-2009. Ministère du Développement durable, de l'Environnement et des Parcs, 2010, 229 p.

Gerardin, V. et D. McKenney, 2001. *Une classification du Québec à partir de modèles de distribution spatiale de données climatiques mensuelles : vers une définition des bioclimats du Québec*, ministère de l'Environnement du Québec, Service de la cartographie écologique no 60, 2001, 40 p. [En ligne : <http://www.mddelcc.gouv.qc.ca/changements/classification/model-clima.pdf>]

GRONDIN, Pierre, Denis HOTTE, Yan BOUCHER, Patrice TARDIF et Jean NOËL, 2010. Comparaison des paysages forestiers actuels et des paysages forestiers naturels du sud de la forêt boréale du Québec à des fins d'aménagement écosystémique. Mémoire de recherche forestière n° 158. Ministère des Ressources naturelles et de la Faune, Direction de la recherche forestière. 96 p.

Li, T. et J.-P. Ducruc, 1999. *Les provinces naturelles. Niveau I du cadre écologique de référence du Québec*, ministère de l'Environnement, 20 p.

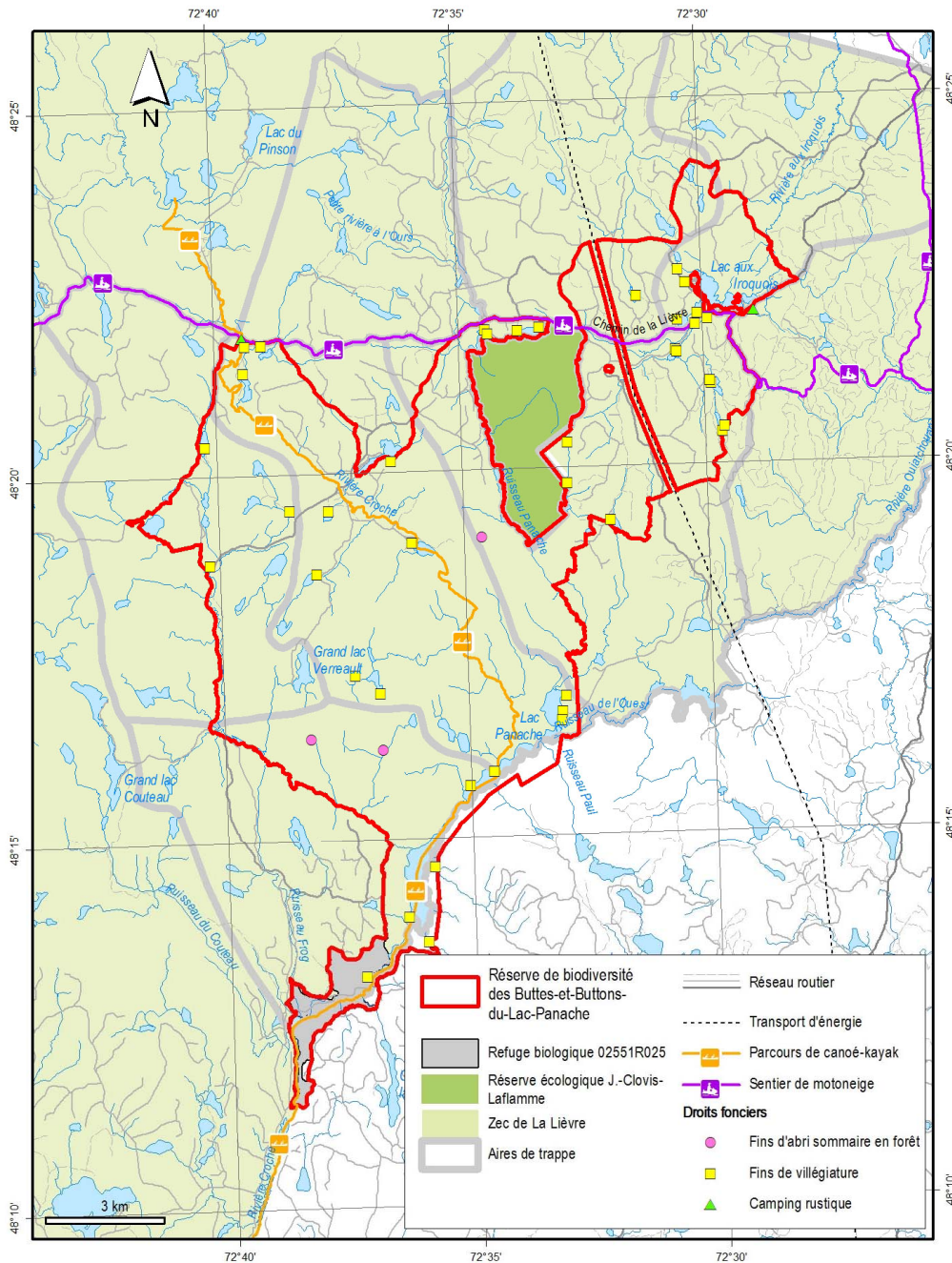
Ministère des Ressources naturelles et de la Faune, 2012. Plan d'affectation du territoire public : Saguenay–Lac-Saint-Jean. Direction des affaires régionales du Saguenay–Lac-Saint-Jean. 820 pages + cartes [En ligne : http://mern.gouv.qc.ca/publications/territoire/planification/cartes_saguenay/saguenay-patp.pdf]

Ouellet, N. et P.-M. Côté, 2005. Plan de développement d'activités récréatives - zec de La Lièvre. Regroupement régional des gestionnaires de zecs du Saguenay–Lac-Saint-Jean, 114 p.

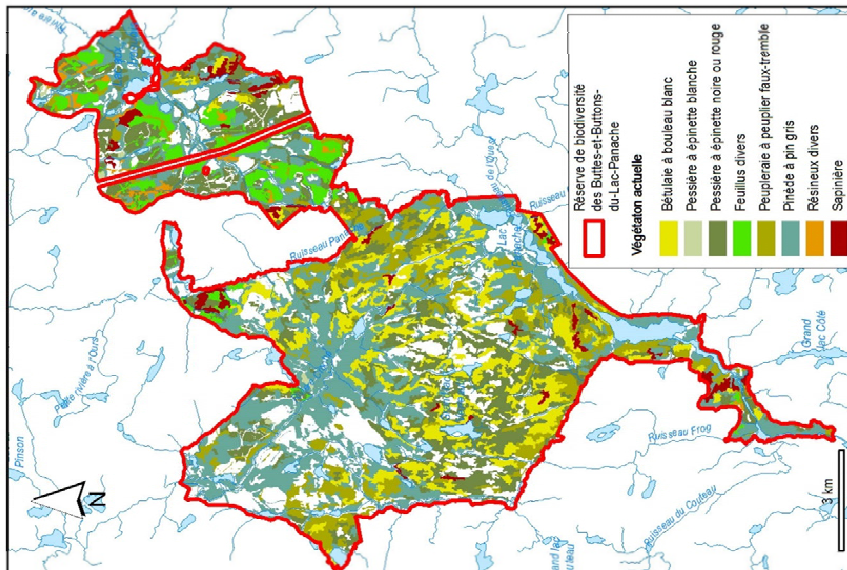
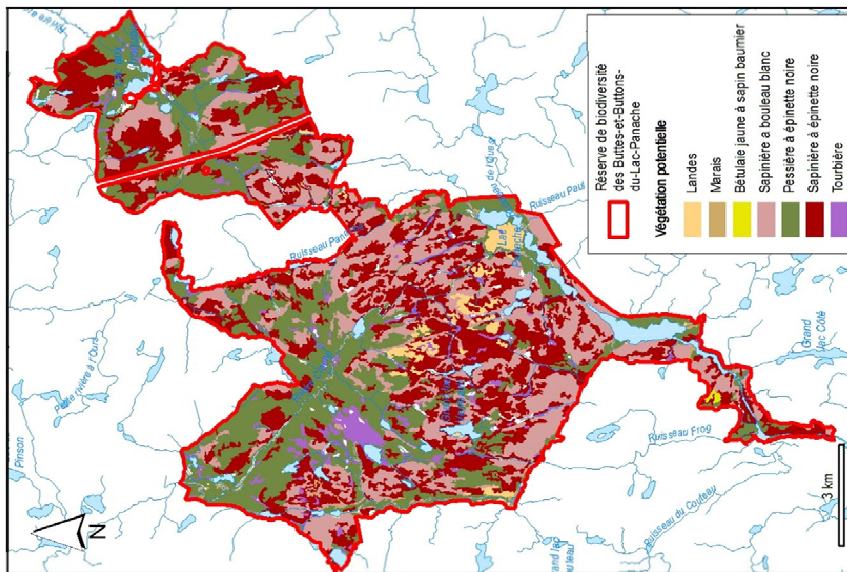
Pekuakamiulnuatsh Takuhikan, 2012. Mémoire pour l'audience publique du BAPE de 2012 sur les 10 aires protégées projetées dans la région 02. 2 avril 2012, 18 p. [En ligne : http://www.bape.gouv.qc.ca/sections/mantats/10reserves_saguenay-lac-saint-jean/documents/DM12.pdf]

Simard, R., 1967. Notes sur les sites de la Grande décharge et du lac Panache. Ministère de la Culture et des Communications. 1 page.

Appendix 2 — Occupation and uses



Appendix 3 — Existing vegetation and potential vegetation



Appendix 4 — Zoning

