



**A**  
SUSTAINABLE  
**FUTURE**



# Strategic Plan for Sustainable Development

**Borough of Pierrefonds-Roxboro**

05-21883

January 2012



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# Introduction

## Context

In 2010, the Ville de Montréal adopted its second Montréal Community Sustainable Development Plan. This plan sets the orientations and objectives for the next five years, thus until 2015. In this same document, Montréal invited the boroughs to equip themselves with their own local sustainable development plans.

With the desire to adopt best practices for sustainable development at the local level, the Borough of Pierrefonds-Roxboro answered the Ville centre's call and is very proud to present its very first Strategic Plan for Sustainable Development for 2012-2015. In conformity with the Montréal Community, the local plan for the Borough of Pierrefonds-Roxboro replicates the five orientations, indicating its particular contributions to the local issues and specifics of its own population, economy and environment.

## Approach by the Borough of Pierrefonds-Roxboro

In the spirit of sustainable development, the Borough of Pierrefonds-Roxboro chose a participative approach for drawing up its Strategic Plan for Sustainable Development. Five workshops were held, which took the form of days working with partners in the milieu, municipal employees and the Borough's elected officials. These workshops took place at key stages in the preparation of the Strategic Plan for Sustainable Development for the Borough of Pierrefonds-Roxboro.

### “Imagine Pierrefonds-Roxboro”

The aim of this first workshop was to reveal the main perceptions and issues particular to the Borough. Another goal was to define the vision for sustainable development in the community of Pierrefonds-Roxboro so as to take into consideration the aspirations of the population, the municipal employees and the players participating in sustainable development.

### “Read Pierrefonds-Roxboro”

This workshop provided an overall reading of the milieu by considering the issues and challenges identified during the first workshop. This analysis revealed the Pierrefonds-Roxboro community's strong points and concerns. Solution pathways were also identified to help in preparing the action plan.

### “Realize Pierrefonds-Roxboro”

The aim of the third workshop was to list the main objectives to be carried out in order to solidify the vision of the future that the community had chosen and to identify in a concrete fashion the actions required to attain these objectives.

### “Everyone on board” and the corporate workshop

Two activities specifically devoted to the Borough's officials were also held. The first was to provide the elected officials and department managers with a reading of the territory, focused on sustainable development, and the second was to have employees help find corporate solutions in order to introduce the principles of sustainable development into the Borough's internal workings.



## Thank you to our partners!

Many Borough partners, from the economic, environment, social and community sectors in the Borough contributed to the thinking process on the key steps for preparing the Strategic Plan for Sustainable Development. Consultation in the milieu is crucial in the framework of a strategic approach to sustainable development. It is essential that partners become involved at the conception stage, because they will then involve themselves in the process of implementing the plan.

The following contributed actively in the preparation of the Borough's Strategic Plan for Sustainable Development:

- Écoquartier Pierrefonds-Roxboro
- The Green Coalition
- Conseil régional de l'environnement (CRE) de Montréal
- Les entreprises environnementales Pierrefonds inc.
- West Island Health and Social Services Centre
- West Island Black Community Association
- Cloverdale Multi-Ressources
- Village Cloverdale Housing Coop
- Table de quartier du Nord-Ouest de l'Île de Montréal
- Commission scolaire Marguerite Bourgeoys
- Lester B. Pearson School Commission
- Centre d'intégration multi-services de l'ouest de l'île (CIMOI)
- La maison des jeunes A-MA-BAIE;
- Family Resource Centre
- La maison des jeunes de Pierrefonds
- Le Fonds de dépannage du Nord-Ouest de Montréal Carrefour 6-12 ans
- Volunteer West Island
- Projet communautaire de Pierrefonds
- Roxboro SIXTY + CLUB
- Action Jeunesse de l'Ouest-de-l'Île
- Carrefour des aînés
- Les doigts de fées de Pierrefonds
- Le Carrefour Jeunesse-Emploi de l'Ouest de l'Île
- Caisse Populaire Sainte-Geneviève de Pierrefonds
- Jardin Cléroux & Frères inc.
- René LeBlanc
- Jean-Louis Lacasse
- André Soudeyns
- Paul-Édouard Robert
- Raymond Charbonneau





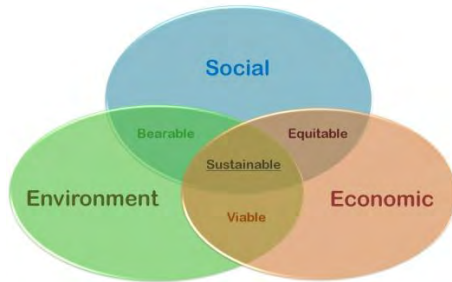
## Thank you to our employees!

The participation of our employees was also of utmost importance in the preparation of the Borough of Pierrefonds-Roxboro's Strategic Plan for Sustainable Development. They were involved in the various activities with the partners in the milieu, and they participated in a specific corporate workshop. Just as for the partners in the milieu, the involvement of municipal employees in the Strategic Plan for Sustainable Development was essential to ensure the implementation of the action plan and the adoption of the means to act and to follow up, in order to achieve the desired results.

The following people contributed actively to the preparation of the Borough's Strategic Plan for Sustainable Development:

- Rejean Aubé
- Marguerite Aubut
- Isabelle Beaudet
- Guy Bernard
- Denise Blanchard
- Marc Blondin
- Jacques Chan
- Suzanne Corbeil
- Julien De l'Étoile
- Alain Goulet
- Dominique Jacob
- Fabienne Labouly
- Claude Lachance
- Marthe Lemay
- Sylvain Marcoux
- Éric Massie
- Marco Papineau
- Stéphane Quesnel
- Pierre Rochon
- Hélène Yeung

# 1 Sustainable Development and Montréal’s Approach



Sustainable development is an internationally recognized concept. The Ville de Montréal subscribes to the definition resulting from the report by the World Commission on Environment and Development (Brundtland Report) titled *Our Common Future (1987)*. Sustainable development is defined thus: “...development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Two concepts are inherent to this notion:

- The concept of “needs”, and more particularly the essential needs of the most vulnerable, to whom it is agreed the greatest priority must be given, and
- The notion of the limits imposed by the present state of our technology and social organization on the environment’s ability to meet current and future needs.

Sustainable development presupposes economic development that is effective, socially equitable and ecologically sustainable, all based on a new form of governance that encourages the mobilization and the participation of all players in the society in the decision-making process.

Montréal’s approach is based on the following four guiding principles:

## 1. Community at the heart of sustainable development

The entire Montréal community is asked to help in implementing sustainable development. A sustainable development approach that incorporates this principle is built around a democratic and participative process.

## 2. Better quality of life

Sustainable development aims to improve living conditions and the quality of life in Montréal’s neighbourhoods, and in addition, reduce social inequalities. A sustainable development approach that incorporates this principle keeps the social objectives of sustainable development in perspective: social equity, the inclusion of all members of the community, and developing the potential of the community and the individual, necessary for implementing this type of development.

## 3. More environmental protection

Apart from protecting resources to ensure their exploitation, protecting the environment presupposes the prevention of pollution and the protection of natural and urban environments to keep ecosystems in balance. A sustainable development approach that incorporates this principle places the quality of the environment high on the list of concerns, and considers it to be the essential foundation for economic and social activities.

## 4. Sustainable economic growth

Optimal management of natural, human and financial resources encourages sustainable economic growth. A sustainable development approach that incorporates this principle takes external influences into account and places the human being at the heart of the economy.



## 2 Context

### 2.1 Portrait and diagnosis

The Borough of Pierrefonds-Roxboro covers an area of 27 km<sup>2</sup> and has a population of more than 65,000 residents. Situated in the north-western part of the Island of Montréal, the Borough of Pierrefonds-Roxboro stretches along Rivière des Prairies for a distance of 29.5 km, and borders in part Lac des Deux Montagnes. Due to its location and its stretch of waterfront, the Borough of Pierrefonds-Roxboro has several sites of natural interest to all Montréal residents.

The Borough's administrative boundaries are the result of a redrawing following the municipal demergers in 2004, which grouped together the former municipalities of Pierrefonds and Roxboro. The Borough has been one of the Ville de Montréal's 19 boroughs since January 1, 2006.

The Borough of Pierrefonds-Roxboro shares boundaries with several towns and cities that form part of the Montréal agglomeration (Senneville, Sainte-Anne-de-Bellevue, Kirkland, Dollard-des-Ormeaux) and with three of the Ville de Montréal's boroughs (L'Île-Bizard–Sainte-Geneviève, Saint-Laurent and Ahuntsic–Cartierville).

There are two main neighbourhoods on the territory of the Borough of Pierrefonds-Roxboro: Pierrefonds- East End/Roxboro and Pierrefonds-West End. Boulevard Saint-Jean forms the boundary between them. However, these two main neighbourhoods consist of several distinct living environments and they have populations with different sociodemographic characteristics.

Many services for the population are grouped within an institutional area that makes up the central sector of Pierrefonds-Roxboro: Borough Hall, the Pierrefonds Library, the CLSC, the Pierrefonds Cultural Centre and the Marcel Morin Centre. Despite the presence of these structuring components, large areas of land remain vacant (former site of the arena). This sector offers strong development potential, considering its location at the intersection of three structuring road axes in the Borough: boulevards Gouin, Pierrefonds and Saint-Jean.

The most extensive land use by far on the territory of Pierrefonds-Roxboro is housing, representing more than 95% of establishments<sup>1</sup> in the Borough. Characterized by low land use density, the most representative type of land use in the Borough is the single-family, detached home.

To support this residential use, stores devoted to the everyday needs of the local population are to be found along the main transportation axes. In particular among these are boulevards des Sources, Saint-Jean, Saint-Charles, de Pierrefonds and Gouin West.

Industrial use is rare on the territory of the Borough, with a few businesses situated on either side of Highway 13 south of the railway line.

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<sup>1</sup> Internal compilation by the Borough, March 2011.



### 2.1.1 Population

The population of the Borough of Pierrefonds-Roxboro numbered 65,041 residents in 2006. Compared to 2001, the population increased by 7.3% during this period. However between 1996 and 2001, growth was weaker, going from 45,743 to 58,936 residents - an increase of 2.8%.

It should be noted that the strongest population growth occurred between 1986 and 1996, going from 45,743 to 60,605 residents - an increase of 19.4%.

**Table 2.1 Total Population and Changes between 1966 and 2006**

Population	1966	1971	1976	1981	1986	1991	1996	2001	2006
<b>Pierrefonds-Roxboro</b>	35,854	40,645	42,508	44,682	45,743	54,614	58,936	60,605	65,041
<b>Change</b>	-	13.4%	4.6%	5.1%	2.4%	19.4%	7.9%	2.8%	7.3%

Source: Ville de Montréal, Statistics Directory, 2006.

In 2006, the Borough ranked 15<sup>th</sup> among the most populous boroughs of the Ville de Montréal. With a territory of 27.06 km<sup>2</sup>, the population density of Pierrefonds-Roxboro was about 2,404 residents per km<sup>2</sup>. This is lower than the density in Anjou or Verdun, but higher than that in Lachine, Saint-Laurent and L'Île-Bizard–Saint-Geneviève.

**Table 2.2 2006 Population – Area – Density**

	Rank	Population in 2006	Area (km <sup>2</sup> )	Density (res./km <sup>2</sup> )
<b>Côte-des-Neiges–Notre-Dame-de-Grâce</b>	1	164,246	21.44	7,661
<b>Villeray–Saint-Michel–Parc-Extension</b>	2	142,825	16.49	8,661
<b>Le Plateau-Mont-Royal</b>	7	101,054	8.13	12,430
<b>Saint-Laurent</b>	8	84,833	42.77	1,983
<b>Verdun</b>	14	66,078	9.72	6,802
<b>Pierrefonds-Roxboro</b>	<b>15</b>	<b>65,041</b>	<b>27.06</b>	<b>2,404</b>
<b>Lachine</b>	16	41,391	17.72	2,336
<b>Anjou</b>	17	40,891	13.68	2,989
<b>L'Île-Bizard–Sainte-Geneviève</b>	19	17,590	23.60	745
<b>Ville de Montréal</b>	-	1,620,693	365.17	4,438

Source: Ville de Montréal, Statistics Directory, 2006.

The slow population growth over the past few years is due to the fact that there are very few lots available for residential development. However, with the start of the **Pierrefonds Ouest** project, which is without doubt one of the largest in the Borough and in the Ville de Montréal, a demographic rise is forecast over the next few years. With an area of over 360 hectares, the Pierrefonds Ouest project is on the western edge of the Borough, between Boulevard Gouin and the southern boundary of Pierrefonds-Roxboro. The project includes the development of a new sustainable neighbourhood, with the construction of close to 6,000 new housing units, a commercial hub and the creation of a conservation park of over 180 hectares. The project's cornerstone is the conservation of the eco-territory and the Rivière à l'Orme forest corridor eco-system.

The low land use density observed in the Borough is a result of the lack of services in public transportation. This situation is general right across Montréal's West Island, where there is a strong dependence on the car.



### Age Groups

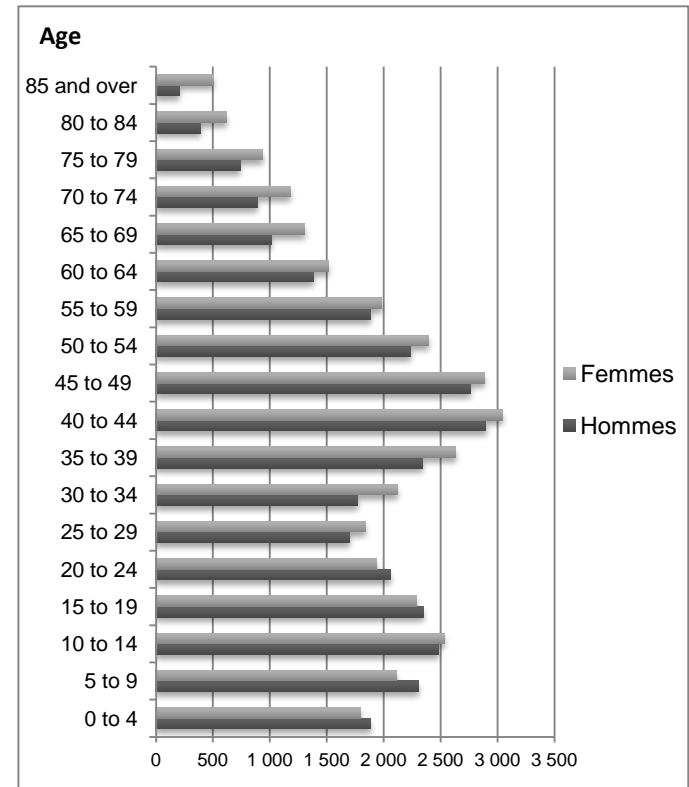
For many years, the Borough has been recognized as a sought-after living environment for families. The age brackets that are most strongly represented within the population are: those under 20 years of age, who represent 27.3% of the population, and those 35 to 64 years of age who represent 43.1% of the population of Pierrefonds-Roxboro. The percentage of seniors in the Pierrefonds-Roxboro population is 12.1%.

**Table 2.3 Age Groups - 2006**

Age	Men	Women	Total	%
0 to 4	1,890	1,800	3,690	5.7%
5 to 9	2,305	2,115	4,420	6.8%
10 to 14	2,485	2,535	5,020	7.7%
15 to 19	2,350	2,290	4,640	7.1%
20 to 24	2,065	1,940	4,005	6.2%
25 to 29	1,700	1,840	3,540	5.4%
30 to 34	1,775	2,125	3,900	6.0%
35 to 39	2,340	2,635	4,975	7.7%
40 to 44	2,900	3,045	5,945	9.1%
45 to 49	2,760	2,890	5,650	8.7%
50 to 54	2,240	2,395	4,635	7.1%
55 to 59	1,890	1,980	3,870	6.0%
60 to 64	1,385	1,520	2,905	4.5%
65 to 69	1,020	1,305	2,325	3.6%
70 to 74	890	1,180	2,070	3.2%
75 to 79	740	940	1,680	2.6%
80 to 84	395	625	1,020	1.6%
85 and over	205	505	710	1.1%
<b>Total</b>	<b>31,335</b>	<b>33,665</b>	<b>65,000</b>	<b>100.0%</b>

Source: Ville de Montréal, Statistics Directory, 2006.

**Table 2.4 Age Groups - 2006**



Source: Ville de Montréal, Statistics Directory, 2006.

One of the age groups that is least represented is that of young adults (20 to 29 years of age), which accounts for only 11.6% of the Borough's population. This tells us that most of them leave the Borough at the same time as they leave the family home.

Another age group for which the representation is marginal is that of seniors (65 years and over), which accounts for only 12.1% of the Borough's population. This situation may be related to the housing offer: the Borough is composed in the main of single-family homes (65%) compared to Montréal generally, where this proportion is 14%. This type of land use is ideal for families, but it may become restrictive for seniors.



## Family Types

18,200 families live in Pierrefonds-Roxboro, of which 15,105 are two-partner (83%) and 3,075 are single-parent families (16.9%). The average number of people per family is 3.1, one of the highest rates in the Montréal agglomeration. The Borough offers a living environment suited to the needs of families with numerous parks and open green spaces, a multi-cultural milieu, a school system that serves the population efficiently and access to a whole range of social and community services.

**Table 2.5 Families According to the Ages of Children Living at Home**

	Number	%
<b>Number of families</b>	18,200	100%
<b>Two-partner families</b>	15,105	83%
<b>Single-parent families</b>	3,075	16.9%
<b>Average number of people per family</b>	3.1	-
<b>Number of families with children</b>	12,575	69.1%
<b>Number of children living at home</b>	23,215	100%
<b>Under 6 years of age</b>	4,370	19%
<b>6 to 14 years of age</b>	8,640	37%
<b>15 to 17 years of age</b>	2,725	12%
<b>18 to 24 years of age</b>	4,910	21%
<b>25 years of age and over</b>	2,535	11%
<b>Average number of children per family</b>	1.8	-

Source: Ville de Montréal, Statistics Directory, 2006.

Family households can be broken down as follows: 5,580 families with partners have no children, while 9,500 families with partners have children. In total, there are 12,575 families with children (69.1% of families) in the Borough in which live 23,215 children. Within these families, the largest age group for children is that of the 6 to 14 year-olds, which has 8,640 children (37%).

Although Pierrefonds-Roxboro has many families, we observe a low representation by the 20-34 age groups. It may thus be said that the Borough is much less a sought-after area for first-time buyers and young families than previously, because the highest proportion for the number of children living at home is in the 6-14-year age bracket (37%).



### Households

In 2006, the Borough of Pierrefonds-Roxboro had 23,735 households. The average household size stayed at 2.7 people. Across the entire borough, the largest households were those composed of two people (29%); however a large proportion of households consisted of single people (23.4 %).

**Table 2.6** Sizes of and Changes in Households

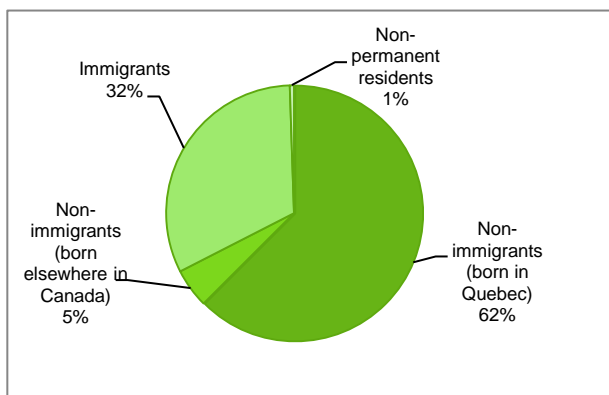
	2001	% 2001	2006	% 2006	Change 2001-2006
<b>Number of households</b>	22,105	100%	23,745	100%	7.4%
<b>1 person</b>	5,065	22.9%	5,560	23.4%	9.8%
<b>2 people</b>	6,565	29.7%	6,875	29.0%	4.7%
<b>3 people</b>	3,835	17.3%	4,200	17.7%	9.5%
<b>4 to 5 people</b>	5,870	26.6%	6,190	26.1%	5.5%
<b>6 or more people</b>	765	3.5%	905	3.8%	18.3%
<b>Average number of people in a household</b>	2.7	-	2.7	-	0%

Source: Ville de Montréal, Statistics Directory, 2006.

Considering that most housing units offered in the Borough are single-family homes, we should question the balance between the type of housing offered and the composition of households in the Borough.

### Immigration

**Graphic 2.7** Immigrant Status

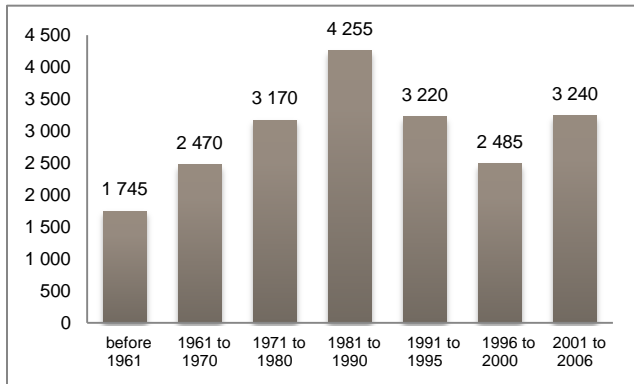


Pierrefonds-Roxboro is characterized by huge cultural diversity. In fact, 20,585 people were born outside Canada, which is almost one-third of the total population of the Borough (32%). In the non-immigrant population, 40,215 people were born in Québec (62%) and 3,195 people were born in another Canadian province (5%).

Source: Ville de Montréal, Statistics Directory, 2006.



**Graphic 2.8 Immigration Period**



Source: Ville de Montréal, Statistics Directory, 2006.

The period of largest immigration into the Borough of Pierrefonds-Roxboro took place between 1981 and 1990, when the number of immigrants rose to 4,255 people, or 20.7% of the total immigrant population. Longer-term immigrants, who arrived before 1961, were numbered at 1,745 people and accounted for 8% of the immigrant population. In addition, 3,240 people, or 16% of the immigrant population, arrived in Canada between 2001 and 2006. These new immigrants represent 5% of the Borough's total population. The main countries of origin of these people were India, Haiti and Egypt. New immigrants also came from Romania, Morocco and Pakistan.

According to the profiles of the electoral districts in Pierrefonds-Roxboro, more immigrants settled in the Borough's East End, which welcomed 63%, than in the West End, which welcomed 37%.

**Table 2.9 Territorial Distribution of Immigrants<sup>2</sup>**

	Number	East End	%	West End	%
<b>Immigrant population</b>	20,585	12,895	63%	7,710	37%

Source: Ville de Montréal, Statistics Directory, 2006.

As one person out of three was born outside Canada, it is essential for the Borough to ensure balanced representation in the services and activities offered to the population.

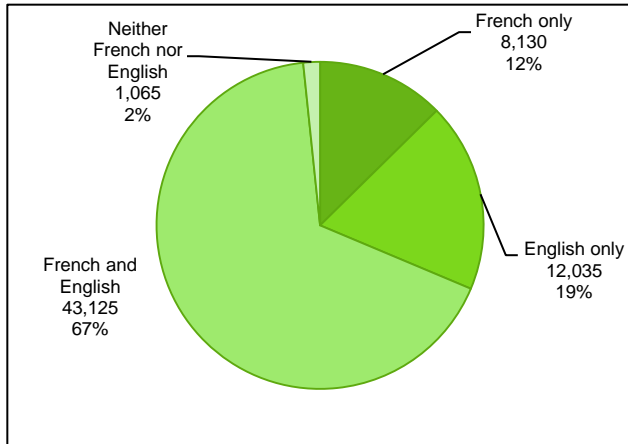
<sup>2</sup> Source: Division des affaires économiques et institutionnelles, Service de la mise en valeur du territoire et du patrimoine, Montréal en statistique, Profil de district électoral, édition 2009.





## Language

**Graphic 2.10 Knowledge of Official Languages**



Within the Borough, 66% of the population are able to hold a conversation in both French and English, 13% of the population are unilingual Francophones, while 19% are unilingual Anglophones. 2% of the population speak neither French nor English.

In regard to the language spoken most often in the home, 94.7% of people speak only one language. For 32.7% of the population, French is the language spoken most often in the home, while 45% speak English in the home. 16.9% speak another language in the home.

Source: Ville de Montréal, Statistics Directory, 2006.

### Knowledge of Official Languages

Otherwise, 3,415 people speak more than one language in the home (5.3% of respondents). Of these, 1,250 use both French and English, 650 use French and a non-official language, and 1,100 use English and a non-official language.

Given that the Borough's population is 67% bilingual, the municipal administration is the only borough in the Ville de Montréal to officially hold bilingual status.

## 2.1.2 Services to the population

### School Services

The Commission scolaire Marguerite-Bourgeoys, which has a sustainable development policy, offers Borough residents six elementary schools, and one high school for youth with psychosocial problems. There is no regular French public high school in the Borough. Young Francophones who wish to attend a French public high school are served by École secondaire Sources in Dollard-des-Ormeaux for those living in eastern Pierrefonds, and by École Saint-Georges in Senneville for those living in western Pierrefonds-Roxboro.

The Lester B. Pearson Anglophone School Commission has 6 elementary schools and 2 high schools in the Borough.

There are six private Francophone schools in the Borough of Pierrefonds-Roxboro: Collège Charlemagne and Collège Beaubois (elementary and secondary), Charles-Perreault school (elementary), Socrates school (elementary) and Le savoir school (secondary). Collège Beaubois, located in the eastern part of the Borough, does not offer its students a school bus service. This situation creates traffic problems around the institution.



École primaire Harfang-des-Neiges/Pavillon Pierre-Lauzon



Collège Charlemagne



[http://en.wikipedia.org/wiki/File:Pierrefonds\\_Comprehensive\\_High\\_School.jpg](http://en.wikipedia.org/wiki/File:Pierrefonds_Comprehensive_High_School.jpg)

Comprehensive High School

Problems with traffic congestion around schools have been observed in the case of many educational institutions, even when they offer school bus service. Across Québec, school bus service is not offered to students who live within a certain distance of the institution they attend. Thus many parents prefer to take their children to school by car rather than encouraging them to walk or cycle to school. There is reason to believe that parents deem the journeys to schools unsafe, unfriendly and inefficient.

## Community Centres

Three municipal buildings offer Borough residents the chance to rent rooms for events of all sizes (wedding receptions, anniversary parties, conferences, meetings and exhibitions). The Pierrefonds Cultural Centre, the Marcel Morin Community Centre and the Centre communautaire de l'Est. The first two are in the Central sector of the Borough of Pierrefonds-Roxboro, while the third is in the East End. At the present time, there is no community centre in the West End. However, premises attached to École St-Anthony and belonging to the Borough currently serve as a community centre for Pierrefonds-Roxboro's West End. Various community and sports organizations use these premises.

The Centre communautaire de l'Est was nominated for the Ordre des architectes du Québec's public's choice competition for the quality of its architectural design. In addition to being an essential community facility for the Borough, the building has ecological features that enhance its environmental performance: partial green roof, protection for the trees during construction, orientation of the interior spaces to optimize passive lighting, etc.

Many shows and conferences are held in these community centres, and certain churches in the Borough put on shows, concerts and conferences: for youth, popular and classical music, dances, variety shows, circus acts, Les Grands Explorateurs screenings, etc.



Pierrefonds Cultural Centre



Centre communautaire de l'Est



## Libraries

There are two libraries accessible to residents of Pierrefonds-Roxboro: one in Pierrefonds and one in Roxboro. The first is in the Central sector of the Borough, and the second is at 110, rue Cartier in the Roxboro sector.

The Pierrefonds library is due to be enlarged in 2013. In conformity with the Policy on Sustainable Development for buildings in the Ville de Montréal, this enlargement is aiming for LEED® Gold certification. The project consists of enlarging and redeveloping the Pierrefonds library with the aim of improving the existing library services and providing new services to the population.

The Borough of Pierrefonds-Roxboro is offering its residents a wide array of cultural activities for all ages through its two libraries: conferences, workshops, exhibitions, book sales, reading clubs, storytime for children, craft workshops, improvisation, etc.

The two libraries also offer free wireless Internet access, and the Pierrefonds library offers a home delivery service for people with reduced mobility: Le Portillon.



Pierrefonds Library



Roxboro Library

The Centre and East End of the Borough of Pierrefonds-Roxboro are well served in terms of library services. The West End sector of the Borough does not currently have a library. However, the Borough intends to determine the location of a satellite service point as part of developing the West End, which should begin in 2012 or 2013.

## Sports Activities

Through its numerous neighbourhood parks, the Borough offers its residents a wide variety of outdoor activities. Thus, 14 soccer fields and 11 tennis courts are accessible to the population of Pierrefonds-Roxboro.

The Borough of Pierrefonds-Roxboro does not have an arena on its territory. It offers recreational on-ice activities by means of an agreement with Sportplexe 4 Glaces, located on its territory. Ice rinks for hockey and for pleasure skating are erected in certain neighbourhood parks.

There are five outdoor swimming pools in Pierrefonds-Roxboro, but as in the case of the arena, there is no indoor pool.



Sportplexe 4 Glaces



Soccer tournament in Grier Park



Sports activities are offered in sufficient numbers to meet the needs of the population of the Borough. However it should be noted that the Borough does not own the arena and therefore does not have total control over the rates and over the ice time available.

## Organizations for Youth

As previously mentioned, 14.8% of the population of Pierrefonds-Roxboro is in the 10- to 19-year age bracket. It is therefore essential to provide several activities just for them.

Two youth centres offer activities for the teenagers of Pierrefonds-Roxboro: Maison des jeunes A-MA-BAIE and Maison des Jeunes de Pierrefonds, both located in the East End of the Borough.

Maison des jeunes À-MA-BAIE is in the heart of the Cloverdale sector of the Borough of Pierrefonds-Roxboro. The mission of this youth centre is to be a permanent meeting place, focusing on getting together, and on the development and blossoming of young people between the ages of 12 and 17 from a variety of cultures.<sup>3</sup>

Maison des Jeunes de Pierrefonds is a non-profit organization meant for users between the ages of 12 and 18. It offers educational, recreational and intercultural exchange activities. It also offers young people a safe, pleasant place where they can get together. The main objective of the Maison des Jeunes is to encourage young people to be active, critical and responsible, by participating in and organizing a variety of activities. In addition, Maison des Jeunes de Pierrefonds has a mandate for prevention in regard to social issues such as drug dependency, sexuality, nutrition, the gang phenomenon and violence.<sup>4</sup>

<sup>3</sup> Maison des jeunes A-MA-BAIE Web site. <http://mdjamaibaie.webnode.com/>, page consulted on November 30, 2011.

<sup>4</sup> Maison des jeunes de Pierrefonds Web site. <http://www.mdjpierrefonds.org/>, page consulted on November 30, 2011.





There is no youth centre in the West End of the Borough. Teenagers from western Pierrefonds-Roxboro may however visit the youth centres established in the East End of the Borough.

West Island Youth Action is another organization active in the Borough, and has as its mission the establishment and maintenance of street /neighbourhood worker programs (local) for youth at risk in the 12- to 25- year age bracket and/or in difficulty on the West Island.

Carrefour Jeunesse-Emploi Ouest-de-l'Île supports young adults, with the participation of partners in the milieu by offering a range of free bilingual services and programs aimed at social reinsertion, job searches, returning to studies and awareness of the entrepreneurial reality. Any adult between the ages of 16 and 35 is eligible for CJE services. Whether the young person has abandoned school or holds a high school diploma, whether he is jobless or undergoing training, the organization is meant for everyone without regard for the economic or social situation.<sup>5</sup>

### Integrating New Arrivals

In Pierrefonds-Roxboro, one person in three was born outside of Canada. The demand for integration and accompaniment services for new arrivals is therefore great.

The Centre d'Intégration Multi-services de l'Ouest-de-l'Île (CIMOI), in partnership with Emploi et Solidarité sociale Québec, Immigration et communautés culturelles Québec and the Agence de santé et des services sociaux de Montréal Québec, is a non-profit organization that works in the field of integration and comes to the aid of new arrivals.

Located in the East End of Pierrefonds-Roxboro, the CIMOI offers various services such as programs in the following fields:

- Employability programs and projects to help prepare for employment
- Francisation courses (full or part time)
- Integration activities (accompaniment program for new arrivals, exchange project in intercultural relations, help with homework, etc.)
- Social activities to counter isolation in new arrivals.

### Activities for Seniors

Concerned about the quality of life for seniors, the Borough, through Golden Age clubs, offers a variety of activities for seniors:

- Public skating for seniors at Sportplexe 4 Glaces
- Carrefour des aînés de Pierrefonds: bilingual meeting place for people 50 years of age or older. Meetings at the Marcel Morin Community Centre
- West Island 50+ Club
- Roxboro 60+ Club
- Sainte-Suzanne Seniors Club
- Pierrefonds Community Aid: non-profit organization that offers home help services to seniors in the Borough at a very reasonable rate.

<sup>5</sup> Carrefour jeunesse-emploi Ouest-de-l'Île Web site. <http://www.cjeouestile.qc.ca/Accueil.html>, page consulted on November 30, 2011.



## Services and Programs for People Living with a Disability

The Ville de Montréal and the 19 boroughs are committed, in their areas of jurisdiction, to making universal accessibility a reality. This approach has only one aim: for every person living with a disability to be able to take full advantage of everything in their borough. For information purposes, here is a sample of activities offered to people living with a disability:

- Accompaniment program for leisure activities: aimed at encouraging access to leisure activities for the handicapped who need accompaniment in order to participate
- Accompaniment sticker for tourist and leisure activities: this sticker allows free access to those accompanying people with a disability or a permanent mental health problem, during visits to listed tourist, cultural and recreational sites
- Inventory of people with reduced mobility for the Fire Prevention Department: This service consists of identifying and listing the elderly, the handicapped or people with mobility issues, so that in the case of a fire, fire-fighters can help them evacuate safely and quickly.

## Health Care Services

With leadership from the West Island Centre de santé et des services sociaux (CSSS), the following health care services are offered to Borough residents:

- Pierrefonds CLSC, at 13,800, Boulevard Gouin West
- Walk-in medical clinic on rue Saint-Pierre.
- For seniors who have lost their independence, the Denis-Benjamin-Viger seniors' home is in the neighbouring borough of L'Île-Bizard–Sainte-Geneviève.
- For hospital care, residents must also go outside the Borough, to the Lakeshore General Hospital, located in the City of Pointe-Claire.

## Food Banks

Although the average income for residents of the Borough of Pierrefonds-Roxboro is higher than the average for Montréal, there are several deprived areas in the Borough.

Three organizations are active in the Borough to help people suffering with food insecurity, and offer food bank services: Fonds de Dépannage du Nord ouest de Montréal (rue du Centre commercial in the Roxboro sector), the West Island Mission (Boulevard Saint-Jean) and On Rock Ministries (Boulevard Saint-Charles).



### 2.1.3 The economy and jobs

#### Income

In the Borough of Pierrefonds-Roxboro, the average income of people 15 years of age and over with an income is \$34,245 before taxes and \$27,177 after taxes. These amounts are significantly higher (13% and 11%) than the averages in Montréal generally, which are \$30,132 before taxes and \$24,982 after taxes.

Among the Borough's residents who are 15 years of age and over with an income, 40% earn less than \$20,000, while 15% have an income of \$60,000 or more.

**Table 2.11 Total Incomes Before and After Taxes in 2005**

	Total	%
<b>People 15 years of age and older with an income</b>	48,260	100%
<b>Less than \$10,000</b>	9,935	21%
<b>\$10,000 - \$19,999</b>	9,225	19%
<b>\$20,000 - \$29,999</b>	7,400	15%
<b>\$30,000 - \$39,999</b>	6,185	13%
<b>\$40,000 - \$49,999</b>	4,815	10%
<b>\$50,000 - \$59,999</b>	3,395	7%
<b>\$60,000 or more</b>	7,220	15%
<b>Pierrefonds-Roxboro</b>		
<b>Average income before taxes</b>	\$34,245	-
<b>Average income after taxes</b>	\$28,177	-
<b>Ville de Montréal</b>		
<b>Average income before taxes</b>	\$30,132	-
<b>Average income after taxes</b>	\$24,982	-

Source: Ville de Montréal, Statistics Directory, 2006.

In terms of income in private households, we can state that households in Pierrefonds-Roxboro are clearly more fortunate than those in Montréal generally; the average income before taxes rises to \$69,567, compared to \$51,842. In the Borough of Pierrefonds-Roxboro, 21% of households have an income of at least \$100,000.



**Table 2.12 Household Incomes Before and After Taxes in 2005**

	Pierrefonds-Roxboro	%	Ville de Montréal	%
<b>Private households with an income in 2005</b>	23,725	100%	738,870	100%
<b>Less than \$10,000</b>	860	4%	69,125	9%
<b>\$10,000 - \$19,999</b>	1,825	8%	111,635	15%
<b>\$20,000 - \$29,999</b>	2,385	10%	105,940	14%
<b>\$30,000 - \$39,999</b>	2,625	11%	97,995	13%
<b>\$40,000 - \$49,999</b>	2,505	11%	79,485	11%
<b>\$50,000 - \$59,999</b>	2,060	9%	60,800	8%
<b>\$60,000 - \$69,999</b>	1,930	8%	48,445	7%
<b>\$70,000 - \$79,999</b>	1,700	7%	36,140	5%
<b>\$80,000 - \$89,999</b>	1,490	6%	28,020	4%
<b>\$90,000 - \$99,999</b>	1,290	5%	20,700	3%
<b>\$100,000 or more</b>	5,005	21%	78,540	11%
<b>Average household income before taxes</b>	\$69,567	-	\$51,842	-
<b>Average household income after taxes</b>	\$57,234	-	\$42,993	-

Source: Ville de Montréal, Statistics Directory, 2006.

### Deprived Areas

Despite the fact that average incomes are higher than those in Montréal generally, other factors influence the quality of life of households, which is what the deprivation index for the Ville de Montréal takes into account. “This index qualifies deprivation according to two dimensions: economic deprivation and social deprivation. Three variables are taken into account for each of these dimensions: the average household income, the unemployment rate and the percentage of people who do not have a high school diploma, and the variables used to measure economic deprivation. The percentage of single-parent families, the percentage of single people and the percentage of people separated, divorced or widowed were used to measure social deprivation.”<sup>6</sup> [Translation]

Several deprived areas were observed in Pierrefonds-Roxboro. The first concentration is in the East End of Pierrefonds-Roxboro, south of Boulevard Gouin. The other deprived areas are along boulevards des Sources, Jacques-Bizard and Saint-Charles. These are very deprived areas, either on the material and social levels or on the material level alone.

<sup>6</sup> Indice de la défavorisation de la Ville de Montréal, 2006, Guy Bédard, April 2002.



## Jobs

In 2006, there were 9,745 jobs in Pierrefonds-Roxboro, which corresponds to 0.9% of jobs in the agglomeration of Montréal. The retail store sector is the most represented and accounts for 17% of jobs in the Borough. The health care and social assistance sectors account for 16.6% of jobs. In 2008, according to the Statistics Canada Business Register, there were 1,084 businesses in the Borough, which represents a 6.6% increase since 2001. The majority of companies are small businesses, because more than half (60%) of them have 1 to 4 employees. The following table lists the most representative businesses according to the economic sector.

**Table 2.13 Major Activity Sectors in Pierrefonds-Roxboro, 2009**

Economic Sectors	Number of Establishments	%
Services other than public administration	151	13.9%
Professional, scientific and technical services	149	13.7%
Retail stores	147	13.6%
Construction	105	9.7%
Health care and social assistance	100	9.2%
Lodging and food services	98	9%
Administrative services, support services, waste management services and wastewater services	72	6.6%
Wholesale stores	59	5.4%

Source: Liste des industries et commerces (LIC) de l'île de Montréal, December 2009, special compilation, Ville de Montréal.



Retail stores, Boulevard Saint-Jean



Retail stores, Boulevard de Pierrefonds



The following table shows the largest employers in terms of the number of employees they had in 2009.

**Table 2.14 Major Employers in Pierrefonds-Roxboro, 2009**

Employers	Number of Employees
Ville de Montréal (Borough of Pierrefonds-Roxboro)	500 and over
C.L.S.C. Pierrefonds	200-499
Loblaws	200-499
Collège Beaubois	200-499
Collège Charlemagne	100-199
Polyvalente Pierrefonds / Pierrefonds Comprehensive High School	100-199
Marché Adonis	100-199
Centre de réadaptation Lisette-Dupras	100-199
Manoir Pierrefonds	100-199
CHSLD de Pierrefonds	100-199
Purcell Academy	50-99
Riverdale High School	50-99
Métro Alimentation Gouin	50-99
Rôtisserie St-Hubert	50-99
CHSLD du Manoir de l'Ouest-de-l'Île	50-99

Source: Liste des industries et commerces (LIC) de l'île de Montréal, December 2009, special compilation, Ville de Montréal.

Service and retail sales businesses are for the most part situated along the main transportation axes, i.e., boulevards des Sources, Saint-Jean, Saint-Charles and de Pierrefonds. There are also a few businesses dotted along Boulevard Gouin. Several of the Borough's residential sectors have no services nearby, which means major distances must be travelled to purchase everyday consumption needs.

Apart from the service and retail sales businesses, there remains very little space for businesses that might generate jobs. The sole employment sector (industrial) in the Borough is located on either side of Highway 13 south of the railway line.



## 2.1.4 Housing market

### Construction Periods

The Pierrefonds sector was agricultural up until the 1960s, when the land began to be sold for housing development. It was at this time that the new town of Pierrefonds (1958) underwent a major urbanization boom, which lasted until the 1980s. The Borough of Pierrefonds-Roxboro saw the biggest wave of residential construction between 1961 and 1970, when 27% of the housing units were built. By comparison, this percentage rose by 20.2% for the Ville de Montréal.

However, housing units built before 1961 are less numerous in the Borough, where they constitute 17.4% of the housing stock, while in Ville de Montréal generally, the percentage is 46.2 %.

**Table 2.15 Construction Period**

	Construction Period	Before 1961	1961 to 1970	1971 to 1980	1981 to 1990	1991 to 2000	2001 to 2006
<b>Pierrefonds-Roxboro</b>	23,740	4,140 17.4%	6,400 27.0%	3,740 15.8%	4,675 19.7%	2,705 11.4%	2,015 8.5%
<b>Ville de Montréal</b>	739,260	341,635 46.2%	149,245 20.2%	93,585 12.7%	87,090 11.8%	38,600 5.2%	27,480 3.7%

Source: Ville de Montréal, Statistics Directory, 2006.

### Type of Construction

In the Borough, 65% of housing units are single-family homes, while 35% are in multi-family buildings. For the Ville de Montréal generally, these percentages are clearly different, with 14% of buildings being single-family homes and 86% multi-family buildings.

**Table 2.16 Proportions of Single-and Multi-family Buildings in 2006**

	Number of housing units according to construction type	Single-family homes	Multi-family buildings
<b>Pierrefonds-Roxboro</b>	23,725	15,370 65%	8,390 35%
<b>Ville de Montréal</b>	742,785	101,840 14%	641,015 86%

Source: Ville de Montréal, Statistics Directory, 2006.



Multi-family homes, Roxboro sector



Affluent single-family homes, Héritage sur le lac



Single-family homes, Domaine des brises



### Tenure and Income devoted to Housing Costs

Most of the housing units in the Borough of Pierrefonds-Roxboro are privately owned homes. Of the 23,740 units in the Borough, 6,950 are occupied by tenants; this represents 29% of all housing units. 16,780 (71%) of all the Borough's housing units are occupied by their owners.

These rates are inversely proportional to those of the Ville de Montréal generally. The units are large, and the average number of rooms per unit is 6.4 rooms. This is somewhat higher than in the Ville de Montréal generally, where the average number is 4.7 rooms per housing unit.

**Table 2.17 Private Housing Units Occupied in 2006**

	No. of private housing units	Owned		Rented		Average number of rooms per unit
<b>Pierrefonds-Roxboro</b>	23,730	16,780	71%	6,950	29%	6.4
<b>Ville de Montréal</b>	739,325	254,620	34%	484,555	66%	4.7

Source: Ville de Montréal, Statistics Directory, 2006.

34.4% of rental households spend at least 30% of their income on rent. This is likely the same for all households in the Montréal agglomeration.

**Table 2.18 Housing Costs for Rental Households**

Housing costs for rental households	Pierrefonds-Roxboro	Montréal Agglomeration
<b>Average gross rent for housing units occupied by one tenant</b>	\$674	\$661
<b>Rental households devoting at least 30% of their income to gross rent</b>	2,395 (34.4%)	198,015 (38.6%)
<b>Average gross rent for single-family rental households</b>	\$718	\$702
<b>Single-family rental households devoting at least 30% of their income to gross rent</b>	985 (27.7%)	59,580 (28.1%)

Source: Statistics Canada, 2006 Census



**Table 2.19 Housing Costs for Owner Households**

Housing costs for owner households	Pierrefonds-Roxboro	Montréal Agglomération
<b>Average value of owner-occupied housing units</b>	\$252,425	\$306,391
<b>Average owner's expenditures</b>	\$1,004	\$1,042
<b>Households devoting at least 30% of their income to property expenditures</b>	3,035 (18.1%)	66,005 (21.0%)
<b>Average property expenditures for single-family households (in \$)</b>	\$1,037	\$1,098
<b>Single-family households devoting at least 30% of their income to housing costs</b>	1,940 (15.2%)	36,885 (16.8%)

Source: Statistics Canada, 2006 Census

The housing market in Pierrefonds-Roxboro is similar to that of the Montréal agglomération. The reason why the Borough is not the first choice for young families lies mainly in the cost of purchasing a home. Also, the almost certain need for a second vehicle undoubtedly influences this choice. Public transit is not very efficient, and few jobs are available in the Borough, which means that most households own more than one vehicle. Considering that the average annual cost of running a car is \$10,000<sup>7</sup>, many households with more modest incomes opt for a living environment closer to their work, or one that is easily accessible by public transit.

<sup>7</sup> \$8,500; costs for a pick-up truck are \$11,600, for an annual distance of 18,000 km. Fuel costs represent about 17% of these expenses. CAA Québec.



### Affordable and Social Housing

Pierrefonds-Roxboro has 1,414 social and community housing units<sup>8</sup>. These housing units are located mainly in the East End of the Borough. Social and community housing units represent 6.0% of all housing units (occupied in 2006) and 20.3% of rental units; the percentages for the Ville de Montréal are 7.1% and 10.8% respectively. It should be noted that there is no public housing, such as HLM (low-rent units) or other public housing, in Pierrefonds-Roxboro. Of the 1,414 social and community housing units, 707 are NPOs and the other 707 units are in housing coops, located mainly in the Cloverdale sector.

**Table 2.20 Social and Community Housing**

	Number of private units occupied	Number of rental units	Social and community housing units	% of housing units	% of rental units
<b>Pierrefonds-Roxboro</b>	23,730	6,950	1,414	6%	20%

Source: Ville de Montréal, Statistics Directory, 2006.

The Cloverdale sector, also known as A-MA-BAIE, is in the East End of the Borough. This Borough neighbourhood, which has no neighbourhood stores, and where access to public transit is difficult, is tucked between the City of Dollard-des-Ormeaux and the Bois-de-Liesse Nature Park.

Cloverdale is the largest coop housing development in Canada. For several years, its administrators, in concert with Borough officials, have made notable improvements to the neighbourhood: major renovations to almost all of the buildings, construction of new buildings for families and seniors, installation of a basketball court, introduction of urban agriculture, etc.



Apartments for seniors, Cloverdale Coop Housing



Apartments for large families (7 rooms), Cloverdale Coop Housing



Basketball court, Cloverdale sector

<sup>8</sup> Direction de l'habitation, Service de la mise en valeur du territoire et du patrimoine, Profil statistique en habitation de l'arrondissement de Pierrefonds-Roxboro, May 2009.





### 2.1.5 Accessibility and transportation

The Borough of Pierrefonds-Roxboro is accessible from Highway 40 via boulevards Saint-Charles, Saint-Jean, des Sources and Sunnybrooke. The only highway infrastructure on the territory of the Borough is a short stretch of Highway 13, at its eastern end. The Borough Charter identifies the right-of-way reserved for Highway 440; the construction of such an urban road axis would open up a large section in the West End of the Borough.

On account of the elongated shape of the Borough's territory, and the street layout typical of the suburbs (many dead-end streets, roads that avoid straight lines as much as possible), there are very few thoroughfares for east-west traffic. The only road that crosses the entire territory of the Borough is Boulevard Gouin. Another major axis is Boulevard de Pierrefonds, which begins near the intersection between boulevards Gouin and des Sources and which ends at the right-of-way reserved for Highway 440 at the extreme western edge of the Borough. Chemin de la Rive-Boisée and Boulevard Lalande both run along the banks of Rivière des Prairies in the East End portion of the Borough.

Highway systems form a spine for a city and the neighbourhoods in it. The system for Pierrefonds-Roxboro was designed during the post-war years, and at this time the car was the focus of attention in urban development; the consequences seen today are the following:

- Few continuous east-west links on the territory of the Borough
- Distances have increased, due to the form of the street layout, which does not favour journeys by active modes of transportation
- Few pedestrian walkways to encourage walking
- Difficulty in interconnecting among the neighbourhoods
- Confusion in the highway hierarchy
- Street layout that is not very favourable for density and thus for an efficient public transit service.



Boulevard des Sources



Boulevard Gouin



Boulevard de Pierrefonds





## Proposed Projects in the Montréal Transportation Plan

The Transportation Plan for the Ville de Montréal includes the following interventions in the road network on the territory of the Borough of Pierrefonds-Roxboro:

**“Extending Boulevard de Pierrefonds:** The West End’s arterial grid will be expanded by extending Boulevard de Pierrefonds west of Avenue du Château-Pierrefonds in line with urban development, to support the Pierrefonds Ouest residential development.

**Extending Boulevard Jacques-Bizard to Highway 40:** This extension will connect Boulevard de Pierrefonds and Highway 40, will create a complete interchange with the highway and connect to Rue Stillview to the south. This expansion of the arterial grid will provide for a better distribution of traffic among the sector’s major corridors.

**Creating a Boulevard within Highway 440’s Right-Of-Way:** An urban boulevard will be installed within Highway 440’s right-of-way, between Boulevard Gouin West and Highway 40, to support the residential development in western Pierrefonds. It will also connect with Boulevard de Pierrefonds and rue Antoine-Faucon. The project will include redevelopment of the Sainte-Marie/Anse-à-l’Orme interchange.”<sup>9</sup>

## Modes of transportation used by Pierrefonds-Roxboro residents

For daily journeys, the car is the favourite mode for Pierrefonds-Roxboro residents (76.3%), followed by public transit (13.6%), other forms of motorized transportation (7.6%) and finally, active modes (5.8%).

**Table 2.21 Journeys According to Motive, 2008**

Journeys according to motive	From PR	Towards PR
<b>Work</b>	23.8%	7.3%
<b>Studies</b>	14.1%	10.5%
<b>Leisure</b>	7.2%	5.5%
<b>Shopping</b>	7.4%	5.2%
<b>Other (except return journey)</b>	13.7%	15.4%
<b>Return home</b>	33.7%	56.1%

Source: Mobilité des personnes dans la région de Montréal Enquête Origine-Destination 2008, version 08.2a

With a population of 65,718 and an average of 1.57 cars per housing unit, or 0.57 cars per person, the Borough demonstrates a strong dependence on cars. 7.8% of households do not own a car, 42.3% own one car, 39.6% own two, 7.6% own three and 2.7% own four or more.

<sup>9</sup> Ville de Montréal, Transportation Plan, 2008. P.138.

**Table 2.22 Journeys According to Mode, 2008**

Per mode over a 24-hour period	From PR	Towards PR
<b>Motorized</b>	94.1%	90.6%
<b>Car</b>	76.3%	78.1%
<b>Driver</b>	79.7%	75.0%
<b>Passenger</b>	20.3%	25.0%
<b>Public transit</b>	13.6%	5.0%
<b>Metro</b>	31.6%	10.9%
<b>STM bus</b>	65.6%	82.0%
<b>Train</b>	42.4%	21.6%
<b>STL, RTL, CIT</b>	0.2%	0.0%
<b>Bimodal</b>	23.9%	15.9%
<b>Other motorized</b>	7.6%	8.4%
<b>Non-motorized</b>	5.8%	9.3%

Source: Mobilité des personnes dans la région de Montréal Enquête Origine-Destination 2008, version 08.2a

Although the Borough has two commuter train stations on its territory, the mode of public transit favoured by Pierrefonds-Roxboro residents is the STM bus.

### Commuter Train

The Borough is accessible by public transit via the two commuter train stations on its territory. Both these stations are in the East End portion: Sunnybrooke Station and Roxboro-Pierrefonds Station (Deux-Montagnes line). The Deux-Montagnes line carries almost 7.7 million passengers per year and represents 49% of the total ridership for the Agence Métropolitaine de Transport (AMT).

**Table 2.23 Parking Spaces and Ridership (2008 et 2009)**

Station	Incentive parking lots			Ridership
	N° of bike spaces (2009)	N° of car spaces (2009)	Rate of occupancy (2008)	2008
Roxboro-Pierrefonds	51	959	100%	1,535,600
Sunnybrooke	21	524	95%	864,400

Source: AMT, PTI 2010-2011-2012

The commuter train on the Borough's territory is used more by people living outside the Borough who leave their cars in the AMT's incentive parking lots. To benefit the Borough, an urban requalification based on Transit-Oriented Development (TOD) principles should be undertaken. The AMT's incentive parking lots at the Roxboro-Pierrefonds and Sunnybrooke stations would then benefit from a redevelopment so as to add green spaces (planted medians and trees). These immense parking lots are the major source of heat islands in the Borough. Moreover, the one-time purchase of land would help to deconstruct the urban form around these stations.

To meet the potential demand, estimated at over 45,000 passengers a day on the Deux-Montagnes line, the AMT is planning the following interventions:

The AMT is studying the opportunity to install a new commuter train station on the Deux-Montagnes line, for which the exact location remains to be determined, but which would be close to Highway 13. “Introducing new 2-level carriages and bi-modal engines is a pre-requisite for adding this new station. However, the AMT plans to invest in this project depending on the results of negotiations for and an agreement on a financial partnership among all the partners.”<sup>10</sup> [Translation]

The AMT is also planning construction work between the Bois-Franc and Roxboro-Pierrefonds stations to twin the railway line “...in order to avoid conflicts such as trains meeting on the single line at this location. This project consists of twinning the existing railway line by adding an additional line over a distance of 7.5 km (rail bed, rails, railway signals, electrification). It will allow people to board the trains travelling in the opposite direction during rush hours. The frequency of trains will be increased on this line, thereby increasing the capacity and the ridership. This will translate into better service for users on the Island of Montréal.”<sup>11</sup> [Translation]

Construction of an extra platform is planned for the Sunnybrooke station, deemed essential, once the construction of the new railway line between Bois-Franc and Roxboro-Pierrefonds stations has been completed. This will allow trains to be boarded in both directions, thus the trains travelling in the opposite direction during rush hours.”<sup>12</sup> [Translation]

These structural components for public transit are major hubs of attraction and create pressure to build new incentive parking lots. Considering that Pierrefonds-Roxboro residents use the bus more than the commuter train when they travel by public transit, we can suppose that a large portion of the clientele at the Pierrefonds-Roxboro train stations comes from outside the Borough. Effectively, the Pierrefonds-Roxboro train stations are both located inside Zone 2 (\$96 per month, regular fare), delineated by the AMT, while all the stations in Laval are in Zone 3 (\$113 per month, regular fare).<sup>13</sup>



Roxboro-Pierrefonds Station



Roxboro-Pierrefonds Station



Sunnybrooke Station

<sup>10</sup> AMT, Programme triennal d'immobilisation (PTI) 2010-2011-2012 AMT, p.55.

<sup>11</sup> AMT, Programme triennal d'immobilisation (PTI) 2010-2011-2012 AMT, p.57.

<sup>12</sup> AMT, Programme triennal d'immobilisation (PTI) 2010-2011-2012 AMT, p.57.

<sup>13</sup> AMT web site. [http://www.amt.qc.ca/titres\\_tarifs/zones.aspx](http://www.amt.qc.ca/titres_tarifs/zones.aspx), page consulted on December 6, 2011.



The sectors around commuter train stations are strategic areas for *Transit-Oriented Development* (TOD). This type of development, dependent on the presence of a facility or heavy infrastructure for public transit, favours high land use densities, mixed use and urban design that encourages the use of active transportation. Besides, all commuter train stations are targeted for this type of development in the Plan métropolitain d'aménagement et de développement (PMAD) by the Communauté métropolitaine de Montréal. A minimum threshold for land use density of 40 housing units per gross hectare is prescribed for areas surrounding the Borough's two stations.

## Bus and TrainBus

Several bus routes serve the Borough. Despite their number, many of them only offer service at peak periods, during the morning and evening rush hours, while others offer no service on the weekend. Bus frequency (outside the rush hour) is generally every 30 minutes.

**Table 2.24 Bus and TrainBus Routes**

Line	Departure/Arrival Points	Frequency
68 Pierrefonds	Hôpital du Sacré-Cœur via the Sunnybrooke and Roxboro-Pierrefonds commuter stations / Anse-à-l'Orme Nature Park	Variable
201 Saint-Charles / Saint-Jean	Auto Plaza via the Beaconsfield Station/ Fairview Terminus	± 30 minutes
205 Gouin	Fairview Terminus / Roxboro-Pierrefonds Station	± 30 minutes
206 Roger-Pilon	Fairview Terminus / Roxboro-Pierrefonds Station	30 minutes
207 Jacques-Bizard	Fairview Terminus / Chevremont	± 30 minutes
208 Brunswick	Fairview Terminus via Sunnybrooke / Roxboro-Pierrefonds Station	± 30 minutes
209 des Sources	Montréal International Airport-Trudeau via Dorval Station Terminus / Roxboro-Pierrefonds Station	Monday to Friday ± 30 minutes
213 Parc-industriel-Saint-Laurent	Côté-Vertu Metro, via the Sunnybrooke and Roxboro-Pierrefonds stations / Place Riviera	Rush hour service (a.m. and p.m.)
214 des Sources	Du Collège Metro / Anselme-Lavigne	Monday to Friday Rush hour service (a.m. and p.m.) ± 20 minutes
218 Antoine-Faucon	Château-Pierrefonds / Fairview Terminus	Monday to Friday Rush hour service (a.m. and p.m.) 30 minutes
261 TrainBus Saint-Charles	Beaconsfield Station / Collège Gérald-Godin	Monday to Friday Rush hour service (a.m. and p.m.)
265 TrainBus Île-Bizard	Roxboro-Pierrefonds Station / Chevremont	Monday to Friday Rush hour service (a.m. and p.m.)
268 TrainBus Pierrefonds	Côté-Vertu Metro, via the Sunnybrooke and Roxboro-Pierrefonds stations / Filtration plant	Monday to Friday ± 30 minutes
470 Express Pierrefonds	Gouin (Filtration Plant) / Côte-Vertu Metro	6 minutes or less in rush hours

Source: STM Web site (<http://www.stm.info/info/plans.htm>), consulted on July 27, 2011.

## Bicycle Network

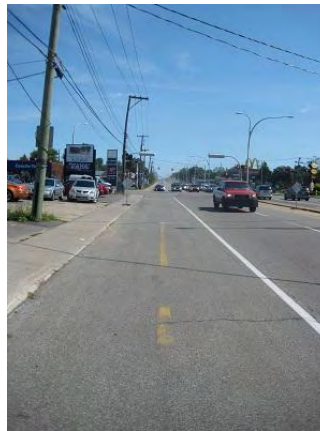
The Borough of Pierrefonds-Roxboro has more than 23 kilometres of bike paths. Bike paths are the responsibility of the Ville centre. There are three types:

- **Designated roadway:** A designated roadway is a road officially recognized as a bikeway, shared by cyclists and motorists.
- **Bike lane:** A bike lane is a lane reserved for cyclists, on the road itself. It is delineated by a white stripe painted on the road surface with bike pictograms and arrows indicating the traffic direction.
- **Bike path:** A bike path may be independent, or next to the road. The first is an independent traffic lane, separated from motor traffic. The second is separated from other traffic lanes by a physical element that provides an increased level of safety to cyclists.

There are also multi-use paths, mainly found in parks. They are designed to suit a variety of travel modes and can accommodate cyclists and pedestrians at the same time. Multi-use paths fall under the jurisdiction of the Borough of Pierrefonds-Roxboro.



Street bike path, Boulevard de Pierrefonds



Bike lane, Boulevard des Sources



Street bike path, Boulevard de Pierrefonds

Considering the large number of children in Pierrefonds-Roxboro, the Borough wishes to extend the network of bike paths and lanes to provide safe access to elementary and high schools. Incorporating active modes of transportation starting in childhood is crucial for the development of healthy lifestyle habits in children as well as for counteracting childhood obesity. Children 5 - 11 years of age should accumulate a minimum of 60 minutes of physical activity daily<sup>14</sup>, and so promoting active transportation is a step in the right direction.

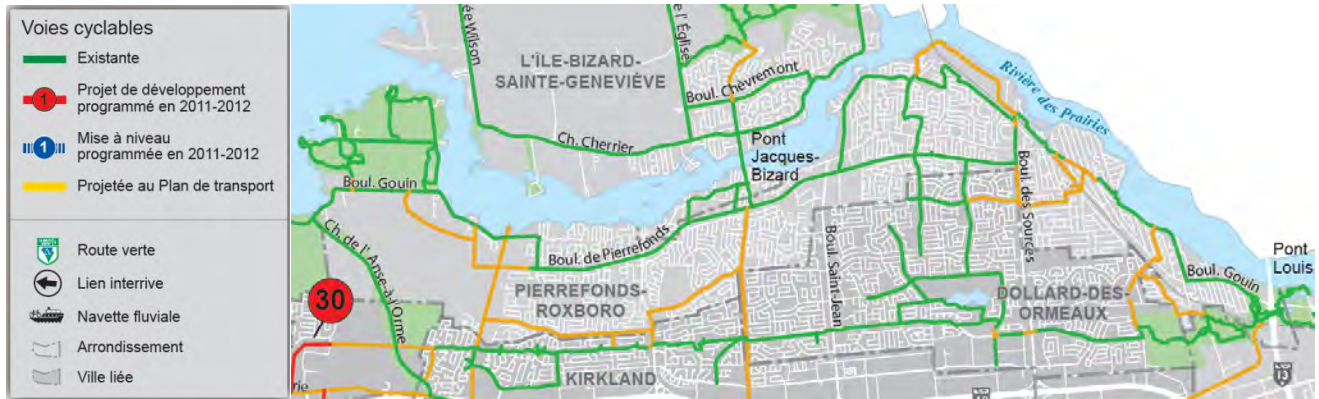
<sup>14</sup> According to the Public Health Agency of Canada.





The following figure illustrates the traffic lanes in the Borough of Pierrefonds-Roxboro where interventions are planned in the Montréal Transportation Plan. Among other things, these interventions will help to ensure connectivity with the Roxboro-Pierrefonds and Sunnybrooke commuter train stations. However, there is not yet a schedule for this, and these extensions are not included in the work programming for the 2011-2012 period.

**Figure 2.1 Current and Planned Bike Path Network, Montréal Transportation Plan**

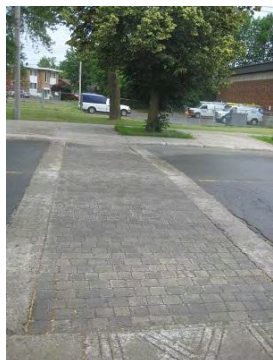


Source: Montréal Transportation Plan

## Walking

Due to the typical suburban street layout, walking distances for getting from a point A to a point B in Pierrefonds-Roxboro can sometimes be long. Pedestrian walkways between two streets are not frequently used by Borough residents due to reasons of safety in an urban environment. This situation does not encourage the use of active modes of transportation, and favours motorized journeys for everyday needs.

In the framework of planning for future housing developments, it is essential to envisage an orthogonal street layout or one that provides walkways at strategic points to encourage active transportation.



User-friendly pedestrian crossing, commercial street in the Roxboro sector



Store-front parking: creates conflicts between vehicles and pedestrians. Boulevard Gouin



Street with no sidewalk does not encourage active transportation. Domaine des Brises sector

## Carpooling and Car Sharing

The Borough Council offers residents and municipal employees a parking lot for those interested in carpooling. The parking lot is located near Borough Hall and is accessible from Boulevard de Pierrefonds.

Although the parking lot is available, there is no communication or management infrastructure associated with it to facilitate or encourage carpooling. This resource is interesting, but currently not exploited. Discussions with Communauto have already been held to introduce the service into the Borough. It would be opportune to start the process of implementing this service so as to offer residents this alternative to owning a car.



Sign for carpooling parking lot, central sector



Carpool parking lot, central sector



## 2.1.6 Protecting and developing the environment

### Access to Rivière des Prairies

One of the Borough of Pierrefonds-Roxboro's special features is that it has 29 km of riverbank. There are several points of access, but as in the case of many Montréal boroughs, the feeling of being close to the water is often debatable. Most points of access to the river are isolated, and apart from the nature parks, there are few linear parks along Rivière des Prairies.

Of all the parks in Pierrefonds-Roxboro, 18 have waterfront on Rivière des Prairies, which provides a minimum of access for Borough residents. The most important access point is without doubt the Cap-Saint-Jacques Nature Park, on the western edge of the Borough. Many activities are offered here, and the Nature Park is one of only three locations in the Blue Network to offer its visitors a bathing beach.

A marina is located in Veterans Park, in the East End of Pierrefonds-Roxboro. Currently, the land on which the marina sits belongs to the Borough, but the marina itself is managed by a private operator.

Borough authorities wish to develop this site, which is of exceptional value from a recreo-tourism point of view, to benefit Borough residents.

It is essential for the Borough to establish a strategy to preserve the advantages it has in terms of access to the riverbank and to improve the surroundings at certain access points. It also wishes to include specific measures to purchase waterfront lots or rights-of-way for access when new development projects are subdivided.



Rivière des Prairies, West End sector of Pierrefonds



Pierrefonds-Roxboro Marina



Rapides du Cheval Blanc Park





## Riverside Land

“*Riverside land* consists of permanent vegetation cover composed of a mix of herbaceous plants, shrubs and trees adjacent to a water course or a lake. Riverside land provides a transition between the aquatic and terrestrial ecosystems. Because it occurs at the junction between these two different milieus and because it has undergone numerous natural disturbances, riverside land is particularly dynamic and diversified.

This great diversity can be explained by the juxtaposition of three ecosystems (aquatic, riverside and terrestrial) over an area that is relatively restricted, by the presence of water, food and protective cover, by the diversity of the vegetative structure, by the extent of the edge effect created by the ecotones, and by the variability of conditions as the seasons pass. However we should note that to play these roles to their fullest, riverside land must be sufficiently wide, consist of three strata - herbaceous, shrubby and arborescent – and be composed of indigenous species. Riverside land must fulfil several important functions, grouped in two classes - the prevention or reduction of water contamination (purification function) and the protection of aquatic and waterfront habitats (ecological function).

Riverside land represents a habitat for flora and fauna, a screen to prevent excessive warming of the water, a barrier against sediment deposits in water bodies, a bulwark against soil and bank erosion, a regulator for the hydrological cycle, a filter against water pollution and a natural wind break. It also plays an important role in the protection of the esthetic quality of the landscape.”<sup>15</sup> [Translation]

On the Borough’s territory, as well as throughout Québec, riverside land has been subjected to major transformations (hard surfacing, installation of lawns, etc.) modifying their natural characteristics, resulting in major impacts on, and consequences for, the environment, such as erosion, the disappearance of wildlife habitats and the proliferation of algae.

The replanting of areas of riverside land is therefore favoured in order to “give these areas back their beauty and their ecological value as well as helping to safeguard the uses made of the water. The results of planting are not always immediately visible or effective; often patience is required over more than one season of growth. Returning a bank to its natural state is sometimes perceived as abandoning it or leaving it fallow; shrubs are then considered “scrub”. All the same, the restoration of riverside land is justified and its effectiveness, in the medium term, is definitely real.”<sup>16</sup> [Translation]

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<sup>15</sup> Gagnon, E., & G. Gangbazo (2007). Efficacité des bandes riveraines : analyse de la documentation scientifique et perspectives, Québec, ministère du Développement durable, de l’Environnement et des Parcs, Direction des politiques de l’eau, ISBN : 978-2-550-49213-9, 17 p.

<sup>16</sup> MDDEP, Guide d’analyse des projets d’intervention dans les écosystèmes aquatiques, humides et riverains assujettis à l’article 22 de la Loi sur la qualité de l’environnement, p. 2., March 2011.

## Water Quality

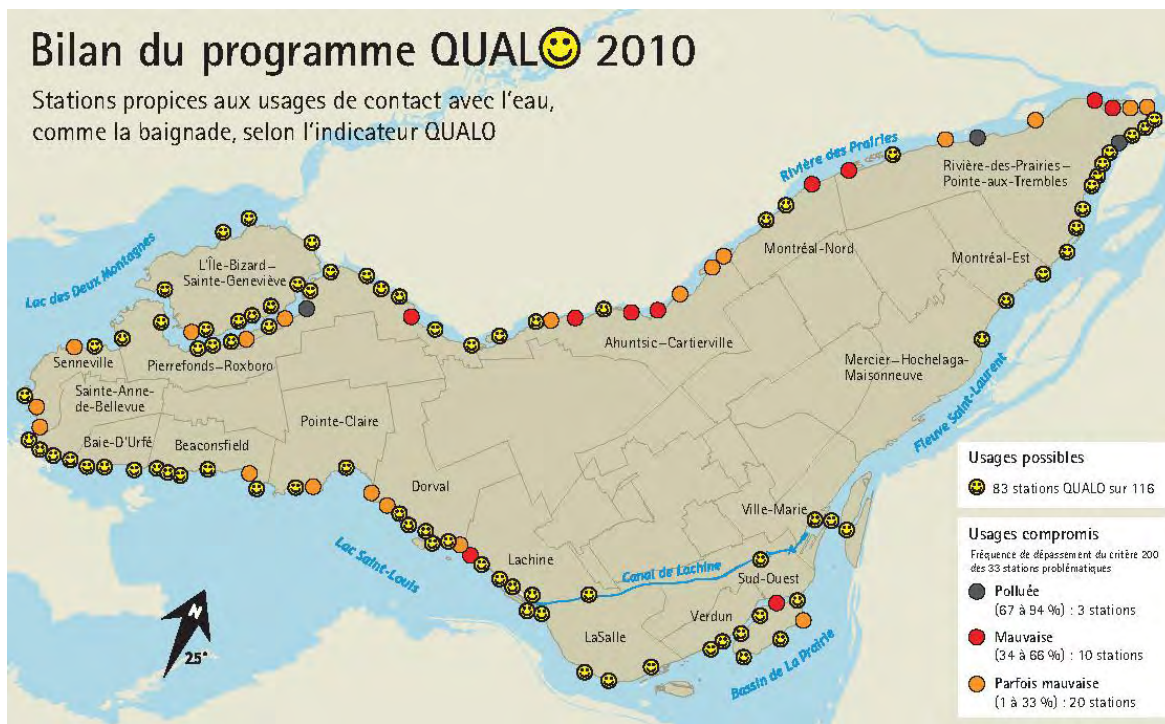
The Réseau de suivi du milieu aquatique (RSMA) monitors the water quality in Montréal’s water bodies through its various programs such as QUALO (bacteriological content of shoreline water) and RUISSO (streams and land-locked water bodies).

“The QUALO indicator shows that a station has maintained a very high bacteriological quality over the course of the season, although it may have occasionally exceeded the criterion of 200 COLI. In order to obtain QUALO approval, a station must meet two conditions: the geometric mean for annual results must not exceed 200 COLI per 100 mL (for a use in direct contact with the water) and no more than two of the 20 annual results obtained at each station (i.e., 10%) may exceed 400 COLI per 100 mL.”<sup>17</sup> [Translation]

Of the 17 stations on the territory of the Borough of Pierrefonds-Roxboro, 12 stations are suitable for uses involving direct contact with the water, 2 have somewhat poor quality water on occasion, one poor and the other considered polluted.

We note that the water quality in Rivière des Prairies has diminished since 2009 and that the most problematic sections of Rivière des Prairies are in the downstream portion of the river (east of the Island).

**Figure 2.2 Stations suitable for uses involving direct contact with the water, such as swimming, according to the QUALO indicator, 2010.**



**Source:** DESCHAMPS, G. & G. BRETON. Environmental report. *Portrait de la qualité des plans d'eau à Montréal*. Annual report 2010. Ville de Montréal, Service du développement et des opérations, Direction de l'environnement et du sustainable development, Division de la planification et du suivi environnemental, RSMA, 8 p.

<sup>17</sup> Source: DESCHAMPS, G. & G. BRETON. Environmental report. *Portrait de la qualité des plans d'eau à Montréal*. Annual report 2010. Ville de Montréal, Service du développement et des opérations, Direction de l'environnement et du développement durable, Division de la planification et du suivi environnemental, RSMA, 8 p.

Streams must be developed, restored and protected, because they are irreplaceable living environments necessary for biodiversity in urban settings. To this end, the RUISSO program allows data to be collected on water quality in the main streams and land-locked bodies of water on the territory of Montréal.

Three watercourses within the territory of Pierrefonds-Roxboro have tested poorly for water quality: the Château Pierrefonds and O'Connell streams and Rivière de l'Orme.

**Figure 2.3 Quality of streams and interior water bodies according to the RUISSO index, 2010.**



Source: DESCHAMPS, G. & G. BRETON. Environmental report. *Portrait de la qualité des plans d'eau à Montréal*. Annual report 2010. Ville de Montréal, Service du développement et des opérations, Direction de l'environnement et du sustainable development, Division de la planification et du suivi environnemental, RSMA, 8 p.



## Sites of Natural Interest

The Borough of Pierrefonds-Roxboro has a rich, diversified and very extensive natural heritage. There are two eco-territories and three nature parks on the territory. The following sub-section identifies them.

**The Bois-de-Liesse Nature Park**, with an area of 159 hectares, is a conservation park in an urban setting. Various activities are offered here by the Groupe uni des éducateurs naturalistes et professionnels en environnement (GUEPE), whose mission is to offer educational services in the environmental field to children and the general population.

**The Rapides du Cheval Blanc Eco-territory**, situated on the shore of Rivière des Prairies near the Borough's eastern boundary, is rich in ecological resources. This site is identified under the policy to protect and develop natural environments, and will in future benefit from the expansion of the riverside land to provide a natural balance between the aquatic environment and the banks. The creation of a new 44-hectare park is planned, which will be an addition to the other great parks of Montréal.

**Cap-Saint-Jacques Nature Park**, with an area of 288 hectares, is situated at the meeting point of Lac des Deux Montagnes and Rivière des Prairies. It is the largest park in the network of great parks of Montréal, and due to its numerous bays, the park is home to a variety of wildlife species.

**Anse-à-l'Orme Nature Park**, with an area of 88 hectares, is a linear park along the shores of Lac des Deux Montagnes.

**The Rivière à l'Orme Forest Corridor Eco-system**, situated in part on the territory of the Borough, links three large parks (Anse-à-l'Orme Nature Park, Bois-de-la-Roche Agricultural Park and Cap-Saint-Jacques Nature Park). This eco-territory forms a strategic link for flora and fauna.



Ruisseau Bertrand, Bois-de-Liesse Nature Park



Cap-Saint-Jacques Nature Park



Les rapides du Cheval Blanc Eco-territory

Formerly known for its agricultural activities, the single remaining vestige of these activities still forms part of the permanent agricultural zone by decree. It is situated on the far western edge of the Borough's administrative boundaries, just to the west of Rivière à l'Orme.



## Protecting Urban Trees

The presence of trees in the urban environment is essential in many regards. In the context of global warming and heat islands created by the installation of hard surfaces in towns and cities, urban trees improve our quality of life in a number of ways:

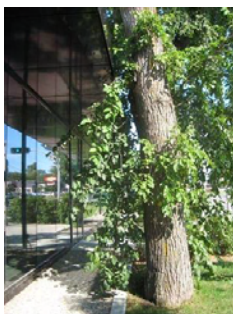
- “Trees reduce the impact of greenhouse gases (absorption of CO<sub>2</sub>), purify and rid the air of dust.
- They can help diminish bad odours and city noise.
- Trees help to reduce heat with the shade they provide and offer protection from heavy winds, and they help reduce heating and air-conditioning costs.
- When close to a building, they can help reduce the need for air-conditioning by 30%.
- Trees help combat erosion by retaining the soil.
- They embellish the landscape, and provide shelter for birds and privacy for urban dwellers.”<sup>18</sup> [Translation]

The Borough awarded 330 certificates of authorization for tree felling in 2010. The Borough’s planning regulations require a certificate of authorization to fell a tree. This certificate is awarded<sup>19</sup> only when a tree is dead, when it has an irreversible disease, when it is structurally unsound, when it constitutes a nuisance for the growth of nearby trees of greater ecological value or when a tree is in a location designated for construction or within 5 m of such a location.

However, in the case of a redevelopment of a yard, felling a tree is permitted if it is replaced by at least two trees. This provision may be revised, as it is contrary to the criteria previously listed and is of an esthetic nature.

The planning regulations currently in force also include a provision for the planting of trees during the construction or the enlargement of a main building, or when a certificate of authorization to fell a tree is issued. Provisions also apply for the protection of existing trees during construction work. There are also standards for tree planting in parking lots with more than five parking spaces.

Despite these provisions, certain new housing developments are devoid of trees in the front yards. The trees required by the by-law are planted elsewhere in the Borough. This situation is attributed to the burying of the electrical distribution system. Considering the benefits of trees in the landscape and the positive effects of a raised canopy in the urban environment, solutions for the design of streets are to be explored to resolve this issue.



Tree protected during construction work, Centre communautaire de l'Est



New section of street with no trees, Rue Debours, Domaine des Brises sector



Tree well, street in the commercial centre, Roxboro sector

<sup>18</sup> L'arbre urbain, leaflet from the Ville de Montréal

<sup>19</sup> Zoning By-law No. CA29 0040, Borough of Pierrefonds-Roxboro.



## Heat Islands

A heat island is “an urbanized area characterized by air temperatures higher by 5 to 10 °C than the immediate surrounding environment. Highly hard-surfaced areas such as downtown cores, industrial and commercial zones, large parking lots and major traffic thoroughfares represent the sectors most affected by this problem.”<sup>20</sup> [Translation]

The concept of heat islands is associated with reflective value, that is to say the amount of solar energy reflected by a surface. It is expressed in units of 0 to 1.0.

In Pierrefonds-Roxboro, several heat islands can be seen. The largest are the following:

- Central sector or institutional core
- Parking lots in the Cloverdale Housing Coop sector
- AMT incentive parking lots
- Intersections on boulevards des Sources, Gouin and de Pierrefonds.



Absence of green islands in the AMT incentive parking lots



Oversized parking lots and absence of green islands, intersections on boulevards des Sources and de Pierrefonds



Former arena site, Central sector of the Borough

The heat island problem is without doubt greater in certain Montréal boroughs than in others (e.g., Plateau-Mont-Royal, Saint-Laurent, Rosemont–La-Petite-Patrie). Nevertheless, problems that may be created through intensified land use should be anticipated. Thus in Pierrefonds-Roxboro, as in many suburbs, on-street parking is prohibited at night during the winter. This prohibition is in place to allow for snow-clearing operations. Many Borough households own more than two cars; thus not allowing cars to park on the street at night results in even more hard surfaces, which in turn increases the number of heat islands and prevents the natural absorption of water by the soil.

There are many ways to counter heat islands in an urban environment. Here are a few:

- “Plant trees and shrubs in existing grassed areas or in un-used areas covered in asphalt.
- Install green planting strips or bio-retention systems.
- Install green roofs, change the roof gravel to white or opt for white elastomeric membranes.
- Green with plants that climb directly on walls or on support structures.”<sup>21</sup> [Translation]

<sup>20</sup> Conseil régional de l’environnement de Montréal, Contre les îlots de chaleur urbain, Guide sur le verdissement | Pour les propriétaires institutionnels, commerciaux et industriels, 42 p.

<sup>21</sup> Conseil régional de l’environnement de Montréal, Contre les îlots de chaleur urbain, Guide sur le verdissement | Pour les propriétaires institutionnels, commerciaux et industriels, 42 p.



## Air Quality

In 2010, right across the agglomeration of Montréal, fine particulate matter was the culprit on 63 of the 65 days when the air quality was poor. “Fine particulate matter is airborne microscopic dust and droplets smaller than 2.5 microns (PM2.5) in diameter. The composition of particulate matter depends on its source, on the season and on atmospheric conditions. Particulate matter is generally the product of residential wood burning (47.5%), industry (32.6%), and transportation (17.1%).”<sup>22</sup>

Thus it was in consideration of the harmful effects of fine particulate matter on the environment, as well as on human health, that the Municipal Council adopted the By-law concerning solid-fuel-burning equipment (09-012). This by-law prohibits the installation, inside a new or existing structure, of a solid-fuel-burning appliance, except for stoves that burn EPA-certified or CAN/CSA-B415.1 pellets. The adoption of this by-law, limiting any increase in the number of solid-fuel-burning stoves, is a determining first step towards improving air quality in Montréal.

Although there is a by-law limiting the installation of new appliances, the Borough of Pierrefonds-Roxboro has 4,884 woodstoves and fireplaces with acquired rights and is rated 4<sup>th</sup> in the Ville Montréal after the boroughs of Saint-Léonard (5,605), Rivière-des-Prairies–Pointe-aux-Trembles (5,585) and Côte-des-Neiges–Notre-Dame-de-Grâce (5,487).

**Table 2.25 Distribution of Woodstoves and Wood-burning Fireplaces, Ville de Montréal**

Borough	Number of appliances	Borough	Number of appliances
Saint-Léonard	5,605	L'Île-Bizard–Sainte-Geneviève	1,852
Rivière-des-Prairies–Pointe-aux-Trembles	5,585	Anjou	1,479
Côte-des-Neiges–Notre-Dame-de-Grâce	5,487	Outremont	1,477
Pierrefonds-Roxboro	4,884	Rosemont–La Petite-Patrie	1,435
Ahuntsic–Cartierville	4,540	Ville-Marie	1,360
LaSalle	3,773	Verdun	1,313
Lachine	4,884	Le Plateau Mont-Royal	1,055
Mercier–Hochelaga-Maisonneuve	4,540	Villeray–Saint-Michel–Parc-Extension	715
Montréal-Nord	3,773	Sud-Ouest	425
Saint-Laurent	2,247	<b>Total</b>	<b>50,550</b>

Source: Équiterre and MDDEP

<sup>22</sup> Air Quality Index (AQI), MDDEP Web site: [http://www.iga.mddep.gouv.qc.ca/contenu/polluants\\_en.htm](http://www.iga.mddep.gouv.qc.ca/contenu/polluants_en.htm), page consulted on January 3, 2012.



## Awareness Campaigns Related to the Environment

The Borough, in collaboration with Éco-Quartier, organizes many awareness campaigns and events related to the environmental challenges faced by Pierrefonds-Roxboro. Éco-Quartier's four main mandates are as follows: cleanliness/absence of pollution, the 4 Rs, nature in the city and beautification. In addition to offering a wide array of useful information on subjects related to its mandate, Éco-Quartier offers a collection service at its premises for the following items: batteries, bottle corks, ink cartridges, cellular phones.

The main awareness events are the following:

**Green Line:** Green Line is a service offered by the Borough to answer questions from residents about the ecological control of plant pests, on ecological gardening practices, and a variety of questions related to the environment. The service may also include a home visit to evaluate plant conditions and provide appropriate, customized advice. One entire section of the *Life in Pierrefonds-Roxboro* magazine is about the Green Line and is devoted to issues related to protecting the environment.

**Blue Patrol:** Initiated by the Service de l'eau at the Ville de Montréal and the Regroupement des Éco-Quartiers, the aim of the Blue Patrol is to promote sound management of the water supply and the collection of rainwater by residents and private businesses.

**Green Patrol:** The mandate of the Green Patrol is to advise Montréal residents about, and make them aware, by various means (going door-to-door, foot or bike patrol, information kiosk or activities for residents or day camps) about how to better protect the environment. Unlike municipal inspectors, patrollers are not there to hand out tickets or fines. They are, in a way, environmental ambassadors for Montréal.

**Spring Clean-up:** The Borough of Pierrefonds-Roxboro holds one spring clean-up annually. Organized by Éco-Quartier Pierrefonds-Roxboro, in partnership with the Borough and the Ville centre, they were able to collect 5 containers of glass, 17 bags of recyclables and 20 bags of garbage in 2011.

**Ecological Gardening Day:** The day is organized by the Borough in partnership with Éco-Quartier and the Société d'horticulture et d'écologie de Pierrefonds, on which 1,000 annual plants, 1,000 perennial plants, compost, mulch and indigenous tree saplings are distributed free of charge. Several organizations are invited to man various kiosks at this event, in order to provide Borough residents with advice on ecological gardening methods, collecting rain water, composting, etc.



Spring Clean-up



West Island Blue Patrol



Ecological Gardening Day

**Collection of information technology and communication (ITC) equipment:** In collaboration with the Ville de Montréal, the Regional Council on the Environment and Éco-Quartier, the Green Patrol event (the first collection of used ITC products in Pierrefonds-Roxboro) took place in 2011. The numbers of items collected during this day-long event were as follows: 230 computer items (screens, keyboards, mice, etc.), twenty or so electronic games,





56 printers, 40 TVs, 50 DVD and VHS tape players, 88 radios and sound systems, 90 cellular phones, 75 landline phones, 20 ink cartridges and a hundred or so electrical and other items (transformers, cameras, calculators, TV cables, earphones, etc.). With a total of about 669 ITCs collected and connections made with 207 families, we can certainly say that the collection was a real success.

**Distribution of domestic composters:** In 2011, 150 domestic composters were distributed through the Borough's Composting Program. The remaining composters were sold by Éco-quartier. More than 875 composters have been subsidized in this way since 2005.

**Distribution of rainwater collection barrels:** In 2011, by means of a grant from Fonds Éco-IGA for Earth Day, the Borough distributed 200 rainwater barrels. Éco-Quartier sells rainwater barrels at the regular price as well as eco-kits for economizing on drinking water.



### 2.1.7 Waste management

The agglomeration of Montréal has adopted its *Plan directeur de gestion des matières résiduelles* (Master Plan for waste management) for the 2010-2014 period. This plan uses the basic orientations of the *Politique québécoise de gestion des matières résiduelles 1998-2008*. At the heart of this plan are the 4 Rs: Reduction at source of the quantity of waste materials generated, Recovery, Recycling and Reuse, in order to reduce the quantities of waste materials sent to disposal sites as much as possible.

There is a dry materials depot (DMD) on the territory of Pierrefonds-Roxboro. Les Entreprises Environnementales Pierrefonds inc. has operated this site, located in a former quarry, since 1999. It incorporates a centre for managing construction and demolition debris. The company's activities can be divided into two sectors:

- Recovery and sorting of dry materials with potential for reuse and recycling
- Burial of construction and demolition debris that offers little or no potential for reuse

The Borough has been assured that the daily activities of the company are aimed at meeting the ambitious objectives it has set itself in terms of the ecological management of waste materials, as well as in terms of recovering and recycling these same materials. An 18,000-m<sup>2</sup> sorting centre is set to open soon, and this will allow 50% of the material received at the site to be recovered. The materials received will be processed and sent on to reusers or recyclers.

The agglomeration's Master Plan has established that in order to reach its objectives, Montréal will need to operate treatment facilities for organic materials as well as a pilot centre for the pre-treatment of household waste. In this context, and in order to reach these objectives, the development of five facilities is planned, at four sites distributed across the agglomeration of Montréal.

Thus the Borough of Pierrefonds-Roxboro will be offering the service to its residents as soon as these plants are in operation.

Highlights in the 2008 portrait of waste materials in the agglomeration of Montréal are the following for the Borough of Pierrefonds-Roxboro:

- The average rate of recovery of recyclable materials from the Borough is below the average for Montréal (46% compared to 53%)
- The average rate of recovery of HHW and bulky items is also below the average for Montréal (47% compared to 54%) - this datum may be explained by the absence of an eco-centre in the Borough and the fact that the nearest one is about 16 km from the Borough
- The rate of recovery of organic material is one percentage point higher than the average for Montréal, i.e., 9% compared to 8%. However, this rate is well below that of certain towns and cities on the West Island that have territorial characteristics similar to those of Pierrefonds-Roxboro: Baie-d'Urfé (22%), Beaconsfield (29%) and Pointe-Claire (18%).

**Table 2.26 Recovery and Reuse in 2008**

	Pierrefonds-Roxboro	Agglomeration of Montréal
<b>Recyclable Materials</b>		
Quantity (tonnes)	4,788	150,355
Rate of recovery % (2008 objective: 60%)	46	53
Ratio of recovery (kg/person/yr)	72	79
<b>Hazardous Household Waste</b>		
Quantity (tonnes)	94	3 158
Rate of recovery % (2008 objective: 60 and 75%)	47	54
<b>Residential CRD waste and bulky items</b>		
Eco centres and garbage dumps (tonnes)	2,130	114,318
Rate of recovery % (2008 objective: 60%)	43	43
<b>Organic Material</b>		
Quantity (tonnes)	1,425	31,528
Rate of recovery % (2008 objective: 60%)	9	8
Ratio of recovery (kg/person/yr)	21	17

Source: 2008 Portrait of waste materials for the agglomeration of Montréal

**Table 2.27 Disposal in 2008**

	Pierrefonds-Roxboro	Agglomeration of Montréal
<b>Household garbage</b>		
Quantity (tonnes)	25,222	626,035
Ratio of disposal (kg/person/yr)	379	330
<b>Residential CRD waste and bulky items (tonnes)</b>		
Waste material	34,555	1,045,729

Source: 2008 Portrait of waste materials for the agglomeration of Montréal

The Borough's territory is divided into two parts for managing the collection of waste materials (east and west of Boulevard Saint-Jean). For buildings with 1 to 8 housing units, household garbage and recyclable materials are collected on the same day, once a week. For other uses and for buildings with 9 or more housing units, garbage is collected twice a week, and recyclable materials once a week.

Services for the collection of green waste and dead leaves is also offered in the Borough during the months of May, June, September, October and November.

As previously mentioned, there is no Eco-centre on the territory of the Borough of Pierrefonds-Roxboro. The nearest Eco-centres are in LaSalle (at 7272, rue Saint-Patrick), Acadie (at 1200, Blvd. Henri-Bourassa West) and Côte-des-Neiges (at 6925, Chemin de la Côte-des-Neiges).



### 2.1.8 Governance and democratic life

The Borough of Pierrefonds-Roxboro's Strategic Plan for Sustainable Development is a document with local scope. Some of the proposed actions are a matter for the Ville centre's administration; however most come under the jurisdiction of the Borough of Pierrefonds-Roxboro. The following section lists the actions for each.

#### Jurisdiction of the Ville centre

The following actions come under the jurisdiction of the Ville centre de Montréal:

- Development and planning
- Economic promotion, community, cultural, economic and social development, and the environment and transportation
- Recovery and recycling of waste material
- Culture, recreation and parks: The following parks belong to the network of great parks of Montréal and are therefore the responsibility of the Ville centre: Cap Saint-Jacques Nature Park, Anse-à-l'Orme Nature Park, Bois-de-Liesse Park and the future Parc des rapides du Cheval Blanc
- Social housing
- Arterial road network: the following boulevards come under the jurisdiction of the Ville centre: Gouin, Saint-Jean, Saint-Charles, des Sources, Jacques-Bizard and de Pierrefonds
- Water purification
- Service de police de la Ville de Montréal;
- Vehicle recovery and towing
- Municipal court

#### Jurisdiction of the Borough Council

The Borough Council may formulate opinions and make recommendations to the City Council on the budget, on establishing budgetary priorities, on preparing or amending the Master Plan, on amendments to planning by-laws or on any other subjects submitted to it by the City Council. The Borough Council also has jurisdiction, powers and obligations in the following fields:

- Planning by-laws (except the Construction By-law)
- Variances in regard to the ban on converting a building into condominiums
- Fire prevention and emergency preparedness
- Environment: removal of waste material, its transportation to, and its disposal in, a processing plant or disposal site. The Borough Council assumes the Ville's responsibilities in regard to the adoption and application of a nuisance by-law and in regard to the application of a by-law on pesticide use
- Local economic, community, cultural and social development
- The Borough's culture, recreation and parks: i.e., parks, and cultural, sports and recreational facilities located in the Borough, with certain exceptions
- Local road network

#### Borough Council

The members of the Borough Council elected in 2009 all come from the Union Montréal party, whose leader is the Mayor of Montréal, Gérald Tremblay. The Borough Council is composed of a Borough Mayor who is also a City Councillor, two other City Councillors and two Borough Councillors:

- **Monique Worth**, Borough Mayor, City Councillor, Member of the Agglomeration Council
- **Dimitrios (Jim) Beis**, Borough Councillor for the Bois-de-Liesse District



- **Catherine Clément-Talbot**, Borough Councillor for the Cap-Saint-Jacques District and president of the Planning Advisory Committee (PAC)
- **Christian G. Dubois**, City Councillor and Borough Councillor for the Bois-de-Liesse District. Mr. Dubois is also a member of the Administration Council for the Communauté métropolitaine de Montréal, the commission on social housing for the Communauté métropolitaine de Montréal, and the Commission conjointe sur l'examen des contrats for the Communauté métropolitaine de Montréal;
- **Bertrand A. Ward**, City Councillor and Borough Councillor for the Cap-Saint-Jacques District. Mr. Ward is a member of the Commission permanente sur les finances et l'administration de la Ville de Montréal, the Commission permanente sur l'examen des contrats for the Ville de Montréal, and vice-president of the Commission du transport de la Communauté métropolitaine de Montréal. In addition to his duties on the Municipal Council for the Ville de Montréal and the Communauté métropolitaine de Montréal, Mr. Ward sits as Chair of the Commission de mise en valeur et de restauration of the Pierrefonds quarry site.

The Borough Council has held paperless sessions since 2004.

### Citizens' Saturdays

Citizens' Saturdays are held once a month. They were set up in order to offer residents another opportunity to meet the elected officials for the Borough of Pierrefonds-Roxboro to discuss issues that concern you, in an informal, friendly atmosphere.

### Public Planning Advisory Committee (PAC)

The Borough of Pierrefonds-Roxboro is one of very few Montréal boroughs to make its PAC meetings open to the public. Elsewhere, these meetings are generally held in camera. The mandate of PAC members is to make recommendations to the Borough Council on the application of discretionary planning by-laws (Site Planning and Architectural Integration Programs (SPAIP), minor variances, specific construction, alteration or occupancy proposals for an immovable (PPCMOI), etc.). The PAC also makes recommendations to the Borough Council on zoning changes and on converting apartments into condominiums.

The PAC for the Borough of Pierrefonds-Roxboro does not use paper and operates 100% electronically.



## 2.2 Challenges

The Borough of Pierrefonds-Roxboro has several living environments very different from one another, and its population has sociodemographic, cultural and linguistic characteristics that distinguish one neighbourhood from another. The Borough of Pierrefonds-Roxboro is the only borough in the Ville de Montréal to hold bilingual status, with over half the residents speaking French just as well as they do English.

With a young population made up in the main of families, the Borough has many services that address this clientele and that are located for the most part in the East End and Central sectors of the Borough. Over the next few years, Pierrefonds' West End sector will welcome more than 5,000 new households. Now is therefore the time to examine the services to the population that the Borough's West End has to offer.

*The first challenge lies in the Borough of Pierrefonds-Roxboro's ability to improve quality, take into account the sociodemographic and ethnic diversity that characterizes its population and as a consequence, adapt its offer of services.*

Unlike the Borough's West End, the Central sector contains many socio-community and institutional services. Numerous vacant or underused lots at its centre break up the urban structure, but to compensate for this, Pierrefonds-Roxboro's civic hub offers development potential that the Borough must exploit to create a new, multi-use living environment.

*The second challenge therefore is to exploit the potential of the vast area opposite the Borough Hall to create a community hub where services to Borough residents could be installed, a civic and identifying hub with which Borough residents could identify, and a residential hub that would contribute to consolidating the urban fabric.*

With a car ownership rate higher than the Montréal average, the Borough's population is characterized by a strong dependence on the car: the efficiency of public transit and active transportation routes are thus to be questioned. Active transportation routes to schools and to commuter train stations must be made safe and user-friendly to encourage greater use (e.g., walkways, efficient bike links, sidewalks along streets, safe pedestrian crossings at certain intersections, secure facilities for parking bikes, etc.). The Borough must also support the concept of increasing the land use density on its territory. In this way, affordable housing for different types of household (single people, young families, seniors) could be created, in addition to putting in place conditions favourable to much more efficient public transit. Ideal sites for this type of redevelopment would be in the areas around commuter train stations.

The street layout in the Borough of Pierrefonds-Roxboro is mainly composed of winding streets that link up with transit arteries. Business and retail services are located along these axes. This form of urban framework leads to travelling long distances in order to purchase everyday consumer goods and services. Distances are also long for people travelling to work, because there is little employment on the territory of the Borough.

*The third challenge concerns the introduction of conditions favourable to operating, initially, a modal shift that encourages the option of public transit in the population's transportation habits and next, by encouraging active transportation for journeys between neighbourhoods.*

Considering its proximity to Rivière des Prairies and the large nature parks that it has on its territory, Pierrefonds-Roxboro has an exceptional natural environment that it wishes to preserve and develop. It is essential for the municipal administration to establish a strategy for preserving the advantages it has in terms of access to the river and improving the surroundings to certain access points. It is also desirable that the Borough plan specific measures for acquiring waterfront lots or rights-of-way for access when new developments projects are subdivided.



*The fourth challenge has to do with the ability the Borough of Pierrefonds-Roxboro is able to demonstrate in giving its residents back their access to Rivière des Prairies, the longest boundary that the Borough has. This will of course need to be done with acknowledgment for the sensitivity and the fragility of the riverbank and the natural components that define it.*

The urban environment, the quality of the landscapes and the reduction of heat islands are all dependent on the number and the health of urban trees. It is therefore essential that they be protected. Certain new housing developments are devoid of trees in the front yards. The trees required by the by-law are planted elsewhere in the Borough. This situation is attributed to the burying of urban services. In other cases, trees felled by property owners are never replaced. Considering the benefits of trees in the landscape and the positive effects of a raised canopy in the urban environment, solutions for the design of streets are to be explored to resolve this issue.

*Finally, the fifth challenge lies in improving performance by increasing the canopy in order to lessen the effects of heat islands, and at the same time, helping to improve the Borough's urban landscape.*

The strategic vision statement and the action plan that follow are thus the result of this reflection about the main challenges faced by the Borough of Pierrefonds-Roxboro.



## 2.3 Strategic Vision Statement – Pierrefonds-Roxboro 2011-2030

This strategic vision statement is the result of consultations among many players and municipal employees from the Borough of Pierrefonds-Roxboro. It was essential that the Borough ensure equal representation, on all levels - economic, social and environmental, in order to elicit a common vision for making Pierrefonds-Roxboro sustainable over a 20-year period.

*Pierrefonds-Roxboro will be a Montréal borough recognized for the quality of the services it offers its population while respecting the integrity of its natural environments.*

*Pierrefonds-Roxboro will be able to meet the needs of people from all walks of life and from all age groups. The family will be at the heart of the Borough's concerns and will influence the choices made in developing the territory, the facilities it provides and their distribution across the territory.*

*All Pierrefonds-Roxboro residents will have the opportunity to access Rivière des Prairies while respecting the fragility and the sensitivity of its natural environment. Neighbourhood parks and green spaces will be accessible to everyone.*

*By opting for continuity in the urban framework and by intensifying land use on its territory, the Borough is providing itself with the means to offer its population diversified, flexible services, efficient public transit services and beautiful surroundings.*

*Finally, Pierrefonds-Roxboro will be a Montréal borough in which proud, sensitive residents will participate in the protection and development of their living environment to provide future generations with a Pierrefonds-Roxboro where the urban environment and the natural areas coexist in harmony.*

The concepts associated with the vision statement can be broken down into strategies and actions that further endorse the approach, and these are presented below.

*“Pierrefonds-Roxboro will be a Montréal borough recognized for the quality of the services it offers its population while respecting the integrity of its natural environments.”*

This part of the vision statement refers in particular to:

- Universal accessibility
- Promotion of an offer of cultural and sports activities adapted to the needs and the distinctive cultural identities of the Pierrefonds-Roxboro population
- Living environments in which is seen a mix of social classes
- Taking into account the three realities of Pierrefonds-Roxboro – East End, West End and Centre
- Protecting natural environments
- Redeveloping the Central sector of the Borough as a multi-use, civic hub.

*“Pierrefonds-Roxboro will be able to meet the needs of people from all walks of life and from all age groups. The family will be at the heart of the Borough's concerns and will influence the choices made in developing the territory, the facilities it provides and their distribution across the territory.”*

This part of the vision statement refers in particular to:





- Different housing typologies that are adapted for different income levels, family contexts and seniors
- Equitable distribution of services to the population across the entire territory of the Borough
- Incorporating affordable housing accessible to new families into new development projects
- Making bike and pedestrian routes to elementary and high schools and to community facilities safe.

*“All Pierrefonds-Roxboro residents will have the opportunity to access Rivière des Prairies while respecting the fragility and sensitivity of its natural environment. Neighbourhood parks and green spaces will be accessible to everyone.”*

This part of the vision statement refers in particular to:

- Giving access to the banks of Rivière des Prairies back to Pierrefonds-Roxboro residents
- Preserving and developing the natural environments
- Preserving and promoting the public character of access to the river
- Renaturalizing the public riverbanks
- Developing the marina as an important recreational and community facility for the Borough
- Making the most of the numerous parks in the Borough by providing adequate facilities appropriate for the population that uses them.

*“By opting for continuity in the urban framework and by intensifying land use on its territory, the Borough is providing itself with the means to offer its population diversified, flexible services, efficient public transit services and beautiful surroundings.”*

This part of the vision statement refers in particular to:

- Proximity of services and the opportunity to shop locally
- Focusing on high quality architecture and urban installations
- Providing the means for an urban framework that lends itself to public transit and active transportation links to reduce dependence on the car
- Encouraging more compact urban development that will make it possible to increase public transit services
- Increase the density for the areas around commuter train stations to diversify the housing offer and respond to the needs of all (families, young professionals, first-time buyers, etc.).

*“Finally, Pierrefonds-Roxboro will be a Montréal borough in which proud, sensitive residents will participate in the protection and development of their living environment, to provide future generations with a Pierrefonds-Roxboro in which the urban environment and the natural spaces coexist harmoniously.”*

This part of the vision statement refers in particular to:

- Encouraging community and social commitments
- Counting on the participation of residents
- Making the population aware of the environmental issues
- Putting the focus on the construction of sustainable buildings
- Practicing efficient, effective and responsible management of resources.





### 3 Corporate Action Plan for sustainable development

In order to implement the strategic plan for sustainable development for the Borough of Pierrefonds-Roxboro, the first action is fundamental: the creation of a follow-up committee for the plan. This committee will monitor the plan and oversee the implementation of several awareness campaigns for the population and municipal employees.

#### Action 1 C – Create a follow-up committee to implement the strategic sustainable development plan for Pierrefonds-Roxboro

The follow-up committee, comprised of municipal managers and employees from all departments in the Borough, will be responsible for drawing up the annual review of the strategic plan for sustainable development. The committee will also be in charge of organizing awareness campaigns, both for municipal employees and for Borough residents. At least one person would have to be released full time from his tasks, or several people part-time, to ensure the follow-up of the plan.

<b>Responsible</b>	Borough Direction
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	To reach established performance levels for each of the actions
<b>Timetable</b>	January 2012 for forming the committee and preparing its mandate March 2012 to determine how it will operate

#### Action 2 C – Create a Partners Committee

The Partners Committee, comprised of business people, members of environment associations and social and community groups, will be formed to advise on the key steps in the implementation of the Borough's strategic plan for sustainable development.

<b>Responsible</b>	Follow-up Committee
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	To obtain advice on the key steps for implementation of the plan
<b>Timetable</b>	2012 for forming the committee and preparing its mandate, and to determine how it will operate.

#### Action 3 C – Find out about and make good use of the financial aid programs available

The responsibilities of the Follow-up Committee will include identifying and preparing any applications for financial aid for which the Borough is eligible.

<b>Responsible</b>	Follow-up Committee
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	N/A
<b>Timetable</b>	Ongoing



**Action 4 C – Pursue participation in the following campaigns:**

- Défi-Climat
- Centraide
- Earth Hour

<b>Responsible</b>	Follow-up Committee
<b>Indicator</b>	Number of awareness activities associated with these campaigns
<b>Starting Datum</b>	Number of activities in which the Borough already participates
<b>Goal</b>	Borough presence during the activities aimed at awareness of sustainable development
<b>Timetable</b>	2012 and onward



## Orientation 1. Improve Air Quality and Reduce Greenhouse Gas Emissions

**Objective 1.1. Reduce the Montréal Community's greenhouse gas (GHG) emissions by 30% by 2020, compared to 1990**

### Initiative 1.1.1. Develop and implement a plan to reduce the Montréal Community's GHG emissions

#### Action 5 C – Participate in the implementation of the plan to reduce the Montréal Community's GHG emissions

<b>Responsible</b>	Public Works Department
<b>Indicator</b>	N/A
<b>Starting data</b>	Plan to reduce the Montréal Community's GHG emissions
<b>Goal</b>	Local objectives for GHG emissions specified in the plan
<b>Timetable</b>	Ongoing

### Initiative 1.1.2. Reduce dependency on cars

#### Action 6 C – Join the Allégo program and participate in awareness campaigns associated with public transit and carpooling

The AMT, in collaboration with the main transportation agencies in the Montréal region, are offering employers a reward program for employees who use public transit: *Accès annuel Allégo*. By joining this program, the Borough will encourage employees to use public transit and will reward those who already use it. The employee benefits from discounts on his or her public transit pass, and the employer must set up a guaranteed ride home program. The employer may also choose to contribute towards the cost of the transit pass if it so wishes.

For the employer to be eligible for the program, a minimum of 25 employees must sign up.

<b>Responsible</b>	Borough Direction Follow-up Committee
<b>Indicator</b>	Number of employees using public transit to travel to and from work Awareness campaigns to encourage employees not using public transit to join the program
<b>Starting datum</b>	N/A
<b>Goal</b>	To participate in the program (minimum 25 employees)
<b>Timetable</b>	End of 2012

#### Action 7 C – Install new bike racks around municipal buildings

These racks will allow Pierrefonds-Roxboro residents and municipal employees to transport themselves actively when accessing municipal services or travelling to and from work. Cyclists will have the benefit of a safe place to store their bikes.

<b>Responsible</b>	Public Works Department
<b>Indicator</b>	Number of bike racks around the municipal buildings
<b>Starting datum</b>	6 racks in 2011
<b>Goal</b>	6 new racks in 2013
<b>Timetable</b>	In 2013, all municipal buildings will have bike racks



**Initiative 1.1.3. Reduce greenhouse gas emissions from existing and new buildings**

**Action 8 C – Implement measures on energy from the sustainable development policy in municipal buildings**

Require, among other things, LEED<sup>®23</sup>-Gold criteria during the construction of a new municipal building of more than 500 m<sup>2</sup> and in accordance with LEED<sup>®</sup>- Silver criteria during major renovations.

For existing buildings, obtain BOMA BEST<sup>24</sup> ecological certification Level 2 or higher for administrative buildings under the action plan associated with the policy. Obtain BOMA BEST ecological certification Level 1 for other types of buildings.

<b>Responsible</b>	Public Works Department
<b>Indicator</b>	Number of LEED <sup>®</sup> certified municipal buildings
<b>Starting Datum</b>	1 in 2011 (police station certified LEED <sup>®</sup> Gold)
<b>Goal</b>	To construct a new fire station in the West End, certification targeted: LEED <sup>®</sup> Gold To enlarge the library, certification targeted: LEED <sup>®</sup> Gold To incorporate the principles for BOMA BEST certification for existing buildings
<b>Timetable</b>	2013 for two new municipal structures Ongoing

<sup>23</sup>Leadership in Energy and Environmental Design

<sup>24</sup> BOMA BEST (Building Environmental Standards) is a national program launched in 2005 par BOMA Canada to satisfy the needs of the industry for realistic standards concerning energy efficiency and environmental performance for existing buildings, based on accurate information and independently verified.



#### **Initiative 1.1.4. Increase the environmental performance of the Borough's fleet of conventional vehicles**

The Public Works Department is continuing to look at the quality of its fleet of vehicles. The replacement rate is between 18 and 20 years. This very low replacement rate is due in part to preventive maintenance and to the choice of vehicles, which is made by a user committee. For several years, the replacement vehicles have been chosen in terms of their needs for the tasks to be carried out. The Borough also uses biodiesel to fuel its vehicles for almost half the year.

The Borough also owns two hybrid vehicles and has just purchased three Sprinter V6 vehicles that use BlueTec® technology. This technology is used to reduce contaminant discharge in light commercial vehicles. In its replacement practices, the Borough always looks for the best performance and seeks to meet the strictest environmental standards.

##### **Action 9 C – Procure energy efficient vehicles**

Always look at options that consume the least energy to accomplish the task for which the vehicle is needed when replacing vehicles in the Borough's automobile fleet.

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**Responsible** Parks, Buildings and Equipment Division

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**Indicator** 4 vehicles to be replaced by 2015

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**Starting Datum** 2 hybrid vehicles and 3 Sprinters

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**Goal** 1 Sprinter  
2 hybrid vehicles  
1 Ford Transit

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**Timetable** 2015

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##### **Action 10 C – Train our drivers to drive efficiently**

Efficient driving consists mainly of avoiding the need to idle the engine and driving smoothly at a constant speed by avoiding sudden acceleration or harsh braking as much as possible.

Four drivers are currently participating in training for the efficient driving of heavy vehicles. Data is being gathered to serve as a data source for 40 other drivers who will be trained by 2014.

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**Responsible** Parks, Buildings and Equipment Division

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**Indicator** Number of drivers who have received or will receive training

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**Starting Datum** 4 in 2011

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**Goal** To train 40 drivers

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**Timetable** 2014

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**Initiative 1.1.5. Optimize snow-clearing operations as well as garbage and recyclable waste collection****Action 11 C – Optimize snow-clearing operations and review contracts with sub-contractors responsible for collection (garbage and recyclables)**

This action will allow for the provision of better service to residents of the Borough of Pierrefonds-Roxboro while optimizing operations. For collections, routes and frequencies will be re-examined during the 2014 call for tenders.

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<b>Responsible</b>	Public Works Department
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<b>Indicator</b>	N/A
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<b>Starting Datum</b>	N/A
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<b>Goal</b>	To review all contracts
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<b>Timetable</b>	2014
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**Initiative 1.1.6. Promote electric transportation****Action 12 C – Install charging stations for rechargeable electric or hybrid vehicles in public parking lots or on public thoroughfares**

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<b>Responsible</b>	Public Works Department
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<b>Indicator</b>	Number of charging stations
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<b>Starting Datum</b>	0 in 2011
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<b>Goal</b>	Visitor parking lot at the Borough Hall
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<b>Timetable</b>	2013
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## Orientation 2. Ensure the Quality of Residential Environments

**Objective 2.1. Reduce the net migration from Montréal to the suburbs by 25% by 2012, focusing primarily on Montréal residents between 25 and 44 years of age who move out of the Ville every year.**

### Initiative 2.1.1. Traffic Calming

Traffic calming measures reduce the negative impact of cars (excessive speed) in our neighbourhoods and give pedestrians and cyclists more room. The Borough wishes to apply the following actions on the thoroughfares under its jurisdiction.

**Action 13 C – During any road repair work, systematically analyze the road layout so as to incorporate traffic calming measures, installations that favour active transportation and measures for greening and for protecting existing vegetation.**

<b>Responsible</b>	Infrastructure Division Parks and Horticulture Urban Planning and Business Services Department
<b>Indicator</b>	Number of projects in which these measures are incorporated (expressed in km)
<b>Starting Datum</b>	N/A
<b>Goal</b>	To incorporate this analysis into the planning process for projects
<b>Timetable</b>	2012

### Initiative 2.1.2. Contribute to greening efforts and to the reduction of heat islands

Heat islands in the urban environment are caused by: “greenhouse gas emissions, the progressive loss of forest cover in urban environments, the imperviousness and low reflective value of materials, the urban morphology and the size of cities, and anthropogenic heat.”<sup>25</sup> [Translation] Pierrefonds-Roxboro has several heat islands. The Borough wishes to avoid situations such as these through adequate planning and by correcting certain existing situations.

**Action 14 C – Carry out a pilot project aimed at authorizing on-street parking in an existing sector, and then monitor this to measure the effects and adapt it to the needs.**

Generally, on-street parking is prohibited at night on the streets of Pierrefonds-Roxboro. This restriction, related to snow-clearing operations, is at the source of many issues: lack of space for planting, very wide curb cuts (favouring the absorption of heat and limiting the natural infiltration of rainwater), etc. Thus the Borough wishes to set up a pilot project to measure the effects of on-street parking. It will then assess whether the authorization can be extended to a larger area.

<b>Responsible</b>	Follow-up Committee Public Works Department
<b>Indicator</b>	Performance audit of the experience over 2012-15
<b>Starting Datum</b>	Documentation on maintenance procedures and complaints
<b>Goal</b>	To amend off-street parking rules
<b>Timetable</b>	2015

<sup>25</sup> Mesures de lutte aux îlots de chaleur urbains, Institut national de santé publique du Québec, July 2009, p.6.



### Action 15 C – Participate in implementing the Strategy for Greening and Biodiversity

<b>Responsible</b>	Urban Planning and Business Services Department Public Works Department
<b>Indicator</b>	N/A
<b>Starting Datum</b>	Strategy for Greening and Biodiversity
<b>Goal</b>	To incorporate the Strategy into the local planning process
<b>Timetable</b>	2012

### Initiative 2.1.3. Suggest and promote an accessible and varied service offer in culture, sports, leisure, social development and libraries

In order to promote Pierrefonds-Roxboro as a pleasant, diversified and dynamic environment for living, the Borough is concerned about the quality of the recreational activities offer proposed for all age groups and about adequate distribution of services across the Borough's territory.

### Action 16 C – Execute an action plan specific to the sports, leisure, cultural and library sectors

Executing this action plan will allow the needs of the population to be properly defined.

<b>Responsible</b>	Culture, Sports, Leisure and Social Development Department
<b>Indicator</b>	Defining orientations and priorities for intervention
<b>Starting Datum</b>	2011-2013 Strategic Plan by the Culture, Sports, Leisure and Social Development Department
<b>Goal</b>	To adopt an action plan
<b>Timetable</b>	April 2012



## Orientation 3. Practice Responsible Resource Management

### Objective 3.1. Reduce drinking water production by 15% by 2015, compared to 2000

#### Initiative 3.1.1. Reduce waste in drinking water use

Drinking water is a very precious resource for us all. Several simple solutions exist for reducing our consumption of drinking water. The Borough must practise what it preaches by adopting exemplary behaviour.

##### Action 17 C – Install devices to economize on drinking water in municipal buildings

The municipal administration has already installed low-flow water fixtures in 30% of its municipal buildings. It is continuing these efforts so that all its buildings will have these systems installed by 2017.

<b>Responsible</b>	Parks, Buildings and Equipment Division
<b>Indicator</b>	Percentage of municipal buildings that have low-flow water fixtures installed
<b>Starting Datum</b>	30% of municipal buildings in 2011
<b>Goal</b>	15% of municipal buildings per year
<b>Timetable</b>	From 2012 to 2017
	In 2012, the Borough Hall and the Cultural Centre will be fitted with low-flow water fixtures.

##### Action 18 C – Include specifications for efficient fixtures in the specifications and call for tender documents under the responsibility of the Borough

<b>Responsible</b>	Parks, Buildings and Equipment Division
<b>Indicator</b>	Include this provision in the specifications
<b>Starting Datum</b>	N/A
<b>Goal</b>	To modify specifications and call for tender documents
<b>Timetable</b>	2012



**Objective 3.2. Recover 80% of recyclable and organic materials, HHW<sup>26</sup> and CRD<sup>27</sup> materials, and bulky refuse by 2019, as stipulated in the *Plan directeur de gestion des matières résiduelles de l'agglomération de Montréal* (Montréal's Waste Management Master Plan)**

### **Initiative 3.2.1. Implement measures for reduction at source**

The first action to be undertaken in the 4Rs approach (Reduce at source, Re-use, Recycle and Reclaim) to waste management is to reduce at source the opportunities for producing waste material.

#### **Action 19 C – Ban single-use bottles of water in municipal buildings**

<b>Responsible</b>	Follow-up Committee Material Resources Section
<b>Indicator</b>	Number of single-use bottles of water
<b>Starting Datum</b>	About 2,000 bottles of water annually
<b>Goal</b>	0
<b>Timetable</b>	2012

**Action 20 C – Obtain certificates of water quality assessment for drinking fountains** Water quality analysis and regular maintenance of drinking fountains are essential for the success of the previous action.

<b>Responsible</b>	Parks, Buildings and Equipment Division
<b>Indicator</b>	Number of fountains tested
<b>Starting Datum</b>	0 in 2011
<b>Goal</b>	All fountains
<b>Timetable</b>	2012

#### **Action 21 C – Develop a Guide on Eco-Responsible Practices for Borough employees**

This guide lists all the actions to be undertaken in order to attain the highest level of environmental efficiency in the workplace. For example: programming the printers for two-sided printing at all work stations, personal coffee mugs, lunches in re-useable containers, etc.)

<b>Responsible</b>	Follow-up Committee
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	2012
<b>Timetable</b>	Adoption of a guide by the Borough Council in 2012

<sup>26</sup> Household Hazardous Waste

<sup>27</sup> Construction, Renovation, Demolition materials



### Initiative 3.2.2. Implement measures for recycling and re-use

#### Action 22 C – Equip all municipal buildings and chalets with recycling points

Facilitate recycling in municipal buildings by providing drop-off points in suitable locations.

<b>Responsible</b>	Parks, Buildings and Equipment Division
<b>Indicator</b>	Number of recycling drop-off points
<b>Starting Datum</b>	5 buildings – 0 chalets in 2011
<b>Goal</b>	To improve the visibility of drop-off points and install drop-off points in 6 chalets.
<b>Timetable</b>	2013

#### Action 23 C – Assess the possibility of offering to collect recyclables from businesses and industries

Municipal collection of recyclable material is currently offered in the residential and institutional sectors of Pierrefonds-Roxboro. The Borough deems it opportune to study the possibility of extending collection to small businesses and industries.

<b>Responsible</b>	Public Works Department
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	To assess the possibility of offering recycling to businesses and industries
<b>Timetable</b>	2013

### Initiative 3.2.3. Hold Eco-Responsible Events

#### Action 24 C – Equip municipal buildings with reusable crockery for events of all sizes

<b>Responsible</b>	Material Resources Division
<b>Indicator</b>	Number of municipal buildings with reusable crockery
<b>Starting Datum</b>	2 buildings (Borough Hall and Pierrefonds Cultural Centre)
<b>Goal</b>	To equip all municipal buildings with reusable crockery for events of all sizes
<b>Timetable</b>	50% of buildings in 2013, 75% of buildings in 2014 and 100% in 2015

#### Action 25 C – Obtain Responsible Event Management certification (standard BNQ 9700-253/2010)

<b>Responsible</b>	Follow-up Committee
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	To obtain and maintain Responsible Event Management certification
<b>Timetable</b>	2015 and onward



## Orientation 4. Adopt Solid Sustainable Development Practices in Industries, Businesses and Institutions

In the framework of Pierrefonds-Roxboro's strategic plan for sustainable development, the orientation of Montréal's 2010|2015 sustainable development plan should be adapted to include municipal administration.

### Objective 4.1. Incorporate the principles of sustainable development into municipal practices, into project management procedures and into decision-making

#### Initiative 4.1.1. Provide the Borough with strategies to incorporate the principles of sustainable development into its projects and into its decision-making process

##### Action 26 C – Develop a tool to help in decision-making, based on the principles of sustainable development

This tool is meant for the Borough Council and for all Borough departments. This tool, in the form of a chart, will allow the principles of sustainable development to be incorporated into the decision-making process.

<b>Responsible</b>	Follow-up Committee
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	To consider all aspects of sustainable development in the decision-making process
<b>Timetable</b>	Adoption of a tool by the Borough Council in April 2012, and onward for its use.

##### Action 27 C – Hold meetings periodically for teams working on projects

In the framework of project planning and from the point of view of sustainable development, it is important to promote the integrated design process through meetings planned throughout a project's conception. In this way, the professionals can incorporate all the principles of sustainable development into the project, throughout the planning process.

<b>Responsible</b>	Follow-up Committee
<b>Indicator</b>	Number of meetings held
<b>Starting Datum</b>	N/A
<b>Goal</b>	To hold a start-up meeting for each project involving more than one Borough department or division
<b>Timetable</b>	February 2012 and onward

##### Action 28 C – Publicize the Borough's actions on sustainable development through the media to provide residents with more information

<b>Responsible</b>	Follow-up Committee Relations with Residents and Communications Division
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	To insert news in the local media about sustainable development on a regular basis
<b>Timetable</b>	2012 and onward



**Action 29 C – Add a section devoted exclusively to sustainable development to the *Life in Pierrefonds-Roxboro* magazine**

<b>Responsible</b>	Follow-up Committee Relations with Residents and Communications Division
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	To insert a section in the newsletter
<b>Timetable</b>	2012 and onward

**Action 30 C – Integrate Sustainable principles into urbanism by-lay**

<b>Responsible</b>	Urban Planning and Business Services Department
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	N/A
<b>Timetable</b>	2013

**Initiative 4.1.2. Stimulate demand for green technologies, products and services**

**Action 31 C – Adopt a Responsible and Sustainable Procurement Policy**

This policy will include the following elements:

- Prioritize larger quantities when purchasing
- Favour businesses that have a sustainable development policy
- Combine repeat purchases
- Favour the purchase of material made from post-consumer recycled plastic
- Consider the life cycle before purchasing
- Purchase certified paper products

<b>Responsible</b>	Material Resources Division
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	For the Borough Council to adopt a policy
<b>Timetable</b>	2012

**Action 32 C – Use environmentally friendly cleaning products in municipal buildings**

<b>Responsible</b>	Material Resources Division Parks, Buildings and Equipment Division
<b>Indicator</b>	Number of buildings maintained using environmentally friendly products
<b>Starting Datum</b>	0 in 2011
<b>Goal</b>	100% of municipal buildings maintained using environmentally friendly products
<b>Timetable</b>	2014





### Initiative 4.1.3. Continue to implement the action plan for universal accessibility

#### Action 33 C – Interventions in the following municipal buildings

- Chalets in Georges Springate and St-Anthony parks
- Marcel Morin Community Centre
- Roxboro Library (in progress)

#### And in the proposed improvements to sports and recreational installations

<b>Responsible</b>	Public Works Department Culture, Sports, Leisure and Social Development Department
<b>Indicator</b>	Number of interventions completed
<b>Starting Datum</b>	Several interventions related to universal accessibility have been carried out in various municipal buildings over the last few years. Despite these efforts, no municipal building is totally accessible in accordance with the concept of universal accessibility.
<b>Goal</b>	100% of municipal buildings 25% of sports and recreational installations
<b>Timetable</b>	2015 to 2018 for the municipal buildings listed above By 2021 for the sports and recreational installations

#### Action 34 C – Development of activities for people with functional limitations

Integrate users of the Centre Bienvenue into the horticultural teams during the summer, as well as into the public works and library teams.

<b>Responsible</b>	Public Works Department Culture, Sports, Leisure and Social Development Department
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	To continue integrating users each summer
<b>Timetable</b>	2012 and onward



## Objective 4.2. Increase the number of environmental certifications or participations in voluntary environmental programs in Montréal by 30% by 2020, compared to 2010

### Initiative 4.2.1. Adopt a management system, regulation or policy that promotes the acquisition of certifications incorporating sustainable development concepts

#### Action 35 C – Participate in training activities for certification and environmental programs

The Borough will designate two people who will receive training in green buildings and will ensure their ongoing training so that they will be on the lookout for new trends and advance in this field of expertise.

<b>Responsible</b>	Urban Planning and Business Services Department Public Works Department
<b>Indicator</b>	Number of days of training
<b>Starting Datum</b>	No days of training
<b>Goal</b>	4 days of training (green energy, Novoclimat and LEED Green Associate (2 days))
<b>Timetable</b>	2012

#### Action 36 C – Participate in meetings of the Partners' Network for the Montréal Community Sustainable Development Plan on the themes of certification and environmental programs

<b>Responsible</b>	Follow-up Committee
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	To participate in all the meetings
<b>Timetable</b>	Ongoing



## Orientation 5. Improve the Protection of Biodiversity, Natural Environments and Green Space

**Objective 5.1. Improve Montréal's green infrastructures by increasing the canopy cover to 25% from 20% by 2025, compared to 2007**

### Initiative 5.1.1. Protect and promote areas high in biodiversity

In 2010, the local administration, represented by Monique Worth, and concerned about protecting biodiversity, signed the Declaration of the Island of Montréal Community In Favour of Biodiversity and Greening. The Borough intends to participate in protecting and promoting areas high in biodiversity.

#### **Action 37 C – Contribute to establishing and implementing a collaborative platform of information on biodiversity.**

<b>Responsible</b>	Parks, Buildings and Equipment Division Urban Planning and Business Services Department
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	N/A
<b>Timetable</b>	N/A



## 4 Local Action Plan for Sustainable Development

The actions in this plan represent the goals to be reached by the local administration and its partners and will serve as a guideline for decisions that the Borough will make in the future. The costs associated with each of these actions have not been calculated, but they will be spread over a period of time so as to make their achievement possible.

### Orientation 1. Improve Air Quality and Reduce Greenhouse Gas Emissions

**Objective 1.1. Reduce the Montréal Community's GHG emissions by 30% by 2020, compared to 1990**

#### Initiative 1.1.1. Reduce dependence on cars

With a population of 65,718 residents and an average of 1.57 cars per household, or 0.57 cars per person, the Borough is highly dependent on cars. In terms of daily trips, the car is the favoured mode of transportation for Pierrefonds-Roxboro residents (76.3%), followed by public transit (13.6%), other motorized means (7.6%) and finally active means (5.8%).

In order to change this trend, measures and facilities that promote the use of public transit and encourage active methods for daily trips must be put in place.

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#### Action 1 L – Set up an interactive platform to facilitate carpooling from the parking lot next to the Borough Office.

An incentive parking lot, near the Borough Hall, is already available for Pierrefonds-Roxboro residents and for municipal employees. However, few users take advantage of it, because it is not advertised and there is no tool available to facilitate its use. The Borough intends to set up a computing platform so that users can be in touch with one another.

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<b>Responsible</b>	Follow-up Committee Relations with Residents and Communications Division
<b>Indicator</b>	Number of incentive parking lot users
<b>Starting Datum</b>	N/A
<b>Goal</b>	20 users/week
<b>Timetable</b>	2012

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#### Action 2 L – Encourage the introduction of incentives for sustainable transportation in stores, businesses and institutions in the Borough (e.g., Allégo program).

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<b>Responsible</b>	Follow-up Committee
<b>Indicator</b>	Number of activities for making stores, businesses and institutions aware
<b>Starting Datum</b>	N/A
<b>Goal</b>	Awareness program (spring and fall)
<b>Timetable</b>	2012 and onward

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### Action 3 L – Support the projects in the Transportation Plan

The Borough of Pierrefonds-Roxboro does not have jurisdiction over all public thoroughfares on its territory; some come under the jurisdiction of the Ville centre and others under the jurisdiction of the MTQ. For this reason, the Borough wishes, through this action, to show its support for the projects in the Transportation Plan for Montréal. The Borough will therefore be supporting the following projects in the Transportation Plan for Montréal:

- Introduce priority measures for buses and articulated buses on the Saint-Jean / de Pierrefonds axis as far as Highway 20 and on Boulevard de Pierrefonds between Boulevard Château-Pierrefonds and Boulevard Saint-Jean
- Twin the Deux-Montagnes rail line between the Bois-Franc and Roxboro-Pierrefonds stations
- Extend Boulevard de Pierrefonds westward to Boulevard Château-Pierrefonds
- Extend Boulevard Jacques-Bizard as far as Highway 40
- Put in a boulevard within the easement for Highway 440 Boulevard Gouin West and Highway 40.

<b>Responsible</b>	Borough Direction, the STM and the AMT
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<b>Indicator</b>	N/A
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<b>Starting Datum</b>	Projects in the Transportation Plan
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<b>Goal</b>	N/A
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<b>Timetable</b>	N/A
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### Action 4 L – Encourage Communauto and BIXI to establish themselves in the Borough of Pierrefonds-Roxboro

Car sharing represents an alternative that has less impact than owning and is more flexible than renting. Discussions could be undertaken with Communauto to establish the service in the Borough. The Borough is committed to providing a parking lot to accommodate the company's cars.

<b>Responsible</b>	Follow-up Committee
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<b>Indicator</b>	N/A
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<b>Starting Datum</b>	N/A
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<b>Goal</b>	To establish a site for Communauto and BIXI
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<b>Timetable</b>	2013 for Communauto 2014 for BIXI
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### Action 5 L – Draw up a master plan for bike paths and multi-use trails for active transportation

<b>Responsible</b>	Public Works Department Urban Planning and Business Services Department Ville centre
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<b>Indicator</b>	N/A
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<b>Starting Datum</b>	N/A
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<b>Goal</b>	N/A
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<b>Timetable</b>	2014
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### Action 6 L – Complete and make safe the bike path network to commuter train stations and to schools

In order to encourage the use of active transportation and connections among the networks, the Borough, in collaboration with the Ville de Montréal, will complete and make safe the bike path network leading to schools and commuter train stations.

<b>Responsible</b>	Ville centre Public Works Department
<b>Indicator</b>	Number of schools and stations accessible by bike paths
<b>Starting Datum</b>	The two stations are not accessible in 2012 5 schools are accessible in 2012
<b>Goal</b>	To make the 2 stations and the secondary schools accessible
<b>Timetable</b>	2015

### Action 7 L – Install sidewalks in new neighbourhoods to encourage active commuting

Sidewalks are important elements for encouraging people to use active modes of transportation. They are also effective in making travel safe, by clearly defining the boundary between pedestrian and vehicular spaces.

<b>Responsible</b>	Infrastructure Division
<b>Indicator</b>	Number of new streets with sidewalks
<b>Starting Datum</b>	N/A
<b>Goal</b>	Any new local street with authorization for on-street parking (except projects already approved)
<b>Timetable</b>	2012 and onward

### Action 8 L – Amend the planning regulations to increase the number of bike rack spaces required for new development projects

<b>Responsible</b>	Urban Planning and Environment Division
<b>Indicator</b>	Number of bike rack spaces required
<b>Starting Datum</b>	Use in residential buildings with more than 6 housing units: 5% of the number of parking spaces, up to 10 bike rack spaces Commercial, industrial and community, recreational uses: 5% of the number of parking spaces, up to 30 bike rack spaces Educational institution: 1 bike rack space per 10 students
<b>Goal</b>	To compare the standard number with the need
<b>Timetable</b>	2012



## Objective 1.2. Meet the Canada-wide standard for ambient concentrations of fine particles in the air ( $30 \mu\text{g}/\text{m}^3$ ) by 2020

The Pierrefonds-Roxboro municipal administration is concerned about air quality. The Borough does not have very many industries that are likely to reduce air quality. In an urban environment consisting almost totally of housing however, the principal source of concentrations of fine particles in the air is wood heating. The construction by-law currently in force already prohibits new wood stoves in new buildings. Owners who benefit from acquired rights in this regard should be encouraged to exchange their existing heating systems for less polluting, more energy efficient systems.

### Initiative 1.2.1. Reduce the use of wood heating in the urban environment

#### Action 9 L – Participate in the program to remove or replace conventional wood-burning appliances, funded by the MDDEP and managed by Équiterre.

The program's objectives are as follows:

- Reduce the impacts of wood heating on the Island of Montréal
- Make Montréal residents aware of the impacts of wood heating
- Withdraw from circulation or convert 4,500 old woodstoves or wood-burning fireplaces by March 31, 2013 right across the Island of Montréal.

The program's financial incentives are as follows:

- Removal with no replacement (woodstoves only) - \$300
- Replacement, depending on the type of appliance installed - \$350 to \$900.

<b>Responsible</b>	Ville centre Urban Planning and Business Services Department
<b>Indicator</b>	Number of woodstoves or wood-burning fireplaces within the Borough
<b>Starting Datum</b>	4,884
<b>Goal</b>	To remove or replace 200 woodstoves or fireplaces per year
<b>Timetable</b>	2012 and onward



## Orientation 2. Ensure the Quality of Residential Environments

**Objective 2.1. Reduce the net migration from Montréal to the suburbs by 25% by 2012, focusing primarily on Montréalers between 25 and 44 years of age who move out of the Ville every year**

**Initiative 2.1.1. Support residential development adapted to the needs of families (strategic choice of the Borough), single people and seniors, by offering affordable products and by creating a family-friendly environment.**

### **Action 10 L – Require private, public and community developers to offer affordable housing in new residential projects**

Adopted in 2005, the Strategy for the Inclusion of Affordable Housing in New Residential Projects is one way to meet the objectives for mixed use and social inclusion in housing.

With this strategy, the municipal administration is focusing on two specific goals: that 15% of new housing units constructed in Montréal be social and community housing and that another 15% of new housing units consist of affordable housing units through private initiatives (affordable properties or rental units).

<b>Responsible</b>	Urban Planning and Business Services Department
<b>Indicator</b>	Number of affordable housing units offered in new projects
<b>Starting Datum</b>	N/A
<b>Goal</b>	15% of affordable housing units in the new housing offer
<b>Timetable</b>	2012 and onward

### **Action 11 L – Improve the offer of stores and businesses in proximity**

Commercial services in the Borough of Pierrefonds-Roxboro are located on the major axes: Saint Charles, Saint-Jean, des Sources, de Pierrefonds and Gouin boulevards. In order to encourage active transportation, reduce dependence on the car and create a pleasant neighbourhood environment, it is necessary to authorize stores and businesses in proximity to certain sectors of the Borough.

<b>Responsible</b>	Urban Planning and Business Services Department
<b>Indicator</b>	Distance for access to nearby services in residential sectors
<b>Starting Datum</b>	N/A
<b>Goal</b>	At a maximum distance of 800 metres in the new residential sectors and urban requalification projects
<b>Timetable</b>	2012





### Action 12 L – Incorporate TOD (transit oriented development) principles into the planning around commuter train stations

The TOD approach involves the installation of strategic points all along the public transit network. This generally includes a mix of urban uses, moderate and high density housing, as well as public uses, employment, retail stores and complementary services.

<b>Responsible</b>	Urban Planning and Business Services Department
<b>Indicator</b>	Number of housing units and nearby services within an 800-metre radius of the stations
<b>Starting Datum</b>	To be documented by the Urban Planning and Environment Division
<b>Goal</b>	To establish detailed planning for these areas with a standard that conforms to the PMAD (1.1.2) of 40 housing units / hectare
<b>Timetable</b>	2012

### Action 13 L – Draw up detailed planning for the central sector of the Borough (multi-use)

The central sector of the Borough offers great development potential. Located in the heart of the Borough, this land offers a unique opportunity to create an identity centre in Pierrefonds-Roxboro.

<b>Responsible</b>	Borough Direction Urban Planning and Business Services Department Culture, Sports, Leisure and Social Development Department Public Works Department
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	To establish detailed planning and a development strategy
<b>Timetable</b>	2013

### Action 14 L – Incorporate an accessible, safe, full training circuit, in a Borough park

<b>Responsible</b>	Culture, Sports, Leisure and Social Development Department
<b>Indicator</b>	N/A
<b>Starting Datum</b>	No training circuit
<b>Goal</b>	To complete the project
<b>Timetable</b>	Fall 2012



## Initiative 2.1.2 Increase and improve the quality of public access to Rivière des Prairies for the benefit of residents and to encourage new residents to move to Pierrefonds-Roxboro

### Action 15 L – Draw up a re-development plan for the marina and for Boulevard Lalande

The Borough's marina is in a prime location with great potential for recreo-tourism. Many families already take advantage of this unique site on the bank of Rivière des Prairies. Nevertheless, several improvements are needed. To remedy this situation, the Borough will draw up a re-development plan for the marina. This plan will include the development of the areas around the marina, along Boulevard Lalande.

<b>Responsible</b>	Culture, Sports, Leisure and Social Development Department
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<b>Indicator</b>	Defining the orientations and the priorities for intervention
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<b>Starting Datum</b>	N/A
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<b>Goal</b>	To adopt a re-development plan for the marina site
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<b>Timetable</b>	2012
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### Action 16 L – Update, adopt and apply the master plan for the development of the riverbanks produced in 1995.

In 1995, the Town of Pierrefonds produced a master plan for the development of the public riverbanks, but it was never adopted. This plan provided for the development of the riverbanks and strategies for its execution.

One of the main concerns of the residents of Pierrefonds-Roxboro is to preserve and promote access to the banks of Rivière des Prairies. This is also a Montréal-wide concern, because during Opération Carte Blanche, a public forum for the 375<sup>th</sup> anniversary of Montréal, this concern proved to be one of the most important for Montréal residents.

<b>Responsible</b>	Public Works Department
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	Urban Planning and Business Services Department
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<b>Indicator</b>	N/A
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<b>Starting Datum</b>	N/A
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<b>Goal</b>	N/A
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<b>Timetable</b>	2014 for the updating and adoption, and onward for the implementation
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### Action 17L – Plan rights-of-way along Rivière des Prairies when creating new subdivisions or in proposed subdivisions on the banks

Public access to waterfront is rare, and is the general situation for many riverfront boroughs. To remedy this situation, and to allow development of public facilities, the Borough wishes to acquire rights-of-way along the Rivière des Prairies waterfront, in the framework of new subdivision projects and when subdividing lots.

<b>Responsible</b>	Urban Planning and Business Services Department
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<b>Indicator</b>	Consider in each new subdivision project and when subdividing lots
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<b>Starting Datum</b>	N/A
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<b>Goal</b>	N/A
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<b>Timetable</b>	2012 and onward
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**Action 18 L – Acquire new access points, preserve and affirm the public character of the existing access points to Rivière des Prairies**

As opportunities arise, the Borough wishes to offer to purchase access to Rivière des Prairies to order to provide better access to Rivière des Prairies. It also intends to develop these access points so that they demonstrate their public character and encourage residents to take advantage of them.

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<b>Responsible</b>	Borough Direction
<b>Indicator</b>	Number of public access points to the river
<b>Starting Datum</b>	To be documented by the Borough Direction
<b>Goal</b>	To seize purchasing opportunities and set these spaces aside for public purposes
<b>Timetable</b>	2012 and onward

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**Initiative 2.1.3. Traffic Calming**

Traffic calming measures reduce the negative impacts of cars (excessive speed) in our neighbourhoods and give pedestrians and cyclists more room. The Borough wishes to apply the following actions on the thoroughfares under its jurisdiction.

**Action 19 L – Put in place traffic calming measures around schools and parks**

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<b>Responsible</b>	Public Works Department
<b>Indicator</b>	Number of parks and schools where there are traffic calming measures
<b>Starting Datum</b>	6 schools and 4 parks
<b>Goal</b>	To put in place traffic calming measures around schools and parks
<b>Timetable</b>	5 sites per year

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#### Initiative 2.1.4. Contribute to greening efforts and to the reduction of heat islands

Heat islands in the urban environment are caused by: “greenhouse gas emissions, the progressive loss of forest cover in urban environments, the imperviousness and low reflective value of materials, the urban morphology and the size of cities, and anthropogenic heat.”<sup>28</sup> [Translation] Pierrefonds-Roxboro has several heat islands. The Borough wishes to avoid situations such as these through adequate planning and by correcting certain existing situations.

##### Action 20 L – Plant more trees in public areas

This action is in addition to the replacement of trees in public areas and to trees paid for by developers in the framework of new development projects.

The Borough also wishes to set up a program of the ‘A Birth - A Tree’ type. Any extra trees planted could be part of this program.

<b>Responsible</b>	Public Works Department
<b>Indicator</b>	Number of trees planted annually in public areas (excluding public trees that have been replaced and trees provided by developers as part of new housing developments)
<b>Starting Datum</b>	Average of 165 trees (annual planting)
<b>Goal</b>	150 trees per year
<b>Timetable</b>	2012 and onward

##### Action 21 L – Authorize alternative parking on local streets in all new sectors of development

<b>Responsible</b>	Public Works Department
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	To allow on-street parking on all new local thoroughfares
<b>Timetable</b>	2012 and onward

##### Action 22 L – Lessen the requirements for off-street parking for new sectors and progressively across the whole territory

This action is conditional on authorization for on-street parking, without which it could be difficult to lower the standards for off-street parking.

<b>Responsible</b>	Urban Planning and Environment Division
<b>Indicator</b>	For existing sectors, depending on the conclusions of the report prepared by Public Works
<b>Starting Datum</b>	N/A
<b>Goal</b>	To amend the by-law for new projects To revise the regulations for existing sectors
<b>Timetable</b>	2013 and 2015

<sup>28</sup> Mesures de lutte aux îlots de chaleur urbains, Institut national de santé publique du Québec, July 2009, p.6.



### Action 23 L – Promote underground parking in new development projects

Constructing underground parking in a new development project allows building footprints to be increased without compromising the number of units possible. Underground parking areas also allow better development of the exterior spaces while at the same time reducing the heat island effect produced by surface parking lots.

<b>Responsible</b>	Urban Planning and Environment Division
<b>Indicator</b>	Number of underground parking spaces
<b>Starting Datum</b>	N/A
<b>Goal</b>	To make underground parking mandatory in new buildings with 30 or more housing units
<b>Timetable</b>	2012

### Action 24 L – Continue participation in Les Fleurons du Québec

Les Fleurons du Québec is a program for horticultural embellishment that is intended to be sustainable. This form of horticultural classification allows municipalities to post Les Fleurons du Québec signs, a horticultural label acknowledging their actions and those of their residents in horticultural embellishment.

Les Fleurons du Québec is a source of motivation for municipalities and their residents to improve their horticultural and landscape environment year after year, based on the principles of sustainable development.<sup>29</sup>

<b>Responsible</b>	Urban Planning and Environment Division
<b>Indicator</b>	Quality of landscaping installations
<b>Starting Datum</b>	N/A
<b>Goal</b>	To encourage stores and businesses to improve the quality of their landscaped areas
<b>Timetable</b>	2012 and onward

### Action 25 L – In partnership with the Montréal REC, proposed greening project for the largest heat islands in the Borough.

The main heat islands present on the territory of the Borough of Pierrefonds-Roxboro are the following:

- Central sector of the Borough
- Sector formed by the intersection of Gouin, Des Sources and Pierrefonds boulevards
- Parking areas for the Cloverdale housing co-op
- AMT incentive parking lots (Park & Ride)

<b>Responsible</b>	Urban Planning and Business Services Department Public Works Department Éco-Quartier
<b>Indicator</b>	Canopy cover over the targeted areas
<b>Starting Datum</b>	Current cover
<b>Goal</b>	To remedy 1 major heat island each year
<b>Timetable</b>	2012 and onward

<sup>29</sup> <http://www.fleuronsduquebec.com/default.htm>



**Action 26 L – Green the surroundings to public areas on Boulevard Gouin and encourage riverfront property owners to green the walls of private areas.**

Boulevard Gouin, especially in the eastern portion of the Borough, consists mainly of hard surfaces. There is no planting at all. Redevelopment of this boulevard, to include planting, will reduce the heat islands, increase the amount of canopy cover and raise the quality of the urban landscape in this sector.

Apart from planting trees and greening public areas, the planting of climbing plants on walls on private property is also effective in reducing heat islands. Thus this action includes incentive measures for waterfront property owners to plant this type of vegetation where the state of the structure allows for such.

<b>Responsible</b>	Public Works Department Urban Planning and Business Services Department Éco-Quartier
<b>Indicator</b>	Linear metres re-developed and number of property owners made aware of greening of walls
<b>Starting Datum</b>	N/A
<b>Goal</b>	Development Plan and execution of the work over 10% of the area annually
<b>Timetable</b>	2012 for the Development Plan 2023 for completion of the work

**Action 27 L – Amend the regulations to make light-coloured roofs mandatory on buildings with flat or low-sloped roofs**

The colour of roofing material is also a cause of heat islands. An effective method to counter this phenomenon is to use a light-coloured or white roofing membrane.

<b>Responsible</b>	Urban Planning and Business Services Department
<b>Indicator</b>	Number of light-coloured or white roofs
<b>Starting Datum</b>	N/A
<b>Goal</b>	To amend the regulatory provisions
<b>Timetable</b>	2012

**Initiative 2.1.5 Suggest and promote an offer of accessible and varied services in culture, sports, leisure, social development and libraries**

In order to promote Pierrefonds-Roxboro as a pleasant, diversified and dynamic environment for living, the Borough is concerned about the quality of the recreational activities offer for all age groups, and about the adequate distribution of services across the Borough.

**Action 28 L – Develop a participative and representative environment for living, by means of dynamic and innovative programming**

<b>Responsible</b>	Culture, Sports, Leisure and Social Development Department
<b>Indicator</b>	Propose a diversified service offer that focuses on participation by residents and is socially diverse
<b>Starting Datum</b>	2011-2013 Strategic Plan by the Culture, Sports, Leisure and Social Development Department
<b>Goal</b>	To improve the service offer
<b>Timetable</b>	Ongoing



### Action 29 L – Develop programming and promote participation by the population in a series of free activities for all

Carry out activities in partnerships as part of themed days.

**Responsible** Culture, Sports, Leisure and Social Development Department

**Indicator** Number of activities

**Starting Datum** 1 annual activity

**Goal** To increase the number of activities

**Timetable** 2 annual activities in 2012

3 annual activities in 2013

4 annual activities in 2014

### Action 30 L – Draw up a master plan of sports and recreational facilities including projections for development in the Pierrefonds-Ouest sector

**Responsible** Culture, Sports, Leisure and Social Development Department

**Indicator** Make an inventory and define a strategy for development and intervention

**Starting Datum** Master Plan prepared in 2000

**Goal** To adopt a master plan

**Timetable** December 2012

### Action 31 L – Encourage participation in the community action

**Responsible** Culture, Sports, Leisure and Social Development Department

**Indicator** Develop tools to give details of the Borough's support for the community action

**Starting Datum** 2011-2013 Strategic Plan by the Culture, Sports, Leisure and Social Development Department

**Goal** To draw up a Policy for recognition of and support for organizations

**Timetable** 2013

### Action 32 L – Develop an innovative cultural service offer in relation to cultural, linguistic and artistic diversity specific to the Borough of Pierrefonds-Roxboro

**Responsible** Culture, Sports, Leisure and Social Development Department

**Indicator** Contents of the cultural offer

**Starting Datum** 2011-2013 Strategic Plan by the Culture, Sports, Leisure and Social Development Department

**Goal** To increase the offer of cultural services by 25%

**Timetable** Between now and 2014



### Initiative 2.1.6 Allow the residents of Pierrefonds-Roxboro to develop and grow in a safe, urban environment

People like to use public spaces when safety is ensured and recognized. The 6 basic principles for a safe environment are the following:

1. Knowing where you are and where you're going: Directional signs
2. Seeing and being seen: Visibility (lighting, hiding places, field of vision and predictable movements)
3. Hearing and being heard: Crowds or traffic (when visiting busy places)
4. Being able to escape and get help: Formal surveillance and access to aid
5. Living in a clean, hospitable environment: Layout and maintenance of sites
6. Acting together: Community participation (exploratory walks, mobilizing the population and local groups, appropriation of public sites by the population).<sup>30</sup>

#### Action 33 L – Prepare an action plan for safety in urban environments

<b>Responsible</b>	Culture, Sports, Leisure and Social Development Department
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	N/A
<b>Timetable</b>	Adoption of an action plan for safety in urban environments in 2012

#### Action 34 L – Maintain the Public Safety Patrol and promote the training of first responders among the patrollers

<b>Responsible</b>	Borough Office
<b>Indicator</b>	Number of patrollers who have received first responder training
<b>Starting Datum</b>	4 of 5 agents are first responders, 1 of whom is accredited as a trainer
<b>Goal</b>	All
<b>Timetable</b>	2012 and ongoing

<sup>30</sup> Pour un environnement urbain sécuritaire - guide d'aménagement, Ville de Montréal, 160p.





## Initiative 2.1.7 Improve the proximity of Pierrefonds-Roxboro residents to fresh, high quality, locally produced foods

### Action 35 L – Promote the purchase of locally produced food by establishing a seasonal public market

The Borough favours the establishment of a seasonal public market to promote the sale of locally produced products. First, the Borough must adjust its planning regulations to allow this type of installation. The lot next to the Borough Office would be the most suitable site for this type of facility.

<b>Responsible</b>	Urban Planning and Business Services Department
<b>Indicator</b>	Number of seasonal markets on the Borough's territory
<b>Starting Datum</b>	No market
<b>Goal</b>	1 seasonal market
<b>Timetable</b>	2014

### Action 36 L – Raise awareness in the Borough's population about, and encourage, urban agriculture

Introduce community gardens in the denser sectors of the Borough.

<b>Responsible</b>	Urban Planning and Business Services Department Éco-Quartier Culture, Sports, Leisure and Social Development Department
<b>Indicator</b>	Number of community gardens
<b>Starting Datum</b>	2
<b>Goal</b>	5
<b>Timetable</b>	2015

### Action 37 L – Promote urban agriculture in schoolyards

<b>Responsible</b>	Éco-Quartier Public Works Department Culture, Sports, Leisure and Social Development Department
<b>Indicator</b>	Number of schoolyards with community gardens
<b>Starting Datum</b>	1 schoolyard in 2011 - Harfang des neiges, Pavillon Lauzon
<b>Goal</b>	1 vegetable garden every two years
<b>Timetable</b>	2012 and onward



## Orientation 3. Practice Responsible Resource Management

### Objective 3.1. Reduce drinking water production by 15% by 2015, compared to 2000

#### Initiative 3.1.1. Improve efficiency in the use of drinking water

Drinking water is a very precious resource for us all. Several simple solutions exist for reducing our consumption of drinking water (low-flow appliances and fixtures, rainwater barrels, etc.). These solutions must be publicized, and Pierrefonds-Roxboro residents encouraged to adopt sound habits in order to improve efficiency in the use of drinking water.

##### Action 38 L – Participate in information campaigns about the use of drinking water

The Borough wishes to raise awareness in its residents, storeowners, industries and institutions about practicing responsible management of drinking water.

<b>Responsible</b>	Urban Planning and Environment Division in collaboration with Éco-Quartier Green line
<b>Indicator</b>	Number of awareness campaigns
<b>Starting Datum</b>	To be documented by the Urban Planning and Environment Division
<b>Goal</b>	2 activities per year
<b>Timetable</b>	2014

##### Action 39 L – Ensure that the By-law on the illicit use of drinking water and the ban on watering is respected

For better use of drinking water, the Borough wishes to increase the number of inspections.

<b>Responsible</b>	Urban Planning and Environment Division
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	To increase the number of patrols
<b>Timetable</b>	2012 and onward

##### Action 40 L – Introduce standards relative to low-flow fixtures and appliances into the planning regulations for new buildings and prohibit in-sink waste disposal units.

Following a period of raising awareness, the Borough will effect an amendment to ensure that all new buildings on its territory are fitted with low-flow fixtures and appliances.

Moreover, the Borough wishes to prohibit the installation of in-sink waste disposal units in kitchens in new buildings. These appliances needlessly choke the sanitary sewer system.

<b>Responsible</b>	Urban Planning and Business Services Department
<b>Indicator</b>	Number of new buildings with low-flow fixtures and appliances
<b>Starting Datum</b>	N/A
<b>Goal</b>	Regulatory amendment so that 100% of new buildings will be fitted with low-flow fixtures and appliances
<b>Timetable</b>	2014



## Objective 3.2. Improve the quality of run-off water that flows into watercourses

This objective is very important for the Borough of Pierrefonds-Roxboro considering its proximity to Rivière des Prairies. On the one hand it intends to introduce green infrastructures to promote the retention of water at source, and on the other hand, to improve the water quality before it flows into the storm sewers, which themselves empty into Rivière des Prairies with no filtering.

### Initiative 3.2.1. Promote the capture, retention and infiltration of rainwater at the source

#### Action 41 L – Incorporate green infrastructures for capture, retention and infiltration (such as wetland areas) in its own development projects, including streets.

“The sustainable management of rainwater is a planning approach that is aimed at simulating the natural hydrography of the site prior to its development, using a variety of landscaping techniques. These include the implementation of management methods for rainwater and the application of development strategies that help lessen imperviousness.

This approach allows the land to be developed while limiting the environmental impacts, optimizing public investments and contributing to the wellbeing of communities.”<sup>31</sup> [Translation]

<b>Responsible</b>	Infrastructure Division
<b>Indicator</b>	Number of projects in which these measures have been incorporated
<b>Starting Datum</b>	N/A
<b>Goal</b>	To incorporate this analysis into the planning process for projects
<b>Timetable</b>	2012

#### Action 42 L – Raise residents’ awareness of the ecological management of rainwater, and motivate them to use measures such as rain barrels to capture and re-use rainwater, replacing hard surfaces with ones that allow water infiltration, water garden, ecological maintenance of ditches, disconnecting gutter downpipes from the sanitary sewer system.

<b>Responsible</b>	Urban Planning and Environment Division Éco-Quartier
<b>Indicator</b>	Number of projects to raise awareness
<b>Starting Datum</b>	1 project in 2011 (distribution of 200 rainwater barrels subsidized by funds from Éco-IGA for Earth Day)
<b>Goal</b>	1 project per year (e.g., conference, key subsidy in hand for barrels, landscaping contest, \$ discount on purchase of material, eco-kits for economizing on drinking water when gutter downpipes are disconnected, etc.)
<b>Timetable</b>	2012 and onward

<sup>31</sup> BOUCHER, Isabelle (2010). La gestion durable des eaux de pluie, Guide de bonnes pratiques sur la planification territoriale et le développement durable, ministère des Affaires municipales, des Régions et de l'Occupation du territoire, coll. “Planification territoriale et développement durable”, 118 p. Document available online (French only): <http://www.mamrot.gouv.qc.ca/grands-dossiers/developpement-durable/>.



#### Action 43 L – Disconnect sump pumps from the sanitary sewer system (pilot project)

The sectors affected will be determined in terms of the issues that arise, which will be different for each sector.

<b>Responsible</b>	Construction and Occupancy Division Public Works Department
<b>Indicator</b>	Number of properties to be disconnected following a study in the sector for the pilot project.
<b>Starting Datum</b>	0 in 2011
<b>Goal</b>	100%
<b>Timetable</b>	End of 2013

#### Initiative 3.2.2. Prevent and/or correct reversed connections that contaminate the storm water sewer system

A reversed connection is defined as a “service connection or equipment defect that allows blackwater to flow elsewhere than into a domestic or combined sewer system, such as a storm sewer system, onto the ground, into a ditch or a watercourse, when the building concerned is served by a domestic or storm water sewer system.”<sup>32</sup>

[Translation]

#### Action 44 L – Correct reversed connection situations.

A program subsidized by the Ville centre allows a borough to detect and correct reversed connections that exist on its territory. The Borough wishes to carry out inspections to correct where necessary all existing situations.

<b>Responsible</b>	Construction and Occupancy Division Public Works Department.
<b>Indicator</b>	Number of reversed connections detected
<b>Starting Datum</b>	24 detected in 2010
<b>Goal</b>	To rectify the connections detected 100%
<b>Timetable</b>	2012

#### Action 45 L – Prevent reversed connections in new housing projects

Identify the appropriate action to be put in place to systematically prevent reversed connections.

<b>Responsible</b>	Construction and Occupancy Division Public Works Department
<b>Indicator</b>	Measure to be undertaken to rectify the situation
<b>Starting Datum</b>	N/A
<b>Goal</b>	To adopt a regulatory measure and to amend the intervention procedures
<b>Timetable</b>	2012

<sup>32</sup> MAMROT, Guide méthodologique pour la recherche et l'élimination des raccordements inversés dans les réseaux de collecte d'eaux usées municipales, May 2006, p. 7.



### Objective 3.3. Recover 80% of recyclable and organic materials, HHW<sup>33</sup> and CRD<sup>34</sup> materials, and bulky refuse by 2019, as stipulated in the *Plan directeur de gestion des matières résiduelles de l'agglomération de Montréal* (Montréal's Waste Management Master Plan)

#### Initiative 3.3.1. Implement measures for recycling and re-use

##### Action 46 L – Offer residents organic material collection (in buildings with 8 or less housing units)

"The *Plan directeur de gestion des matières résiduelles* was adopted by the agglomeration council in 2009. This Plan satisfies the new *Politique québécoise de gestion des matières résiduelles* (Quebec policy on waste management), of which one of the major objectives for 2020 is to reduce the amount of organic material sent to landfills by re-using 60% of it.

The *Plan directeur de l'agglomération* states that, in order to reach its objectives, Montréal must operate treatment facilities for organic material as well as a pilot plant for the pre-treatment of household waste. It is in this context that five facilities on four sites distributed across the territory of the agglomeration of Montréal will be developed in order to reach these objectives.

Thus the project includes the construction of a composting centre in the Arrondissement de Villeray-Saint-Michel-Parc-Extension and in the town associated with Dorval, and biogas production plants in the Arrondissement de LaSalle as well as in the town associated with Montréal-Est. The pilot plant for the pre-treatment of household waste is also planned for this town."<sup>35</sup> [Translation]

Thus the Borough of Pierrefonds-Roxboro will be offering the service to its residents as soon as these plants are in operation.

<b>Responsible</b>	Public Works Department
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	To offer organic material collection
<b>Timetable</b>	2014

##### Action 47 L – Continue distributing domestic composters

For several years now, the Borough has been distributing domestic composters on awareness campaign days. Éco-Quartier also distributes domestic composters each year, as well as instructions for proper composting practices.

This measure for re-using waste material is very appropriate for the Borough of Pierrefonds-Roxboro, given that many neighbourhoods consist exclusively of detached homes. The Borough therefore wishes to continue its efforts in this direction.

<b>Responsible</b>	Urban Planning and Environment Division Éco-Quartier
<b>Indicator</b>	Number of domestic composters distributed
<b>Starting Datum</b>	875 since 2005
<b>Goal</b>	More than 100 composters per year
<b>Timetable</b>	2012 and onward

<sup>33</sup> Household Hazardous Waste

<sup>34</sup> Construction, Renovation, Demolition materials

<sup>35</sup> Web site for the Office de Consultation publique de Montréal, <http://www.ocpm.qc.ca/matieres-organiques>, page consulted on November 25, 2011.



#### Action 48 L – Choose strategic locations in public areas and install recycling drop-off points.

<b>Responsible</b>	Parks, Buildings and Equipment Division
<b>Indicator</b>	Number of recycling drop-off points in public areas
<b>Starting Datum</b>	0 in 2011
<b>Goal</b>	30 new points
<b>Timetable</b>	2014

#### Action 49 L – Continue and increase collections of hazardous household waste (HHW)

The collection of hazardous household waste (HHW) comes under the jurisdiction of Montréal. The Borough therefore has restricted powers for increasing the frequency. Instead, the Borough plays the role of facilitator for collections by providing a site for collection and by publicizing the dates set.

Éco-Quartier's efforts in this area are major, by collecting certain HHW items at its premises and by publicizing the stores in the Boroughs that accept certain HHW items.

The Borough wishes to increase the number of collections each year in order to meet the target recovery rate of 75% by 2013.

<b>Responsible</b>	Ville centre in collaboration with Public Works Department and Éco-Quartier
<b>Indicator</b>	Annual rate of recovery
<b>Starting Datum</b>	47% in 2008
<b>Goal</b>	75%. This goal matches the 2008 objective
<b>Timetable</b>	2013

#### Action 50 L – Introduce measures for recovering used batteries in all municipal buildings accessible to the public and publicize the stores that recover certain HHW items.

The Borough wishes to introduce measures to recover used batteries in its municipal buildings that are accessible to the public. This measure will increase the tonnage of recovered HHW.

In addition to Éco-Quartier listing all the stores that recover certain HHW items, it plans to publish this list itself so that residents will know the locations to be used, other than the ecocentres, for disposal of their HHW.

<b>Responsible</b>	Public Works Department Éco-Quartier
<b>Indicator</b>	Tonnage of recovered batteries
<b>Starting Datum</b>	0 in 2011
<b>Goal</b>	To equip all buildings accessible to the public with containers in which residents may deposit their used batteries
<b>Timetable</b>	2012



### Action 51 L – Adopt a by-law for grasscycling

Grasscycling consists essentially of leaving grass clippings on the lawn after mowing. Grass clippings represent an excellent natural fertilizer that supplies numerous mineral elements needed to keep the lawn healthy. Grasscycling also prevents ground moisture from evaporating too quickly.

The Borough already uses grasscycling in its maintenance of parks and green spaces.

<b>Responsible</b>	Urban Planning and Environment Division
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<b>Indicator</b>	Adoption of a by-law
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<b>Starting Datum</b>	N/A
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<b>Goal</b>	Adoption of a by-law by the Council
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<b>Timetable</b>	2013
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### Initiative 3.3.2 Hold eco-responsible events

#### Action 52 L – Raise awareness in promoters holding events in public areas about responsible management of events

<b>Responsible</b>	Culture, Sports, Leisure and Social Development
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<b>Indicator</b>	Awareness campaigns for promoters who use public areas for their events
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<b>Starting Datum</b>	N/A
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<b>Goal</b>	To inform and raise awareness in event promoters about the parameters for organizing eco-responsible events
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<b>Timetable</b>	Ongoing
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## Orientation 4. Adopt Solid Sustainable Development Practices in Industries, Businesses and Institutions

**Objective 4.1. Turn Montréal into a North-American leader in the clean technology and environmental sectors**

### Initiative 4.1.1. Support the development of the clean technologies sector

#### Action 53 L – Encourage the creation of environmental companies and support them in their business development

<b>Responsible</b>	Urban Planning and Business Services Department
<b>Indicator</b>	N/A
<b>Starting Datum</b>	N/A
<b>Goal</b>	To attract environmental companies to Pierrefonds-Roxboro
<b>Timetable</b>	Ongoing

### Initiative 4.1.2. Stimulate the demand for green technologies, products and services

#### Action 54 L – Adapt the regulations to promote harmonious integration of facilities for green energy production in the urban environment (windmills, solar panels, etc.)

<b>Responsible</b>	Urban Planning and Business Services Department
<b>Indicator</b>	Harmonious integration of facilities for green energy production in the urban environment
<b>Starting Datum</b>	N/A
<b>Goal</b>	To adopt a by-law for Site Planning and Architectural Integration Programs (SPAIP)
<b>Timetable</b>	2013

#### Action 55 L – Inform applicants for demolition and major renovation permits about establishing a plan for the recovery and re-use of materials

<b>Responsible</b>	Construction and Occupancy Division
<b>Indicator</b>	Projects with a recovery plan
<b>Starting Datum</b>	N/A
<b>Goal</b>	3 demolition or major renovation projects
<b>Timetable</b>	2013



## Objective 4.2. Increase the number of environmental certifications or participations in voluntary environmental programs in Montréal by 30% by 2020 compared to 2010

### Initiative 4.2.1. Adopt a management system, a regulation or a policy that promotes the acquisition of certifications that incorporate sustainable development concepts

#### Action 56 L – Revise municipal support programs to as to promote certification

<b>Responsible</b>	Ville centre Follow-up Committee
<b>Indicator</b>	N/A
<b>Starting Datum</b>	To be documented by the Urban Planning and Business Services Department
<b>Goal</b>	To create a support program
<b>Timetable</b>	2015

#### Action 57 L – Promote the construction and renovation of greener buildings according to recognized standards (LEED, BOMA-BEST, Novoclimat and others) in the territory

“The sustainable building can be defined as “a building that adequately meets the needs of its occupants, that has a limited environmental impact and for which the construction and operating costs are reasonable”. From the social point of view, the sustainable building provides safety and comfort for its users, responds to the needs for which it was designed and can evolve over time to meet future needs. Ideally, the sustainable building should help to strengthen the cultural identity of a community. The sustainable building should also respect the principle of universal access, with a concern for equality.

On the environmental front, the sustainable building consumes less energy, limits the production of greenhouse gas (GHG), initiates as few movements as possible, contributes to the landscape, generates little waste and uses local materials with low environmental impact. The sustainable building should therefore present a smaller ecological footprint. From the economic aspect, the construction and operation of a sustainable building engender reasonable costs considering the nature of the building; the building maintains its value over the long term; its life cycle reduces operating costs over the long term; it has a favourable impact on the local economy.”<sup>36</sup> [Translation]

<b>Responsible</b>	Urban Planning and Business Services Department
<b>Indicator</b>	Number of certified buildings
<b>Starting Datum</b>	1 (police station)
<b>Goal</b>	To increase the number of certified buildings
<b>Timetable</b>	Ongoing

<sup>36</sup> BOUCHER, Isabelle, Pierre BLAIS et VIVRE EN VILLE (2010). Le bâtiment durable, Guide de bonnes pratiques sur la planification territoriale et le développement durable, ministère des Affaires municipales, des Régions et de l'Occupation du territoire, coll. « Planification territoriale et développement durable », 89 p. Document available on line (in French): <http://www.mamrot.gouv.qc.ca/grands-dossiers/developpement-durable/>



## Orientation 5. Improve the Protection of Biodiversity, Natural Environments and Green Spaces

**Objective 5.1. Improve Montréal's green infrastructures by increasing the canopy cover to 25% from 20% by 2025, compared to 2007**

### Initiative 5.1.1. Improve the protection of urban trees and increase their number

#### Action 58 L – Draw up an arboricultural plan

The arboricultural plan (for growing trees) is the first step in a planting strategy that provides a planning and management tool for all planting (trees, shrubs, annual and perennial flowers) in a designated urban area. The plan is based on a systematic inventory approach and on an analysis of plant and urban components and how they inter-relate.

Using a comprehensive analysis of the issues and challenges for vegetation, this step helps to shape a plan for the layout and management of the plants, from which a variety of intervention programs will result:

- Planting program (new and replacement planting)
- Maintenance program (pruning, fertilizing and phytosanitary treatment)
- Conservation program
- Communication program (raising awareness and education).<sup>37</sup>

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**Responsible** Urban Planning and Business Services Department  
Engineering Section  
Parks and Horticulture

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**Indicator** N/A

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**Starting Datum** Spring 2012: Development Guide for an arboricultural plan by the *Direction des grands Parcs et du verdissement* of the Ville centre.

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**Goal** Municipal Council to adopt an arboricultural plan

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**Timetable** 2013

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<sup>37</sup> Politique de l'arbre de Montréal, p. 20, 2005.



### Action 59 L – Raise awareness in the population about the benefits of urban trees and distribute indigenous tree seedlings

“In the context of global warming and heat islands created by installing hard surfaces in towns and cities, urban trees improve the quality of life of urban dwellers in a number of ways:

- trees reduce the impact of greenhouse gasses (absorption of CO<sup>2</sup>), purify and rid the air of dust
- they can help diminish bad odours and city noise
- trees help reduce heat with the shade they provide, and offer protection against strong winds
- they allow savings in heating and air-conditioning costs
- trees help combat erosion by retaining the soil
- they embellish the landscape, provide shelter for birds and privacy for urban dwellers.”<sup>38</sup> [Translation]

Éco-Quartier distributes about 1,000 indigenous tree seedlings each year to Pierrefonds-Roxboro residents during its awareness campaigns. The municipal administration wishes to continue and increase the awareness of the population about the importance of urban trees.

<b>Responsible</b>	Urban Planning and Environment Division Public Works Department Éco-Quartier
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<b>Indicator</b>	Awareness campaigns to go with the arboricultural plan Quantity of seedlings distributed annually
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<b>Starting Datum</b>	1,000 indigenous tree seedlings distributed each year
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<b>Goal</b>	To participate in awareness campaigns To continue distributing seedlings
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<b>Timetable</b>	2012 and onward
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### Action 60 L – Introduce incentive measures for replacing trees felled with a permit

When a tree felled with a certificate of authorization is replaced, the cost of the certificate of authorization will be refunded to the applicant upon presentation of proof of replacement of a tree.

<b>Responsible</b>	Urban Planning and Business Services Department
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<b>Indicator</b>	Number of trees replaced (cost of refunding the certificates of authorization)
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<b>Starting Datum</b>	N/A
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<b>Goal</b>	To replace 25% of trees felled with a permit
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<b>Timetable</b>	2013
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<sup>38</sup> L'arbre urbain, Service du développement culturel, de la qualité du milieu de vie et de la diversité ethnoculturelle, in collaboration with the boroughs of the Ville de Montréal. April 2008.



### Initiative 5.1.2. Protect and develop highly biodiverse territories

In 2010, the local administration, represented by Monique Worth, and concerned about protecting biodiversity, signed the Declaration of the Island of Montréal Community In Favour of Biodiversity and Greening. The Borough intends to participate in protecting and promoting areas high in biodiversity.

#### Action 61 L – Develop the Rapides du Cheval Blanc eco-territory

The Rapides du Cheval Blanc sector is one of the Ville de Montréal's eco-territories. An extraordinary resource for the Borough of Pierrefonds-Roxboro, this "eco-territory consists of forested riverbanks, waterfront dominated by its open marshes of Reed Canarygrass (Gramineae) and numerous wetland areas, which make up the distinctive identity of this sector adjacent to Rivière des Prairies. A bucolic landscape that is of equal benefit to fish, herpetofauna (such as the Dekay's Brownsnake, a species of special concern) and wildfowl, which breed here, and the Great Blue Heron and other shorebirds, which feed here. In the midst of the waterfront environment, wetlands and other areas (wasteland and woodland), species of flora at special risk will re-establish themselves. This was the case with Hairy Agrimony, which had not been seen in Québec for 50 years.

This sector, which already offers a great ecological resource, may benefit in future from the widening of a substantial section of natural riverside land along 3 km of waterfront, and this will provide a natural balance between the aquatic environment and the banks. Ultimately, a new 44-hectare park will see the light of day, and will become one of Montréal's major parks."<sup>39</sup> [Translation]

With these extensive developments, and in respect of the milieu, an interpretation circuit is planned to raise awareness in the population about the importance of environmental issues.

<b>Responsible</b>	Ville centre in partnership with Borough Direction Follow-up Committee
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<b>Indicator</b>	N/A
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<b>Starting Datum</b>	N/A
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<b>Goal</b>	To adopt a development plan
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<b>Timetable</b>	2014
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#### Action 62 L – Continue and extend the program for cleaning the public riverbanks

Each year, Éco-Quartier, in collaboration with the Great Canadian Shoreline Cleanup, organizes several activities to clean up public riverbanks. In 2010, the Rapides du Cheval Blanc site and Rivière de l'Anse-à-L'Orme were cleaned.

<b>Responsible</b>	Éco-Quartier in collaboration with the Great Canadian Shoreline Cleanup Public Works Department
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<b>Indicator</b>	km of public riverbanks cleaned annually
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<b>Starting Datum</b>	4 to 5 km of public riverbanks cleaned annually
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<b>Goal</b>	1 km more each year
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<b>Timetable</b>	2012 and onward
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39 Ville de Montréal Web site: [http://ville.montreal.qc.ca/portal/page?\\_dad=portal&\\_pageid=4837,12403563&\\_schema=PORTAL](http://ville.montreal.qc.ca/portal/page?_dad=portal&_pageid=4837,12403563&_schema=PORTAL), page consulted on November 25, 2011.



### Action 63 L – Set up a replanting program on public riverbanks for certain sectors

“For several decades, riverside lands (...) have been subjected to major transformations (removal of the vegetation cover, backfill, grassing, etc.), which have led to the alteration of their natural characteristics. These actions have also had considerable impacts on nature and the environment - erosion, the disappearance of wildlife habitats and the proliferation of algae.

Diversified planting of the lakeshores and riverbanks is a simple yet indispensable gesture, because it gives these areas back their beauty and their ecological value as well as helping to safeguard the uses made of the water. The results of planting are not always immediately visible or effective; often patience is required over more than one season of growth. Returning a bank to its natural state is sometimes perceived as abandoning it or leaving it fallow; shrubs are then considered “scrub”. All the same, the restoration of lakeshores and riverbanks is justified and its effectiveness, in the medium term, is definitely real.”<sup>40</sup> [Translation]

<b>Responsible</b>	Urban Planning and Business Services Department Infrastructure Division
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<b>Indicator</b>	Km of public riverbanks to be replanted
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<b>Starting Datum</b>	1.8 km to be replanted
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<b>Goal</b>	1.2 km
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<b>Timetable</b>	2013
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### Action 64 - Encourage owners of waterfront properties to apply replanting measures to private sections of riverbank

<b>Responsible</b>	Urban Planning and Business Services Department Green Line
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<b>Indicator</b>	km of private riverside land to be replanted
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<b>Starting Datum</b>	± 8 km
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<b>Goal</b>	N/A
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<b>Timetable</b>	Ongoing
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<sup>40</sup> MDDEP, Guide d'analyse des projets d'intervention dans les écosystèmes aquatiques, humides et riverains assujettis à l'article 22 de la Loi sur la qualité de l'environnement, p.2., March 2011.



### Action 65 L – Participate in the development of an ecological management program for green spaces

Protecting numerous natural spaces in existing parks involves taking into consideration a particular reality: cohabitation between flora and fauna on the one hand, and the human population on the other. In effect, the integrity of these ecosystems may be weakened by new developments and the infrastructures that accompany them. They may also be weakened by recreational use that exceeds the capacity that the milieu can support.

To ensure biodiversity, the integrity and the endurance of these spaces, the Ville centre has put in place a program for managing ecosystems.

<b>Responsible</b>	Réseau des grands parcs de Montréal Public Works Department Urban Planning and Environment Division
<b>Indicator</b>	Number of parks in which the program is being applied
<b>Starting Datum</b>	Applied in 2011 in the following nature parks: - Cap-Saint-Jacques - Bois-de-Liesse - Anse-à-l'Orme
<b>Goal</b>	Extend the program to the protected western sector of Pierrefonds-Roxboro and in the Rapides du Cheval Blanc nature park and continue the program in the nature parks.
<b>Timetable</b>	N/A





### **Action 66 L – Practice differentiated management of parks, green spaces and lots owned by the Borough**

#### **Raise awareness in the population and the users of these spaces about the benefits of this type of management.**

In a context of reduced amounts of public funds, differentiated maintenance of green spaces allows for better use of resources. It should be possible to give priority to the sites where the needs are greatest, rather than proceeding indiscriminately with the same maintenance program everywhere with limited resources.

With this approach, each site receives the degree of maintenance necessary, according to its specifics. Within the same park, separate zones require different types of maintenance. Thus a playground space with a large area of lawn may abut an island of flower meadow liberally dotted with daisies, red clover, golden rod or wild carrot, depending on the site.

Spaces that are more natural encourage greater biodiversity from an ecological point of view. If we allow plant species appropriate to each area to flower, they serve as a refuge and a 'larder' for large numbers of insects and butterflies, which in turn feed the birds. In addition to providing shelter to insects and winged fauna, the plant cover becomes more varied, more resistant to drought and richer.

Restoring or naturalizing portions of the green spaces consists essentially of reducing maintenance to a minimum to give the spontaneous flora free rein. These chosen zones are not abandoned - they are just treated differently."<sup>41</sup> [Translation]

<b>Responsible</b>	Public Works Department
<b>Indicator</b>	Number of green spaces in which the program is being applied
<b>Starting Datum</b>	10 parks in 2011
<b>Goal</b>	2 parks, spaces or lots per year
<b>Timetable</b>	2012 and onward

<sup>41</sup> Entretien différencié des espaces verts, Place à la nature. Leaflet, Ville de Montréal.



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