



Les aires protégées  
au Québec :  
un héritage pour la vie

**MINISTÈRE DE L'ENVIRONNEMENT  
ET DE LA LUTTE CONTRE  
LES CHANGEMENTS CLIMATIQUES**

## PAYSAGE HUMANISÉ PROJETÉ DE L'ÎLE-BIZARD

Conservation Plan

**Coordination and drafting**

This publication was prepared by the Direction des aires protégées du ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC), in cooperation with the Ville de Montréal.

**Quotes and reference**

Gouvernement du Québec: Paysage humanisé projeté de L'Île-Bizard–Conservation Plan. Québec, Ministère de l'Environnement et de la Lutte contre les changements climatiques, Direction des aires protégées, 2021, 37 pages

**Cover photo**

Western portion of Île Bizard, AIR IMEX Itée

## Table of Contents

1	Protection status and toponym.....	1
2	Introduction.....	1
3	Conservation objectives .....	3
4	Plan and description.....	3
5	Land occupancy .....	12
6	Land use.....	13
7	Activities framework .....	13
8	Responsibilities.....	21
9	Monitoring.....	22
10	Status of the proposed man-made landscape .....	23
11	Bibliographical references .....	24
	SCHEDULE 1: MAP AND LOCATION.....	27
	SCHEDULE 2: LAND USE .....	28
	SCHEDULE 3: ECOLOGICAL CONNECTIVITY.....	29
	SCHEDULE 4: CONTRIBUTION TO THE GRAND PARC DE L'OUEST PROJECT.....	30
	SCHEDULE 5: CULTURAL HERITAGE (FIELDSTONE WALL NETWORK) .....	31
	SCHEDULE 6: CULTURAL HERITAGE (BUILDINGS AND ARCHAEOLOGY).....	32
	SCHEDULE 7: AREA OF IMPLEMENTATION OF CERTAIN LEGISLATIVE AND REGULATORY PROVISIONS .....	33
	SCHEDULE 8: LOTS LOCATED WITHIN THE BOUNDARIES OF THE PROPOSED MAN-MADE LANDSCAPE .....	34
	SCHEDULE 9: GLOSSARY .....	35



## 1 Protection status and toponym

The legal protection status of the territory described in this conservation plan is a proposed man-made landscape. The legal status is governed by sections 27, 29-31 and 33 of the *Natural Heritage Conservation Act* (chapter C-61.01), as it reads on March 18, 2021. The envisaged permanent protection status recognizes the area as a “man-made landscape,” which is also defined in the *Natural Heritage Conservation Act*.

Per the *Natural Heritage Conservation Act*, the purpose of the man-made landscape status is to protect the biodiversity of an inhabited area, whether land or water, where the landscape and its natural components have been shaped, over time, by human activities in harmony with nature and have distinctive features the conservation of which depends to a large extent on the continuation of the practices that originally shaped them.

The provisional toponym is “Paysage humanisé projeté de L'Île-Bizard” The official toponym will be determined when permanent protection status is granted.

## 2 Introduction

Man-made landscape status allows many types of human activities to be carried out, as long as they are compatible with the conservation of biodiversity. This enables community know-how and sustainable best practices to be recognized and valued.

The Paysage humanisé projeté de L'Île-Bizard has unique biodiversity conservation characteristics for an inhabited and agricultural zone. They are as follows:

- A high proportion of widely diverse natural environments that include a mix of forests, fallows, wetlands, bodies of water and riverbanks
- A rich biodiversity that includes numerous species in a precarious situation
- A hedgerow landscape of fields bordered by arborescent vegetation and low fieldstone walls engendering a mosaic of habitats that promote biodiversity and ensure ecological connectivity
- An island nature and role as an ecological corridor in western Montréal connecting several other protected areas and natural protected environments.

The desire to ensure the protection and enhancement of the western portion of Île Bizard stems from demands voiced by the local citizenry at the beginning of this century and the recognition by the Ville de Montréal of its value as a tool for social mobilization, biodiversity, natural and cultural heritage and harmonious anthropic activity. It is also the result of a decision to increase the size of protected areas in the Urban Agglomeration of Montréal. The Paysage humanisé projeté de L'Île-Bizard project evolved during a lengthy process of participation. The Ville de Montréal and Île-Bizard–Sainte-Geneviève borough have

worked with the Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC) and a number of partners since 2010 to secure proposed man-made landscape status for the project.

A number of key stages were involved as the project moved forward, benefiting from local community input. In 2010, the Table de concertation du paysage humanisé de L'Île-Bizard brought together residents and a diverse group of local, regional and government partners whose aim was to set conservation objectives for the area. In 2014, the project was publicly unveiled at an informational meeting, and the Ville de Montréal filed an application for man-made landscape recognition with the MELCC (Ville de Montréal, 2014). One of the 2015 recommendations in the Land Use and Development Plan of the Urban Agglomeration of Montréal (Schéma d'aménagement et de développement de l'agglomération de Montréal, hereinafter, "SAD,") was to move forward with steps to secure man-made landscape status for the western portion of Île Bizard. In 2016, the Comité de mise en œuvre du paysage humanisé de L'Île-Bizard (Implementation Committee) was created to acquire more and deeper knowledge about the area, improve understanding of public expectations and flesh out the details of the project. This collaborative process helped raise the level of mobilization of the citizenry and local, regional and government partners by enabling participation in developing the proposed man-made landscape implementation plan (Nature-Action Québec, 2019). Finally, in 2020, the Ville de Montréal held a public consultation on the proposed man-made landscape project (Ville de Montréal and Copticom, 2021) and the MELCC consulted with the Mohawk communities of Kahnawà:ke and Kanesatake.

Through its contribution to biodiversity protection and growth of protected areas, the proposed man-made landscape meets the objectives of the Politique de protection et de mise en valeur des milieux naturels (Ville de Montréal, 2004b) and follows the guidelines of the Schéma d'aménagement et de développement de l'agglomération de Montréal (Ville de Montréal, 2015b). It also meets the objectives of the Climate Plan 2020-2030 and the Montréal 2030: A First Strategic Plan (Ville de Montréal, 2020a and b).

Securing the Paysage humanisé projeté de L'Île-Bizard status required the support of local and regional communities. Resolutions from the following sources were therefore passed:

- Conseil d'arrondissement de L'Île-Bizard–Sainte-Geneviève (CA14 28 0214), September 2, 2014
- Comité exécutif de Ville de Montréal (CE14 1657), November 5, 2014
- Conseil municipal de Ville de Montréal (CM14 1102), November 24, 2014
- Conseil d'agglomération de Montréal (CG14 0535), November 27, 2014
- Conseil d'arrondissement de L'Île-Bizard–Sainte-Geneviève (CA19 28 195), July 2, 2019
- Comité exécutif de la Communauté métropolitaine de Montréal (CE19 203), December 5, 2019
- Conseil municipal de Ville de Montréal (CM19 1277), December 16, 2019.

### 3 Conservation objectives

The first priority of the Paysage humanisé projeté de L'Île-Bizard is the long-term protection and maintenance of its associated biological diversity and natural and cultural resources. The status will also enable a balance to be struck between natural land and aquatic environments, farmland and inhabited areas. Moreover, preserving its natural environments and ecological connectivity will help with the adaptation to climate change. The conservation objectives of the Paysage humanisé projeté de L'Île-Bizard are set out in Table 1.

Since agricultural activities are the source of the hedgerow landscape and its specific biodiversity, the key guidelines on the sustainability and vitality of farming activities and biodiversity conservation are of equal importance. However, in the event of incompatibility among various activities, biodiversity conservation will always be prioritized. Soil conservation will be of particular importance, due to the fact that the ecosystem services it provides support the diversity and abundance of local species (Larbodière et al., 2020).

Under the planned conservation framework, municipal by-laws and voluntary conservation initiatives will provide support for the conservation objectives of the proposed man-made landscape.

### 4 Plan and description

#### 4.1 Geographical location, boundaries and dimensions

The Paysage humanisé projeté de L'Île-Bizard is located within the administrative boundaries of the Borough of L'Île-Bizard–Sainte-Geneviève in the City of Montréal, Urban Agglomeration of Montréal and the Communauté métropolitaine de Montréal, between 45° 27' 37.077" and 45° 30' 38.631" north latitude and 73° 57' 37.268" and 73° 52' 55.22" west longitude.

The proposed man-made landscape covers the western portion of Île Bizard and a portion of the Rivière des Prairies and the Lac des Deux Montagnes. It protects an area encompassing 1 798 hectares (17.98 km<sup>2</sup>). The Jacques-Bizard bridge over the Rivière des Prairies and a ferry that links Île Bizard to Laval-sur-le-Lac provide access to the island.

The aquatic boundaries of the Paysage humanisé projeté de L'Île-Bizard correspond to the boundaries of the Île-Bizard eco-forest corridor as set out in the SAD. The land boundaries of the Paysage humanisé projeté de L'Île-Bizard correspond mainly to the boundaries of the permanent agricultural zone, per the *Act respecting the preservation of agricultural land and agricultural activities* (chapter P-41.1; hereinafter, the APALAA) and also include several natural environments abutting the permanent agricultural zone. Schedule 1 shows the location and boundaries of the Paysage humanisé projeté de L'Île-Bizard.

**Table 1** Conservation objectives of the Paysage humanisé projeté de L'Île-Bizard.

General objectives	Guidelines and specific objectives
<p>Preserve and enhance biodiversity and associated ecosystem services</p>	<p><b>1. Ensure the long-term survival of farming activities and promote their vitality:</b></p> <ul style="list-style-type: none"> <li>- Bolster the boundaries of the permanent agricultural zone.</li> <li>- Promote sustainable farming practices.</li> <li>- Ensure the health and conservation of agricultural soils.</li> <li>- Maintain pollinator populations, which are essential to crop production.</li> <li>- Develop links between agricultural producers and residents.</li> </ul>
<p>Preserve and enhance ecological connectivity</p>	<p><b>2. Understand, protect and enhance biodiversity:</b></p> <ul style="list-style-type: none"> <li>- Broaden knowledge on biodiversity.</li> <li>- Preserve ecosystem ecological integrity, especially in zones deemed biodiversity cores.</li> <li>- Preserve a high proportion of natural environments and great habitat diversity.</li> <li>- Preserve and enhance links among natural environments.</li> <li>- Protect plant and wildlife species in a precarious situation.</li> <li>- Restore degraded riparian strips.</li> <li>- Control invasive species.</li> <li>- Reduce pesticide use.</li> </ul>
<p>Preserve and enhance hedgerow farming as a practice that contributes to the landscape's distinctiveness and biodiversity</p>	<p><b>3. Understand, protect, enhance and promote the natural and cultural heritage:</b></p> <ul style="list-style-type: none"> <li>- Broaden and disseminate heritage knowledge on natural, landscaped, built and archaeological environments.</li> <li>- Maintain and highlight the importance of fieldstone wall and hedgerow heritage lot separation.</li> <li>- Promote the built and archaeological heritage.</li> <li>- Promote the unique nature of the shoreline road and the historical and archaeological links between land and aquatic settings.</li> <li>- Promote the opening of farming and water body viewpoints while protecting natural riparian strips.</li> </ul>
<p>Ensure the sustainable use of biodiversity and renewable natural resources</p>	<p><b>4. Promote sustainable recreational and educational activities:</b></p> <ul style="list-style-type: none"> <li>- Maintain water sports, fishing and hiking in a spirit of respect for the natural environment and local inhabitants.</li> <li>- Organize events that arouse a feeling of belonging to the land and promote the benefits of hedgerows for biodiversity and farming.</li> <li>- Allow access to well-defined areas in a spirit of respect for natural settings, farming activities and cultural heritage.</li> </ul>
<p style="text-align: center;"><b>Basis for Action</b></p> <ul style="list-style-type: none"> <li>- Prioritize the conservation of biodiversity whenever there is incompatibility between objectives, guidelines or projects.</li> <li>- Maintain and/or enhance the natural character of the territory.</li> <li>- Sensitize all actors to the importance and fragility of the territory's biodiversity.</li> <li>- Use a broad array of initiatives and partners when developing innovative projects.</li> </ul>	



## 4.2 Physical environment

Per the Québec ecological reference framework, the Paysage humanisé projeté de L'Île-Bizard is located in the St. Lawrence Lowlands physiographic region, more specifically, in the natural region of the Upper Saint Lawrence Plain. The entire territory falls within the physiographic unit of the Plaine de Saint-Benoit-Montréal, more specifically, in the ecological districts of the Plaine de la rivière des Mille Îles and Chenal du lac des Deux Montagnes (MDDELCC, 2018).

Île Bizard is one of the islands in the Montréal archipelago whose formation results from a complex network of very ancient faults, the varied resistance to weathering of different rock types, and the vagaries of fluvial and glacial erosion. The territory comprises limestone rock from the Chazy Group and dolomite rock. Several breccia and intrusions are also observed (SPHIB-SG, 2008).

The island itself is a low mound whose summit, at roughly 34 m, culminates slightly to the west of Montée de l'Église. The steepest slopes, which never exceed 10%, are also concentrated in the portion of the territory located west of the roadway. The topography provides a range of ways and means for exploring the landscapes. The rich island soils developed on deposits left behind after the most recent glaciation and the subsequent marine incursion known as the Champlain Sea, as well as the bodies of water that succeeded it (SPHIB-SG, 2008). From an agricultural standpoint, the soils are mainly ARDA<sup>1</sup> Canada Land Inventory, Class 2 and Class 3 (Ville de Montréal, 2015a).

The Paysage humanisé projeté de L'Île-Bizard has a sub-humid temperate continental climate with a long growing season. The average annual temperature is 6.8°C, while average annual rainfall is 784.9 mm and snowfall, 209.5 cm. The average frost-free period is 165 days (Government of Canada, 2020).

The territory is part of the sugar maple-hickory stand bioclimatic domain, which enjoys Québec's warmest climate. It hosts Québec's southernmost plant species and has highly diversified forests (MFFP, 2003). Certain hardy tree species such as the butter-nut hickory (*Carya cordiformis*), shag-bark hickory (*Carya ovata* var. *ovata*), common hack-berry (*Celtis occidentalis*), black maple (*Acer nigrum*), swamp white oak (*Quercus bicolor*) and various shrubs and herbaceous plants seen on Île Bizard are at the northern limit of their distribution area. However, other species found here, such as the sugar maple (*Acer saccharum*), also grow farther to the North.

Île Bizard is one of the rare Montréal areas to have preserved a significant network of open watercourses that link major inland wetlands and riparian habitats to the Rivière des Prairies and Lac des Deux

---

<sup>1</sup> Class 2: Soils in this class have moderate limitations that reduce viable crop selection or require moderate conservation practises.

Class 3: Soils in this class have moderately severe limitations that restrict the range of viable crops or require special conservation practises (IRDA, 2020).

Montagnes, which feed the Rivière des Mille îles and Rivière des Prairies, being the final section of the Ottawa River before it empties into the St. Lawrence.

### 4.3 Natural heritage

The Paysage humanisé projeté de L'Île-Bizard features a mosaic of habitats that promote biodiversity (Schedule 2), where forests alternate with grass, bush and treed fallows, fields, wetlands (fens, marshes, peat bogs) and water (stream, river and lake) environments. Due to the diversity and quality of the area's habitats, it has an abundant animal and plant biodiversity that includes several at-risk species.

The portion of the territory that encompasses Lac des Deux Montagnes and Rivière des Prairies mainly features shallow water and extensive aquatic-grass beds that are significant wildlife habitats for species such as the endangered northern map turtle (*Graptemys geographica*). Data from two stations that measure the bacteriological quality of the Rivière des Prairies shoreline water reveal that the quality is good and that the water is in the main, suitable for activities that include direct contact, such as swimming (Ville de Montréal, 2019).

The southern and western portions of the territory bordering Lac des Deux Montagnes and Rivière des Prairies have natural shores, riparian floodplain fens with stands of silver maple, marshes and shrub and treed fallows. The heaviest concentration of riparian wetlands in the Urban Agglomeration of Montréal is found in the western portion Île Bizard, extending over nearly 5 km of shoreline. These wetlands provide high-quality wildlife feeding and breeding sites and offer outstanding panoramas, year-round. The natural floodplains provide essential ecosystem services that include a role in regulating the flow of water during the spring flood season. The southwest point of l'île Bizard is also home to a remarkable forest ecosystem that has been confirmed by the Ministère des Forêts, de la Faune et des Parcs but remains without official status. A rarely seen in Québec combined stand of shagbark hickory and nettle ranges over some nine hectares, with adjacent stands of shagbark hickory, (*Carya ovata var. ovata*), common hackberry (*Celtis occidentalis*) and swamp white oak (*Quercus bicolor*). This forest of great ecological interest lies entirely within the Grand Parc de l'Ouest-Bois-de-l'île-Bizard sector of the island (Schedule 3).

The centre of the territory is noteworthy for its forests of varying sizes that include sugar maple stands, red ash woodlands, and cottonwood poplar stands. Wetlands connected by streams are also found here. They include a 4.41-hectare treed swamp, a shrub swamp, a wet meadow and a 1.06-hectare peat bog that is host to several plant species in a precarious situation (AECOM, 2020). Numerous grass, shrub and tree fallows and the majority of cultivated fields are found in this portion of the proposed man-made landscape. Lastly, the two local golf courses here form part of the network of ecological corridors in the proposed man-made landscape because of their treed hedgerows and wooded areas. One of the golf courses holds Audubon environmental management certification.

Many invasive plant species have been recorded on the territory of the proposed man-made landscape, including reed canary-grass (*Phalaris arundinacea*), woodland chervil (*Anthriscus sylvestris*), box elder (*Acer negundo*), European buckthorn (*Rhamnus cathartica*), alder buckthorn (*Frangula alnus*), wild parsnip (*Pastinaca sativa*), common reed grass (*Phragmites australis subsp. australis*), purple loosestrife (*Lythrum salicaria*) and common valerian (*Valeriana officinalis*). Most are interspersed among indigenous plant species. Common reed grass forms denser colonies though, and a number of shrub sectors are colonized by buckthorn (AECOM, 2020). Some individuals of ash affected by the Emerald Ash Borer (*Agrilus planipennis*) have also been observed.

Treed hedgerows and fieldstone walls that delineate the fields and fallows are also to be found here, forming a hedgerow landscape that is unique in Montréal (Figure 1). The colonization of Île Bizard and the development of agriculture that accompanied it instigated the transformation of forest ecosystems into agrarian ecosystems. The first farmers on the island built fieldstone demarcation walls along the edges of the fields. Vegetation then gradually took root, resulting in hedges of varying densities.



**Figure 1:** A view of the hedgerow landscape of the Paysage humanisé projeté de L'Île-Bizard, characterized by fields demarcated by treed hedges and fieldstone walls (Source: Air Imex).

One of the conservation interests of the proposed man-made landscape lies in continuing hedgerow farming as a practice that has enabled the territory's remarkable characteristics to develop, and which is beneficial to the conservation of biodiversity and farming. Hedgerow farming affords several advantages for wildlife and plant species since it creates a network of interconnected, diversified natural environments. The treed hedges provide habitats for wildlife species such as small mammals, birds and pollinating insects, as well as for wildlife species that prefer edges, especially raptors that use forest zones as their habitat and hunt in the adjacent open areas. The hedges also form a major network of ecological corridors, whose connectivity is essential amid climate change inasmuch as it enables some species to change their distribution area and others to migrate to new, more favourable habitats (Hilty *et al.*, 2020). The fieldstone walls provide habitats for moss and lichens and offer shelter to some species of small mammals and reptiles. The hedgerow environment is also of significant interest from the standpoint of landscapes and provides numerous ecological services for agriculture. The growth of biodiversity and the conservation of natural environments are positive factors in pollination, combating disease and pests, improving soil fertility and reducing erosion (MAPAQ *et al.*, 2011). Agro-forest systems, including hedgerow landscapes, also strengthen resilience to unpredictable climate events and to climate change in general (CRAAQ, 2019).

**Species in a precarious situation:** Twelve wildlife species and eight plant species in a precarious situation have been inventoried within the Paysage humanisé projeté de L'Île-Bizard (Table 2). Several historic occurrences where species in a precarious situation have been observed remain to be confirmed (CDPNQ, 1998+). The proposed man-made landscape may also be a potential habitat for other species deemed threatened or vulnerable or that could be so designated.

Four species of plants that are vulnerable due to harvesting have been observed here, including the maidenhair fern (*Adiantum pedatum*), ostrich fern (*Matteuccia struthiopteris*), bloodroot (*Sanguinaria canadensis*) and white trillium (*Trillium grandiflorum*).

Finally, an essential habitat of the Red-headed Woodpecker has been identified within the proposed man-made landscape under the Recovery Strategy for the Red-headed Woodpecker (*Melanerpes erythrocephalus*) in Canada (ECCC, 2021).

#### 4.4 Ecological connectivity

In western Montréal and the periphery of Lac des Deux Montagnes, the Paysage humanisé projeté de L'Île-Bizard is an important link in the chain of ecological connectivity, given its proximity to numerous protected areas and other protected natural environments (Schedule 3), and the role it plays in the Grand parc de l'Ouest project, whose aim is to protect natural environments and preserve biodiversity (Schedule 4).

**Table 2** Plant and animal species in a precarious situation in the Paysage humanisé projeté de L'Île-Bizard.

	English Name	Latin Name	Status (Québec)
<b>Animal species</b>	Dekay's brownsnake	<i>Storeria dekayi</i>	likely to be designated
	Bank swallow	<i>Riparia riparia</i>	none <sup>1</sup>
	Bicknell's thrush	<i>Catharus bicknelli</i>	vulnerable <sup>1</sup>
	Bobolink	<i>Dolichonyx oryzivorus</i>	none <sup>1</sup>
	Bridle shiner	<i>Notropis bifrenatus</i>	vulnerable <sup>2</sup>
	Canada warbler	<i>Cardellina canadensis</i>	likely to be designated
	Common snapping turtle	<i>Chelydra serpentina</i>	none <sup>2</sup>
	Eastern milksnake	<i>Lampropeltis triangulum</i>	likely to be designated <sup>2</sup>
	Elephant-ear	<i>Elliptio crassidens</i>	likely to be designated
	Northern map turtle	<i>Graptemys geographica</i>	vulnerable <sup>2</sup>
	Red-headed woodpecker	<i>Melanerpes erythrocephalus</i>	threatened <sup>3</sup>
	Rusty blackbird	<i>Euphagus carolinus</i>	likely to be designated <sup>2</sup>
<b>Plant species</b>	Black maple	<i>Acer nigrum</i>	vulnerable
	Butternut	<i>Juglans cinerea</i>	likely to be designated <sup>3</sup>
	Cat-tail sedge	<i>Carex typhina</i>	likely to be designated
	Narrow-leaved blue-eyed-grass	<i>Sisyrinchium angustifolium</i>	likely to be designated
	Narrow-leaved glade fern	<i>Homalosorus pycnocarpos</i>	likely to be designated
	Shag-bark hickory	<i>Carya ovata var. ovata</i>	likely to be designated
	Swamp white oak	<i>Quercus bicolor</i>	likely to be designated
	Variable-leaved water-milfoil	<i>Myriophyllum heterophyllum</i>	likely to be designated

Sources: AECOM, 2020; CDPNQ, 1998+; Coursol, 2004; Écogénie, 2015; Groupe Hémisphères, 2020. Provincial status pursuant to the Act respecting threatened or vulnerable species (chapter E-12.01)–February 2021.

1. Species designated as "Threatened" by the *Species at Risk Act* (S.C. 2002, chapter 29)–July 2021.
2. Species designated as "Special Concern" by the *Species at Risk Act* (S.C. 2002, chapter 29)–July 2021.
3. Species designated as "Endangered" by the *Species at Risk Act* (S.C. 2002, chapter 29)–July 2021.

The proposed man-made landscape preserves ecological connectivity with several protected areas that are listed in the Québec Register of Protected Areas (MELCC, 2020). To the north and the west, the aquatic portion of the proposed man-made landscape partially overlaps the Lac des Deux Montagnes, Île Bizard and Anse-à-l'Orme Waterfowl Concentration Sites. To the east, it is linked to and/or overlaps with the Grand Parc de l'Ouest–Bois de l'Île Bizard sector. Other protected areas are close by: the Grand Parc de l'Ouest–Anse-à-l'Orme and Cap-Saint-Jacques sectors, Forêt-de-Senneville and Bois-Angell Nature Reserves, Lac des Deux Montagnes Sainte-Marthe-sur-le-Lac Waterfowl Concentration Sites, Lac des Deux Montagnes Pointe-Calumet Waterfowl Concentration Site and Parc national d'Oka.

The territory also ensures ecological connectivity with other nearby protected natural environments: the Grand Parc de l'Ouest–Parc agricole du Bois-de-la-Roche, Forêt de Senneville, Morgan Arboretum and Grand Parc de l'Ouest–Parc-nature des Rapides-du-Cheval-Blanc sector.

The fragmentation of natural environments is one of the main threats to the maintenance of biodiversity and the ecological services that it provides, while connectivity between natural environments protects their



long-term viability and resilience to climate change. As such, the Paysage humanisé projeté de L'Île-Bizard is of considerable importance to the greater Montréal area as a whole. Moreover, scientific research has demonstrated that protected areas with connectivity have greater efficacy than isolated zones in anthropic environments, even more so with respect to standing up to climate change (Hilty *et al.*, 2020).

#### 4.5 Cultural heritage

The proposed man-made landscape has a rich cultural heritage and a landscape heritage that is quite special.

**Built heritage:** The proposed man-made landscape is characterized by a 44-km network of fieldstone walls that hallmark the seigneurial lot separation system, which was established at the time of colonization. It has scarcely changed over time (Figure 2 and Schedule 5). Built by early settlers from stones they cleared from their fields to enable planting crops, the walls also served as fences to demarcate their land.



**Figure 2:** An example of the stone walls that hallmark the seigneurial lot separation system in the Paysage humanisé projeté de L'Île-Bizard (Source: Ville of Montréal).

Some 20 buildings and other residential, agricultural, educational and recreational heritage structures can be found inside the boundaries of the proposed man-made landscape (Schedule 6). They bear witness to

periods of land occupancy on the island, beginning before 1800 and continuing to the present, and include the Maison du Centenaire (1790) and Croix de chemin de la montée Wilson (MCC, 2019), which are named as heritage buildings pursuant to the *Cultural Heritage Act* (chapter P-9.002). Some buildings, such as the Chemin Monk barn, the old Paquin barn and dairy and the Levasseur Simard chicken ranch (SPHIB-SG, 2008) evoke 19th century farming practices. Most of the heritage buildings bracket the Île-Bizard ring road that is part of the historic Montréal shoreline road. Lastly, the western tip of Île Bizard has been identified as a sector of exceptional heritage value on the basis of its built heritage (Schedule 6).

**Landscape heritage:** The mosaic of natural and agricultural settings underpins panoramas that are quite outstanding both from the standpoint of the pastoral atmosphere and the hedgerow landscape with its scenic views of Lac des Deux Montagnes and Rivière des Prairies. Public access to the Montréal shoreline road makes these noteworthy scenic panoramas and spectacular views of the Rivière des Prairies freely available to visitors. The two golf courses, designed by renowned architects, are also developed sites of interest from the standpoint of their landscapes, with fieldstone walls that have been preserved and enhanced. Several natural woodland and watercourse environments have also been preserved there.

Today's panoramas evoke historic landscapes dating from 18<sup>th</sup>-century Euro-Québec times. A large proportion of the parcelled-out lots and almost all of the road network stemming from the seigneurial system still exist, as do many segments of the fieldstone walls that demarcated the lots and other reminders of the built heritage.

**Archaeological heritage:** Areas of archaeological interest within the proposed man-made landscape are found along the shore, from the water's edge to the Montréal shoreline road (Schedule 6). Archaeological site BIFL 004 is also found on the southwest shore of the island and includes vestiges of a watermill and other buildings.

A recent archaeological study has identified 32 sites likely to show traces of indigenous occupancy and use (Arkéos, 2020). The study stresses that "...on the basis of the area's inhabitability and wealth of resources, initial occupancy could have begun as early as 9,700 years ago and ended shortly after the first Euro-Québec settlements began on the island, sometime between 1735 and 1768. No indigenous archaeological site has been discovered so far, possibly because this type of research has been quite rare."

The same study identified 85 areas with archaeological potential associated with Euro-Québec settlements (1762/1768-1909). Their archaeological potential is related to agricultural and forestry work carried out by farming families, but also to seigneurial domain and water mill (BIFL 004) land activities conducted by the local baronage and hired workers, as well as the use of parts of the land by craftsmen such as carpenters, tanners and blacksmiths. Available information suggests that targeted inventories could easily lead to locating representative vestiges of various types of activities carried out in the area under study, beginning in 1762 (Arkéos, 2020).

The availability of running water in open streams greatly influenced early human activity on Île Bizard. During prehistoric times, the Lac des Deux Montagnes and Rivière des Prairies were the principal ways of circulating through the northern portion of the Montréal archipelago. Without a doubt, the Cap-Saint-Jacques rapids, which inhibit travel on the Rivière des Prairies, compelled landing and portage along the shores of Île Bizard and/or the island of Montréal. While streams were non-navigable, they did provide, when dry or frozen over, land routes that opened access to the proposed man-made landscape (Arkéos, 2020).

**Intangible cultural heritage:** The island's story has been shaped by its agricultural land occupancy (SPHIB-SG, 2008). Up until the end of the 19<sup>th</sup> century, subsistence farming was the rule here. The major part of the island's land was subsequently cultivated, with producers selling their goods in the markets of Montréal. During the first half of the 20<sup>th</sup> century, the island was in fact known as Montréal's market garden. While today, farming accounts for a smaller area than before, agricultural producers still raise a wide variety of crops. Some practices, such as the construction of fieldstone walls, require specific know-how. The art of dry stone walling appeared on UNESCO's Representative List of the Intangible Cultural Heritage of Humanity in 2018 (UNESCO, 2018).

## 5 Land occupancy

The natural environments, i.e., forests, wastelands, wetlands (marshes, swamps, and peat bogs), and water (stream, river, and lake) environments, cover 70.3% of the territory of the Paysage humanisé projeté de L'Île-Bizard, while agriculture accounts for 8.6% of the total. Some 10 agricultural producers (including a major market gardener) cultivate an area of approximately 160 hectares. Built-up areas and roads cover 6.2% of the territory, while golf courses account for 14.9%.

The portions of the Rivière des Prairies and the Lac des Deux Montagnes located within the boundaries of the proposed man-made landscape are part of the water property in the domain of the State. They cover 39.3% of the territory and account for an area of 706 hectares. Municipal properties managed for conservation purposes cover 76.4 hectares, or 4.2% of the total. A Ministère des Transports (MTQ) right-of-way crosses l'Île Bizard from east to west (Schedule 2). This undeveloped right-of-way covers nearly 48.2 hectares, or 2.7% of the proposed man-made landscape. In this sector, the MTQ leases land to the City of Montréal for agricultural purposes, while allowing for the development of a multifunctional trail.

The land portion of the proposed man-made landscape is mostly in private hands (95.6%). There are 300 units on the local property assessment role owned by 408 landowners, and 329 separate dwellings. It is estimated that approximately 660 people live in the proposed man-made landscape, which comes to almost 4% of the borough's entire population. The borough's residents are, on average, more affluent than their cohort in the Montréal agglomeration and there are more owner-residents (Ville de Montréal, 2018).



Finally, a 16.2-kilometre road network criss-crosses the proposed man-made landscape, including a ring road that circles Île Bizard and a number of public and private roads that provide access to the centre of the island and the shoreline.

Mining activities are subject to the temporary suspension of the right to stake and map the proposed man-made landscape (constraint order 49 520). An inactive stratigraphic borehole (code AZ32) is located in the northeastern part of the territory. This well is smaller in diameter than oil or gas wells and is 85.34 metres (280 feet) in depth.

The Paysage humanisé projeté de L'Île-Bizard is located within an area of interest to the Mohawk communities of Québec.

## **6 Land use**

Pursuant to the *Act respecting the preservation of agricultural land and agricultural activities* (chapter P-41.1), the SAD and the Ville de Montréal Master Plan, the principal vocation of the land within the proposed man-made landscape is to be agricultural (Ville de Montréal, 2004a and 2015b). The golf course areas are also covered by this rule, but have acquired rights since they were in existence prior to the adoption of the Act. If the golf courses cease operations, the agricultural use set out in the SAD and the provisions of the Act would then apply.

Pursuant to the SAD and the Master Plan, the primary vocation of municipal properties managed for conservation purposes in the southwest portion of the island is conservation. The vocation of two sectors on the periphery of the permanent agriculture zone is overwhelmingly residential per the SAD and residential per the Master Plan. In the southernmost sector, the extent of the floodplain and the zoning by-law (CA28 0023) severely limits the number of residential buildings, while the other sector has been flagged as an area of ecological interest in the SAD due to natural environments found there and a conservation commitment that covers them.

## **7 Activities framework**

Activities carried on within the aquatic portion of the proposed man-made landscape included in the water property in the domain of the State are governed mainly by the conservation plan. Activities carried on within the land portion of the proposed man-made landscape are governed mainly by municipal by-laws, in compliance with the objectives of this conservation plan. The conservation plan also provides for additional prohibitions to ensure the protection and maintenance of the biological diversity and the natural and cultural resources of the proposed man made landscape.

## 7.1 Regulation applicable to the entire territory

7.1.1 The following activities are prohibited in the entire territory of the proposed man-made landscape:

- (1) activities carried on for the purposes of exploration for or the mining of mineral substances within the meaning of the *Mining Act* (chapter M-13.1) and the construction of infrastructures to be used to transport such substances;
- (2) activities carried on for the purposes of petroleum or underground reservoir exploration, petroleum production or storage, or brine production;
- (3) oil and gas pipeline construction;
- (4) any other activity carried out for the purposes of the production, transformation or commercial distribution of energy, in particular electricity;
- (5) the establishment of invasive species of fauna or flora;
- (6) the destruction, removal or moving of any poster, sign, notice or other types of signage posted by the Minister or the municipality within the proposed man-made landscape.

7.1.2 No person may, unless the person has been authorized by the Minister,

- (1) carry on an activity or install or erect any structure, infrastructure or new works likely to damage or substantially affect the environment or the biodiversity of the proposed man-made landscape; no authorization is required for the carrying out of activities for domestic purposes that are subject to the requirement to obtain an authorization from the municipality under the municipal by-laws;
- (2) use a pesticide to control biting insects or to maintain road corridors by means of an aircraft;
- (3) remove, capture, move, disturb or harm fauna or flora species designated threatened or vulnerable or likely to be designated as such; or
- (4) establish individuals of a native or non-native species of fauna, including by stocking.

The use of pesticides to protect the health of the population is not covered in subparagraph 2 of the first paragraph.

7.1.3 Despite the preceding provisions, an authorization is not required for

- (1) the installation of power distribution lines at voltages below 44 kV and activities related to the installation and maintenance of the lines;

- (2) any agricultural activity that does not require an authorization under the *Environment Quality Act* (chapter Q-2), except an activity that results in soil waterproofing.

## **7.2 Regulation applicable to the portion of the proposed man-made landscape included in the water property in the domain of the State**

The purpose of the regulation is to protect and maintain biological diversity and natural resources, including aquatic grass beds and the habitat of the map turtle, while ensuring the pursuit of sustainable educational and tourism activities, and activities by members of an Aboriginal community.

The water property in the domain of the State ends at the high-water mark as defined in the *Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains* (chapter Q-2, r. 35).

**7.2.1** No person may bury, abandon or dispose of residual materials or snow in the portion of the proposed man-made landscape included in the water property in the domain of the State.

**7.2.2** No person may, unless the person has been authorized by the Minister,

- (1) enter, carry on an activity or operate a vehicle in the aquatic portion of the proposed man-made landscape if the signage erected by the Minister restricts access, traffic or certain activities 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;
- (2) use a pesticide; no authorization is required for the use of personal insect repellent;
- (3) use fertilizer or fertilizing material;
- (4) establish native or non-native flora species;
- (5) stock a lake or a watercourse for aquaculture, commercial fishing or any other commercial purpose;
- (6) collect water for commercial or industrial purposes;
- (7) install any new structure, infrastructure or work, modify the natural drainage or water regime, or intervene in a wetland or body of water.

No authorization is required for the installation of an infrastructure authorized under section 2 of the *Regulation respecting the water property in the domain of the State* (chapter R-13, r. 1);

- (8) hold a sports event, tournament, rally or similar event where

- (a) fauna or flora species are taken or are likely to be taken; or
  - (b) motor vehicles or craft are used.
- (9) carry on any other activity that is likely to affect the quality or biochemical characteristics of the wetlands or bodies of water of the proposed man-made landscape, or otherwise affect the ecological integrity of the body of water or watercourse;

Collecting water in rivière des Prairies or lac des Deux Montagnes for agricultural purposes on the land situated within the proposed man-made landscape is not covered in subparagraph 6 of the first paragraph.

### **Authorization exemptions**

**7.2.3** Despite the preceding provisions, an authorization is not required for an activity or other form of intervention within the territory of the proposed man-made landscape if urgent action is necessary to prevent harm to the health or safety of persons, or if it is urgent to repair or prevent damage caused by a real or apprehended disaster. The person concerned must, however, immediately inform the Minister of the activity or intervention that has taken place.

**7.2.4** Despite the preceding provisions, an authorization is not required for a member of an Aboriginal community for an intervention within the portion of the territory of the proposed man-made landscape included in the land in the domain of the State, 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 of the 1982 volume of the *Acts of the Parliament of the United Kingdom*) and those rights are credibly asserted or established.

## **7.3 Regulation applicable to the land portion of the proposed man-made landscape**

The regulation of the land portion of the Paysage humanisé projeté de L'Île-Bizard is mainly the responsibility of municipal authorities, who maintain all their powers and responsibilities. Consequently, activities under municipal jurisdiction are governed by municipal by-laws, in keeping with the conservation objectives of this conservation plan.

In accordance with the *Municipal Powers Act* (chapter C-47.1), local municipalities have the power to legislate in their territory in fields such as the environment, culture and local economic development. In addition, the *Act respecting land use planning and development* (chapter A-19.1) confers powers on local municipalities regarding the planning of their territorial development, the management of use and densities, and environmental protection.

Where a territory that includes private properties obtains a status of proposed man-made landscape, a copy of the plan drawn up for the territory must be sent to the registry office to be registered in the land register. Transactions between private owners may continue without prior consultation with the Minister of the Environment and the Fight Against Climate Change. Property owners maintain the full enjoyment of their rights of ownership, in keeping with the laws and regulations in force.

### 7.3.1 Municipal by-laws

The Plan métropolitain d'aménagement et de développement (PMAD) of the Communauté métropolitaine de Montréal, the Schéma d'aménagement et de développement de l'agglomération de Montréal (SAD), the Master Plan of Ville de Montréal and local by-laws apply in the territory of the Paysage humanisé projeté de L'Île-Bizard. Activities carried on within the territory must comply with the local by-laws.

The PMAD defines the orientations, objectives and criteria to ensure competitiveness and attractiveness of Greater Montréal for sustainable land use planning and development in the territory of the Communauté métropolitaine de Montréal (CMM, 2012). The man made landscape contributes to the achievement of several objectives of the PMAD, including the increase of protected areas, the protection of metropolitan woods and forest corridors, and the development of the components of the Trame verte et bleue du Grand Montréal. Provisions to promote rigorous and standardized management of flood zones and limit possible construction in flood zones or flood risk zones are also provided for in the interim control by-law of the Communauté métropolitaine de Montréal (2019 78). That by-law applies along with the standards prescribed in the SAD and by Order in Council 817-2019 dated 12 July 2019, which delimits the special planning zone (SPZ) to promote better management of flood zones, but the most stringent standard is considered.

The SAD determines the orientations for land use planning and development in the territory of the agglomeration of Montréal (Ville de Montréal, 2015b). Its purpose is to achieve 10% of protected areas on land territory. The SAD identifies the territories of ecological interest, namely ecoterritories introduced by the Politique de protection et de mise en valeur des milieux naturels (Ville de Montréal, 2004b), the metropolitan woods and forest corridors (CMM, 2012 and 2013), and protected natural environments or natural environments in the process of being protected. Specific by laws apply in each territory of ecological interest. The Île Bizard Ecoforest Corridor ecoterritory includes the entire territory of the proposed man-made landscape, while metropolitan woods and forest corridors cover 52.1% of the land territory (Schedule 7). In addition, certain provisions of the SAD concern agricultural zones, landscapes, sectors of archeological interest and tree felling. The SAD determines the protection objectives for the built heritage of metropolitan interest and the development of the natural, built and landscape environment in an integrated perspective. Those provisions took effect with the adoption of concordance by laws by the borough of L'Île Bizard-Sainte-Geneviève. One of the recommendations in the SAD's action plan is to

pursue the process to obtain, from the Gouvernement du Québec, a status of proposed man made landscape for the western portion of île Bizard.

The Master Plan is the reference document in the development of the territory of Ville de Montréal (Ville de Montréal, 2004a; amended in 2016 to make it consistent with the SAD). The preservation and enhancement of the natural heritage is one of the objectives put forward in the Master Plan. The chapter on the borough of L'île-Bizard-Sainte-Genève provides for the preservation and enhancement of the natural, landscape and archeological heritage. It also provides for detailed planning of the agricultural zone, for the purpose of preserving and developing agricultural activities and maintaining the limits of the permanent agricultural zone. In addition, under local planning documents (land use categories), industrial facilities and facilities used by public services that may generate significant nuisance in the vicinity, such as major equipment to collect, sort, reclaim and eliminate residual materials and major equipment to store and eliminate waste snow, are not authorized in the territory of the proposed man-made landscape.

Lastly, local by-laws include an aggregate of provisions for preserving the high proportion of natural environments, such as the protection of lakeshores, riverbanks, littoral zones, floodplains, trees, hedges and low stone walls. They also include provisions on the greening of land, the prohibition to plant invasive plant species and the use of pesticides. The main by-laws that contribute to the protection of the biodiversity of the proposed man-made landscape's territory are the following:

— *Règlement sur les plans d'implantation et d'intégration architecturale* (CA28 0015): under the by-law, localized interventions are subject to a qualitative evaluation to protect biodiversity, natural environments and the agricultural landscape. In general, the work that is subject to the by-law is construction, reconstruction or expansion of a building, buildings and accessory constructions, clearing and filling, and the dividing of a lot. The SPAIP includes several objectives and evaluation criteria, some of which are specific to particular sectors.

The objectives and criteria applicable to the territory of the proposed man-made landscape refer to the provisions in force in the Île-Bizard Ecoforest Corridor ecoterritory (Schedule 7). The objectives include the following:

- preserve plant and wildlife biodiversity, and the integrity of natural environments;
- foster the protection of forest spaces comprising three vegetation strata, namely the herb, shrub and tree strata;
- foster the consolidation and viability of ecosystems;
- ensure adequate water volumes and maintain the quality of the watercourse;
- contribute to the creation of ecological and recreational corridors.

The SPAIP provides objectives and criteria for the protection and development of agricultural landscapes in the permanent agricultural zone, for the enhancement of riparian routes and views of lac des Deux Montagnes and rivière des Prairies, as well as for the preservation of heritage areas of exceptional value or special interest. Certain provisions for the protection of low stone walls are applicable in the permanent agricultural zone, in the land adjacent to the riparian routes, lac des Deux Montagnes and rivière des Prairies and in all areas of exceptional value.

— The zoning by-law (CA28 0023): the by-law regulates tree felling for the sound management of the forest cover and recultivation of agricultural parcels in the entire territory of the proposed man-made landscape. In addition, 33 species of invasive plants are prohibited in the entire territory of the borough of L'Île-Bizard-Sainte-Geneviève.

In metropolitan woods and forest corridors (Schedule 7), tree felling for the carrying on of an agricultural activity is limited to 3 hectares, without exceeding 10% of the area of the forest cover on the land concerned (zoning by-law, section VI). The provision limits the loss of natural environments. Felling on either side of the property line may not exceed 5 metres from the lot line, which preserves the hedgerow landscape (zoning by-law, section VI).

Under the by-law, it is prohibited to build new main buildings in a high-velocity zone (flood area 0-20 years) and a low-velocity zone (flood area 20-100 years). In a low-velocity zone, the measure is more restrictive than the *Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains* (chapter Q-2, r. 35). In a high-velocity zone, reconstruction is permitted if the building has been destroyed, up to a maximum of 50%, by a disaster other than a flood.

Under the by-law, an area of at least 60% of natural environments free of any human intervention (preservation of herb, shrub and tree strata) must be maintained or restored during the construction or reconstruction of a main building, on lands with an area equal to or greater than 3,000 m<sup>2</sup> located in areas close to lac des Deux-Montagnes and the area that is predominantly residential, east of rue Joly.

— The *Règlement sur l'utilisation des pesticides* (R.V.M. 04-041): the by-law prohibits the use of pesticides outside buildings. The by-law provides for certain exceptions, such as the use of low-impact pesticides. The use of pesticides, other than neonicotinoids, is authorized under certain conditions on land used for agricultural or horticultural purposes. The by-law provides, in that case, provisions for the registration, storage and keeping of a product use register. Accordingly, agricultural producers and golf course owners must, each year, submit to the borough a record of pesticides used. Golf course owners must also submit a pesticide reduction plan every 3 years and an annual report stating the progress of the plan.

— The *Règlement relatif à l'établissement du Grand parc de l'Ouest* (RCG 19-026): under the by-law, Ville de Montréal may negotiate agreements with property owners and acquire land on 664 hectares

(60.8%) of the terrestrial territory of the proposed man-made landscape (Schedule 4). Ville de Montréal gives itself the possibility to develop particular projects contributing to the objectives of the man-made landscape and the development of the network of parks. The Paysage humanisé projeté de L'Île-Bizard and the Grand parc de l'Ouest share the same objective of protecting natural environments and preserving biodiversity, and set out to achieve the Montréal target of 10% of protected areas on land territory mentioned in the SAD.

The application of certain legislative and regulatory provisions to the Paysage humanisé projeté de L'Île-Bizard is shown in Schedule 7. The list of lots inside the boundaries of the proposed man-made landscape can be found in Schedule 8.

#### 7.4 Activities governed by other statutes

Certain activities likely to be carried on within the territory of the proposed man-made landscape may be prohibited or governed by other Acts or regulations (provincial as well as federal) that are applicable within the protected territory, including provisions that require the issue of a permit or authorization or the payment of fees.

A special legal framework may govern permitted activities within the proposed man-made landscape in connection with the following matters:

- **Territory and agricultural activities:** measures set out in particular in the *Act respecting the preservation of agricultural land and agricultural activities* (chapter P-41.1). The APALAA ensures the sustainability of a territorial base for the practice of agriculture and promotes in a long-term perspective the protection and development of agricultural activities and enterprises in agricultural zones. Non-agricultural use may not be established in an agricultural zone without the authorization of the Commission de protection du territoire agricole (CPTAQ). The authorization of the CPTAQ is also required to divide a property or remove arable soil. This APALAA applies to the portion of the Paysage humanisé projeté de L'Île-Bizard that is located within the permanent agricultural zone (93.8% of the terrestrial territory). Lastly, the APALAA protects 71.7 hectares of sugar maple stands in the territory of the Paysage humanisé projeté de L'Île-Bizard, that is, maple forests with an area of more than 4 hectares (Schedule 7);
- **Environmental protection:** measures set out in particular in the *Environment Quality Act* (chapter Q-2) and the *Act respecting the conservation of wetlands and bodies of water* (2017, chapter 14) and their regulations, as well as the *Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains* (chapter Q-2, r. 35). The territory of the proposed man-made landscape is covered by Order in Council 817-2019 dated 12 July 2019, which delimits a special planning zone (SPZ) for fostering better management of flood zones. The SPZ allows the Government to impose a moratorium on the construction of buildings and reconstruction of buildings destroyed by a flood, until a new normative



framework for the management of flood zones is prepared and implemented by municipalities. It applies in all delimited flood zones and floodplains, without distinction between high-velocity and low-velocity zones identified in any land use planning and development plan in force on 10 June 2019. It also applies in the territory flooded during the spring floods of 2017 and 2019 as delimited by the Gouvernement du Québec. The flood zones (20 years and 100 years) and the SPZ applying in the territory of the Paysage humanisé projeté de L'Île-Bizard are shown in Schedule 7;

- **Species of flora or fauna in a precarious situation:** measures set out in particular in the *Act respecting threatened or vulnerable species* (chapter E-12.01) and its regulations, and measures in the applicable federal legislation, including the *Species at Risk Act* (S.C. 2002, chapter 29);
- **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, including the provisions pertaining to threatened or vulnerable fauna species, water bird concentration areas, outfitting operations and beaver reserves, as well as measures in the applicable federal legislation, including legislation respecting migrating birds and fishing;
- **Cultural heritage, research and archaeological discoveries:** measures set out in particular in the *Cultural Heritage Act* (chapter P-9.002) that foster knowledge, protection, development and transmission of the cultural heritage; the Act confers certain powers on municipalities, such as the possibility of submitting a request for the designation of the status of a heritage cultural landscape or, more simply, of their attributing citation or identification status to certain elements of their cultural heritage. In addition, the Act provides for the obligation to inform the Minister of Culture and Communications of all archaeological discoveries, even fortuitous ones.
- **Oil and gas activities:** measures set out in particular in the *Petroleum Resources Act* (chapter H-4.2).

## **8 Responsibilities**

The Minister of the Environment and the Fight Against Climate Change and the City of Montréal (Service des grands parcs, du Mont-Royal et des sports and the Borough of L'Île-Bizard–Sainte- Geneviève) are collaborating on the implementation of the Paysage humanisé projeté de L'Île-Bizard.

### **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 implementation of the Natural Heritage Conservation Act, the Environment Quality Act and the Act respecting threatened or vulnerable species. The Minister is responsible for the protection and maintenance of biological diversity

and the natural and cultural resources within the Paysage humanisé projeté de L'Île-Bizard, and to ensure compliance with the conservation plan.

The minister will benefit from the collaboration and participation of other government actors with specific responsibilities within or near the proposed man-made landscape, such as the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation (MAPAQ), Ministère des Affaires municipales et de l'Habitation (MAMH), Ministère des Transports (MTQ), Ministère des Forêts, de la Faune et des Parcs (MFFP), Ministère de l'Énergie et des Ressources naturelles (MERN) and and Ministère de la Culture et des Communications (MCC), and their delegates. In discharging their responsibilities, they will consider the conservation objectives of the Paysage humanisé projeté de L'Île-Bizard and the protected status that has been granted to it.

## **Responsibilities of the City of Montréal**

The City of Montréal, through the Borough of L'Île-Bizard–Sainte-Geneviève and the Service des grands parcs, du Mont-Royal et des sports, manages the terrestrial territory of Paysage humanisé projeté de L'Île-Bizard in a spirit of respect of this conservation plan and ensures the exemplary application of the legislation and regulations in force that fall under its jurisdiction.

The City of Montréal ensures the compatibility of its schéma d'aménagement et de développement, plan d'urbanisme and regulations with the conservation plan per section 65.6 of the Natural Heritage Conservation Act.

The City of Montréal will first consult the Minister prior to making any change that could modify the status of the proposed man-made landscape and its recognition as a protected area, especially regarding protecting biodiversity, maintaining the hedgerow landscape, i.e., the lot separation heritage framework materialized by fieldstone walls and hedges and the proportions of natural environments, as well as maintaining the proportion of man-made waterproof areas.

The City of Montréal will agree with the minister on implementing mechanisms for information sharing, dialogue and coordination within 12 months of the granting of the proposed man-made landscape status in order to foster participation by the local citizenry. The City of Montréal will consult the population prior to submitting any proposed man-made landscape conservation plan amendments to the Minister.

## **9 Monitoring**

A system for monitoring the conservation goals of biodiversity and the state of natural environments within the Paysage humanisé projeté de L'Île-Bizard will be set up by the minister in collaboration with the City of

Montréal. Monitoring will be based on targets and markers to be determined within 12 months of the granting of the man-made landscape status.

The monitoring markers will relate to the following:

- Land use (size of natural environments, cultivated areas, built environments and golf courses)
- Size of land used for sustainable agriculture
- Connectivity, including the size and linear length of treed hedges
- Status of riparian strips;
- At-risk species and the exceptional forest ecosystem
- Water quality
- Pesticide use
- Cultural heritage (archaeology, built, landscape).

The City of Montréal will submit a publicly available report to the minister on the implementation of the conservation plan, at five-year intervals.

The City of Montréal will submit annual reports to the minister on the use of pesticides within the proposed man-made landscape.

## **10 Status of the proposed man-made landscape**

Various portions of the area that in respect of their utilization do not contribute to biodiversity protection are nonetheless included within the perimeter of the proposed man-made landscape with a view to improving their compatibility with the conservation of biodiversity goals and involving all stakeholders in the project. Decisions were taken per the guidelines of the International Union for Conservation of Nature (Dudley, 2008) and in the perspective of ensuring that the proposed man-made landscape, like all other protected areas, should aim for maintaining or enhancing the natural character of the area's ecosystems.

## 11 Bibliographical references

- AECOM, 2020. *Caractérisation de milieux humides et hydriques à l'île Bizard*. Report submitted to the Ville de Montréal, 23 p. + appendices.
- ARKÉOS, 2020. *Paysage humanisé projeté de L'Île-Bizard : étude de potentiel archéologique*. Study prepared for the Ville de Montréal, 439 p. + appendices.
- CENTRE DE DONNÉES SUR LE PATRIMOINE NATUREL DU QUÉBEC, 1998+. *Base de données sur les espèces menacées ou vulnérables du Québec*. Centre de données sur le patrimoine naturel du Québec. Gouvernement du Québec, ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques, ministère des Forêts, de la Faune et des Parcs et Gouvernement du Canada, Environnement Canada, Service canadien de la faune, Québec, [Online], [<https://cdpnq.gouv.qc.ca>] (Viewed February 12, 2021).
- CENTRE DE RÉFÉRENCE EN AGRICULTURE ET AGROALIMENTAIRE DU QUÉBEC, 2019. *L'agroforesterie au bénéfice du microclimat : un atout face aux changements climatiques*. Fiche dynamique, Comité agroforesterie du CRAAQ, [Online], [[www.craaq.qc.ca/Publications-du-CRAAQ/l\\_agroforesterie-au-benefice-du-microclimat-un-atout-face-aux-changements-climatiques/p/PAGF0103-HTML](http://www.craaq.qc.ca/Publications-du-CRAAQ/l_agroforesterie-au-benefice-du-microclimat-un-atout-face-aux-changements-climatiques/p/PAGF0103-HTML)].
- COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL, 2012. *Plan métropolitain d'aménagement et de développement (PMAD) : un grand Montréal compétitif, attractif et durable*, 221 p.
- COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL, 2013. *Identification et protection des bois et corridors forestiers métropolitains*, 36 p.
- COURSOL, F., 2004. *Inventaire des plantes menacées ou vulnérables dans les écoterritoires de la Ville de Montréal [Digital vector data]*.
- DUDLEY, N. (Editor), 2008. *Guidelines for applying protected area management categories*. Gland, Suisse: UICN, 86 p.
- ÉCOGÉNIE, 2015. *Inventaire floristique et faunique de la pointe Théoret*, 49 p. + appendices.
- ENVIRONNEMENT ET CHANGEMENT CLIMATIQUE CANADA, 2021. *Programme de rétablissement du pic à tête rouge (Melanerpes erythrocephalus) au Canada*. Série de programmes de rétablissement de la Loi sur les espèces en péril, Environnement et Changement climatique Canada, Ottawa, 128 p.
- GOVERNEMENT DU CANADA, 2020. *Données des stations pour le calcul des normales climatiques au Canada de 1981 à 2010*, station Montréal/Aéroport international Pierre-Elliott-Trudeau, [Online], [[https://climat.meteo.gc.ca/climate\\_normals](https://climat.meteo.gc.ca/climate_normals)].
- GROUPE HÉMISPÈRES, 2020. *Audit écologique de la végétation – Parc-nature du Cap-Saint-Jacques*. Technical report prepared for the Service des grands parcs, du Mont-Royal et des sports, Ville de Montréal, 108 p. + appendices.
- HILTY, J., Worboys, G.L., Keeley, A., Woodley, S., Lausche, B., Locke, H., Carr, M., Pulsford I., Pittock, J., White, J.W., Theobald, D.M., Levine, J., Reuling, M., Watson, J.E.M., Ament, R., and Tabor, G.M., 2020. *Guidelines for conserving connectivity through ecological networks and corridors*. Best Practice Protected Area Guidelines Series No. 30. Gland, Suisse: UICN, 122 p.
- INSTITUT DE RECHERCHE ET DE DÉVELOPPEMENT EN AGROENVIRONNEMENT, 2020. *Inventaires des terres du Canada : description des classes et des sous-classes*, [Online], [[www.irda.qc.ca/fr/services/protection-ressources/sante-sols/information-sols/inventaire-terres-canada](http://www.irda.qc.ca/fr/services/protection-ressources/sante-sols/information-sols/inventaire-terres-canada)].

LARBODIÈRE, L., Davies, J., Schmidt, R., Magero, C., Vidal, A., Arroyo Schnell, A., Bucher, P., Maginnis, S., Cox, N., Hasinger, O., Abhilash, P.C., Conner, N., Westerberg, V. et Costa, L., 2020. *Common ground: restoring land health for sustainable agriculture*. Gland, Suisse: IUCN, 100 p.

LIMOGES, B., Boisseau, G., Gratton, L. et Kasisi, R., 2013. « Terminologie relative à la conservation de la biodiversité in situ ». *Le Naturaliste canadien*, 137 (2), 21-27.

MINISTÈRE DE L'AGRICULTURE, DES PÊCHERIES ET DE L'ALIMENTATION, ministère du Développement durable, de l'Environnement et des Parcs, ministère des Ressources naturelles et de la Faune et Union des producteurs agricoles, 2011. *Biodiversité : les alliés naturels de l'agriculteur une richesse à préserver*, 4 p.

MINISTÈRE DE LA CULTURE ET DES COMMUNICATIONS, 2019. *Répertoire du patrimoine culturel du Québec*, [Online], [[www.patrimoine-culturel.gouv.qc.ca](http://www.patrimoine-culturel.gouv.qc.ca)].

MINISTÈRE DU DÉVELOPPEMENT DURABLE, DE L'ENVIRONNEMENT ET DE LA LUTTE CONTRE LES CHANGEMENTS CLIMATIQUES, Direction de l'expertise en biodiversité, 2018. *Cadre écologique de référence du Québec (CERQ) [Digital vector data]*. Released version CERQ-VD201804, [[www.donneesquebec.ca](http://www.donneesquebec.ca)].

MINISTÈRE DE L'ENVIRONNEMENT ET DE LA LUTTE CONTRE LES CHANGEMENTS CLIMATIQUES, 2020. *Carte interactive des aires protégées au Québec (December 31, 2020)*, [Online], [[www.environnement.gouv.qc.ca/biodiversite/aires\\_protegees/carte-interactive.htm](http://www.environnement.gouv.qc.ca/biodiversite/aires_protegees/carte-interactive.htm)].

MINISTÈRE DES FORÊTS, DE LA FAUNE ET DES PARCS, 2003. *Carte couleur des zones de végétation et les domaines bioclimatiques du Québec*, 2 p.

NATURE-ACTION QUÉBEC, 2019. *Plan de mise en œuvre du paysage humanisé de L'Île-Bizard sur un horizon de 9 ans*, 20 p. + appendices.

SOCIÉTÉ PATRIMOINE ET HISTOIRE DE L'ÎLE-BIZARD ET SAINTE-GENEVIÈVE, 2008. *Aux confins de Montréal, l'île Bizard des origines à nos jours*. Les Éditions Histoire Québec, 288 p.

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION, 2018. Decision of the Intergovernmental Committee: 13.COM 10.B.10.

VILLE DE MONTRÉAL, 2004a. *Plan d'urbanisme*, [Online], [[www.ville.montreal.qc.ca/plan-urbanisme](http://www.ville.montreal.qc.ca/plan-urbanisme)].

VILLE DE MONTRÉAL, 2004b. *Politique de protection et de mise en valeur des milieux naturels*, 35 p.

VILLE DE MONTRÉAL, 2005. *Politique du patrimoine*, 97 p.

VILLE DE MONTRÉAL, 2014. *Demande de reconnaissance du projet de paysage humanisé de L'Île-Bizard*, 59 p.

VILLE DE MONTRÉAL, 2015a. *Plan de développement de la zone agricole de l'agglomération de Montréal*, 38 p. + appendices.

VILLE DE MONTRÉAL, 2015b. *Schéma d'aménagement et de développement de l'agglomération de Montréal*, 200 p. + appendices.

VILLE DE MONTRÉAL, 2018. *Profil sociodémographique – Recensement 2016 – Agglomération de Montréal*, 42 p.

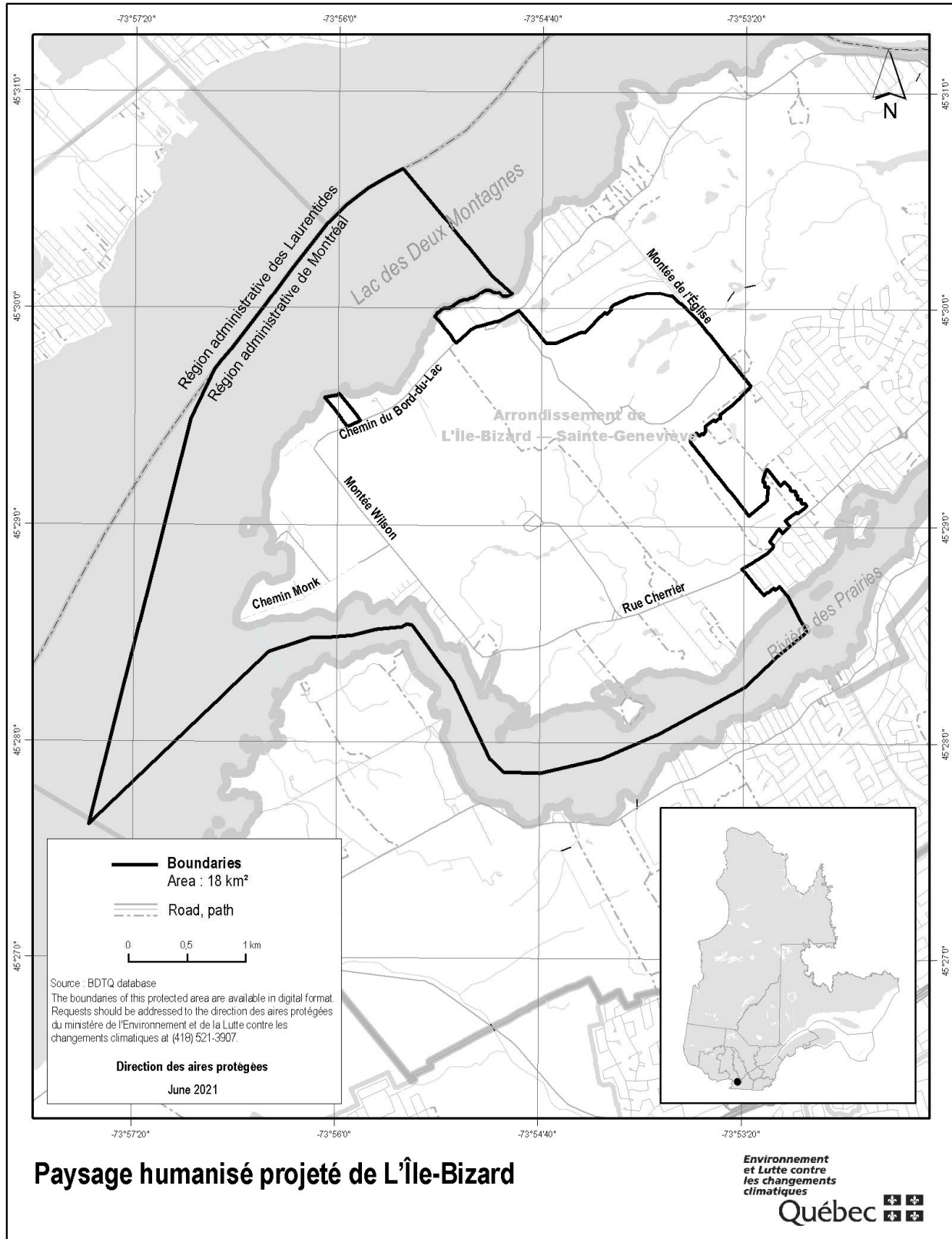
VILLE DE MONTRÉAL, 2019. *Portrait de la qualité des plans d'eau à Montréal : Bilan environnemental 2019*, 10 p.

VILLE DE MONTRÉAL, 2020a. *Plan stratégique Montréal 2030*, 72 p.

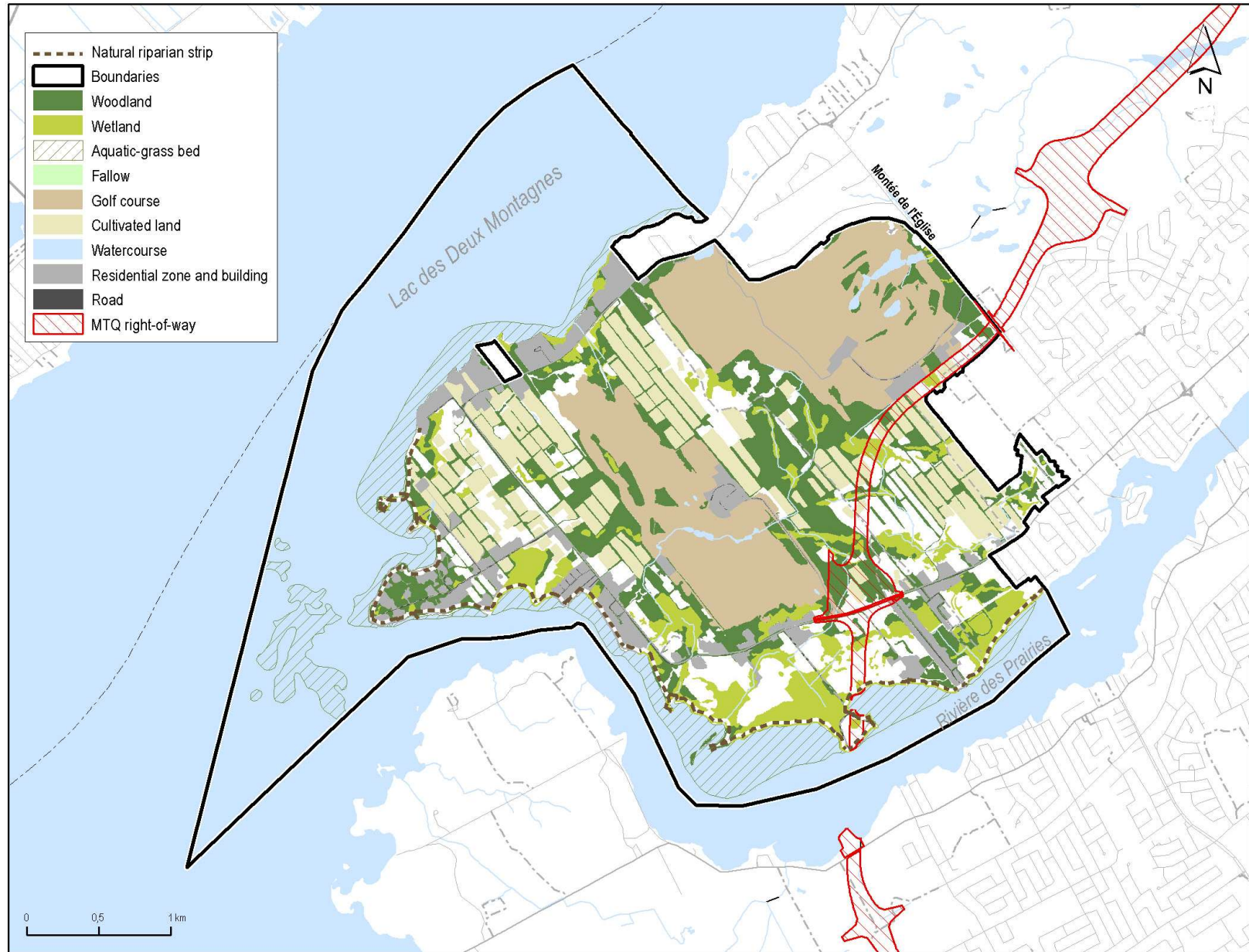
VILLE DE MONTRÉAL, 2020b. *Plan Climat 2020-2030*, 120 p.

VILLE DE MONTRÉAL et COPTICOM, 2021. *Paysage humanisé de L'Île-Bizard : Rapport de la consultation publique tenue au printemps et à l'été 2020*, 20 p.

## SCHEDULE 1: MAP AND LOCATION

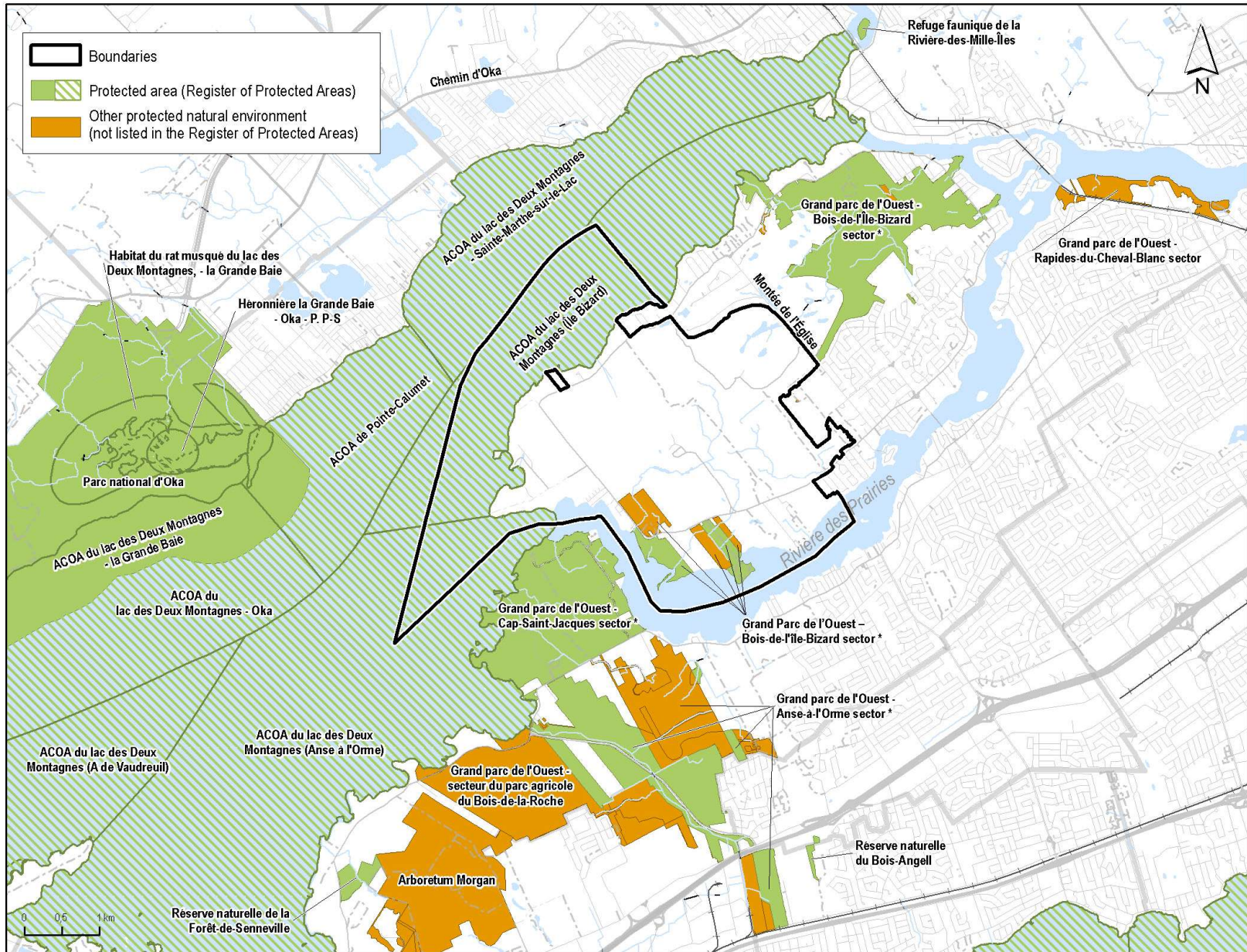


## SCHEDULE 2: LAND USE





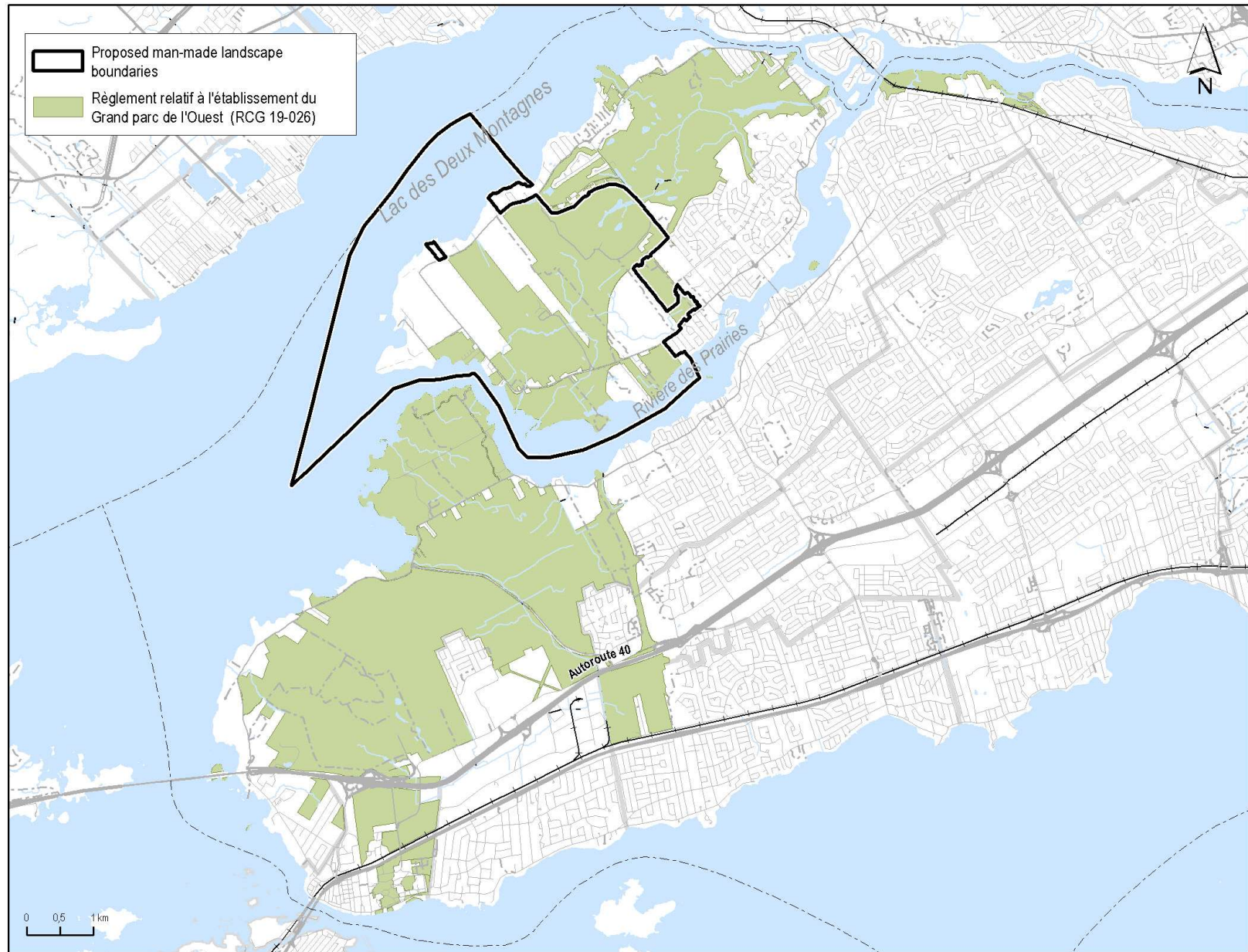
### SCHEDULE 3: ECOLOGICAL CONNECTIVITY



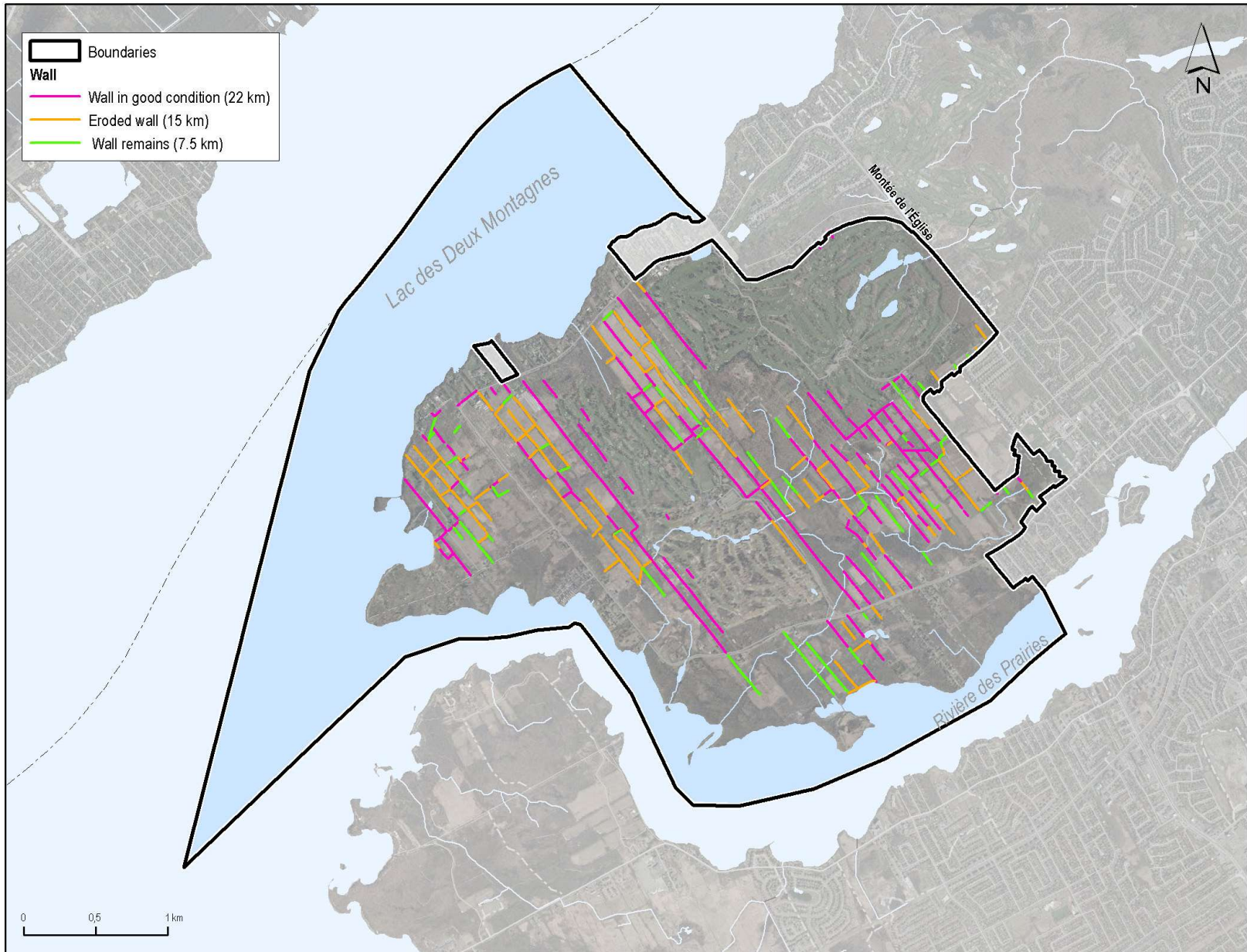
\* Area entered into the Québec Register of Protected Areas before 1999 for which validation will be required (green).



## SCHEDULE 4: CONTRIBUTION TO THE GRAND PARC DE L'OUEST PROJECT

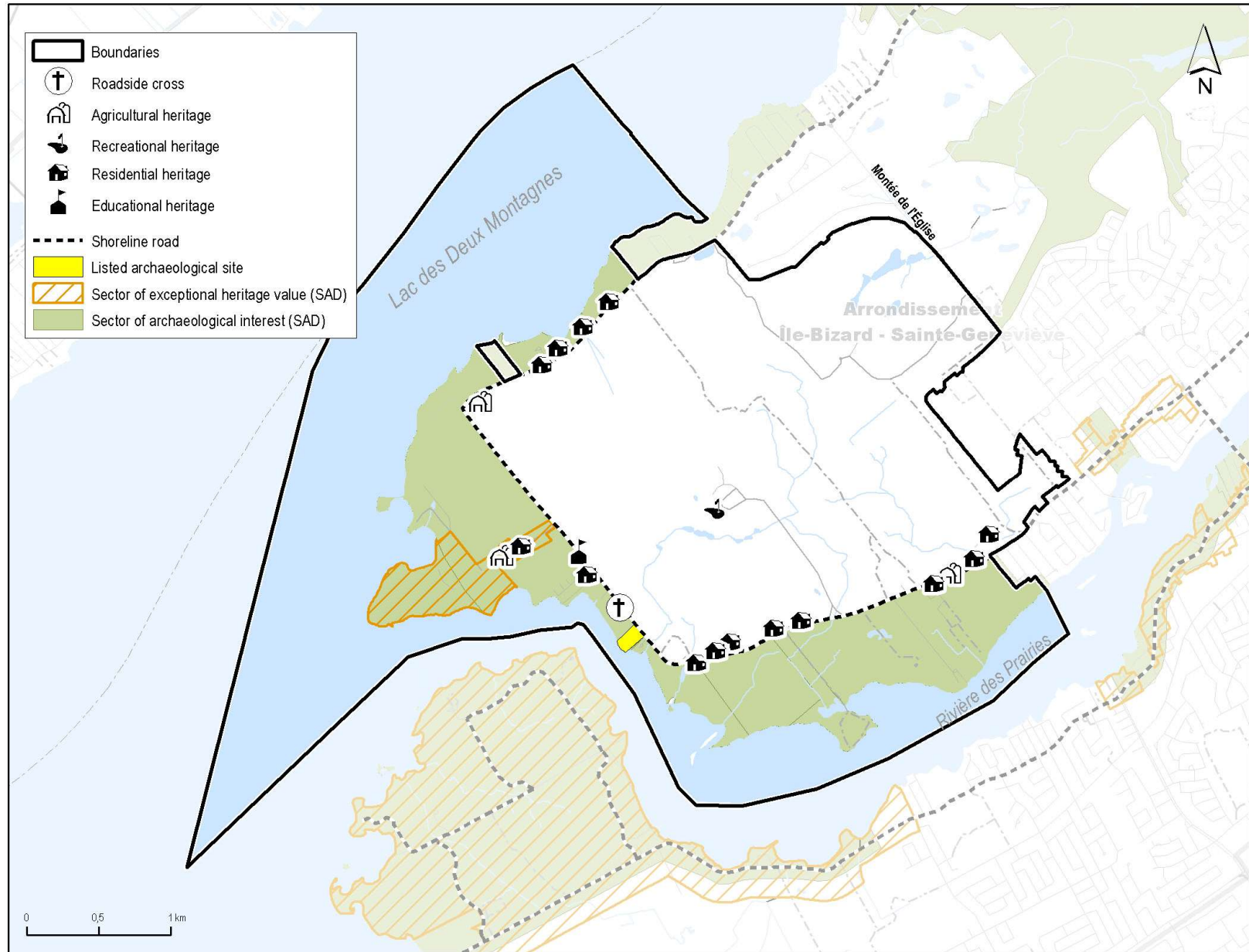


## SCHEDULE 5: CULTURAL HERITAGE (FIELDSTONE WALL NETWORK)

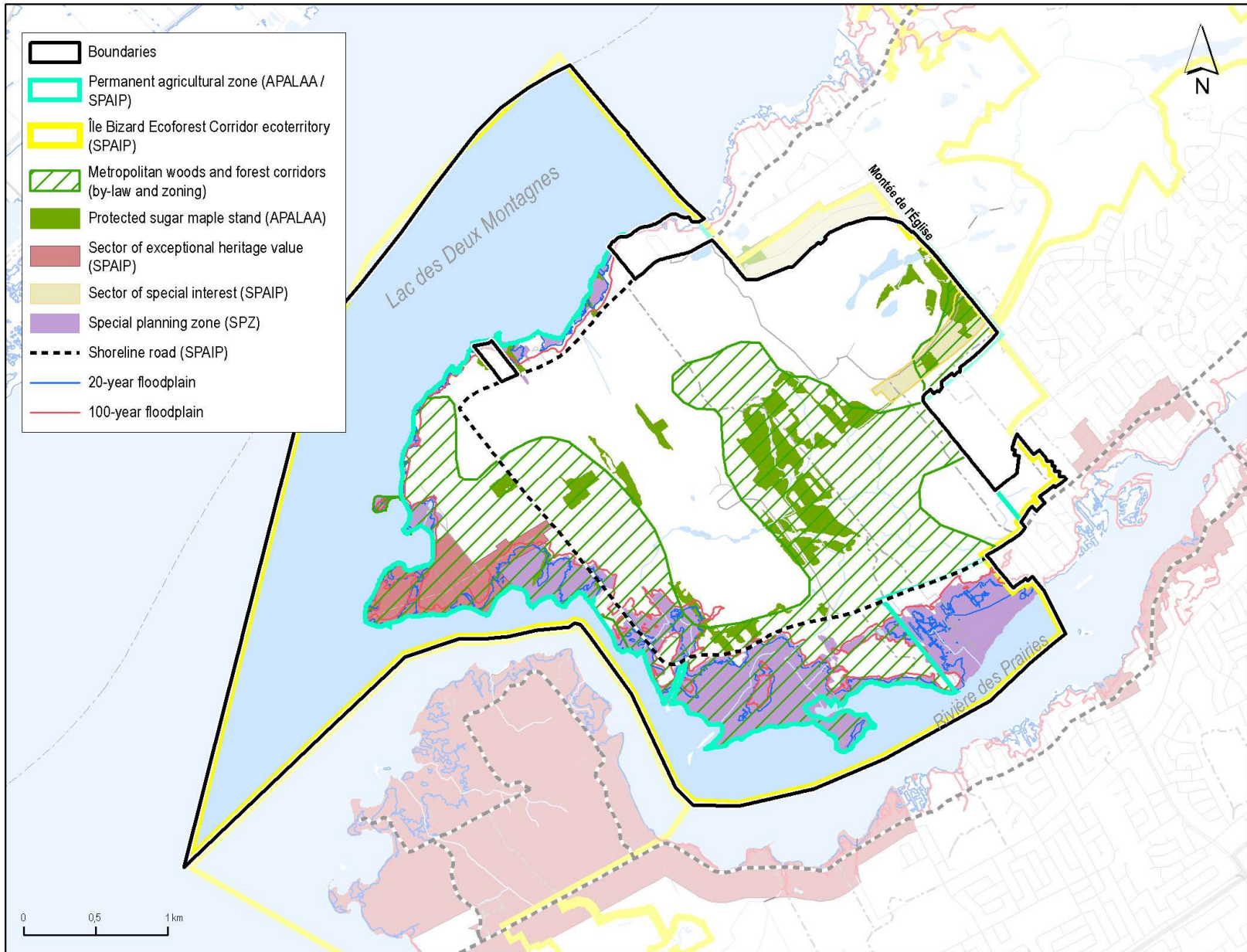




## SCHEDULE 6: CULTURAL HERITAGE (BUILDINGS AND ARCHAEOLOGY)



## SCHEDULE 7: AREA OF IMPLEMENTATION OF CERTAIN LEGISLATIVE AND REGULATORY PROVISIONS



## SCHEDULE 8: LOTS LOCATED WITHIN THE BOUNDARIES OF THE PROPOSED MAN-MADE LANDSCAPE

Lots (updated cadastre)			Lots – Permanent Agricultural Zone (updated cadastre)				
4 588 940	4 589 845	4 590 384	4 588 933	4 589 478	4 589 826	4 590 326	4 590 766
4 589 755	4 589 846	4 590 388	4 588 934	4 589 489	4 589 831	4 590 337	4 590 767
4 589 756	4 589 847	4 590 390	4 588 935	4 589 490	4 589 837	4 590 348	4 590 768
4 589 757	4 589 848	4 590 391	4 588 946	4 589 501	4 589 838	4 590 352	4 590 772
4 589 758	4 589 850	4 590 396	4 588 957	4 589 512	4 589 849	4 590 358	5 057 687
4 589 759	4 589 851	4 590 433	4 588 968	4 589 523	4 589 856	4 590 359	5 118 849
4 589 783	4 589 852	4 590 434	4 588 979	4 589 534	4 589 860	4 590 381	5 119 080
4 589 785	4 589 853	4 590 435	4 588 990	4 589 571	4 589 862	4 590 392	5 119 090
4 589 787	4 589 854	4 590 436	4 589 001	4 589 593	4 589 867	4 590 393	5 299 016
4 589 788	4 589 855	4 590 438	4 589 012	4 589 604	4 589 871	4 590 404	5 299 018
4 589 791	4 589 857	4 590 440	4 589 023	4 589 615	<b>4 589 873*</b>	4 590 415	5 299 021
4 589 792	4 590 313	4 590 441	4 589 034	4 589 616	4 589 882	4 590 426	5 299 022
4 589 794	4 590 314	4 590 442	4 589 045	4 589 627	4 589 893	4 590 437	5 299 023
4 589 795	4 590 316	4 590 443	4 589 046	4 589 638	4 589 904	4 590 448	5 368 567
4 589 796	4 590 317	4 590 444	4 589 057	4 589 649	4 589 915	4 590 459	5 368 568
4 589 797	4 590 318	4 590 445	4 589 068	4 589 660	4 589 926	4 590 470	5 426 462
4 589 798	4 590 319	4 590 446	4 589 079	4 589 671	4 589 937	4 590 481	5 426 463
4 589 799	4 590 320	4 590 447	4 589 090	4 589 682	4 589 948	4 590 492	
4 589 800	4 590 321	4 590 449	4 589 101	4 589 693	4 589 949	4 590 554	
4 589 802	4 590 322	4 590 567	4 589 111	4 589 704	4 589 960	4 590 555	
4 589 805	4 590 324	4 590 568	4 589 112	4 589 715	4 589 971	4 590 556	
4 589 809	4 590 325	4 590 569	4 589 114	4 589 726	4 590 004	4 590 557	
4 589 810	4 590 327	4 590 570	4 589 123	4 589 727	4 590 015	4 590 558	
4 589 812	4 590 328	4 590 591	4 589 134	4 589 738	4 590 026	4 590 561	
4 589 813	4 590 329	4 590 594	4 589 145	4 589 748	4 590 037	4 590 571	
4 589 816	4 590 330	4 590 602	4 589 156	4 589 749	4 590 048	4 590 578	
4 589 817	4 590 331	4 590 609	4 589 157	4 589 751	4 590 059	4 590 579	
4 589 818	4 590 332	4 590 614	4 589 168	4 589 752	4 590 060	4 590 587	
4 589 819	4 590 333	4 590 707	4 589 203	4 589 753	4 590 071	4 590 595	
4 589 820	4 590 334	4 590 708	4 589 204	4 589 754	4 590 093	4 590 596	
4 589 821	4 590 335	4 590 715	4 589 205	4 589 760	4 590 104	4 590 597	
4 589 822	4 590 336	4 590 757	4 589 207	4 589 761	4 590 115	4 590 598	
4 589 823	4 590 338	4 590 778	4 589 208	4 589 762	4 590 137	4 590 599	
4 589 824	4 590 339	4 590 779	4 589 212	4 589 763	4 590 148	4 590 600	
4 589 825	4 590 340	4 590 781	4 589 223	4 589 764	4 590 159	4 590 601	
4 589 827	4 590 341	4 590 814	4 589 267	4 589 768	4 590 170	4 590 603	
4 589 828	4 590 342	4 590 824	4 589 323	4 589 770	4 590 171	4 590 618	
4 589 829	4 590 343	4 590 825	4 589 334	4 589 771	4 590 182	4 590 709	
4 589 830	4 590 344	5 057 669	4 589 356	4 589 772	4 590 193	4 590 710	
4 589 832	4 590 345	5 057 675	4 589 367	4 589 773	4 590 204	4 590 711	
4 589 833	4 590 346	5 057 679	4 589 378	4 589 777	4 590 215	4 590 733	
4 589 834	4 590 347	5 915 758	4 589 379	4 589 779	4 590 226	4 590 734	
4 589 835	4 590 349	5 915 759	4 589 390	4 589 781	4 590 237	4 590 735	
4 589 836	4 590 350		4 589 401	4 589 782	4 590 248	4 590 736	
4 589 839	4 590 351		4 589 412	4 589 793	4 590 259	4 590 737	
4 589 840	4 590 353		4 589 423	4 589 804	4 590 270	4 590 761	
4 589 841	4 590 354		4 589 434	4 589 806	4 590 281	4 590 762	
4 589 842	4 590 355		4 589 445	4 589 807	4 590 293	4 590 763	
4 589 843	4 590 356		4 589 456	4 589 808	4 590 304	4 590 764	
4 589 844	4 590 357		4 589 467	4 589 815	4 590 315	4 590 765	

\*Relates only to the portion of the lot located inside the permanent agricultural zone.

## SCHEDULE 9: GLOSSARY

Terms used in the framework of the Conservation plan for the Paysage humanisé projeté de L'Île-Bizard:

**Biodiversity (biological diversity):** Variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems (United Nations Convention on Biological Diversity, Article 2).

**Conservation:** Body of practices that include protection, rehabilitation and sustainable use for preserving biodiversity, including restoring species and/or maintaining ecological services that benefit current and future generations (Limoges *et al.*, 2013).

**Ecological connectivity:** Unimpeded movement of species and natural processes that support life on Earth (Hilty *et al.*, 2020).

**Ecological integrity:** A condition that is determined to be characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of change and supporting processes (*Canada National Parks Act*, S.C. 2000, chapter 32).

**Ecosystem:** A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit (United Nations Convention on Biological Diversity, Article 2).

**Ecosystem services:** Benefits ecosystems provide to human beings, including food and water, the regulation of floods and drought, soil degradation and disease prevention and support services such as soil formation and nutrient cycles, as well as cultural, recreational, spiritual and religious services and other intangible benefits (Dudley, 2008).

**Ecoterritory:** Zone where natural spaces of ecological interest are found, whose protection has been deemed a priority, including existing protected areas (large parks, natural reserves, etc.), as well as urban spaces (Ville de Montréal, 2015b).

**Hedgerow:** Zone where fields and meadows are enclosed by hedges or stands of trees and where inhabitants are generally dispersed in farms and hamlets (Petit Larousse Illustré 2021).

**Heritage:** Any natural, cultural, tangible or intangible object or group of objects recognized by a community for their value as witnesses and/or historical memory capacity for bringing out their need to be protected, conserved, appropriated, emphasized and shared. (Politique du patrimoine de Ville de Montréal, 2005)

**Man-made landscape:** An area established “to protect the biodiversity of an inhabited area, whether land or water, where the landscape and its natural components have been shaped, over time, by human activities in harmony with nature and have distinctive features the conservation of which depends to a large extent on the continuation of the practices that originally shaped them” (*Natural Heritage Conservation Act*, chapter C-61.01).

**Protected area:** A clearly defined, recognized and official geographical space that is managed by any and all efficient, legal or other means in order to ensure the long-term conservation of the natural environment and its ecosystem services, and associated cultural values (Dudley, 2008)

The cultural values of a protected area include, in particular, those that contribute to the results of conservation, such as traditional management practices on which depend key and/or threatened species. Cultural values should not interfere with the results of conservation (Adapted from Dudley, 2008).

**Species in a precarious situation:** Includes species designated under the Act respecting threatened or vulnerable species (chapter E-12.01), species likely to be designated as threatened or vulnerable

(chapter E-12.01, r. 5), species designated under the federal Species at Risk Act (S.C. 2002, chapter 29), and species designated at risk by Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

**Sustainable use:** The use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations (United Nations Convention on Biological Diversity, Article 2).





**Environnement  
et Lutte contre  
les changements  
climatiques**

**Québec** 