



Réserve de biodiversité projetée d'Anticosti

Conservation plan

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1. Protection status and geographic name

The protection status of the area described in this conservation plan is “proposed biodiversity reserve.” Ultimately, the permanent protection status of this area will be that of a “biodiversity reserve.” These two legal statuses are governed by the *Natural Heritage Conservation Act* (chapter C-61.01).

The provisional name is “proposed Anticosti biodiversity reserve.” The official name will be determined when this area is granted permanent protection status.

2. Conservation objectives

The proposed Anticosti biodiversity reserve was created as part of the process of applying for UNESCO World Heritage Site status for Anticosti Island. More specifically, establishing a conservation area helps protect elements that are representative of the island’s geodiversity¹ and have outstanding universal value. Anticosti Island is known around the world for its unique fossils from the period stretching from the Upper Ordovician to the Lower Silurian. This period is an important milestone in Earth’s history as it saw the first mass global extinction of animal life. The fossils’ abundance, diversity, and state of conservation are exceptional and should be properly protected. The purpose of the proposed Anticosti biodiversity reserve is to conserve that outstanding universal value, which complements the other protected areas on the island, the main ones being Anticosti National Park, the Pointe-Heath and Grand-Lac-Salé ecological reserves, the Lac Wickenden rare forest, and a number of protected wildlife habitats.

Another aim of the proposed Anticosti biodiversity reserve is to protect ecosystems that are representative of the island’s biodiversity and to strengthen the protection afforded by the national park and ecological reserve statuses. The combination of protected areas in the proposed biodiversity reserve covers almost a third of the island (28.5% of its 7,943 km²), including the coastline and the Pointe Ouest, Pointe-Sud-Ouest/Jupiter River watershed, and Pointe Est sectors.

A management plan will be produced as part of the process of developing the nomination of Anticosti Island as a World Heritage site. This management plan will detail the conservation objectives as well as the management arrangements necessary to achieve these objectives.

¹ **Geodiversity:** Defined by the International Union for the Conservation of Nature (IUCN) as “the variety of rocks, minerals, fossils, landforms, sediments, and soils, together with the natural processes which form and alter them” (Dudley, 2008).

3. Description of the area

3.1. Geographic location, boundaries, and access

The location and boundaries of the proposed Anticosti biodiversity reserve are shown on the map in Appendix 1.

LOCATION

The proposed Anticosti biodiversity reserve lies in the Municipality of Île-d'Anticosti. This administrative unit is an integral part of the Minganie RCM and the Côte Nord administrative region. The protected area is located between 49°3' and 49°58' north latitude and 61°40' and 64°32' west longitude.

AREA AND BOUNDARIES

The proposed Anticosti biodiversity reserve covers an area of 1,651.5 km² and includes the coastal strip around the island and the Pointe Ouest, Pointe-Sud-Ouest/Rivière Jupiter watershed, and Pointe Est sectors. The coastal strip comprises the coastal platform, the coast itself, and a kilometer-wide strip bounded by the top of the inshore bank or cliff. The outer boundary of the protected area corresponds to the edge of the coastal platform, which is delimited by the low water line.² For the three other sectors listed above, the interior boundaries are wider and are briefly described as follows:

- The eastern boundary of the Pointe-Ouest sector runs along Rivière Plantain to the south and then follows part of the western shores of Lac Plantain and Lac Supérieur. Colline Makasti is also included in the northern part of this sector.
- The boundaries of the Rivière Jupiter sector essentially correspond to those of the river's watershed.
- The inner boundaries of the Pointe-Est sector roughly follow the dividing lines of the Petite Rivière and Ruisseau du Pêcheur watersheds.

The urban area of the Municipality of Île-d'Anticosti, private land, concentrated resort areas, a few areas with high resort development potential, and two sites with surface mineral rights have been excluded from the proposed Anticosti biodiversity reserve.

ACCESS

Anticosti Island can be reached by air or by sea. On the island, the road dubbed the "Transanticostienne" leads to several sectors of the proposed biodiversity reserve. This unpaved road crosses the area, running more than 270 km northwest to southeast from Port-Menier to Cap Sandtop. Numerous logging roads and offroad vehicle trails provide access to the proposed biodiversity reserve.

² **Low water line:** a hydrological term that refers to the lowest level of a watercourse or water body in the dry season or due to natural fluctuations such as tides.

3.2. Ecological profile

Located in the Gulf of St. Lawrence, Anticosti Island covers an area of 7,943 km², with a coastline that stretches over more than 550 km. The island is divided into four physiographic units based on topography, surface deposits, and hydrographic features, i.e. the 3rd level of the Québec Ecological Reference Framework. The western and eastern units are low lying, whereas the two units in the central part consist of plateaus. The western sector is covered mainly by lowlands less than 120 m in altitude, including cuestas, depressions, north-south valleys, and coastal beaches. The dendritic hydrographical network is well developed. Deposits are dominated by thin till and littoral and organic deposits.

The purpose of the proposed Anticosti biodiversity reserve is to conserve ecosystems that are representative of these four physiographic units and protect significant geodiversity elements and the island's biodiversity.

GEODIVERSITY

The geological formations of Anticosti Island are gently dipping and appear as outcrops on the coast and in the main valleys. This provides easy access to one of the most complete sedimentary sequences from the Ordovician and Silurian periods in the world (Desrochers and Guthier, 2009). Anticosti Island has a very complete and fully exposed fossil record of its geological period, covering approximately 10 million years of Earth's history, namely the Upper Ordovician and Lower Silurian, i.e., 437–447 million years ago. The island has a unique set of natural processes of outstanding scientific and landscape significance, including the following geodiversity elements: structural geology, surficial geology, stratigraphy, paleontology, and geomorphology.

The structural geology³ of Anticosti Island is simple. The sedimentary sequence is a homoclinal structure⁴ dipping slightly to the southwest and with few folds (Bordet et al., 2010). Normal faults and folds have been observed at some locations, but these are small and local in scale. However, major localized subsurface movements occur in extensional normal faults. The largest subsurface fault is the Jupiter Fault. This extension fault running northwest to southwest dips steeply to the southwest. The Jupiter Fault crosses most of the island. It affects mainly the lower part of the stratigraphic sequence and doesn't reach the surface. An orthogonal system of joints⁵ is omnipresent and runs parallel and perpendicular to the strata. The joints played a key role in the development of the current drainage network. A recent structural analysis has improved our understanding of certain structural elements (joints, folds, and faults) that affect the subhorizontal strata of the island (Bordet et al., 2010). Their development is related to the tectonic history of the Appalachians in the northern part of the Gaspé Peninsula. Some of these structures are the

³ **Structural geology:** study of the distortions rocks are subject to on various scales and the forces and stresses that cause them. Geologists study faults, joints, and folds.

⁴ **Homocline:** a geological structure in which the layers in a sequence of rocky, sedimentary, or igneous layers all descend in the same direction and at the same angle.

⁵ **Joint:** natural fracture in the rock that shows no visible or measurable movement parallel to its surface. Joints are usually found in large numbers, forming a regular system of cracks meters apart.

result of active stress fields during Taconian and Acadian orogenies⁶. Other structures are associated with later events, such as the opening of the Atlantic Ocean during the Jurassic, since two dikes⁷ or vertical diabase veins 8 and 15 m thick are found near the Puyjalon cliff in the north-central part of the island (Desrochers and Gauthier, 2009). The proposed Anticosti biodiversity reserve clearly illustrates all the structural geological elements, including the predominant homoclinal structure, vast network of joints, two bedded diabase veins, and, more generally, its occasional faults and folds.

The surface geology⁸ shows that the Quaternary deposits are generally thin on Anticosti Island (Dubois et al., 1985; Roberge, 1996). Over much of the island, above 70 m in elevation, the lowlands and plateaus are covered by thin discontinuous veneers of basal till or by peat bogs and wetlands forming organic deposits less than one meter thick. Below 70 m in altitude, the island is covered by coastal marine sediments and recent fluvial sediments. The large fluvial valleys (namely Jupiter, Aux Saumons, and À la Patate) contain larger Quaternary deposits. On one side of Rivière à la Patate, researchers have described a stratigraphic sequence of till, glaciofluvial gravel, and marine sediments totaling 60 m in depth. There is a 5 to 35 m high moraine ridge along the western edge of the island that runs for more than 50 km. The limited glacial sedimentation is thought to be due to the island's location on the edge of the Gulf near the edge of the ice sheet at the beginning of the Holocene about 12,000 years ago. The proposed Anticosti biodiversity reserve has a representative selection of surficial geological elements, including Quaternary deposits of glacial, fluvio-glacial, fluvial, and marine origin.

The cliffs and rocky coastal platforms show relatively undeformed, fossiliferous sedimentary layers that have enabled geologists to identify the entire stratigraphy of Anticosti Island (Desrochers and Gauthier, 2009; Copper and Jin, 2017). Large rocky outcrops are found in the main valleys and sometimes along the roads. Exposed strata from the Upper Ordovician and Lower Silurian have a total thickness of 900 m and comprise eight geological formations: the Ordovician Vauréal and Ellis Bay formations and the Silurian Becscie, Merrimack, Gun River, Menier, Jupiter, and Chicotte formations. The proposed Anticosti biodiversity reserve contains a wide range of geological formations, including the best exposed and most accessible fossiliferous outcrops on the island, mainly along its coastline. Another sector, just as representative, includes outcrops in the Rivière Jupiter and Rivière Vauréal watersheds in the center of the island. The first lies in the proposed Anticosti biodiversity reserve and the second in Anticosti National Park. This strategic choice brings together all the elements necessary to fully express the reserve's outstanding universal value as defined by the UNESCO World Heritage program.⁹

⁶ **Orogeny**: a set of geodynamic processes that depend on plate tectonics and result in the formation of a mountain system in the broadest sense.

⁷ **Dike**: rock vein that runs through a fissure.

⁸ **Surface geology**: geology of surface deposits, also called Quaternary geology, which refers to unconsolidated materials lying on top of the bedrock. Although the Quaternary period covers the past 1.81 million years of Earth's history, almost all the surface sediments on Anticosti Island are much more recent. The sediments were deposited during or after the last glacial period.

⁹ **Stratigraphy**: A branch of earth sciences that studies the different geological layers or strata and dates them based mainly on paleontological data.

The outstanding paleontological resources¹⁰ of Anticosti Island have been renowned since the middle of the 19th century for their abundance and diversity of marine invertebrate fossils compared to other fossil-bearing sites of the same era (Twenhofel, 1927; Lespérance, 1981; Copper, 1988; Copper and Jin, 2017). The fossils' state of conservation makes high caliber research possible, from species descriptions to studies on the ecological structure of ecosystems. The fossils and sedimentary layers are in such good shape that fundamental questions on the state of the oceans and climate during this period can be addressed using innovative geochemical tracers, which boosts the potential of cutting-edge research on the island's geology. The fossils on Anticosti Island collectively have great value because they are the best record of Earth's first global mass extinction of animals at the end of the Ordovician. The invertebrate fossils and fossil remains found in the fossiliferous limestone of Anticosti Island attest to a major crisis in paleodiversity, with the disappearance of approximately 85% of the marine species of the time (Copper, 1988). These marine fossils bear witness not only to this serious crisis related to global changes in the climate and the oceans at the end of the Ordovician, but also to the slow reconstruction of marine ecosystems during the Silurian. As of July 1, 2019, a comprehensive review of over 750 publications on the geology and paleontology of Anticosti Island shows that 794 fossil species have been scientifically described, including the following groups: cyanobacteria (2), blue-green algae (10), red algae (12), acritarchs (110), chitinozoans (83), sponges (23), stromatoporoids, tabulate and rugose corals (54), annelids (27), scolecodonts (27), bryozoans (87), brachiopods (202), molluscs (106), fossil remains (34), arthropods (215), echinoderms (84), hemicordates (64), chordates (70), and unidentified fossils (34). The proposed Anticosti biodiversity reserve harbors a wide array of geological formations, including the best preserved and most fossiliferous (along the coast, of outstanding universal value) and two of the island's major rivers.

The physiography of Anticosti Island is strongly affected by its monoclinial structure, which slopes slightly to the southwest. It features cuestas that were probably formed during the Tertiary Period and partially modified by glaciers during the Quaternary (Roberge, 1996). Its central plateau, bordered by lowlands at the eastern and western ends, is the biggest karst area in southern Québec. The island's geomorphology is distinctive mainly for its karst, fluvial, and coastal aspects (Dubois et al., 1985; Roberge, 1996). At the surface, karst landforms feature sinkholes, enlarged joints, small caves, and karst lakes. These are closely linked to the network of joints that determine their position and orientation. The entire Haute-Saumons karst (38 km²), the biggest in Québec, is now part of Anticosti National Park. The incised valleys, and especially the canyons, also characterize the fluvial geomorphology in the island's interior. The numerous canyons on the island are some of the longest and deepest in Québec. They characterize the morphology of the island and are a distinctive feature of its landscape. The canyons of Rivière Vauréal, Rivière Observation, and Rivière du Brick are some of the most accessible. A number of other rivers show a morphological contrast between the head of the river system and the incised valleys

¹⁰ **Paleontology:** a branch of earth sciences that studies the fossil remains of living organisms from the past and their evolutionary implications.

downstream, an interesting element of the island's landscape. With its 550 km of coastline, the island's coastal geomorphology is a key component of its physical landscape. The cliffs and rocky coastal platforms are perhaps the most representative and distinctive features of this geomorphology. The coastal platforms (called reefs by the inhabitants of the island) are remarkable for both their size and abundance. The flat rocky strands sloping slightly seaward are the result of coastal retreat due to shoreline erosion. A few hundred meters wide, these platforms encircle portions of the island shoreline. They are up to two kilometers wide in the western part of the island. This area also features discrete gravel bars oriented perpendicular to the coastline. These are extremely rare in the rest of Québec. The island is bordered by sheer cliffs subject to coastal erosion and often accompanied by coastal platforms and dead cliffs, i.e., cliffs that are no longer subject to wave attack. Given the structural context, the cliffs are generally lower and less abundant on the southern coast, where wetlands behind the beaches are more common. The southern cliffs rarely exceed 15 meters, except between Rivière Loutre and Rivière Jupiter, whereas the sheer northern cliffs can be more than 100 m high between Cap de l'Ours and Anse du Sentier Vert. At the river mouths, the cliffs give way to beaches, sand bars, and spits. Lagoons are more abundant on the southern coast between Pointe du Sud-Ouest and Pointe Heath, whereas there are only three on the northern coast, at the end of Baie de la Tour, Baie des Homards, and Baie du Renard. In addition, coastal currents have formed spits at the mouth of a number of rivers. In the summer, the water in the lagoons drains toward the sea, percolating through the spits. The proposed Anticosti biodiversity reserve encompasses many elements of coastal geomorphology and aspects representative of fluvial geomorphology at the mouths of all the island's rivers and along Rivière Vauréal and Rivière Jupiter. Key elements of karst geomorphology are ubiquitous in the proposed Anticosti biodiversity reserve upstream of the Rivière Jupiter watershed.

CLIMATE

Anticosti Island has a subpolar, subhumid maritime climate. The growing season is relatively constant, with an average length of 152 to 192 days (Gérardin and McKenney, 2001). The average annual temperature is 1.57°C and annual precipitation is 861 mm to 1,303 mm, approximately 40% of which is in the form of snow. Winds are predominantly from the west, including the northwest and southwest, with an annual frequency of about 53%.

HYDROGRAPHY

Approximately 100 Level 1 watersheds (rivers draining into the St. Lawrence) have been mapped on Anticosti Island. The vast majority of the outlets of these rivers are in the proposed biodiversity reserve. The surface area of the watersheds varies enormously from one river to another. The watershed of Rivière Jupiter is by far the biggest on the island, with a surface area of 955 km², and it lies almost entirely inside the proposed biodiversity reserve.

The proposed biodiversity reserve protects 4 ponds and 34 lakes, the biggest being Lac Wickenden at 6.2 km². The coastal platform, located between the low water and high water marks, with a surface area of 76 km², also lies within the proposed biodiversity reserve.

FLORA

The proposed Anticosti biodiversity reserve belongs to the balsam fir–white birch domain of the continuous boreal forest. The introduction of white-tailed deer over 100 years ago profoundly affected the island's vegetation. At the expense of balsam fir, established mainly on fine-textured mineral deposits, and the deciduous species associated with balsam fir stands, browsing promotes the regeneration of white spruce, which accounts for 40% of the island's total area. Due to a lack of regeneration, the fir forests are old and represent less than 20% of the total area of the island. Without an appropriate ecological restoration strategy, the balsam fir forests will disappear within 50 years, with the exception of rare sites that are naturally well regenerated (Potvin et al., 2000). Disturbances caused by deer density are in addition to insect epidemics, forest fires, windfalls, and logging. Signs of fire are particularly evident on the vast central plateau of Anticosti Island, where black spruce-moss or ericaceous spruce stands are regenerated by fire or evolve towards more open stands, such as very stony black spruce–lichen stands or very stony lichen or moss barrens. Old forests are still abundant on Anticosti, covering nearly 40% of the island.

Coastal lichen or moss barrens are relatively rare on Anticosti Island. They are limited to a narrow fringe in exposed areas of the coastline and upper cliffs. Like freshwater and saltwater marshes and swamps and coastal areas, they are environments that are small in area but botanically diverse.

Data from the fourth inventory program of the ecoforestry information system (SIEF) of Ministère des Forêts, de la Faune et des Parcs (MFFP) shows that nearly 68% of the proposed biodiversity reserve is covered in forest. The forest is primarily composed of conifers, mainly black spruce (*Picea mariana*), white spruce (*Picea glauca*), and balsam fir (*Abies balsamea*). The forest is dominated by black spruce, which accounts for 41% of the protected area's forest cover. Some 28% of the black spruce stands are almost pure. They often grow with white spruce, tamarack (*Larix laricina*), and balsam fir. Stands dominated by balsam, tamarack, and white spruce are also found, representing 34%, 13%, and 6% of the forest cover, respectively. Stands that are over 70 years old cover 53% of the proposed biodiversity reserve's forest area.

Apart from intensive browsing by deer, 42% of the forest cover is subject to other types of disturbances, mainly of natural origin: 20% burns, 10% windfalls, and 9% epidemics. A large forest fire burned 209 km² in the Lac Wickenden sector in 1958. The fire was so intense that the forest has not yet fully regenerated because the organic soil layer was almost completely destroyed.¹¹

¹¹ It should be noted that partial windfalls and mild epidemics are not included in the ecoforestry information system (SIEF).

The island also features numerous wetlands. Vast minerotrophic peat fens, much richer in terms of plant diversity than ombrotrophic bogs, grow on the island's limestone soils. Anticosti Island probably has the biggest expanses of rich minerotrophic peat fens in southern Québec. Minerotrophic and ombrotrophic wetlands cover nearly 13% of the proposed reserve.

The inventory of threatened or vulnerable plant species on the island is not yet complete. The areas that have been the most intensively surveyed are along the main rivers on the north and south coast, the Rivière Vauréal watershed, and the western tip of the island. However, there are lesser known areas that should be explored in more depth, namely the area around Lac Wickenden, the center of the island, and the area at the eastern tip of the island. Very few surveys of rare, threatened, or vulnerable plant species have been conducted in the proposed reserve.

According to the centre de données sur le patrimoine naturel du Québec, as of April 21, 2020, 14 threatened or vulnerable plant species or species likely to be so designated had been listed on Anticosti Island, four nonvascular species and ten vascular species. Only two species have a status under the *Act respecting threatened or vulnerable species*. (chapter E-12.01): the Anticosti aster (*Symphyotrichum anticostense*), which is endangered, and the ram's head lady's-slipper (*Cypripedium arietinum*), which is vulnerable. In Québec, certain species are almost exclusive to this area, namely the Alaskan bog orchid (*Platanthera unalascensis*), the low braya (*Braya humilis*) and the arctic bladderpod (*Lesquerella arctica*). Others grow only on Anticosti Island and Îles de Mingan: Rolland's bullrush (*Trichophorum pumilum*) and the Laurentian dandelion (*Taraxacum laurentianum*). The island fringed gentian (*Gentianopsis detonsa* subsp. *Nesophila*) and the knotted pearlwort (*Sagina nodosa* subsp. *Nodosa*) were observed at the beginning and the middle of the 20th century. However, white-tailed deer have had a heavy impact on these species' ability to regenerate and recolonize the area, which probably means they are no longer present. Ten occurrences of the Anticosti aster, which is threatened, have been recorded, as well as nine occurrences of vascular plant species likely to be so designated. Measures could be taken to limit the number of deer in areas where these plants are growing. Areas where occurrences have been recorded in the past could be checked to see whether seed banks are still present. Exclosures could also be set up.

FAUNA

The wildlife on Anticosti Island is the result of massive introductions made by the French chocolate maker Henri Menier at the end of the 19th century. Anticosti Island originally had seven native terrestrial mammal species: the black bear, the river otter, the red fox, the American pine marten, the deer mouse, and two species of bat (the little brown bat and the northern long-eared bat). The black bear and the American pine marten disappeared after the introduction of 16 species, including 220 white-tailed deer (*Odocoileus virginianus*). Eleven introduced species are still present today: six mammal species, three amphibian species, and two non-migrating bird species. There are currently over 245 wildlife species, including 221 bird species and 24 mammal species.

The proposed Anticosti biodiversity reserve is home to Anticosti Island's main terrestrial mammal species such as the white-tailed deer, the moose (*Alces alces*), the red fox (*Vulpes vulpes*), the deer mouse (*Peromyscus maniculatus*), and the American beaver (*Castor canadensis*). White-tailed deer are abundant on the island, with an estimated population of 37,137 and a density of $4.76 \pm 11\%$ individuals per square kilometer in 2018, the year the latest inventory was published (MFFP, 2019). However the deer population seems to fluctuate considerably, as at the time of the previous inventory in 2006, it was estimated to be $166,000 \pm 7\%$. Profound changes in the structure and composition of certain herbaceous plant and forest communities have been observed since its introduction. Measures could be taken to reduce browsing in targeted areas to limit these changes and restore the island's plant diversity. Of the various mammal species in the proposed biodiversity reserve, only one occurrence of a species likely to be designated threatened or vulnerable in Québec has been identified: the eastern red bat (*Lasiurus borealis*).

A number of marine mammal species can also be found along the coast in the proposed reserve. Of the 14 species recorded, the grey seal (*Halichoerus grypus*) and the harbor seal (*Phoca vitulina*) use the different coastal environments to rest and feed. These mammals are particularly abundant when capelin are spawning. Grey seal and harbor seal can be observed on the coastal platforms or feeding along the coast. Cetaceans can also be seen roaming through the cold waters of the Gulf.

The proposed biodiversity reserve provides protection for a number of bird species designated as vulnerable under the *Act respecting threatened and vulnerable species*. There have been two occurrences of the golden eagle (*Aquila chrysaetos*), one occurrence of the harlequin duck (*Histrionicus histrionicus*), Eastern population, and 44 occurrences of the bald eagle (*Haliaeetus leucocephalus*) recorded as of April 21, 2020. The island has numerous known nesting sites of the bald eagle, a permanent resident on the island's coast. Anticosti Island is one of the province's major nesting areas for this species.

Seventeen waterfowl concentration areas are found around the island. The eastern area of the island harbors the densest and most diversified seabird colonies in North America. Identified species include the black guillemot (*Cephus grylle*), the thick-billed murre (*Uria lomvia*), the Atlantic puffin (*Fratercula arctica*), the razor-billed auk (*Alca torda*), the black-legged kittiwake (*Rissa tridactyla*), the northern gannet (*Morus bassanus*), the double-crested cormorant (*Phalacrocorax auritus*), and the great cormorant (*Phalacrocorax carbo*). These birds nest in colonies on the cliffs in the northern part of the island. Four of these colonies are found in the proposed biodiversity reserve, in Baie Innomée, Cap de la Table, Cap Observation, and Cap Tunnel. Two colonies are located in the national park and two others in the Pointe-Heath ecological reserve.

Three species of amphibians are listed on the island: the mink frog (*Lithobates septentrionalis*), the leopard frog (*Lithobates pipiens*), and the green frog (*Lithobates clamitans*). Like the white-tailed deer, they were introduced by Henri Menier's development company at the end of the 19th century.

According to Labonté (2015), the main freshwater fish species found on Anticosti Island are Atlantic salmon (*Salmo salar*), the brook trout (*Salvelinus fontinalis*), the American eel (*Anguilla rostrata*, a species likely to be designated threatened or vulnerable), the three-spined stickleback (*Gasterosteus aculeatus*), and the banded killifish (*Fundulus diaphanus*). The rainbow smelt (*Osmerus mordax*), the alewife (*Alosa pseudoharengus*), the American shad (*Alosa sapidissima*), the nine-spined stickleback (*Pungitius pungitius*), and the rainbow trout (*Oncorhynchus mykiss*) are also seen from time to time.

In the sea around the island, recorded species include the capelin (*Mallotus villosus*), the Atlantic cod (*Gadus morhua*), the Atlantic whiting (*Merluccius bilinearis*), the Atlantic killifish (*Fundulus heteroclitus*), the redfish (*Sebastes marinus*), the shorthorn sculpin (*Myoxocephalus scorpius*), the lumpfish (*Cyclopterus lumpus*), the gulf snailfish (*Liparis coheni*), Vahl's eelpout (*Lycodes vahlii*), the ocean pout (*Macrozoarces americanus*), the Atlantic warbonnet (*Chirolophis ascanii*), the snake prickleback (*Lumpenus sagitta*), the rock gunnel (*Pholis gunnellus*), the Atlantic wolffish (*Anarhichas lupus*), the Atlantic mackerel (*Scomber scombrus*), the bluefin tuna (*Thunnus thynnus*), the winter flounder (*Pseudopleuronectes americanus*), and the Greenland halibut (*Reinhardtius hippoglossoides*) (MEF, 1998).

3.3. Land use

Activities and infrastructure before the proposed biodiversity reserve status was granted are shown on the map in Appendix II.

FIRST NATIONS

The proposed biodiversity reserve is likely to have been used by certain Innu communities, who engaged in traditional hunting and fishing activities. The protected area is subject to Indigenous claims, especially by the Innu communities of Nutashkuan and Ekuanitshit. In fact, approximately two-thirds of Anticosti Island is part of Nitassinan of the community of Nutashkuan within the meaning of the Agreement-in-Principle of a General Nature between the First Nations of Mamuitun and Nutashkuan and the Government of Québec and the Government of Canada. The legal status of the proposed biodiversity reserve, like the eventual permanent status, does not limit established or credibly asserted ancestral or treaty rights.

ARCHEOLOGICAL SITES

Of a total of 14 archeological sites recorded by Ministère de la Culture et des Communications (MCC), 13 are in the proposed biodiversity reserve. Of these, five consist of evidence of undetermined prehistoric Indigenous occupation (12,000 to 450 AA) and eight are associated with occupation by Europeans or Quebecers (1800 to 1950). However, we need to improve our knowledge of the prehistoric and historical occupation of the island. Various areas with potential have been mapped based on a study of the archeological potential of Anticosti Island (Pintal, 2018). The proposed Anticosti biodiversity reserve

includes the vast majority of the areas of archaeological potential identified in this study, i.e., 90 potential areas of occupation by Indigenous peoples and 78 potential areas of occupation by Europeans or Quebecers.

ESTABLISHED RIGHTS AND LAND USE

Like Anticosti Island as a whole, the proposed Anticosti biodiversity reserve is used mainly for hunting, fishing, and other recreational, tourist, and outdoor activities. The proposed biodiversity reserve contains seven white-tailed deer seclusion areas that cover the entire island (except around the village of Port-Menier). Enclosures were installed in the reserve before it was officially created to allow the vegetation to regenerate. Maintaining and dismantling these enclosures is permitted in the protected area.

The protected biodiversity reserve is located in fishing and hunting areas no. 20 and 21 (Gulf of St. Lawrence) and in fur-bearing animal management unit no. 68. The Pointe-Ouest sector contains part of the Lac Geneviève exclusive rights outfitting area, whereas the Rivière Jupiter and Pointe Est sectors are in the Sépaq Anticosti outfitting area. Parts of the coastal strip in the proposed reserve east of Anticosti National Park are in the Safari Anticosti exclusive rights outfitting area.

At the time of writing, a hiking trail that will eventually circle the entire island is being built. Ministère de l'Énergie et des Ressources naturelles (MERN) has granted a private license for telecommunication towers along Chemin de la Baie-Sainte-Claire and four oil and gas exploration licenses are still in effect to allow exploration wells to be closed and secured.

INFRASTRUCTURE

Existing infrastructure in the proposed Anticosti biodiversity reserve reflects the past and present use of the island. The Pointe-Nord (Cap-de-Rabast), Pointe-Carleton, Cap-de-la-Table, Pointe-du-Sud (Bagot Escarpment), and Pointe-du-Sud-Ouest lighthouses are in the protected area and are remnants of the time when Anticosti was considered one of the greatest navigation hazards in the Gulf of St. Lawrence. In 1967, the Pointe-Ouest lighthouse, which was demolished in 1961, was replaced by a metal tower, while the Pointe-Heath (Pointe aux Bruyères) lighthouse was demolished and replaced by an automatic lighthouse and weather station (Matte and Cyr, 2017).

The Transanticostienne, described as a resource access road, connects Port-Menier with Cap Sandtop. Slightly over 28 km of this road is in the proposed biodiversity reserve as well as nearly 15 km of Chemin de la Baie-Sainte-Claire. A total of 1,241 km of road run through the proposed biodiversity reserve, including 450 km of rough logging roads, 670 km of Class 4 logging roads, and 70 km of Class 3 logging roads. These roads are used mainly by hunters and were built in conjunction with forest management operations.

A number of buildings are located in the proposed biodiversity reserve. Most are associated with various outfitting camps, even though the most intensely developed areas were excluded from the protected area.

For example, the cottages and other buildings in the Lac Geneviève outfitting camp at Pointe-Nord are inside the protected area, as are the following Sépaq camps: Rivière-à-la-Loutre, Pointe-Carleton, Anse-du-Castor, Rivière-Sainte-Marie, Rivière-du-Brick, Cormoran, Rivière-à-l'Huile, Jupiter 30, Chicotte-la-Mer, Martin-la-Mer, and those of Safari Anticosti at Rivière-de-la-Chaloupe.

Lastly, 13 oil and gas exploration wells that are plugged or being plugged are located in the proposed reserve.

4. Activities framework

4.1. Introduction

The proposed Anticosti biodiversity reserve is designed primarily to protect significant elements of Anticosti Island's geodiversity and biodiversity. Therefore activities that could have major impacts on ecosystems, biodiversity, and geodiversity are banned, particularly industrial activities. However this type of protected area permits various types of recreational, wildlife, ecotourism, and low-impact educational activities and land use that are compatible with the conservation objectives. Infrastructure that already existed before the proposed Anticosti biodiversity reserve received its official protection status may remain for the moment. When the reserve receives permanent protection status, more precise protection objectives will be laid out and the compatibility of the existing activities and infrastructure will be evaluated in more depth.

4.2. Activity framework established by the *Natural Heritage Conservation Act*

The activities carried out in the proposed biodiversity reserve are governed mainly by the provisions of the *Natural Heritage Conservation Act* (chapter C-61.01). Under Section 34 of the Act, the main activities that are prohibited in an area with proposed biodiversity reserve status are as follows:

- Mining, gas, or oil development
- Forest development activities within the meaning of Section 4 of the *Sustainable Forest Development Act* (chapter A-18.1)
- Development of hydraulic resources and any commercial or industrial mode of energy production

Although they are fundamental for the protection of the area and its ecosystems, these prohibitions are insufficient to ensure proper management of the proposed biodiversity reserve and protection of the natural environments in question. Section 34 of the *Natural Heritage Conservation Act* allows the conservation plan to include provisions clarifying the legal framework applicable in the protected area.

4.3. Activities framework established by the conservation plan

The provisions in Appendix III of this conservation set out prohibitions in addition to those in Section 34 of the *Natural Heritage Conservation Act*. They provide a framework for certain authorized activities to better

protect the natural environment in line with conservation principles and other management objectives of the proposed biodiversity reserve. Therefore certain activities require prior authorization from the minister.

The proposed Anticosti biodiversity reserve should be considered as an area set aside for nature discovery and recreational activities and the protection of geodiversity and biodiversity. To meet the conservation objectives of the proposed Anticosti biodiversity reserve, sections 1 and 2 of the activities framework set out provisions specific to the protection aspect. As the fossils of Anticosti Island are of outstanding universal value, applications for authorization will be reviewed in terms of the impact that the activity could have on significant geodiversity elements. For example, collecting loose fossils of less than 10 cm for non-commercial purposes is permitted when certain conditions are met (see Section 2 of the Activities Regime). Collecting fossils with tools or mechanized equipment may be permitted, subject to certain conditions. For example, authorization could be conditional on the applicant agreeing that the fossils collected remain the property of the Government of Québec and the municipality, that the specimens be made available for study and loan to other qualified researchers, that copies of all publications resulting from study of the specimens be shared with the government and the municipality, etc. Applications for authorization submitted to Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC) must demonstrate that fossils will be collected in such a way as to protect significant geodiversity elements as much as possible. In this regard, applications for authorization are expected to be submitted or supported by qualified paleontologists or scientists in related fields affiliated with an academic institution or research center with recognized expertise in paleontology. Applications for authorization must be sent to MELCC's Direction régionale de la Côte-Nord, whose contact information is as follows:

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

818 boulevard Laure
Sept-Îles, Québec G4R 1Y8
Phone: 418-964-8888
Fax: 418-964-8023
Email: cote-nord@environnement.gouv.qc.ca

The measures in Appendix III mainly apply to new facilities and activities in the proposed reserve. They do not apply to existing facilities or certain current activities. For certain activities, the measures also provide for exemptions from the requirement to obtain authorization under the *Natural Heritage Conservation Act*.

However, among all the activities subject to authorization, the measures listed in Appendix III do not distinguish between those which are compatible and those which are incompatible with the purpose of a proposed biodiversity reserve and which therefore may not be authorized. The status of proposed biodiversity reserve is treated much like a permanent status. General information regarding the

compatibility or incompatibility of each type of activity can be found in the document *Activity Framework for Biodiversity Reserves and Aquatic Reserves*, available on the MELCC website at

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

This plain-language document summarizes the activity framework that generally applies to biodiversity reserves but does not take into account adaptations specific to certain reserves. For example, the objective of protecting geodiversity and fossils is specific to the proposed Anticosti biodiversity reserve and therefore is not covered in this document.

4.4. Zoning

The proposed Anticosti biodiversity reserve is divided into three zones (Appendix 3):

- The Fossil Protection Zone, corresponds to the property of outstanding universal value where the main fossil sites of the proposed biodiversity reserve are found. The management of this zone will focus primarily on the protection of fossils and sedimentary strata and any request for authorisation will be analysed in this light;
- The buffer zone, where management will focus on ensuring that no activities threaten the adjacent fossil protection zone and the protection of biodiversity;
- The residual zone where management will focus on biodiversity protection and ecological restoration.

Zoning may be modified in light of research work and consultations when the reserve is granted permanent protection status.

5. Activities governed by other laws

Certain activities that may be permitted within the proposed Anticosti biodiversity reserve are also governed by certain other laws and regulations, including those requiring a permit or authorization or the payment of certain fees. In addition, certain activities may be prohibited or limited under other laws or regulations that apply to the area covered by the proposed biodiversity reserve.

In the proposed Anticosti biodiversity reserve, a special legal framework may set out the activities permitted in the following areas:

- **Environmental protection:** Measures under the *Environment Quality Act* (chapter Q-2) and its regulations
- **Plant species designated as threatened or vulnerable:** Measures prohibiting the removal of such species under the *Act respecting threatened or vulnerable species* (chapter E-12.01)

- **Exceptional forest ecosystems:** Protective measures provided for in sections 31 to 35 of the *Sustainable Forest Development Act* (chapter A-18.1)
- **Development and conservation of wildlife resources:** measures set out in the *Act respecting the conservation and development of wildlife* (chapter C-61.1) and its regulations. For example, provisions regarding threatened or vulnerable wildlife species, wildlife habitats, and outfitting operations, as well as certain measures in federal laws and regulations, including in the area of fisheries, may apply.
- **Archaeological research:** For example, measures set out in the *Cultural Heritage Act* (chapter P-9.002)
- **Access and land rights related to the domain of the State:** especially measures set out in the *Act respecting the lands in the domain of the State* (chapter T-8.1) and the *Watercourses Act* (chapter R-13)
- **Issuance and follow-up of permits for forest management operations and issuance of authorizations :** measures set out in the *Sustainable Forest Development Act* (chapter A-18.1) and its regulations, covering activities such as harvesting firewood for domestic purposes, wildlife and recreational development, and roads in forest areas
- **Vehicle traffic:** Especially measures set out in the *Act respecting the lands in the domain of the State* and regulations governing motor vehicle traffic in certain fragile environments under the *Environment Quality Act*
- **Construction and development standards:** Regulatory measures adopted by regional and local municipal authorities under the acts applicable to them

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

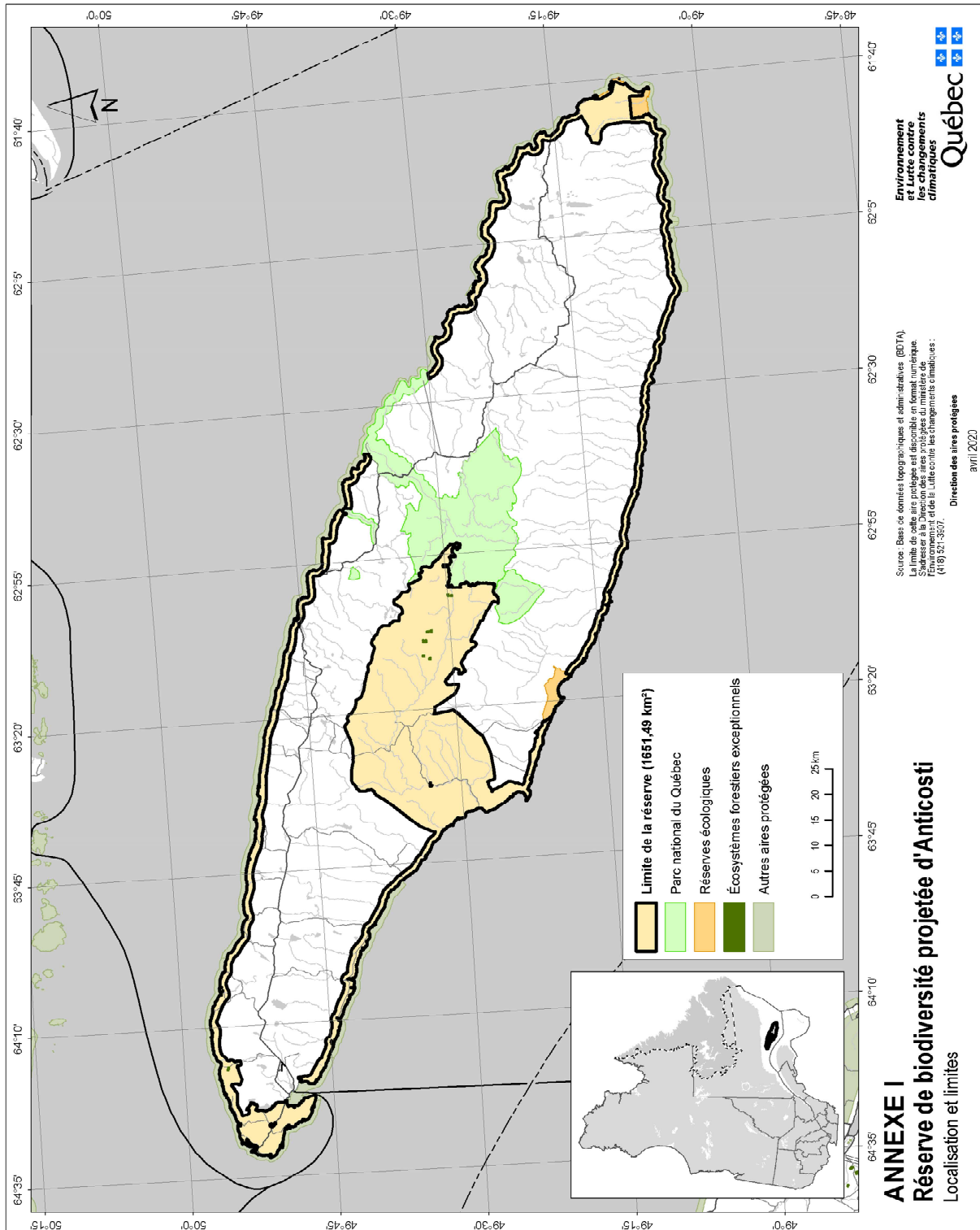
The Minister of the Environment and the Fight against Climate Change is responsible for enforcing the *Natural Heritage Conservation Act* and promoting conservation of the proposed Anticosti biodiversity reserve. The Minister supervises and monitors the activities that are permitted there. In managing the reserve, the Minister will work collaboratively with other government stakeholders having specific responsibilities in the reserve or on adjoining land, including the Minister of Energy and Natural Resources and the Minister of Forests, Wildlife and Parks and their representatives. They must exercise their powers in light of the desired protection for these natural environments and the protection status they currently enjoy.

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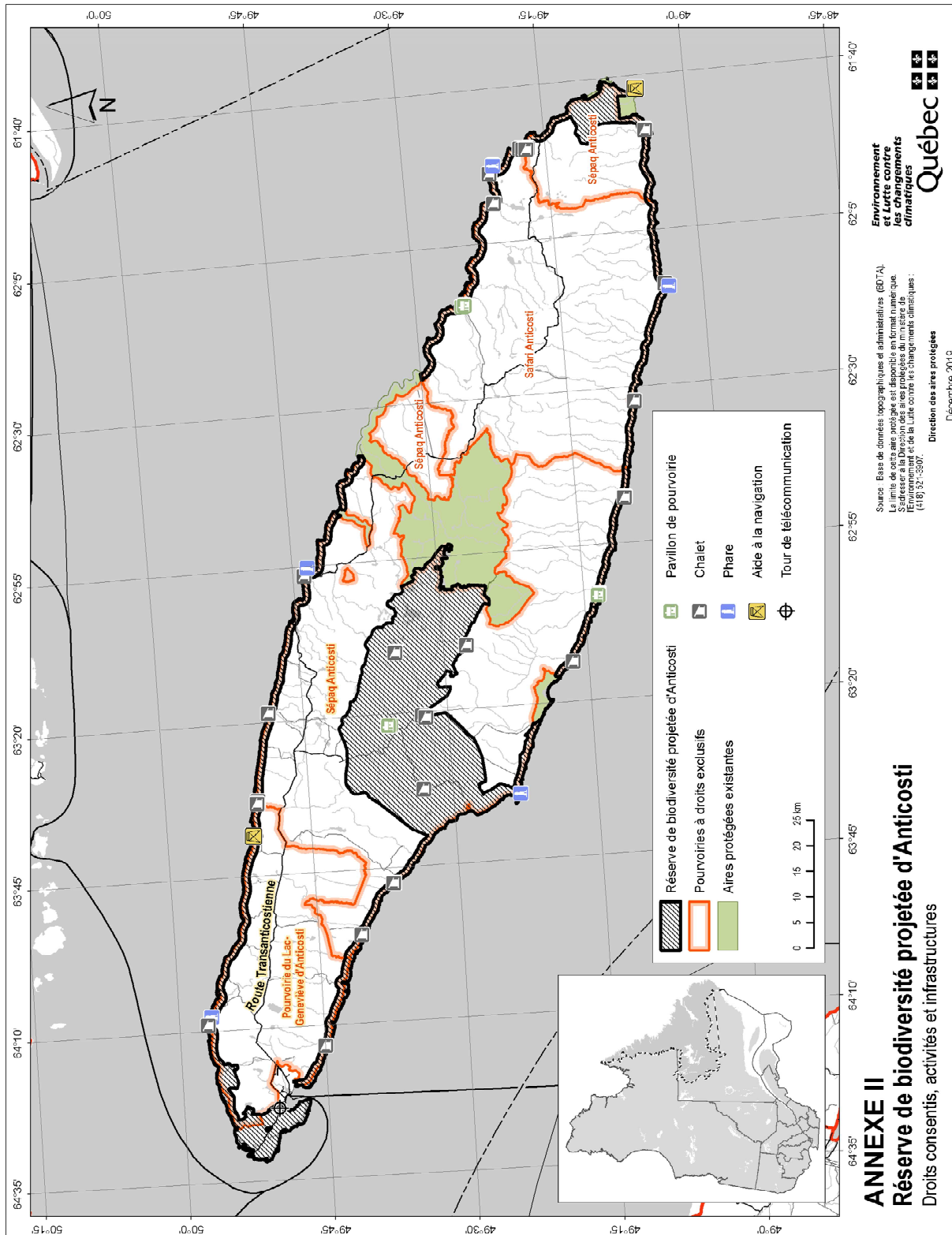
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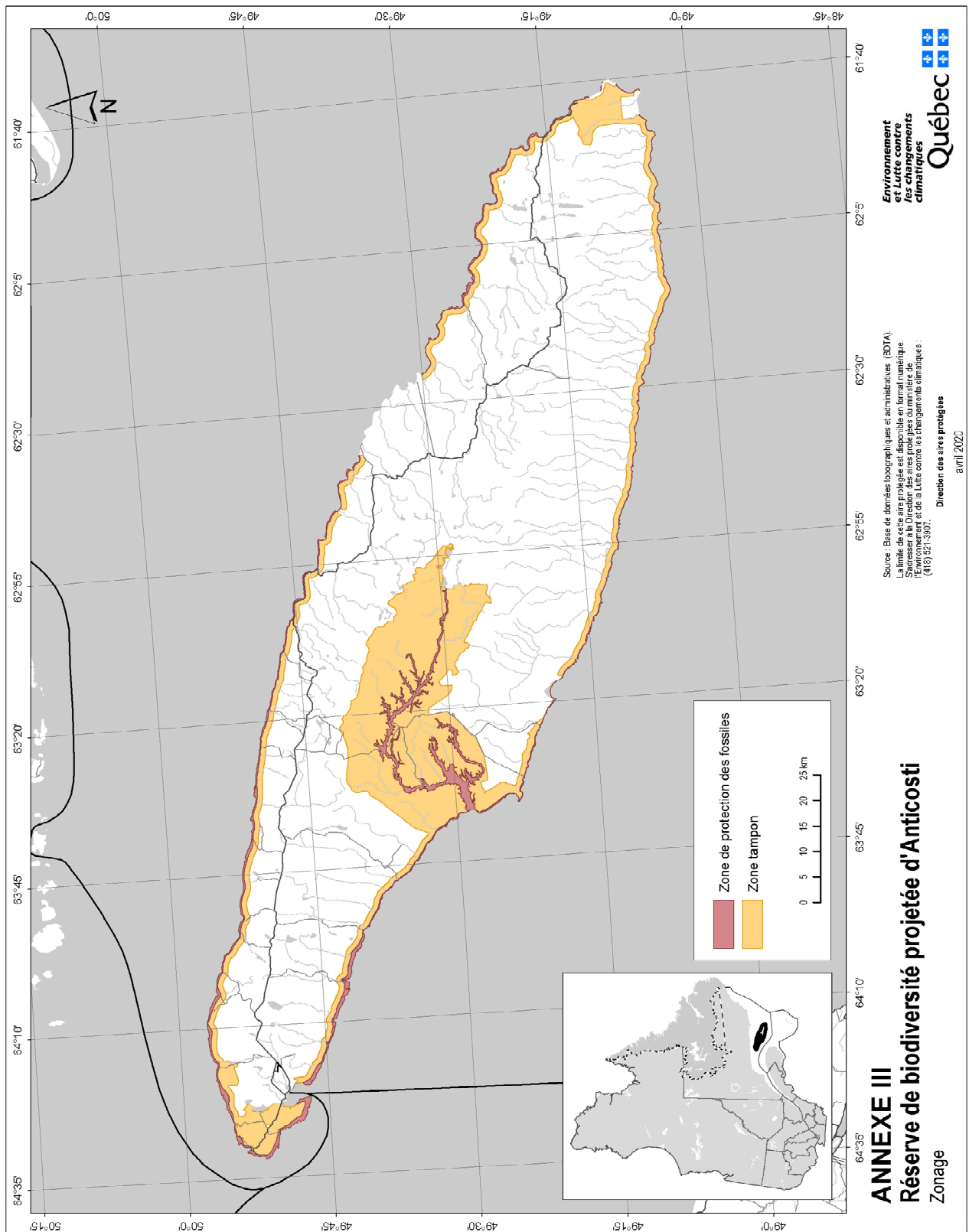
Annexe I : Location and boundaries of Réserve de biodiversité projetée d'Anticosti



Annexe II : Established rights, activities and infrastructure of Réserve de biodiversité projetée d'Anticosti



Annexe III : Zoning of Réserve de biodiversité projetée d'Anticosti



Schedule IV: Activities framework

PROHIBITIONS, PRIOR AUTHORIZATIONS AND OTHER CONDITIONS GOVERNING CERTAIN ACTIVITIES IN THE RÉSERVE DE BIODIVERSITÉ PROJÉTÉE D'ANTICOSTI

§1 – Protection of resources and the natural environment

1. Except with the authorization of the Minister, no person may remove, extract, excavate or damage a fossil in the proposed biodiversity reserve.

2. Despite section 1, no authorization is required to remove fossils if the following conditions are met:

- (1) the removal is carried out for non-commercial purposes;
- (2) removed fossils are exposed on the ground surface;
- (3) removed fossils are separated from the bedrock;
- (4) the removal does not require excavation by mechanical means or extraction using tools;
- (5) the removal is limited to a maximum of five fossils measuring less than 10 cm per person per year;
- (6) the removal is only carried out where no signage erected by the Minister prohibits it in order to preserve fossiliferous sectors, the integrity of which must be maintained due to their representative and/or outstanding features.

3. Except with the authorization of the Minister, no person may remove, capture, move, disturb or harm fauna or flora species designated threatened or vulnerable or likely to be designated as such in the proposed biodiversity reserve.

4. 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 proposed 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 proposed biodiversity reserve.

5. No person may use fertilizers in the proposed 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.

The high-water mark is determined in accordance with the Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains (chapter Q-2, r. 35).

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

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

- (1) intervene in a wetland area, including 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 erect any construction, 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 proposed 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.

8. Despite paragraphs 6, 7 and 8 of section 7, 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 construction, 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 rough shelter, a shelter or a cabin, including a shed, a water withdrawal facility or a discharge and disposal of waste water, grey water and toilet effluents; or
 - (b) a rough shelter, a shelter or a cabin if, on the date on which status as a proposed biodiversity reserve takes effect, such a building was allowed under the right of use or occupancy granted, but was not yet carried out; or
- (3) the demolition or reconstruction of a rough shelter, a shelter or a cabin, including a dependency or a facility ancillary to such a construction, including a shed, a water

withdrawal facility or a 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:

- (1) the work involves a construction, infrastructure or works whose presence is allowed in the territory of the proposed biodiversity reserve;
- (2) the work is carried out within the area of the land or right of way covered by the right of use or occupancy in the proposed biodiversity reserve, whether the right results from a lease, a servitude or another form of title, permit or authorization;
- (3) the nature of the work or elements erected by the work will not operate to increase the area of land that may remain deforested beyond the limits allowed by 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 construction, 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 construction, infrastructure or works to which it is related, as well as in compliance with the applicable legislative and regulatory measures;
- (5) in the case of forest roads, the work must not result in altering or exceeding the existing right of way, enlarging the driving roadway or converting the road into a higher class road.

For the purposes of this section, repair and improvement work includes work to replace or install structures or facilities with a view to complying with the requirements of environmental regulations.

9. 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, an outfitting operation 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 outfitting operation was already using the facility or site on the date on which status as a proposed biodiversity reserve takes effect.

§2 – Rules of conduct for users

10. No person may enter, carry on an activity or operate a vehicle in a given sector of the proposed biodiversity reserve if the signage erected 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.

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

§3 – Activities requiring an authorization

12. No person may, for a period of more than 90 days in the same year, occupy or use the same site of the proposed 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 proposed biodiversity reserve, for instance for vacation purposes;
 - (b) setting up a camp or 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 on which status as a proposed biodiversity reserve takes effect, 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 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;
- (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; or
- (3) avails himself or herself of the opportunity to acquire land that is occupied legally on the date on which status as a proposed biodiversity reserve takes effect, under the Act respecting the lands in the domain of the State.

13. 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 in the proposed 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 rough shelter permitted within the proposed 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;
- (3) in other cases:

- (a) the wood is collected within a sector identified by the Minister of Forests, Wildlife and Parks as a sector for which a permit for the harvest of firewood for domestic purposes may be issued under the Sustainable Forest Development Act, and which was already identified as such by the Minister on the date on which status as a proposed biodiversity reserve takes effect;
- (b) the wood is collected by a person who, on the date on which status as a proposed biodiversity reserve takes effect or within the previous three years, holds a permit for the harvest of firewood for domestic purposes enabling him or her to collect firewood within the proposed biodiversity reserve;
- (c) 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 by the Minister of Forests, Wildlife and Parks under the Sustainable Forest Development Act.

In addition, no authorization to carry on a forest management activity is required if a person authorized by lease to occupy land within the proposed biodiversity reserve in accordance with this conservation plan carries on the forest management 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, 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 improvement of power, water, sewer or telecommunication lines, facilities and mains.

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 section 15.

14. No person may carry on commercial activities in the proposed 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 if, on the date on which status as a proposed biodiversity reserve takes effect, the activities were the subject of a right of use of the land for such purpose, whether or not the right results from a lease or another form of title, permit or authorization, within the limits of what the right allows.

§4 – Authorization exemptions

15. Despite the preceding provisions, an authorization is not required for an activity or other form of intervention within the proposed 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.

16. Despite the preceding provisions, an authorization is not required for a member of a Native community for an intervention within the proposed biodiversity reserve where that

intervention is part of the exercise of rights covered by section 35 of the Constitution Act, 1982 (Schedule B to the Canada Act, chapter 11 in the 1982 volume of the Acts of the Parliament of the United Kingdom) and those rights are credibly established or asserted.

17. Despite the preceding provisions, the following activities and interventions involving the transmission, distribution or production of electricity carried out by Hydro-Québec (Société) or by any other person for Hydro-Québec do not require the prior authorization of the Minister under this conservation plan:

- (1) any activity or intervention required within the proposed 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, 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;
- (4) any activity or intervention by the Société, if the conditions for the carrying out of the activity or intervention have been determined in an agreement between the Minister and the Société and the activity or intervention is carried out in compliance with those conditions. The Société is to keep the Minister informed of the various activities or interventions referred to in this section it proposes to carry out before the work is begun in 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 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 purpose of access, construction or traffic incidental to the work.