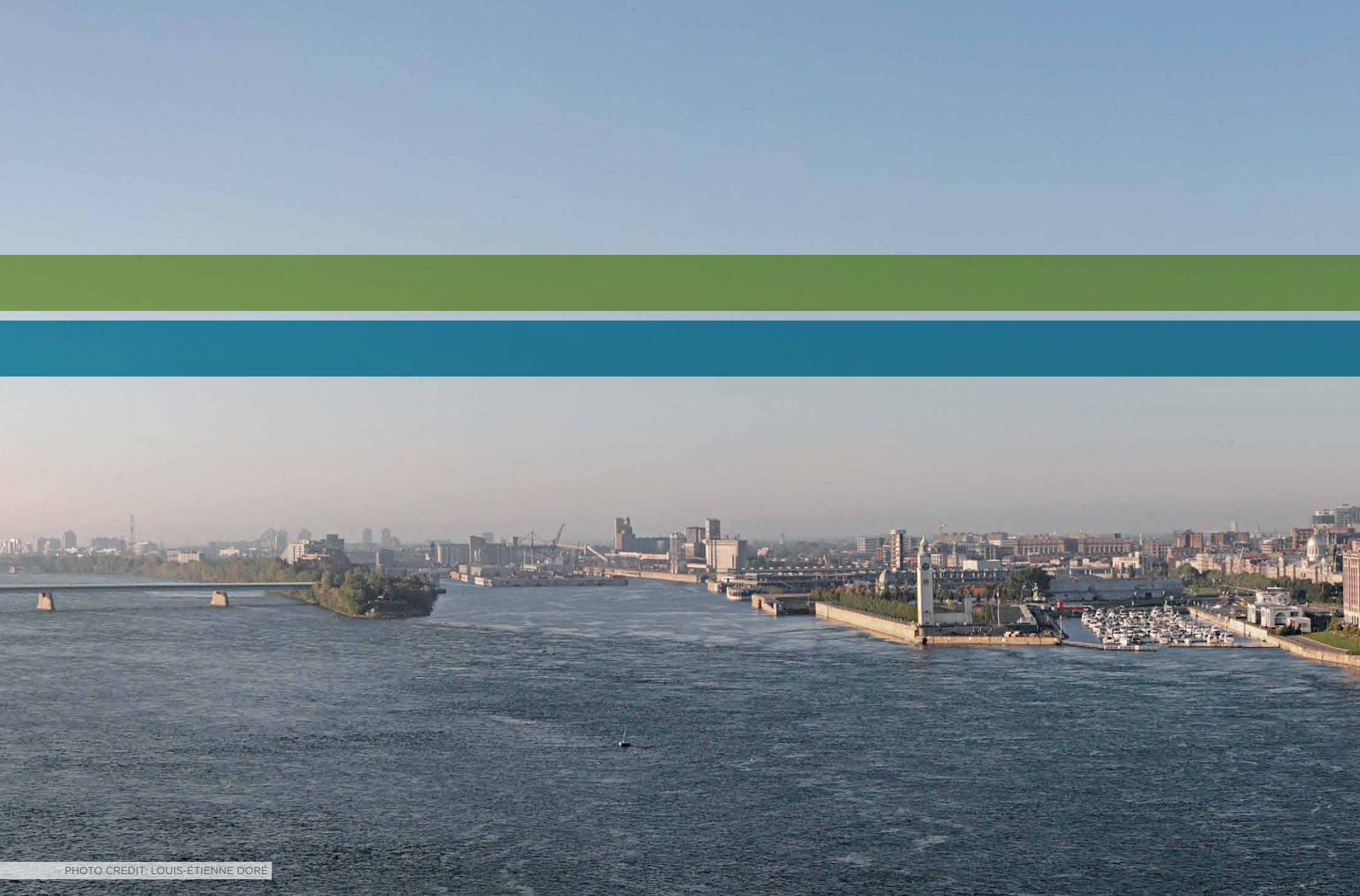


# AND SUSTAINABLE







AN ATTRACTIVE, COMPETITIVE

AND SUSTAINABLE

**GREATER  
MONTREAL**



Only the original French text of by-law number 2011-51 on the Plan métropolitain d'aménagement  
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# FOREWORD

The Communauté métropolitaine de Montréal (CMM) has jurisdiction in the field of land use planning.

To exercise this power, it must adopt and maintain in force a Metropolitan Land Use and Development Plan (PMAD) throughout its territory.

The PMAD defines policy directions, objectives and criteria to ensure the competitiveness and attractiveness of the Greater Montréal region in keeping with sustainable land use and development.

This plan concerns eight subjects, as follows:

- land transportation planning
- the protection and enhancement of the natural and built environment and of landscapes
- the identification of any part of the territory of the metropolitan community that must be the subject of integrated land use and transportation planning
- the definition of minimum density thresholds according to the characteristics of the locality
- the development of agricultural activities
- the definition of territories reserved for optimal urbanization as well as the delimitation of any metropolitan boundary
- the identification of any part of the territory of the metropolitan community that is situated within the territory of two or more regional county municipalities and is subject to significant constraints for reasons of public security, public health or general well-being
- the identification of any facility that is of metropolitan interest, and the determination of the site, use and capacity of any new such facility

The legislative framework also required the completion of several steps before the PMAD would be enacted, as follows.

The first step was to adopt a draft Plan no later than April 30, 2011.

Once the draft PMAD was adopted, the Québec Government had 180 days to submit its opinion to the CMM.

The CMM's partner bodies, i.e., the urban agglomerations and regional county municipalities (RCMs) located in whole or in part within the CMM's territory, as well as RCMs contiguous to the CMM's territory, had 120 days to submit their statement of opinion on the PMAD to the CMM.

Public consultations were to be held in each of the CMM's five geographic areas, i.e., the Montréal agglomeration, the Longueuil agglomeration, the City of Laval, the North Shore and the South Shore.

Following the conclusion of the public consultations on the draft PMAD, as well as the reception of the Québec Government's and the RCMs' opinions, the law stipulated that the by-law enacting the PMAD had to be adopted no later than December 31, 2011.

The Minister of Municipal Affairs, Regions and Land Occupancy was required to issue a statement of opinion regarding the PMAD's consistency with respect to government policy directions within 180 days of receiving a copy of the by-law enacting the PMAD. Thus, the PMAD would be enacted on the day that the Minister would signify its consistency with government policy directions to the CMM, or, in the event that the Minister would not give an opinion within the prescribed time period, after the said time period expired. The approval of the Québec government was received on March 12, 2012.

The council of a regional county municipality located in whole or in part within the CMM's territory must adopt a by-law in accordance with the PMAD within two years of its enactment.

Municipalities will then have a six-month period to ensure that their planning by-laws are consistent with their respective RCM land use plans.

**Larger copies of the PMAD maps are available  
at the following website: [www.pmad.ca](http://www.pmad.ca)**

## SUMMARY

In September 2003, the CMM Council made its view of Greater Montréal's future very clear by adopting Vision 2025: "Charting Our International Future: Building a Competitive, Attractive, Interdependent and Responsible Community."<sup>1</sup> The Metropolitan Land Use and Development Plan (PMAD) must now implement this vision, by taking the metropolitan region's assets into consideration, and tackling territorial challenges in the areas of land use, transportation and the environment.

The Communauté métropolitaine de Montréal had already conducted a land planning exercise in 2005 when it developed and adopted its first draft Metropolitan Land Use and Development Plan, which never came into force. Moreover, since its creation in 2001, the CMM has adopted several planning tools in its other fields of jurisdiction, notably economic development, waste management, social and affordable housing as well as green and blue spaces.

The PMAD is based on numerous documents and analyses written by the CMM, within the exercise of its powers, during the period between 2002 and 2010. The reader can consult the studies that were used to create this Plan by accessing the Metropolitan Land Use and Development Plan website.<sup>2</sup>

The PMAD was preceded by a draft Plan which was subjected to a consultation process, as prescribed by law, during which the Québec government and the RCMs communicated their opinions. The public consultations held also allowed more than 350 people and representatives from various organizations to comment on the draft Plan.

The various studies produced during this period, especially "Portrait of Greater Montréal — 2010 Edition," have helped identify Greater Montréal's most significant assets.<sup>3</sup> Table 1 presents these assets, which are associated with land use, quality of life, transportation and the environment.

**TABLE 1 — Greater Montréal's Territorial Assets**

Land Use and Quality of Life	Transportation	Environment
<ul style="list-style-type: none"> <li>• A region that is the demographic, economic and cultural heart of Québec</li> <li>• An ever-growing population</li> <li>• A cosmopolitan host region</li> <li>• An advantageous location at the heart of a pool of 115 million consumers</li> <li>• A dynamic and attractive downtown</li> <li>• One of the densest regions in North America</li> <li>• Diversified housing developments</li> <li>• Attractive economic hubs where clusters are concentrated</li> <li>• Among the lowest costs of living</li> <li>• Among the highest quality of life in the world</li> <li>• One of the largest metropolitan agricultural regions in North America</li> </ul>	<ul style="list-style-type: none"> <li>• Among the highest rates of mass-transit use in North America</li> <li>• A transport hub for merchandise from the US Northeast that features major road, air, rail and port transportation infrastructure</li> <li>• Well-developed transportation networks</li> </ul>	<ul style="list-style-type: none"> <li>• A unique archipelago</li> <li>• Great biodiversity</li> <li>• Good air quality</li> <li>• A recycling recovery rate that meets government objectives</li> <li>• High-quality drinking water</li> <li>• Positive results in the reduction of GHG</li> </ul>

<sup>1</sup> Vision 2025 can be consulted on the CMM website: [www.cmm.qc.ca](http://www.cmm.qc.ca)

<sup>2</sup> The PMAD website is: [www.pmad.ca](http://www.pmad.ca)

<sup>3</sup> Portrait of Greater Montréal, Metropolitan Reports No. 1, December 2010, CMM; Document déclencheur, Tome 1, Diagnostic, October 2002, CMM.



**“PORTRAIT OF GREATER MONTRÉAL” AND OTHER STUDIES PRODUCED IN THE LAST FEW YEARS HAVE ALSO IDENTIFIED THE MAIN CHALLENGES THAT THE REGION WILL HAVE TO MEET IN THE COMING YEARS. THREE CHALLENGES ARE PARTICULARLY RELEVANT TO THE PMAD’S OBJECTIVES:**

#### **CHALLENGE 1: LAND USE**

Greater Montréal must determine the preferred type of urbanization in order to accommodate the projected growth of some 530,000 people (or 320,000 new households) by 2031, as well as the 150,000 jobs that will be created, keeping in mind that the space and financial resources available are limited and that a metropolitan boundary will have to be established.

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#### **CHALLENGE 2: TRANSPORTATION**

Greater Montréal must optimize and develop existing and planned land-transportation networks in order to promote urban consolidation and sustain the growing mobility of goods and people.

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#### **CHALLENGE 3: ENVIRONMENT**

Greater Montréal must protect and enhance its natural and built assets (waterways, landscapes, woodland areas and heritage complexes) to foster the area’s attractiveness.

The PMAD has incorporated certain elements from the public consultations, the RCMs' opinions and the government's opinions on the draft Plan.

The PMAD has opted for actions that help structure the metropolitan region's urbanization process to make it more attractive and competitive from a sustainable-development viewpoint.

To this end, the PMAD proposes to act on three fronts: land use, transportation and the environment. It proposes 3 policy directions, 15 objectives and 33 land use criteria to meet the three challenges presented on the previous page.

**In terms of land use,** the PMAD establishes a policy direction for Greater Montréal to have sustainable living environments. To do this, the PMAD recommends locating at least 40% of planned urbanization within a one-kilometre radius around metro, commuter train, light-rail transit (LRT) and bus-rapid transit (BRT) stations, both existing and projected, with a view to developing Transit-Oriented Development (TOD) neighbourhoods. It also advocates the densification of the built environment on land that is vacant or slated for redevelopment outside such TOD zones.

Other objectives deal with establishing a metropolitan boundary, identifying the locations of existing and planned metropolitan facilities, optimizing the occupancy of farmland, and taking into account the area's geomorphological and anthropogenic constraints.

**In terms of transportation,** the PMAD establishes a policy direction for Greater Montréal to have efficient, structural transportation networks and facilities. To do this, the PMAD advocates developing the metropolitan mass-transit network so as to increase the modal share of public transit from the current figure of 25% to 30% during the morning rush hour by 2021, and to 35% by 2031. The expansion of this network, which requires an investment of at least \$23 billion, is essential to increasing sustainable mobility and reducing greenhouse gases, a large proportion of which are emitted by road vehicles.

The PMAD also suggests that certain stretches of the road network be completed in order to provide service to the main metropolitan employment hubs, as well as the mobility of goods. It also suggests defining a metropolitan arterial road network as well as a metropolitan bicycle network to help increase active transportation.

**In terms of the environment,** the PMAD establishes a policy direction for Greater Montréal to have a protected, enhanced environment. To this end, the PMAD suggests protecting and enhancing woodlands of metropolitan importance, forest corridors and wetlands. It also suggests a number of measures aimed at protecting riverbanks, shorelines, wetlands, landscapes and built heritage of metropolitan importance.

In order to ensure that all these facets are enhanced, the PMAD suggests establishing a metropolitan recreational and tourism network that would be structured around a Green and Blue Network, thereby allowing residents and visitors to benefit fully from these recreational, cultural and leisure areas.

These policy directions, objectives and criteria are summarized in the tables on the following two pages.

**POLICY DIRECTION 1: A Greater Montréal with Sustainable Living Environments**

OBJECTIVES		SUMMARY OF CRITERIA	
1.1	Direct 40% of household growth towards structural metropolitan mass-transit network access points	1.1.1	Location of Transit-Oriented Development (TOD) zones
		1.1.2	Definition of minimum density thresholds applicable to TOD zones
		1.1.3	Development of TOD zones
1.2	Optimize urban development outside of TOD zones	1.2.1	Definition of minimum density thresholds outside of TOD zones
		1.2.2	Definition of areas reserved for optimal urbanization
		1.2.3	Consolidation of major economic and commercial hubs
1.3	Promote optimal occupancy by increasing the area of cultivated land	1.3.1	Increase of 6% in surface area of cultivated land at the metropolitan level
1.4	Identify existing facilities of metropolitan importance and determine the location of planned metropolitan facilities	1.4.1	Identification of existing and planned metropolitan facilities
		1.4.2	Determine the location of planned metropolitan facilities
1.5	Identify the major constraints common to two or more RCMs	1.5.1	Identification of landslide risks common to two or more RCMs
		1.5.2	Identification of anthropogenic risks common to two or more RCMs
		1.5.3	Identification of the risks related to ambient air quality and related health effects
		1.5.4	Identification of the risks associated with weather-related events common to two or more RCMs
1.6	Set boundary for urbanization in keeping with sustainable development principles	1.6.1	Definition of the 2031 metropolitan boundary
		1.6.2	Modifications to the metropolitan boundary



## POLICY DIRECTION 2: A Greater Montréal with Efficient, Structural Transportation Networks and Facilities

OBJECTIVES	SUMMARY OF CRITERIA
2.1 Identify a mass-transit network in order to shape urban development	2.1.1 Identification of a structural metropolitan mass-transit network
2.2 Increase the modal share of mass-transit trips during morning rush hour travel to 30% by 2021	2.2.1 Modernize and develop the metropolitan mass-transit network
2.3 Optimize and complete the road network to ensure the efficient movement of people and goods	2.3.1 Identification of the metropolitan road network
	2.3.2 Definition of the metropolitan arterial road network
	2.3.3 Reduction in waiting times and delays caused by congestion
	2.3.4 Location of logistical hubs
2.4 Promote active transportation at the metropolitan level	2.4.1 Definition of the Metropolitan Bicycle Network

## POLICY DIRECTION 3: A Greater Montréal with a Protected, Enhanced Environment

OBJECTIVES	SUMMARY OF CRITERIA
3.1 Protect 17% of Greater Montréal's surface area	3.1.1 Identification of protected areas, metropolitan woodlands and forest corridors
	3.1.2 Identification and characterization of wetlands
	3.1.3 Protection of metropolitan woodlands and forest corridors
	3.1.4 Adoption of a wetlands conservation plan
3.2 Protect riverbanks, shorelines and flood plains	3.2.1 Identification of flood plains
	3.2.2 Protection of riverbanks, shorelines and flood plains
3.3 Protect landscapes of metropolitan importance	3.3.1 Identification of landscapes of metropolitan importance
	3.3.2 Protection of landscapes of metropolitan importance
3.4 Protect built heritage of metropolitan importance	3.4.1 Identification of built heritage of metropolitan importance
	3.4.2 Protection of built heritage of metropolitan importance
3.5 Enhance landscapes and the natural and built environments in a comprehensive, integrated manner for recreational and tourism purposes	3.5.1 Enhancement of the components of the Green and Blue Network



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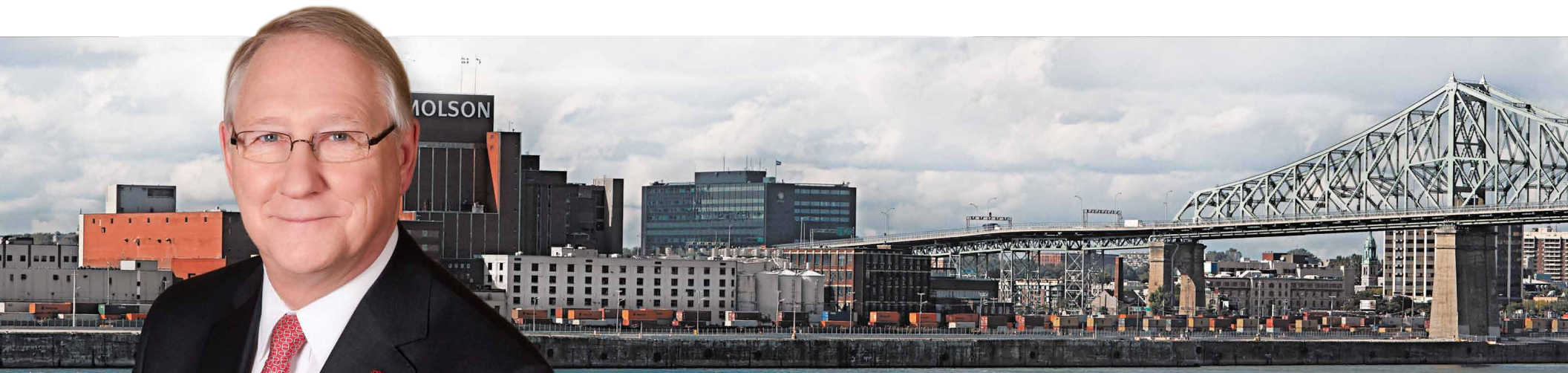
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## LIST OF ABBREVIATIONS

<b>AMT</b>	Agence métropolitaine de transport
<b>AOT</b>	Transit operating authority
<b>BRT</b>	Bus rapid transit
<b>CBRE</b>	CB Richard Ellis Commercial Real Estate Services
<b>CDP</b>	Comprehensive Development Program
<b>CEHQ</b>	Centre d'expertise hydrique du Québec
<b>CIT</b>	Conseil intermunicipal de transport
<b>CITM</b>	Comité interrégional pour le transport des marchandises
<b>CLI</b>	Canada Land Inventory
<b>CMA</b>	Census metropolitan area
<b>CMHC</b>	Canada Mortgage and Housing Corporation
<b>CMM</b>	Communauté métropolitaine de Montréal
<b>CN</b>	Canadian National
<b>CP</b>	Canadian Pacific
<b>CPTAQ</b>	Commission de la protection du territoire agricole du Québec
<b>CRÉ</b>	Regional conference of elected officers
<b>CRRNT</b>	Commission régionale sur les ressources naturelles et le territoire
<b>CSSS</b>	Centre de santé et de services sociaux
<b>DATAR</b>	Interministerial Delegation for Territorial Development and Regional Attractiveness (France)
<b>EDP</b>	Economic Development Plan
<b>EFE</b>	Exceptional forest ecosystems
<b>GDP</b>	Gross Domestic Product
<b>GHG</b>	Greenhouse gas
<b>HSR</b>	High-speed rail
<b>ICT</b>	Information and communications technology

<b>ISQ</b>	Institut de la statistique du Québec
<b>IUCN</b>	International Union for Conservation of Nature
<b>JCCBI</b>	The Jacques-Cartier and Champlain Bridges Incorporated
<b>LEED</b>	Leadership in Energy and Environmental Design
<b>LRT</b>	Light rail transit
<b>MAMROT</b>	Ministère des Affaires municipales, des Régions et de l'Occupation du territoire
<b>MCCCF</b>	Ministère de la Culture, des Communications et de la Condition féminine
<b>MDDEP</b>	Ministère du Développement durable, de l'Environnement et des Parcs
<b>MI</b>	Montréal International
<b>MTQ</b>	Ministère des Transports du Québec
<b>NRTEE</b>	National Round Table on the Environment and the Economy
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OMIT</b>	Organisme municipal ou intermunicipal de transport
<b>PAMLSA</b>	Metropolitan Action Plan for Affordable Public Housing
<b>PDCC</b>	Programme de détermination des cotes de crues
<b>PMAD</b>	Metropolitan Land Use and Development Plan
<b>PPÉAM</b>	Partenaires du parc écologique de l'archipel de Montréal
<b>PSMAD</b>	Draft version of the metropolitan land use and development plan
<b>RCM</b>	Regional county municipality
<b>REA</b>	Agricultural Operations Regulation
<b>RMMP</b>	Residual Materials Management Plan
<b>ROW</b>	Right of way
<b>RTL</b>	Réseau de transport de Longueuil
<b>SHQ</b>	Société d'habitation du Québec
<b>SMEBV</b>	Metropolitan Secretariat for the Enhancement of Blue and Green Spaces
<b>SPP</b>	Special Planning Program
<b>STL</b>	Société de transport de Laval
<b>STM</b>	Société de transport de Montréal
<b>TOD</b>	Transit-Oriented Development
<b>UGB</b>	Urban growth boundary
<b>UQAM</b>	Université du Québec à Montréal
<b>WO</b>	Watershed organization
<b>ZAEP</b>	Zones d'aménagement écologique particulières



## MESSAGE FROM THE CHAIR

The Metropolitan Land Use and Development Plan (PMAD) was adopted by the Council of the Communauté métropolitaine de Montréal (CMM) on December 8, 2011, and came into force on March 12, 2012.

With the PMAD, Greater Montréal now has, for the first time in its history, a land use and development plan for its entire territory. The main purpose of the PMAD, which presents the vision of elected officials, is to improve residents' quality of life and ultimately enhance the area's attractiveness and competitiveness from a sustainable-development viewpoint. Three major priorities have been identified with a view to reaching these objectives.

The first priority deals with land use. One of the PMAD's recommendations is to consolidate the urban growth to be generated by 320,000 additional households by the year 2031. New neighbourhoods, built with access to mass transit, could accommodate at least 40% of these new households, and if more is invested in mass transit, as much as 60% of new households could be located in these neighbourhoods. These living environments will be better designed and more environmentally friendly, and reduce dependency on automobiles while offering residents services located close to home.

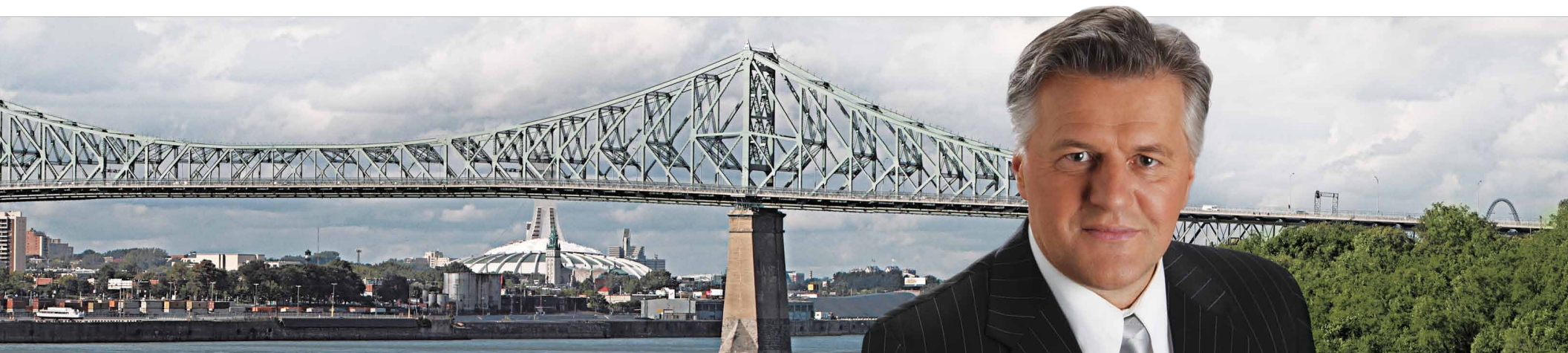
The second concerns mass transit. The PMAD's vision here is clear: an investment of more than \$23 billion is required to expand the role played by mass transit. If this investment actually comes to pass, it will help extend the metro network, create a light-rail transit (LRT) system in the Champlain Bridge corridor, strengthen the commuter train system and launch bus-rapid transit (BRT) service — all of which will help make Greater Montréal a model for sustainable transportation.

The third aims to protect and enhance Greater Montréal's numerous natural assets. While the Monteregian Hills, the St. Lawrence and woodland areas are all iconic sites greatly appreciated by residents and visitors alike, they deserve to be better protected and more accessible. People would like to take greater advantage of them, and new infrastructure for cycling and walking will make that possible.

I encourage all local residents to make the PMAD their own and to help their elected officials implement it in each of Greater Montréal's 82 municipalities. By taking action in our respective living environments, we will ensure that Greater Montréal becomes more competitive and attractive.

**Gérald Tremblay**





## MESSAGE FROM THE MINISTER

The Communauté métropolitaine de Montréal has written a new chapter in its history with the adoption of the region's first metropolitan land use and development plan (known by its French acronym, PMAD).

The PMAD is a major planning effort and one of the key founding acts of the CMM. This exercise has enabled governing bodies to reinforce their legitimacy with the people and actors from all walks of life who have rallied around a shared, developmental project: build a metropolitan region inspired by the vision of a prosperous Québec with attractive, dynamic and innovative municipalities.

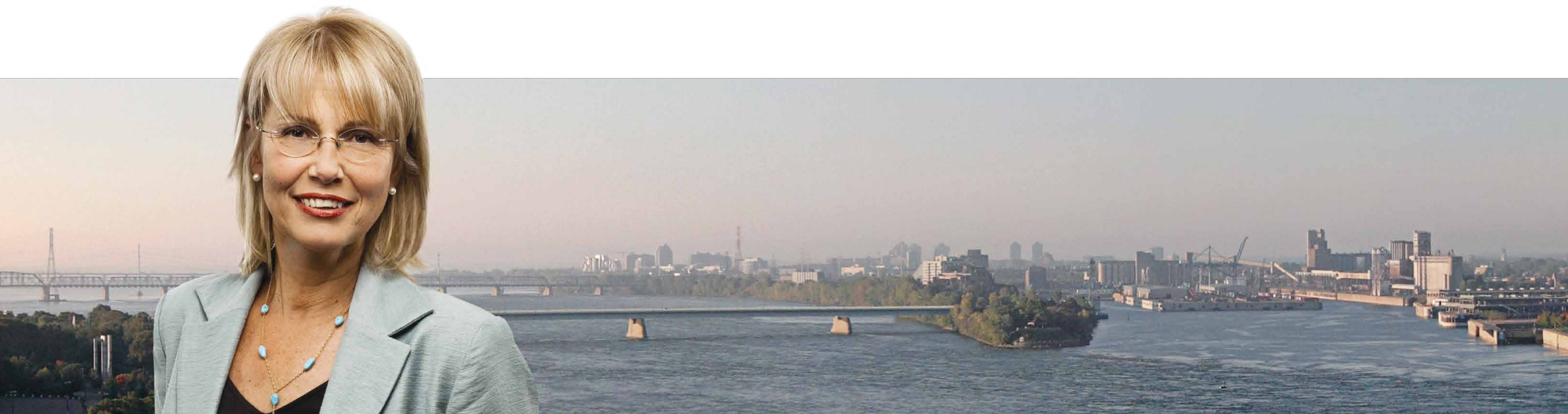
Moreover, the plan helps achieve the objectives of the 2011-2016 strategy to ensure the occupancy and vitality of territories, which aims, among other things, to meet the region's unique challenges with sustainable development and a newfound dynamism born of cooperation. This is the *raison d'être* of the Québec-Greater Montréal working table on land use and development: foster dialogue and improve coordination between the provincial government, major metropolitan partners and the CMM.

The CMM's Metropolitan Land Use and Development Plan is also the culmination of an extraordinary exercise in democracy, synergy and consultation. It is the product of strong consensus reached after a process of reflection and consultation with the population, stakeholders in the field, municipalities and RCMs who, together, have adopted a vision of the future built on sustainable development.

I am also very pleased with the initiative of implementing a metropolitan "agora" or assembly of elected officials and citizens, who I would like to congratulate and thank for their involvement in the consultation process. I believe that this agora must be organized to establish a true metropolitan vision that will constitute a new page in the history of metropolitan Montréal.

**Laurent Lessard**

Minister of Municipal Affairs, Regions and Land Occupancy



## MESSAGE FROM THE PRESIDENT OF THE PLANNING COMMISSION

In the fall of 2011, the Planning Commission which I preside held public hearings on the draft version of the PMAD.

The tremendous input we received from citizens enabled us to make many improvements to the PMAD and set even more ambitious goals. These consultations helped the CMM better understand the metropolitan territory and highlighted the creativity and vibrancy of the various municipalities that make up Greater Montréal.

Never, in the history of Greater Montréal's land use planning and development, has an exercise in citizen participation generated so much interest, nor have issues about improving our communities ever excited so much passion. From September 28 to October 21, 2011, the Planning Commission held 17 consultation sessions spread over 11 days of public hearings and sat for nearly 55 hours. We received a total of 344 briefs, 225 of which included an oral presentation.

The wide variety of comments and opinions expressed during these sessions reflected the dynamic ideas and interests of the region's inhabitants concerning the future of Greater Montréal. The briefs we received were of the highest quality, full of ideas and suggestions.

Some people spoke passionately about quality of life and living environments; others, with great conviction, of culture and heritage; the virtues of biodiversity and forest cover were also argued convincingly. Representatives from a variety of backgrounds discussed different ways of envisioning and organizing regional planning and development, from the perspectives of public health, economic development and social housing. Many young people asked us directly about today's major social issues: the environment, urban agriculture, active transportation and climate change. Elected officials came to share their concerns about managing urban growth.

Citizens have high expectations and want to participate in implementing the PMAD. Therefore, a metropolitan "Agora" or assembly of elected officials and citizens will be held every two years to generate recommendations for future discussion and consultation. The Agora will be an opportunity to continue this highly successful metropolitan exercise in participatory democracy.

I would like to thank all the members of the Planning Commission once again for their dedication throughout the consultation period; I'd also like to thank all the citizens, organizations and elected officials who participated. Together, we believe that the PMAD is a unifying project that holds tremendous promise for Greater Montréal and future generations.

**Helen Fotopulos**



## MESSAGE FROM THE DIRECTOR GENERAL

The creation of this first metropolitan planning tool benefited greatly from the active and committed participation of all the CMM's partners.

More specifically, the five geographical areas of the CMM helped define minimum density thresholds, territories reserved for optimal urbanization and the metropolitan boundary. I want to thank all the professionals from Greater Montréal's agglomerations and regional county municipalities who worked with the CMM's professionals to develop the PMAD.

The outstanding cooperation between the CMM and the Ministère des Affaires municipales, des Régions et de l'Occupation du territoire, which was established from the very beginning of the drafting process, meant that many adjustments were made to ensure that the PMAD conformed with the government's land use orientations. This enabled the PMAD to come into force in accordance with the schedule established by law. I'd like to thank the many professionals from the Québec government who assisted and advised us during this process.

In addition, citizen participation during the public consultations on the draft Plan was remarkable. It made it possible to significantly improve the PMAD and ensure that it better reflects the population's expectations.

Thanks to the approach adopted during this exercise, the PMAD is an ambitious metropolitan plan that citizens, groups, municipalities, RCMs, agglomerations and the Québec government can call their own.

I also want to warmly thank the entire CMM team whose involvement, dedication and professionalism enabled us to successfully meet the challenge of completing this project of importance to the future of Greater Montréal.

The CMM administration is already supporting elected officials so the PMAD can result in concrete actions. In this way, the implementation of the metropolitan plan, which will shape the Greater Montréal of tomorrow, will enable us to build an attractive, competitive and sustainable metropolitan region.

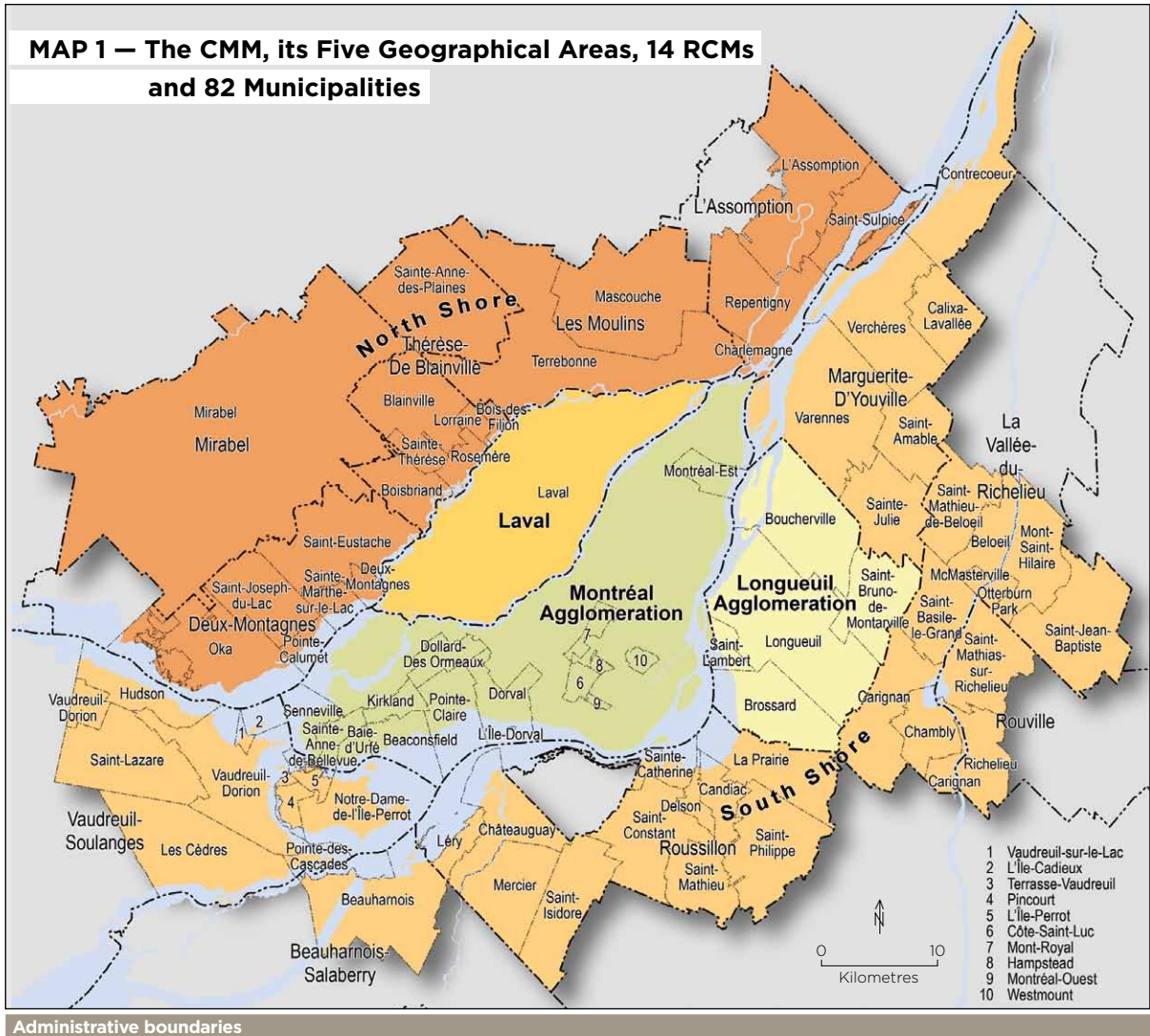
**Massimo Iezzoni**







**MAP 1 — The CMM, its Five Geographical Areas, 14 RCMs  
and 82 Municipalities**



Source: CMM, 2011.

## INTRODUCTION

Greater Montréal, the demographic, cultural and economic heart of Québec, is home to almost half of the province's population and jobs and generates almost 50% of its GDP. The region plays a central role in the creation of Québec's wealth.

Greater Montréal covers a surface area of approximately 4,360 km<sup>2</sup> where more than 3.7 million people live, work, study and play. This region, which corresponds more or less to the metropolitan census region, is characterized by its continuous built environment and the constant flow of people between its constituent municipalities.

## THE PMAD'S PURPOSE IS TO ENSURE THE COMPETITIVENESS AND ATTRACTIVENESS OF GREATER MONTRÉAL FROM A SUSTAINABLE-DEVELOPMENT VIEWPOINT.

In 2001, the Québec government created the Communauté Métropolitaine de Montréal (CMM) to be responsible for planning this territory.

The CMM is a planning, coordinating and funding body with jurisdiction in the fields of land use planning, economic development, transportation, the environment, public housing and facilities of metropolitan importance.

The CMM is administered by a council of 28 elected officials from the 82 municipalities that make up Greater Montréal.

Since 2001, the CMM has adopted a strategic vision of its economic, social and environmental development, an economic development plan, a waste management plan, public housing guidelines as well as an action plan for affordable public housing.

In February 2005, the CMM adopted a draft version of the metropolitan land use and development plan (PSMAD) in accordance with the institutional framework then in force with regards to land use planning. Public consultations on the PSMAD emphasized the willingness of the CMM's partners to review the distribution of planning powers and jurisdiction, as prescribed in the *Act respecting the Communauté métropolitaine de Montréal*. In 2008, the CMM Council unanimously adopted a proposal outlining a new division of land use and development planning powers. The *Act to amend the Act respecting land use planning and development and other legislative provisions concerning metropolitan communities* (the Act), passed in June 2010, reflected this consensus and established a new distribution of land use and development planning powers between the CMM and the RCMs and agglomerations in the metropolitan territory.

The new legislative framework, adopted in June 2010, gave the Communauté Métropolitaine de Montréal the power to create a Metropolitan Land Use and Development Plan (PMAD). The PMAD must define policy directions, objectives and criteria for eight mandatory subjects listed in the Act. Its purpose is to ensure the competitiveness and attractiveness of Greater Montréal from a sustainable-development viewpoint.







## BOX — Act to Amend the Act Respecting Land Use Planning and Development and Other Legislative Provisions Concerning Metropolitan Communities

The *Act to amend the Act respecting land use planning and development and other legislative provisions concerning metropolitan communities*, passed in June 2010, states that the CMM is now responsible for the creation of a Metropolitan Land Use and Development Plan (PMAD).

The PMAD must respect the principles of sustainable development to ensure the competitiveness and attractiveness of the metropolitan territory. It must define the policy directions, objectives and criteria, and, when applicable, identify and define the boundaries of any location, with regard to the eight following subjects:

- land transportation planning
- the protection and enhancement of the natural and built environment and of landscapes
- the identification of any part of the territory of the metropolitan community that must be the subject of integrated land use and transportation planning
- the definition of minimum density thresholds according to the characteristics of the locality
- the development of agricultural activities

- the definition of territories reserved for optimal urbanization as well as the delimitation of any metropolitan boundary
- the identification of any part of the territory of the metropolitan community that is situated within the territory of two or more regional county municipalities and is subject to significant constraints for reasons of public security, public health or general well-being
- the identification of any facility that is of metropolitan interest, and the determination of the site, use and capacity of any new such facility

The by-law establishing the metropolitan plan had to be adopted no later than December 31, 2011. Five years after it has been passed, the metropolitan plan must be revised.

The PMAD may make it mandatory to include any element it specifies in the complementary document to a land use and development plan for a regional county municipality or agglomeration located on its territory.

Moreover, the CMM must acquire the tools necessary to ensure follow-up and implementation of the PMAD and to evaluate progress toward plan objectives and success in carrying out plan proposals. It must adopt a biennial report on those subjects.

### REFERENCE:

*Act to amend the Act respecting land use planning and development and other legislative provisions concerning metropolitan communities*, S.Q. 2010, c. 10.

The five geographical areas of the CMM were asked to contribute to the development of the draft Plan. The CMM signed agreements for each geographical area with the RCMs and agglomerations so these bodies would suggest policy directions, objectives and criteria regarding minimum density thresholds, territories reserved for optimal urbanization and the metropolitan boundary.

The draft PMAD was adopted by the CMM Council at its meeting of April 28, 2011.

The Québec government,<sup>4</sup> the 12 regional county municipalities (RCM) located in whole or in part within the CMM's territory and the two agglomerations located in the CMM's territory then sent opinions outlining the modifications and details they wished to add to the draft Plan submitted to them.

The draft Plan was also the subject of a vast public consultation process undertaken by the CMM Planning Commission. This consultation process took place between September 28 and October 21, 2011. A total of 344 briefs were received and reviewed by the Planning Commission, of which 225 (66%) were presented verbally to the commission.

A wide range of stakeholders from civil society participated in the public hearings: national and local groups representing various socioeconomic backgrounds, the fields of health and the environment, unions, chambers of commerce and the transportation sector, not to mention the 92 briefs submitted by private citizens.

Although the PMAD is based on the draft Plan adopted by the Council in April 2011, it received several modifications, adjustments and details; they are the result of compromise between the CMM Planning Commission's public consultation report, the RCM opinions and the government's opinions.

Within two years of the PMAD coming into force, the council of a regional county municipality located in whole or in part within the Communauté métropolitaine de Montréal's territory must adopt a concordance by-law to conform to the policy directions, objectives and criteria of the PMAD.

Municipalities then have a six-month period to ensure that their planning by-laws are consistent with their respective RCM or agglomeration land use plan.

The PMAD sets forth 3 policy directions, 15 objectives and 33 criteria to ensure the competitiveness and attractiveness of the Greater Montréal region in keeping with sustainable land use and development.

This document is divided into four chapters:

- The first chapter provides the background for the creation of the PMAD, discussing in particular the institutional framework of Greater Montréal, notions of competitiveness and attractiveness as they apply to land use planning, sustainable development and planning issues related to climate change.
- The second chapter presents the policy directions, objectives and criteria for the sustainable land use and development of Greater Montréal.
- The third chapter presents the various mechanisms planned for coordinating the actions of the CMM and the Québec government with regard to the implementation of the PMAD.
- The fourth chapter presents the proposed approach for following up the PMAD.

A plan outlining the key initiatives the CMM intends to pursue in the coming years to help achieve the PMAD's policy directions, objectives and criteria is the subject of a separate document.

<sup>4</sup> The Québec government's opinion included comments from the ministries and organizations involved in the land use and development of Greater Montréal.







# 1. BACKGROUND

## INSTITUTIONAL LAND USE PLANNING FRAMEWORK

The Montréal metropolitan region is composed of 82 municipalities, grouped into five geographical areas: the Montréal agglomeration, the Longueuil agglomeration, Laval, the North Shore and the South Shore.

The City of Montréal is home to almost half of Greater Montréal's population. The cities of Laval and Longueuil have 200,000 to 400,000 inhabitants, 35 other municipalities have 15,000 to 150,000 inhabitants and 44 others have less than 15,000 inhabitants.

The 82 municipalities of Greater Montréal are also part of regional county municipalities (RCM). There are 14 RCM or equivalent territories, located in whole or in part within the region. The North Shore includes the Les Moulins and Thérèse-De Blainville RCMs, the territory of Mirabel (which is equivalent to a RCM), and part of the l'Assomption and Deux-Montagnes RCMs. The South Shore includes the Marguerite-D'Youville and Roussillon RCMs as well as part of the Beauharnois-Salaberry, Vallée-du-Richelieu, Vaudreuil-Soulanges and Rouville RCMs. The Montréal agglomeration, the Longueuil agglomeration and Laval are territories equivalent to RCMs.

**TABLE 2 — Population of Greater Montréal: 5 Geographical Areas and 82 Municipalities, 2010**

Sector, RCM, Municipality	Population	Sector, RCM, Municipality	Population	Sector, RCM, Municipality	Population	Sector, RCM, Municipality	Population
<b>Montréal Agglomeration</b>	<b>1,934,082</b>	<b>North Shore</b>	<b>537,802</b>	<b>South Shore</b>	<b>462,715</b>	Léry	2,355
Baie-D'Urfé	3,913	<i>Deux-Montagnes RCM (CMM part)</i>	91,563	<i>Beauharnois-Salaberry RCM (CMM part)</i>	12,200	Mercier	11,420
Beaconsfield	19,993	Deux-Montagnes	17,648	Beauharnois	12,200	Saint-Constant	24,733
Côte-Saint-Luc	33,005	Oka	3,516	<i>Marguerite-D'Youville RCM</i>	72,554	Sainte-Catherine	16,752
Dollard-Des Ormeaux	50,346	Pointe-Calumet	6,980	Calixa-Lavallée	519	Saint-Isidore	2,602
Dorval	18,781	Sainte-Marthe-du-Lac	14,369	Contrecoeur	6,111	Saint-Mathieu	1,949
Hampstead	7,376	Saint-Eustache	43,565	Saint-Amable	10,315	Saint-Philippe	5,606
Kirkland	20,968	Saint-Joseph-du-Lac	5,485	Sainte-Julie	29,257	<i>Rouville RCM (CMM part)</i>	9,958
L'Île-Dorval	0	<i>L'Assomption RCM (CMM part)</i>	109,312	Varennes	20,845	Richelieu	5,425
Montréal	1,692,082	Charlemagne	5,799	Verchères	5,507	Saint-Mathias-sur-Richelieu	4,533
Montréal-Est	3,910	L'Assomption	19,281	<i>La Vallée-du-Richelieu RCM (CMM part)</i>	106,675	<i>Vaudreuil-Soulanges RCM (CMM part)</i>	99,980
Montréal-Ouest	5,304	Repentigny	80,936	Beloeil	20,187	Hudson	4,929
Mont-Royal	19,598	Saint-Sulpice	3,296	Carignan	8,094	Les Cèdres	5,829
Pointe-Claire	31,404	<i>Les Moulins RCM</i>	144,872	Chambly	24,811	L'Île-Cadieux	132
Sainte-Anne-de Bellevue	5,384	Mascouche	40,022	McMasterville	5,627	L'Île-Perrot	10,454
Senneville	1,004	Terrebonne	104,850	Mont-Saint-Hilaire	17,319	Notre-Dame-de-l'Île-Perrot	10,500
Westmount	21,014	<i>Thérèse-De Blainville RCM</i>	152,029	Otterburn Park	8,498	Pincourt	13,600
		Blainville	52,304	Saint-Basile-le-Grand	16,493	Pointe-des-Cascades	1,198
<b>Longueuil Agglomeration</b>	<b>401,764</b>	Boisbriand	26,681	Saint-Jean-Baptiste	3,122	Saint-Lazare	18,805
Boucherville	41,058	Bois-des-Filion	9,499	Saint-Mathieu-de-Beloeil	2,524	Terrasse-Vaudreuil	1,923
Brossard	78,432	Lorraine	9,558	<i>Roussillon RCM</i>	161,384	Vaudreuil-Dorion	31,260
Longueuil	234,618	Rosemère	14,226	Candiac	19,204	Vaudreuil-sur-le-Lac	1,350
Saint-Bruno-de-Montarville	25,726	Sainte-Anne-des-Plaines	13,595	Châteauguay	45,620		
Saint-Lambert	21,930	Sainte-Thérèse	26,166	Delson	7,654		
		<i>Mirabel RCM</i>	40,026	La Prairie	23,489	<b>GREATER MONTRÉAL</b>	<b>3,735,066</b>
<b>Laval</b>	<b>398,667</b>	Mirabel	40,026				

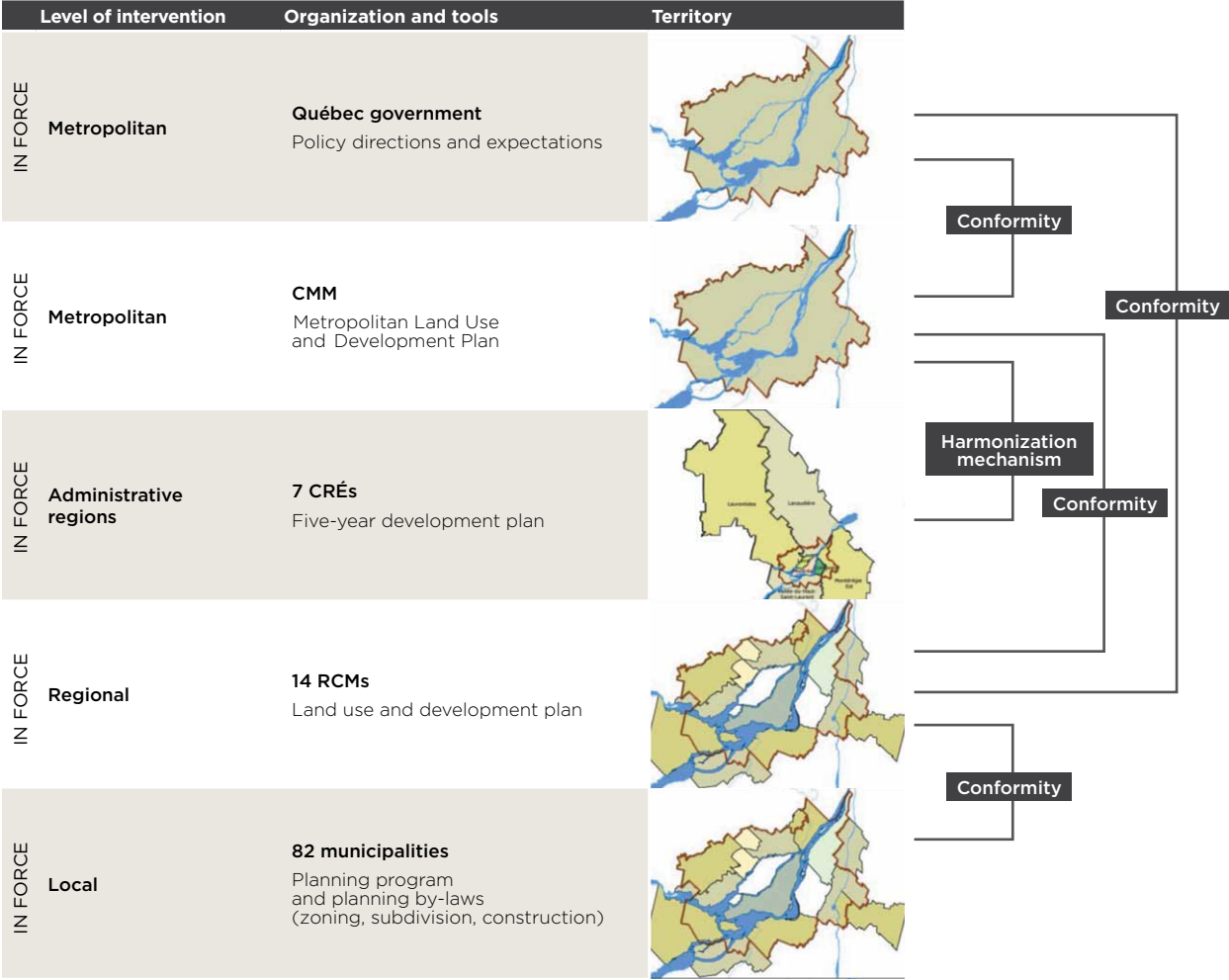
Source: Institut de la statistique du Québec. Estimation de la population des municipalités du Québec au 1<sup>er</sup> juillet des années 1996 à 2010. Calculations by the CMM, 2011.

The institutional land use and development framework comprises four levels of intervention and five categories of intervenor: the Québec government and the CMM intervene at the metropolitan level; the agglomerations, RCMs and city-RCMs intervene at the regional level; municipalities intervene at the local level; and regional conferences of elected officers (known by its French acronym, CRÉ), provincial ministries and several other organizations intervene at the level of administrative regions.<sup>5</sup>

Each of these levels has its own planning tools. Moreover, Québec law provides for mechanisms to ensure the compliance and standardization of such tools.

The PMAD of the Communauté métropolitaine de Montréal must therefore comply with government land use policy and guidelines. Moreover, RCM land use and development plans must conform to the PMAD, and the planning by-laws of local municipalities must conform to RCM land use and development plans. Finally, the *Act respecting the ministère des Affaires municipales, des Régions et de l'Occupation du territoire* stipulates that the CMM and the CRÉs within its territory must agree on a mechanism to harmonize the exercise of their powers and responsibilities, which means that the CRÉs' five-year development plans must harmonize with the PMAD.

Figure 1 – Levels of Planning in Force Throughout the CMM



It is also necessary to highlight the role of the Agence métropolitaine de transport (AMT) as the government agency responsible for planning and operating the metropolitan mass-transit network. The AMT adopts a strategic plan for mass transit that must be approved by the CMM Council.

Finally, Montréal International (MI) is mandated to attract direct foreign investment to Greater Montréal. This organization is interested in any intervention that can help enhance Greater Montréal's competitiveness and attractiveness. It is also particularly concerned by the availability of commercial space.

In its *Stratégie pour assurer l'occupation et la vitalité des territoires 2011-2016*, published in November 2011, the Québec government recognizes that the existence of numerous planning and development agencies working in different areas of the territory and different sectors of activity increases the complexity of governing the metropolitan territory.

For this reason, the Québec government's strategy includes the implementation of a metropolitan coordinating committee and an interdepartmental committee for the land use and development of metropolitan Montreal to increase the efficiency of government action in the territory and continue the discussion about an improved partnership between the government and its municipal partners in the metropolitan region.<sup>6</sup>

<sup>5</sup> There is generally one CRÉ per administrative region. However, there are three CRÉs in the Monteregian administrative region. Administrative regions also serve as territorial reference points for several ministries, organizations and associations.

<sup>6</sup> Québec Government, *Ministère des Affaires municipales, des Régions et de l'Occupation du territoire. Stratégie pour assurer l'occupation et la vitalité des territoires, 2011-2016, 2011. p. 65.*

**VISION 2025: FOR THE GREATER MONTRÉAL OF THE FUTURE**

In September 2003, following the completion of an extensive consultation process, the CMM adopted Vision 2025: “Charting Our International Future: Building a Competitive, Attractive, Interdependent and Responsible Community.”

**FIGURE 2 — Vision 2025: Adopted by the CMM Council in 2003**



The policy directions, objectives and criteria of the Metropolitan Land Use and Development Plan are directly inspired by this strategic vision.

The outcome of a rigorous diagnostic exercise conducted in 2002 and confirmed by the territorial review produced by the Organisation for Economic Co-operation and Development (OECD) in 2004,<sup>7</sup> this vision statement outlines what the CMM could become by the year 2025 if the necessary action is taken. Vision 2025 aims to describe the future community that residents would like to see in the year 2025.

<sup>7</sup> OECD. *OECD Territorial Reviews: Montreal, Canada, 2004*. 179 p.

## BOX — Vision 2025's Statement: "Charting Our International Future:

### Building a Competitive, Attractive, Interdependent and Responsible Community"

**In 2025**, the Communauté métropolitaine de Montréal is positioned as one of the leading metropolitan regions in the Americas. It has effectively responded to the demographic issues facing it and is recognized for its skilled and productive workforce, the diversified structure of its economy and its strong presence in the dynamic and strategic clusters of the new economy. It is a "smart growth" community that fosters knowledge, creativity and culture. While preserving and strengthening its assets and skills, it encourages innovation in all fields of activity and capitalizes on the strong collaboration between educational institutions and businesses. Increased economic prosperity in metropolitan Montréal, combined with that in the rest of Québec, helps redistribute wealth and social equity.

**In 2025**, the CMM is one of North America's leading intermodal transportation centres thanks to the interconnection of the road, air, maritime and rail networks. These systems help support regional development and are recognized as safe, reliable and fluid. Above all, the CMM has met the challenge of mass transit by developing a fast, accessible, attractive and flexible system that meets the needs of users and significantly reduces the use of automobiles. It ranks as one of the top performing metropolitan regions in terms of curbing the production of greenhouse gas emissions.

**In 2025**, the CMM offers its population an outstanding living environment enhanced by quality planning. The CMM's territory is developed on the basis of diverse, consolidated, denser and dynamic urban entities. The downtown core continues to play a leading role in financial, commercial and service industry activities, while offering an attractive living environment for its residents. Its cultural and tourist vitality is an internationally attractive asset for the CMM. The residential neighbourhoods and boroughs of the CMM's municipalities are considered safe and offer quality local services. Agricultural land, both protected and enhanced, is recognized as an essential component of the metropolitan ecosystem.

**In 2025**, the CMM's population is aware of the importance of protecting the environment. Its natural spaces, including the Monteregian Hills, have been enhanced and preserved. Public access to unique observation sites and places of relaxation and recreational activities has been increased. Over the years, the CMM has facilitated the deployment of a metropolitan network of bicycle and pedestrian paths and the creation of a high-quality nautical network. Significant efforts have been made to renaturalize shorelines, enhance many woodland areas and protect flood plains. The population has reclaimed its blue spaces, where swimming is now allowed. The CMM stands out for its high recycling recovery rate and the quality of its air and water. These elements contribute to the quality of life of a healthy population.

**In 2025**, the CMM is recognized worldwide for its cultural dynamism, festive character, "joie de vivre" and tolerance. Proud of its francophone and cosmopolitan population, it boasts a diverse and unifying social fabric. The CMM continues to benefit from an intense cultural life and a creative artistic milieu. Services are accessible to the entire community and each household has access to decent housing. Community involvement is recognized as an important value for the society's well-being. The community's spirit of inclusiveness is a source of pride.

**In 2025**, the CMM benefits from a plural partnership with the organizations that shape its development. A strong sense of belonging contributes positively to the dynamism of the region, which continues to play its role as an economic and cultural driver for all of Québec. Political and socioeconomic leaders of the community have long shared a common vision of the community's development that considers the strengths and uniqueness of every area within its territory.

**In 2025**, the citizens of the Communauté métropolitaine de Montréal are well informed of the major issues affecting them and have many forums and means to make their voices heard and influence decision-making. Everyone can play a role, find a place and contribute to building their living environment: a competitive, attractive, interdependent and responsible Communauté métropolitaine de Montréal."

\* Adopted by the CMM Council in 2003





Vision 2025 encourages an integrated approach that reflects the interdependence of the major functions of a metropolitan planning body: economic development, land use, transportation, the environment and housing. As the foundation for all of the CMM's planning processes, Vision 2025 has shaped the CMM's actions and planning tools.

### **CMM JURISDICTION: SOME KEY ACHIEVEMENTS**

The CMM has jurisdiction in what are known as the “strategic” areas of metropolitan governance: land use planning, economic development, social housing, facilities, infrastructure, services and activities of metropolitan importance, transportation and the environment.

The CMM has undertaken a multitude of activities in the exercise of its powers, adopting a number of policy directions, action plans and regulations. To support some of its activities, the CMM has created funds such as the Social Housing Fund, the Blue Fund and the Green Fund.

The PMAD has been able to capitalize on the work done in these areas since 2001 and will be supported by these efforts when it comes into force. Other projects under development will also support the objectives of the PMAD such as the creation of the metropolitan arterial road network.

It should be clarified that the act regulating the creation of the PMAD does not specify the mandatory inclusion of certain subjects such as social housing. However, since one of the PMAD's objectives is to ensure social diversity by supporting a diversified housing supply, it could call on references such as the *Plan d'action métropolitain pour le logement social et abordable, 2009-2013*.

**FIGURE 3 — Main Achievements of the CMM since 2001**



**REGIONAL COMPETITIVENESS AND ATTRACTIVENESS**

Economic globalization is based largely on metropolitan regions that are conducive to innovation, exchange and synergy. These metropolitan regions bring together factors that encourage the expression of new ideas, the emergence of new products, experimentation with new production methods and the application of technological innovations. They attract the investment needed for economic growth.

The most successful regions are characterized by dynamic educational institutions, diverse services and high-quality infrastructure. They include high level business services (financial sector, insurance companies, real estate companies, etc.) and create a network for the exchange of people, capital and ideas, which is a key element of globalization.

### BOX — Defining the Concepts of Attractiveness and Competitiveness

Usually used in economic literature to define the success factors of a business, the concepts of competitiveness and attractiveness also apply to cities and, to a larger extent, to metropolitan regions.

- The OECD defines the competitiveness of a territory as the ability to sustainably generate relatively high incomes and jobs while exposed to global competition.
- The notion of territorial attractiveness — which for many authors is a direct result of competitiveness — can be defined as the ability to attract and retain activities, businesses and people (DATAR).

Many of the most successful metropolitan regions use strategies to influence the factors<sup>8</sup> that help enhance their competitiveness and attractiveness and improve their position in the global economy. These strategies are supported by coordinated, metropolitan-wide actions and underscore the importance of economic, social and environmental viability for the entire metropolitan area.

Two types of planning are used specifically at the metropolitan level: economic development plans and land use and development plans.

- Economic development strategies generally focus more on competitiveness factors that aim to increase the **standard of living** of citizens and the productivity of businesses, encourage innovation and attract foreign investment.
- The goal of land use plans is to ensure that sufficient space is available to accommodate demographic and economic growth, while enhancing territorial attractiveness and the **quality of life** of citizens by determining the preferred type of urbanization, promoting the mobility of people and goods and preserving the environment.

The Communauté métropolitaine de Montréal follows this approach. Thus, following the adoption of Vision 2025, the Council adopted an initial Economic Development Plan (EDP) in 2005, which it updated in 2010, to increase the productivity of metropolitan Montréal, assuming moderate demographic growth.<sup>9</sup> In 2011, the Council adopted a Metropolitan Land Use and Development Plan (PMAD) for the period 2011-2031.

<sup>8</sup> These factors of competitiveness are well-known and have been extensively analyzed by economists. See Michael Parkinson, "Local Strategies in a Global Economy: Lessons from Competitive Cities," in *Local Governance and the Drivers of Growth*, 2005, OECD. Available online.

<sup>9</sup> The low productivity of metropolitan Montréal is well documented. Proposed solutions are also well known and various means have also been suggested, such as: increase education levels; give universities adequate funding; encourage innovation and promote the creativity of Greater Montréal. Some of these ideas are discussed in the EDP, but they require actions that are primarily the domain of the Québec government.

**FIGURE 4 — Vision 2025, EDP and PMAD**



More specifically, the PMAD focusses on two competitiveness factors: quality of life and transportation.

**Quality of life** covers aspects like the natural and built environment, cultural amenities, housing supply and natural spaces (OECD, 2005, p. 153). Although increased urbanization is linked to various environmental problems (loss of biodiversity, fragmentation of local ecosystems, water, air and soil pollution as well as diminished landscapes), citizens are more and more vocal about protecting, or even improving, their quality of life. Given the fierce competition that exists between metropolitan regions, “quality of life” can become a crucial factor enabling a region to distinguish itself from its competitors; many skilled workers in the new economy are in fact very mobile and attach a great deal of importance to the living environment when choosing a location.

In this context, the recognition, protection and enhancement of heritage, landscapes and natural environments become factors for attracting talent since they contribute directly to local quality of life. However, above all, investments that strengthen a region’s competitiveness and attractiveness also benefit the local population. A protected environment and enhanced quality of life are thus important foundations for increasing the innovation, productivity and, at the same time, the wealth of a region.

**Transportation** networks are essential to the proper functioning of metropolitan regions since they provide connections between the different parts of the territory and enable trade with the outside world. They contribute to the economic, social and cultural vitality of a metropolitan region and play a decisive role in its urban growth. The efficiency of these networks, which ensure the mobility of people and goods, is a factor of competitiveness and attractiveness.

Links between transportation and land use planning are, moreover, complex and reciprocal. Transportation planning has a major impact on land use planning and quality of life. Urban choices define the short-term demand for transportation, while networks influence long-term location choices. The interaction between land use planning and transportation network planning greatly influences urban form and the distribution of economic activities and households.

By providing the region with a Metropolitan Land Use and Development Plan, the CMM and its municipal partners are guided by the general trend of giving metropolitan regions a global strategy to reinforce their competitiveness and attractiveness.

The implementation of these strategies often involves several levels of jurisdiction. The coordination and synergy of complementary interventions from various public authorities and the commitment to a shared vision constitute a major issue in territorial planning.





## SUSTAINABLE DEVELOPMENT

The concept of sustainable development was initially introduced in the Brundtland Report of the United Nations World Commission on Environment and Development (1987). Three principles were highlighted: *solidarity*, *responsibility* and *prevention*. These principles help reconcile the three pillars of sustainable development: *environmental* protection, *economic* efficiency and *social* equity, the goal being to create wealth while respecting people and the environment.

Sustainable development tries to reduce the negative effects of development while improving quality of life and environmental integrity. Moreover, it adopts a balanced approach: with sustainable development, environmental protection, economic development and social development are all ranked as equally important.

The notion of sustainable development, as defined in the Québec *Sustainable Development Act*, conforms to this more general approach:

*“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development is based on a long-term approach which takes into account the inextricable nature of the environmental, social and economic dimensions of development activities.”*

In an urban environment, sustainability remains a difficult challenge.

The challenge for public authorities is to find a new balance between the three pillars of sustainability — economic, social and environmental — while more closely managing urban development to ensure increased protection for natural environments and ecosystems.

Indeed, many cities and metropolitan regions have recently made major efforts to adopt more ecological approaches to urban development, inspired in particular by sustainable development principles applied to land use planning.

In the absence of planning inspired by sustainable development, the dense populations and economic activities concentrated in cities can constitute a hazard that manifests itself in damage to the environment (loss of biodiversity, fragmentation of ecosystems, pollution of the water, air and soil and diminished landscapes) and quality of life. These impacts are felt not only in the cities themselves, but also in surrounding regions, and often worldwide.

Land use planning based on sustainable development is generally characterized by more compact forms of development that encourage a diverse urban fabric. It encourages mass-transit use and targets improved energy efficiency for buildings and major urban infrastructure. It makes maximum use of existing public services and facilities. It seeks to reduce the harmful effects of pollution and increase the integrity of ecosystems.



**TABLE 3 — Six Principles for Sustainable Land Use**

	MODEL BASED ON SUSTAINABLE DEVELOPMENT
Density	A generally higher building density that still meets the population’s needs.
Location of urban development	Mostly in renovated buildings or in new construction that consolidates urban areas.
Mixed land use	More integrated and more diverse urban functions.
Transportation	More concentrated urban land use planning that supports a wide variety of mass-transit options, both motorized and non-motorized.
Public and private spaces	Emphasis on the public realm and social spaces: shopping along commercial streets, leisure activities found in public parks.
Planning process	Better coordinated strategic planning involving a wide variety of actors.

Source: Ministère des Affaires municipales, des Régions et de l’Occupation du territoire. 2004. *Guide de bonnes pratiques – La réduction des émissions de gaz à effet de serre et l’aménagement du territoire*.  
Adaptation of table in: Todd LITMAN. 2003. *Evaluating Transportation Land Use Impacts* (online), Victoria, British Columbia, Victoria Transport Policy Institute, p. 4.

By creating the PMAD, the CMM aims to make the sustainable land use of metropolitan Montréal into a reality.

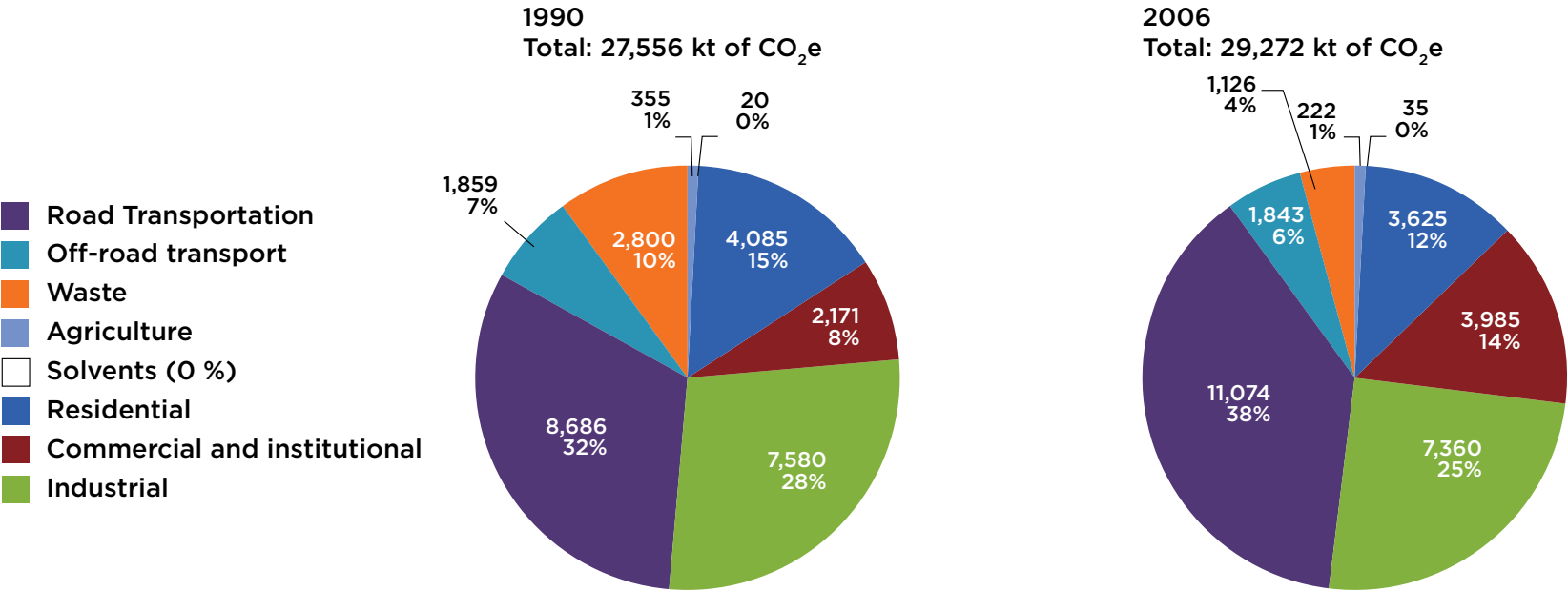
CLIMATE CHANGE

The fight against climate change is now a key concern of citizens and governments alike, creating major challenges for large metropolitan regions and all of humanity.<sup>10</sup> In Québec, the government's goal is to reduce GHG emissions by 20% compared to 1990 levels and land use and transportation planning is necessary to achieve this goal.

According to the overview of GHG emissions in Greater Montréal,<sup>11</sup> the total amount of GHG emitted on the CMM's territory rose by 6% from 1990 to 2006. This 0.4% annual increase is, however, less than the 0.8% average annual population growth during the same period.

Therefore, the GHG emission rate per inhabitant decreased on the CMM's territory, dropping from 8.9 tons of GHG per inhabitant in 1990 to 8.3 tons of GHG per inhabitant in 2006.

GRAPH 1 — GHG Emissions for Greater Montréal, 1990 and 2006 (kt of CO<sub>2</sub> equivalent)



Source: AECOM, Portrait des émissions de GES sur le territoire de la CMM, 2010.

In 2006, the road transportation sector was the primary emitter of GHG, contributing 38% of the total emissions, followed by the industrial sector, which contributed 25%. Natural gas consumption greatly contributes to GHG emissions in the commercial and institutional sector, making it the third largest emitter with 14% of emissions. In the residential sector, the use of heating oil was responsible for a large portion of GHG, with 12% of total emissions in 2006. The off-road transport and waste sectors recorded similar shares, with 6% and 4%, respectively.

The total quantity of GHG emitted on the CMM's territory rose by 1,716 kilotonnes from 1990 to 2006. The road transportation sector was the main cause of this increase, with emissions attributable to this sector increasing by 27%. Natural gas consumption in the commercial and institutional sector more than doubled between 1990 and 2006.

Within the framework of the PMAD, Greater Montréal can still make a significant contribution to reducing GHG emissions in Québec, notably by employing various measures that can be implemented in relatively dense urban environments. Vision 2025, adopted in September 2003, already proposed a land use model incorporating the principles of sustainable development and the fight against climate change.

## CULTURE

Cultural activities, due to their added value, attractiveness and unifying nature, can be positively linked to many of the PMAD's policy directions, objectives and criteria. For instance, incorporating culture into the land use planning of areas like TOD neighbourhoods has a structural effect on the community as a whole and maximizes the economic impact of interventions.

Making culture part of land use planning is also a concern of the Québec government. In 2012, the Ministère de la Culture, des Communications et de la Condition féminine (MCCCF) will publish some culture-related policy directions to enhance the government's land use planning policy directions.<sup>12</sup>

Moreover, land use choices are themselves actions that reflect our culture since they shape the living environment, the built environment and landscapes. Taken as a whole, planning the land uses of a territory such as Greater Montréal constitutes a powerful expression of culture. The urban and rural landscapes of yesteryear need to be protected and enhanced; those of tomorrow will become our new heritage, shaped in part by the PMAD. By the year 2031, this new territory will be a reflection of our collective identity.

## RURAL-URBAN SYNERGY

The metropolitan territory encompasses a rural reality that offers unique challenges in terms of maintaining the economic and social health of those municipalities, notably Sainte-Anne-des-Plaines in the Thérèse-De Blainville RCM and Richelieu and Saint-Mathias-sur-Richelieu in the Rouville RCM. These municipalities participate in the territorial dynamics of Greater Montréal in synergy with the urban environment. Therefore, any territorial development must respect these rural characteristics and recognize the issues linked to maintaining a population and services in rural municipalities.

<sup>10</sup> KAMAL-CHAQOUI, Lamia. *Competitive Cities and Climate Change*. In *Cahiers de l'IAU*, 2009, p. 51-54.

<sup>11</sup> AECOM Tecsalt Inc. *Portrait des émissions de gaz à effet de serre sur le territoire de la Communauté métropolitaine de Montréal*, report produced for the CMM. 2010.

<sup>12</sup> Québec Government, MAMROT. *Accompanying document to Stratégie pour assurer l'occupation et la vitalité des territoires 2011-2016, Actions gouvernementales 2011-2013*, 2011, p. 64.

## MUNICIPAL TAXATION

Municipal taxation currently relies primarily on property taxes. Indeed, more than 70% of municipal revenues come from property taxes. Québec's municipalities are more dependent on this type of taxation than almost any other federal OECD country. For instance, in the United States, property taxes represent just over 40% of municipal revenues.<sup>13</sup>

Although property taxes present some advantages, including stable revenues, they also offer several constraints and negative impacts.

This form of taxation encourages municipalities to favour real estate development in order to increase their property-tax base so they can improve their services and avoid having to raise property taxes above inflation. This approach often ends up putting development pressure on the farmlands of municipalities who have finished developing the boundaries of their urban growth, but who wish to continue urban development.

Some municipalities, however, have no new territory to develop and, in past years, have had to redevelop part of their already urbanized territory. This approach is often an opportunity to develop innovative projects that are in line with the spirit of the PMAD. However, it does require significant investment in terms of soil decontamination, infrastructure upgrades and design. These investments require financial aid from higher levels of government.

Redevelopment does not enable all municipalities to guarantee sufficient revenues or, at the very least, to compensate for the increased expenditures they have incurred, due to a transfer of responsibilities in the last few years. Indeed, municipalities must provide residents with more and more services that have nothing to do with property. Municipalities have also had to shoulder new responsibilities over the past few years, handed down by higher levels of government, without adequate financial compensation.

In a 2004 study, the Ministère des Affaires municipales, des Régions et de l'Occupation du territoire observed that socioeconomic transformations taking place in municipalities, particularly financing, are exposing the limitations of property taxes. According to this report:

*It appears that the ageing population, the demographic decline in outlying areas and rapid demographic growth in urban regions to the detriment of suburban municipalities are making some Québec municipalities very vulnerable. In some cases, it will be difficult to maintain the necessary local tax revenues while respecting the ability of taxpayers to pay. In addition, Québec municipalities must now deal with problems that, historically, were the jurisdiction of higher levels of government.<sup>14</sup>*

The diversification of municipal revenue sources should be considered to ensure the successful implementation of the PMAD. With access to new revenue sources, municipalities would have additional tools to help achieve the policy directions, objectives and criteria of the PMAD.

In its *Stratégie pour assurer l'occupation et la vitalité des territoires 2011-2016*, the Québec government announced its intention to increase its efforts to improve the financial viability of municipal authorities while striking a balance that implies accountability on the part of these municipalities.

This issue will be discussed when the fiscal and financial partnership with municipalities that ends in 2013 is renewed.



## PLANNING FRAMEWORK AND GOVERNMENT ORIENTATIONS: MONTRÉAL METROPOLITAN REGION, 2001-2021

According to the *Act Respecting Land Use Planning and Development*, land use planning is a responsibility to be shared between the Québec government, RCMs, metropolitan communities and municipalities. The provincial government implements guidelines for the land use planning and development of territories and, accordingly, it creates policy directions to guide metropolitan, regional and municipal planning.

In June 2001, the government adopted a specific framework for metropolitan Montréal: *Planning Framework and Government Orientations: Montréal Metropolitan Region, 2001-2021*. This framework “presents all of the Government’s land use planning orientations and the Government’s expectations regarding the Communauté métropolitaine de Montréal that the latter is invited to integrate into its development plan.”<sup>15</sup>

This document is a result of a concerted approach between all the ministries and government agencies, and presents a land use project that aims to set the metropolitan region on the path to sustainable development.

The document is primarily meant as a reference for government action in metropolitan Montréal. The government details its orientations for Montréal’s land use planning and brings together all of the ministries and government agencies working in the metropolitan territory.

In this planning framework, the Québec government outlines the major land use planning choices that it favours for the metropolitan region. It thereby states its preference for:

- an optimal urban form consolidated around economic hubs
- mixed land use and rehabilitation of old neighbourhoods
- international development of the metropolitan region
- mass transit with regard to passenger trips
- the permanence and sustainable development of the agricultural zone
- public access to green and blue spaces

Through its choices, the government confirms its desire to avoid certain strong trends by better managing urbanization, reducing greenhouse gas emissions and optimizing existing facilities and infrastructure. These choices do not affect the metropolitan area alone, as the government promises to harmonize the rules applicable to the metropolitan region and the surrounding RCMs.

In May 2011, the Ministère des Affaires municipales, des Régions et de l’Occupation du territoire (MAMROT) adopted the *Addenda modifiant les orientations gouvernementales en matière d’aménagement pour le territoire de la Communauté métropolitaine de Montréal en vue de l’élaboration d’un Plan métropolitain d’aménagement et de développement*, which adapts the government’s orientations and expectations to the new institutional land use planning framework in the CMM’s territory.<sup>16</sup>

<sup>13</sup> It must however be mentioned that American municipalities are responsible for more social services, notably education. OECD. *OECD Territorial Reviews, Montréal, Canada, 2004*. p. 119.

<sup>14</sup> Ministère des Affaires municipales, du Loisir et des Sports. *Les effets du vieillissement de la population québécoise sur la gestion des affaires et des services municipaux, Synthesis report, 2004*. p. 14.

<sup>15</sup> Québec Government. *A Shared Vision for Action - Planning Framework and Government Orientations - Montréal Metropolitan Region, 2001-2021, 2001*. p. 8.

<sup>16</sup> This document is available on the Ministère des Affaires municipales, des Régions et de l’Occupation du territoire website: [http://www.mamrot.gouvqc.ca/pub/amenagement\\_territoire/orientations\\_gouvernementales/addenda\\_CMM.pdf](http://www.mamrot.gouvqc.ca/pub/amenagement_territoire/orientations_gouvernementales/addenda_CMM.pdf)



## 2. POLICY DIRECTIONS, OBJECTIVES AND CRITERIA



In September 2003, the CMM Council made its view of Greater Montréal's future very clear by adopting Vision 2025. Taking the area's assets into consideration, the PMAD must now implement this vision. To do so, the PMAD proposes 3 policy directions, 15 objectives and 33 land use criteria to tackle territorial challenges in the areas of land use, transportation and the environment.

### A PLAN BASED ON MANY STUDIES AND ANALYSES

The Communauté métropolitaine de Montréal had already conducted a land planning exercise in the form of a draft Land Use and Development Plan that was adopted in 2005 but never came into force. Moreover, as previously mentioned, the CMM has adopted several planning tools in its other fields of jurisdiction: economic development, waste management, affordable public housing and green and blue spaces.

The PMAD is based on numerous documents and analyses written by the CMM in the exercise of its powers during the period between 2002 and 2010. The reader can consult the main studies used to create this Plan by accessing the PMAD website.<sup>17</sup>

### A METROPOLITAN REGION WITH MANY ASSETS

The various studies on Greater Montréal's development produced during this period, especially the "Portrait of Greater Montréal — 2010 Edition," helped identify Greater Montréal's most significant assets. Table 4 presents these assets, which are associated with land use, quality of life, transportation and the environment.

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<sup>17</sup> The PMAD website can be consulted at this address: [www.pmad.ca](http://www.pmad.ca)





**TABLE 4 — Greater Montréal's Territorial Assets<sup>18</sup>**

LAND USE AND QUALITY OF LIFE	TRANSPORTATION	ENVIRONMENT
<ul style="list-style-type: none"> <li>• A region that is the demographic, economic and cultural heart of Québec</li> <li>• An ever-growing population</li> <li>• A cosmopolitan host region</li> <li>• An advantageous location at the heart of a pool of 115 million consumers</li> <li>• A dynamic and attractive downtown</li> <li>• One of the densest regions in North America</li> <li>• Diversified housing developments</li> <li>• Attractive economic hubs where clusters are concentrated</li> <li>• Among the lowest costs of living</li> <li>• Among the highest quality of life in the world</li> <li>• One of the largest metropolitan agricultural regions in North America</li> </ul>	<ul style="list-style-type: none"> <li>• One of the highest rates of mass-transit use in North America</li> <li>• A transport hub for merchandise from the US Northeast that features major road, air rail and port transportation infrastructure</li> <li>• Well-developed transportation networks</li> </ul>	<ul style="list-style-type: none"> <li>• A unique archipelago</li> <li>• Great biodiversity</li> <li>• Good air quality</li> <li>• A recycling recovery rate that meets government objectives</li> <li>• High-quality drinking water</li> <li>• Positive results in reducing GHG</li> </ul>

<sup>18</sup> For more information, see: *Portrait of Greater Montréal, Metropolitan Reports No. 1, CMM, December 2010; Document déclencheur, tome 1, diagnostic, CMM, October 2002.*



**GREATER MONTRÉAL MUST MEET THREE LAND USE PLANNING CHALLENGES**

“Portrait of Greater Montréal” and other studies produced in the last few years have also identified the main challenges that the region will have to meet in the coming years. Three challenges are particularly relevant to the PMAD’s objectives:

**CHALLENGE 1: LAND USE**

Greater Montréal must determine the preferred type of urbanization in order to accommodate the projected growth of some 530,000 people (or 320,000 new households) by 2031, as well as the 150,000 jobs that will be created, keeping in mind that the space and financial resources available are limited and that a metropolitan boundary will have to be established.

**CHALLENGE 2: TRANSPORTATION**

Greater Montréal must optimize and develop existing and planned land-transportation networks in order to promote urban consolidation and sustain the growing mobility of goods and people.

**CHALLENGE 3: ENVIRONMENT**

Greater Montréal must protect and enhance its natural and built assets (waterways, landscapes, woodland areas and heritage complexes) to foster the area’s attractiveness.

**MEETING LAND USE CHALLENGES WITH A UNIFYING PROJECT**

The PMAD must be a unifying project that involves the elected officials of Greater Montréal, the Québec government, citizens and civil society. To achieve this, the PMAD’s policy directions, objectives and criteria are based on the following choices and principles:

- Recognize the region’s polycentric nature, notably by maintaining and reinforcing downtown Montréal and the region’s city centre.
- Recognize the contribution of each area Montréal, Laval, Longueuil, the North Shore and South Shore as dynamic components in the economic development of the metropolitan region.
- Promote economic, social, environmental and cultural development using a polycentric approach.
- Continually monitor information about available space to ensure the supply is sufficient to accommodate demographic and economic growth and thus encourage an increase in collective wealth.
- Improve the transportation supply to increase the use of mass transit and active transportation and reduce GHG emissions.
- Recognize culture, creativity and design as land use components that contribute to the region’s quality of life and attractiveness.
- Define high-priority unifying metropolitan projects to make Vision 2025 into a reality at the metropolitan level.
- Manage urbanization using a modulated, gradual approach.
- Recognize the socioeconomic advantages of built heritage, environmental heritage and landscapes.
- Coordinate the actions of the region and the Québec government by creating a Québec-Greater Montréal coordinating committee on land use and territory development.

The three land use policy directions proposed in the PMAD all reflect these principles.

## A LAND USE PROJECT FOR METROPOLITAN-WIDE STRUCTURAL INTERVENTIONS

The PMAD has opted for actions that will help structure the metropolitan region's urbanization process to make it more attractive and competitive from a sustainable-development viewpoint.

The land use concept proposed by the PMAD does not aim to determine the precise location of the people and economic activities in the metropolitan territory. For that matter, even though the PMAD uses the Institut de la statistique du Québec's demographic projections and takes into account its estimated distribution for each of the CMM's geographic areas, each of the 82 municipalities still has its own planning tools. As long as these tools meet the policy directions, objectives and criteria of the PMAD by conforming to each municipality's respective regional development plan, all of the CMM municipalities can establish economic and demographic growths targets separate from the ISQ projections used in the PMAD.

The PMAD establishes a metropolitan boundary to help achieve various land use planning objectives. However, it is possible to modify this perimeter, if special situations should require it.

The PMAD is therefore part of a planning trend whose goal is to implement the conditions that will promote economic growth and guarantee the population's quality of life by meeting the three land use challenges presented on the previous page.

To this end, the PMAD proposes to act on three fronts: land use, transportation and the environment.

**In terms of land use,** the PMAD establishes a policy direction for Greater Montréal to have sustainable living environments. To do this, the PMAD recommends locating at least 40% of planned urbanization within a one-kilometre radius around metro, commuter train, light-rail transit (LRT) and bus-rapid transit (BRT) stations, both existing and projected, with a view to developing Transit-Oriented Development (TOD) neighbourhoods. It also advocates the densification of the built environment on land that is vacant or slated for redevelopment outside such TOD zones.

Other objectives deal with establishing a metropolitan boundary, identifying the locations of existing and planned metropolitan facilities, optimizing the occupancy of farmland, and taking into account the area's geomorphological and anthropogenic constraints.

**In terms of transportation,** the PMAD establishes a policy direction for Greater Montréal to have efficient, structural transportation networks and facilities. To do this, the PMAD advocates developing the metropolitan mass-transit network so as to increase the modal share of public transit from the current figure of 25% to 30% during the morning rush hour by 2021, and to 35% by 2031. The expansion of this network, which requires an investment of at least \$23 billion, is essential to increasing sustainable mobility and reducing greenhouse gases, a large proportion of which are emitted by road vehicles.

The PMAD also suggests that certain stretches of the road network be completed in order to provide service to the main metropolitan employment hubs, as well as the mobility of goods. It also suggests defining a metropolitan arterial road network as well as a metropolitan bicycle network to help increase active transportation.

**In terms of the environment,** the PMAD establishes a policy direction for Greater Montréal to have a protected, enhanced environment. To this end, the PMAD suggests protecting and enhancing woodlands of metropolitan importance, forest corridors and wetlands. It also suggests a number of measures aimed at protecting riverbanks, shorelines, wetlands, landscapes and built heritage of metropolitan importance.

In order to ensure that all these facets are enhanced, the PMAD suggests establishing a metropolitan recreational and tourism network that would be structured around a Green and Blue Network, thereby allowing residents and visitors to benefit fully from these recreational, cultural and leisure areas.

These policy directions, objectives and criteria are detailed in the following sections.



PHOTO CREDIT: CMM

**THE NOTION OF CRITERIA IN THE PMAD**

It is important to clarify our notion of criterion.

According to *La prise de décision en urbanisme* published by the MAMROT, a “criterion” allows for the evaluation and interpretation of a goal’s completion.<sup>19</sup>

The guide distinguishes between two types of criteria: prescriptive criteria and performance criteria. A “prescriptive” criterion specifies and may even quantify the desired or unwanted characteristics of a project or intervention, whereas a “performance” criterion relates to the desired result of the project, rather than its characteristics.

The PMAD follows these guidelines. Moreover, in some cases, the notion of identification criterion is also used. This notion refers to criteria that can identify and possibly locate certain metropolitan components, such as facilities or woodlands of metropolitan importance.

Table 5 lists the three different types of criteria used in the PMAD.

**TABLE 5 — Types of Criteria Used in the PMAD**

Identification criterion	identifies objects
Prescriptive criteria	specifies and can even quantify desired or unwanted characteristics
Performance criteria	identifies the desired result of the project, rather than its characteristics

According to law, the policy directions, objectives and criteria identified in the following sections must be integrated into the land use and development plans of the RCMs and agglomerations located in whole or in part in the CMM’s territory.

<sup>19</sup> Available online: <http://www.mamrot.gouv.qc.ca/amenagement-du-territoire/guide-la-prise-de-decision-en-urbanisme/reglementation/document-complementaire-au-schema-damenagement-et-de-developpement/>









# **POLICY DIRECTION 1**

## A GREATER MONTRÉAL

### WITH SUSTAINABLE

# **LIVING ENVIRONMENTS**



Land use planning according to sustainable development principles involves, first and foremost, a more rational use of space. Greater Montréal must, in this context, determine the preferred type of urbanization to accommodate projected growth, predicted sociodemographic changes and the jobs that will be created by 2031.

In 2008, a CMM study<sup>20</sup> identified the demographic changes that will have an impact on the residential market: the ageing population, the reduced number of young households and the breakdown of the family unit. These transformations promote an increase in the market share of denser residential products.<sup>21</sup> In the future, environments served by mass transit, services, entertainment and green spaces should benefit more from these structural changes than other areas do.

As for the economy, the data indicates a steady decrease in manufacturing jobs. At the same time, there will be an increase in abandoned industrial spaces throughout Greater Montréal.

The projected demographic changes, the economy's transformation and the gradual adoption of sustainable development values by citizens will encourage municipalities to adjust their land use practices.<sup>22</sup>

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<sup>20</sup> Jules Hurtubise, *Évolution du marché de la construction résidentielle et perspectives probables*, Communauté métropolitaine de Montréal, 2008.

<sup>21</sup> See the "Housing construction" section in *Portrait of Greater Montréal*, 2010 Edition, p. 31.

<sup>22</sup> The *Ordre des urbanistes du Québec* adopted a declaration on sustainable planning on September 25, 2009, called "Relever le défi du développement durable du territoire au Québec," while the *Union des municipalités du Québec* adopted, in April 2008, a sustainable mobility and transportation policy. Sustainable planning practices are characterized by more compact forms of development that encourage a diverse urban fabric. They are designed to encourage the use of clean energy in transportation and increase the energy efficiency of buildings and large urban infrastructure. They promote the optimal use of existing public services and facilities. They aim to reduce the harmful effects of pollution and improve the integrity of ecosystems.



PHOTO CREDIT: LOUIS PARAYRE





PHOTO CREDIT: CMM

## BOX — Sustainable Development and Land Use Planning

Many schools of thought can be considered variants or refinements of sustainable planning concepts. These approaches often have primary objectives that include consolidating urban development and linking land use and transportation. They are particularly focussed on reducing car dependency.

- *Smart Growth* suggests directing growth towards existing urban areas and thereby consolidating them instead of opening new areas to development.
- *New Urbanism* proposes that large planned urban projects be used to promote the urban environment and reinforce its attractiveness. *New Urbanism's* approach encourages the creation of attractive living environments by emphasizing mixed-use and diversified residential housing as well as walking as a primary mode of transportation.
- *Transit-Oriented Development* (TOD) organizes urban development around mass-transit infrastructure or facilities. The stated goal is to increase mass-transit use.
- Created in 1998, LEED (*Leadership in Energy and Environmental Design*) is an American certification system for new or existing buildings that meet higher eco-efficiency standards. This approach notably aims to encourage urban renewal for existing environments, reduce urban sprawl through increased densification, reduce automobile dependency and protect natural environments, fauna and flora.
- The *EcoDensity* approach, initiated by the City of Vancouver in 2007, integrates several aspects of the previously described approaches. For the City of Vancouver, well-planned neighbourhoods that strategically integrate density are able to offer better transportation choices and diversified housing and increase overall economic vitality, all within the framework of sustainable development.
- The *ABC Policy* developed in the Netherlands aims to locate activities in the most appropriate areas of the territory depending on their “mobility profile” or the type of movements they generate and their need for parking. Thus, a business generating a lot of foot traffic will be located near mass transit. Conversely, a transportation, distribution or logistics business will be located near major highways.





### BOX — Creating Eco-Districts (or “Sustainable” Neighbourhoods)

Many large cities throughout the world include eco-districts, the most famous of which are located in Stockholm (Hammarby Sjöstad), Hanover, Freiburg (the Vauban district), Malmö, London (the BedZED district), Dongtan (China), Eva Lanxmeer (Netherlands) and Abu Dhabi.

The concept is also very popular in France and Switzerland, where many large cities have created eco-district projects, including Besançon, Bordeaux, Geneva, Grenoble, Lausanne, Lille, Mulhouse, Nantes, Paris, Rouen, Saint-Étienne, Strasbourg and Zurich. The trend is also present in North America, where the first cities to develop the formula are Portland, Oregon; Greensburg, Kansas and Vancouver, British Columbia.

An eco-district, also called a “sustainable neighbourhood,” is guided by the concept of socioeconomic, cultural and generational diversity while incorporating cooperation, thus respecting the basic principles of sustainable development. In addition to being multifunctional by hosting businesses and services, eco-districts facilitate access to sports and cultural activities as well as employment hubs.

From the preparation phase to the operational phase, the creation of an eco-district is the result of actions by many actors. Citizen participation is established right from the design phase. By participating in the discussion of their future living environment, citizens are encouraged to observe the operating principles of the eco-district. Citizen involvement is essential to the success of an eco-district and can translate into participatory and educational governance.

To facilitate access to the various services, eco-districts promote multifunctionality, which means mixed land use and zoning by-laws. Moreover, eco-districts are distinguished by integrating green spaces into the environment’s development.

Many Québec municipalities have also demonstrated a willingness to implement the basic principles of eco-districts into their planning. In the next few years, the city plans of many Québec municipalities could set the stage for the emergence and development of many eco-districts.

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To learn more about the French eco-district experience, see: <http://www.developpement-durable.gouv.fr>

### BOX — The Growing Importance of Digital Infrastructure

When it comes to the dynamic, strategic market niches of the new economy, digital data distribution and transportation infrastructure could play a significant role. Indeed, the growth of metropolitan regions is increasingly based on the knowledge economy. As mentioned in the *Stratégie pour assurer l'occupation et la vitalité des territoires 2011-2016*, issued by the Québec government in November 2011, “These technologies are synonymous with business opportunities. They lead to significant gains in productivity, access to new markets and new products and services, while increasing competition. They support the management of territories, natural resources and environmental risks.”<sup>23</sup>

According to a 2009 study<sup>24</sup> sponsored by Cisco Systems and carried out jointly by the Saïd Business School at the University of Oxford and the University of Oviedo in Spain, the Montréal region is ranked 101st out of 240 metropolitan regions in quality of broadband connections. Another study published by the same group in 2010 shows that Montréal is not one of the 38 cities with the broadband quality required “to become smart and connected.”<sup>25</sup> Furthermore, according to Industry Canada’s online National Broadband Maps indicating unserved and underserved households across Canada as of July 2011,<sup>26</sup> certain rural areas of the CMM’s territory still do not have access to broadband services (transfer speeds of 1.5 Mbps<sup>27</sup>). Thus, Greater Montréal has everything to gain from undertaking major digital development projects, using state-of-the-art information and communications technologies (ICT), to properly support industry and reinforce the metropolitan area’s strategic position.

23 [http://www.mamrot.gouv.qc.ca/pub/occupation\\_territoire/strategie\\_occupation.pdf](http://www.mamrot.gouv.qc.ca/pub/occupation_territoire/strategie_occupation.pdf)

24 [http://globalnewsroom.cisco.com/easyir/customrel.do?easyirid=68390D717323E49B&version=live&prid=600550&releasejsp=custom\\_126&region=BE&rscope=all](http://globalnewsroom.cisco.com/easyir/customrel.do?easyirid=68390D717323E49B&version=live&prid=600550&releasejsp=custom_126&region=BE&rscope=all)

25 <http://www.sbs.ox.ac.uk/newsandevents/Documents/BQS2010presentation.pdf>

26 [http://www.ic.gc.ca/eic/site/720.nsf/eng/h\\_50010.html](http://www.ic.gc.ca/eic/site/720.nsf/eng/h_50010.html)

27 [http://www.ic.gc.ca/eic/site/719.nsf/eng/h\\_00004.html#BPQ3](http://www.ic.gc.ca/eic/site/719.nsf/eng/h_00004.html#BPQ3)



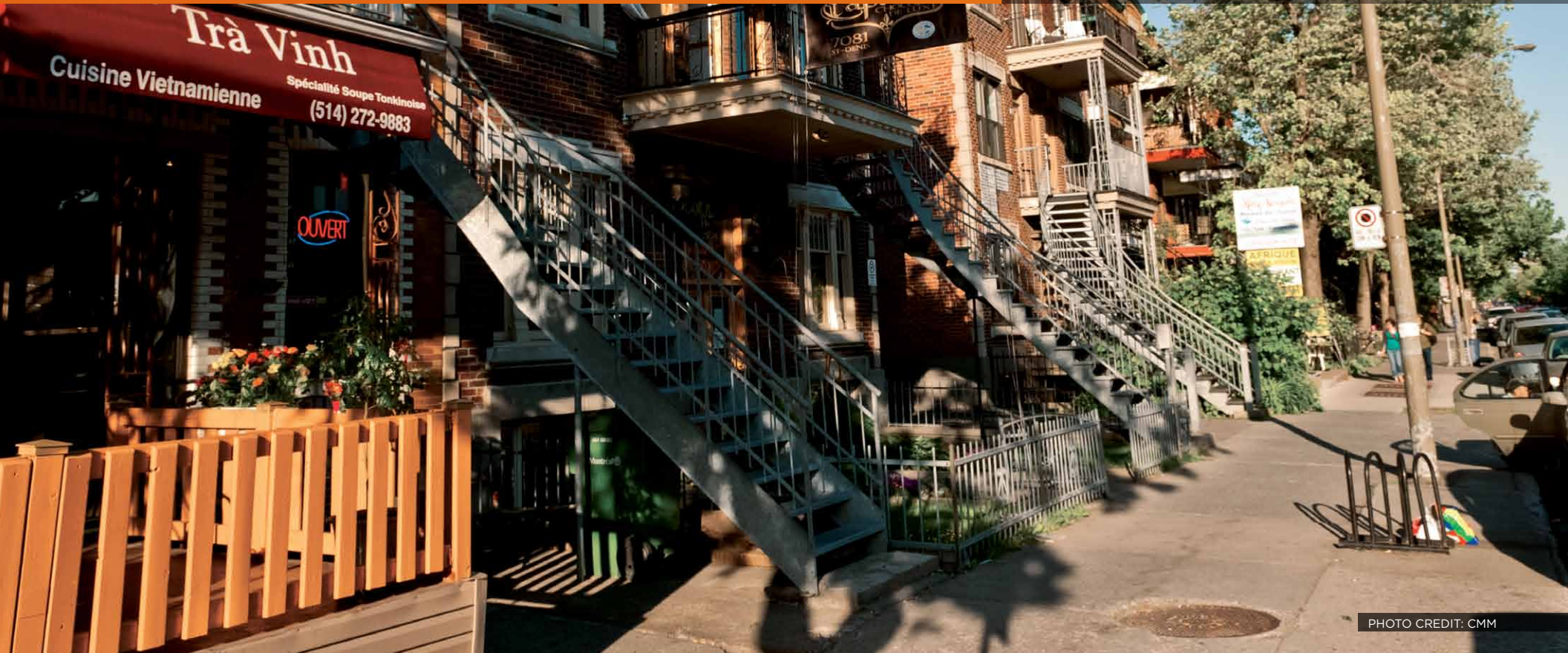


*Transit-Oriented Development (TOD) organizes urban development around mass-transit infrastructure or facilities. The stated goal is to increase mass-transit use.*



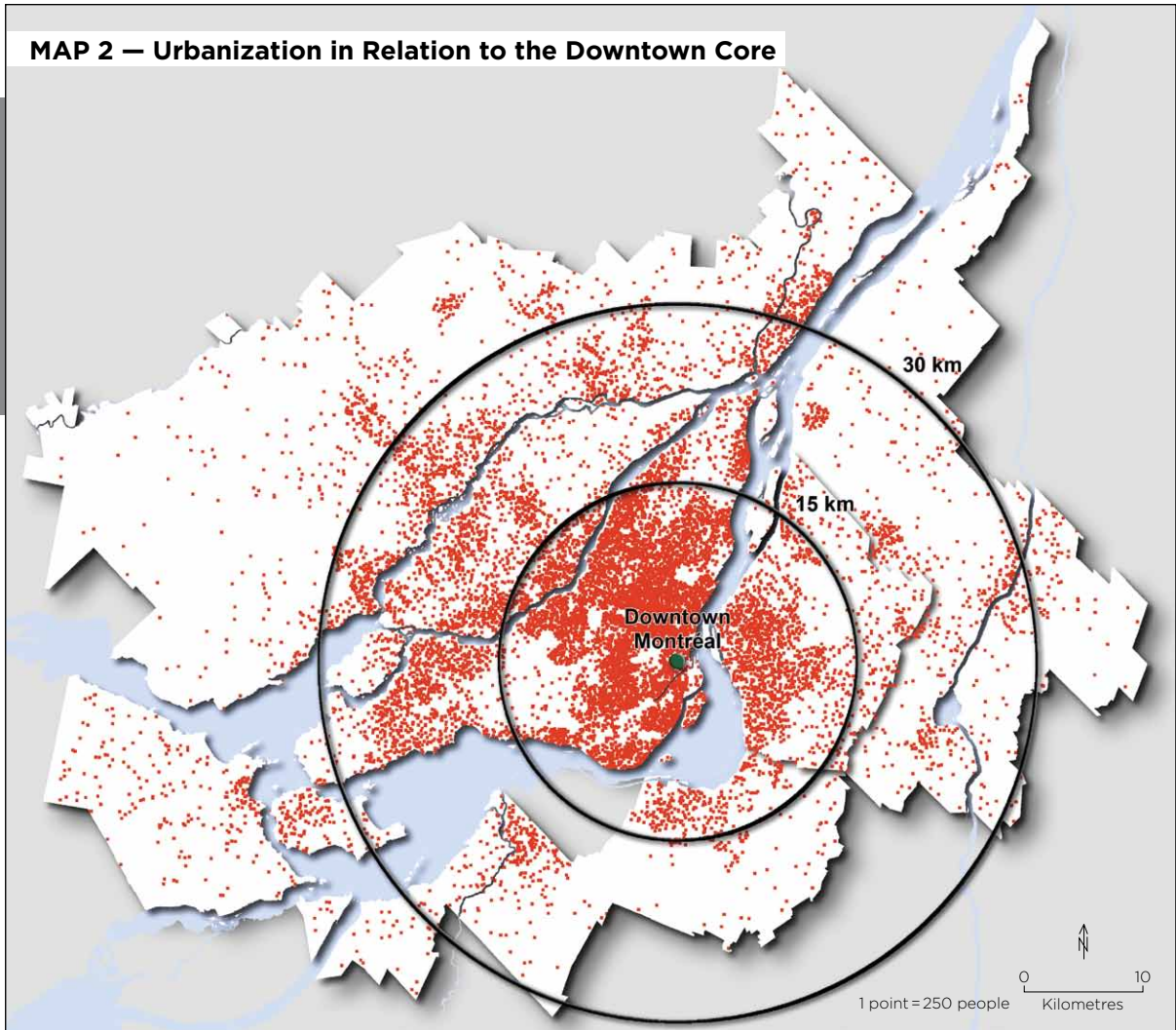
## A GREATER MONTRÉAL NOTABLE FOR ITS DENSITY, PRIMARILY DUE TO ITS CITY CENTRE

Although the vast majority of North American cities have a much more sprawling urban growth pattern due to the growing presence of automobiles, the urban structure of Greater Montréal is distinguished by a dense urban form. Indeed, nearly 60% of the population and jobs are concentrated within a 15-kilometre radius around the downtown core, an area that includes the city centres of Montréal, Laval and Longueuil. More than 90% of the population is concentrated inside a 30-kilometre radius.





**MAP 2 — Urbanization in Relation to the Downtown Core**



Distance from downtown	Downtown population	% of Greater Montréal's population
Less than 15 km	2,125,000	60.3%
15 to 30 km	1,129,000	32.0%
More than 30 km	270,000	7.7%

Source: Statistique Canada, Recensement de la population 2006, Traitement: CMM, 2010.

The density noted for the entire region is based primarily on a very dense downtown core (the City of Montréal), which contains a large proportion of the region's population and a housing stock characterized by numerous rows of duplexes and triplexes and a small proportion of single-family dwellings. The population density of the region's city centre (4,458 inhabitants/km<sup>2</sup>) is very different from that observed in the majority of the city centres in the 32 other North American metropolitan regions comparable to Greater Montréal (which average 2,930 inhabitants/km<sup>2</sup>).<sup>28</sup>

Greater Montréal's city centre therefore stands out as a dense, mixed-use territory where the various types of high-capacity mass transit converge. It is the most important destination hub in the metropolitan territory. Although this area is a territory whose development has reached maturity, it nevertheless offers opportunities for redevelopment.

As for the urbanized area outside the city centre (the City of Montréal), like other North American regions, it has a much lower population density than the city centre. The population density outside the city centre of Greater Montréal is 1,240 inhabitants/km<sup>2</sup> as opposed to an average of 1,100 inhabitants/km<sup>2</sup> in the 32 other comparable North American Regions.

28 See CMM, *Portrait of Greater Montreal*, 2010 Edition.

DEMOGRAPHIC GROWTH LED BY AGEING AND IMMIGRATION

The Institut de la Statistique du Québec (ISQ) has published three alternate demographic projection scenarios as part of its 2009 edition of *Perspectives démographiques du Québec et des régions, 2006-2056*: a reference scenario, a low-growth scenario, and a high-growth scenario.<sup>29</sup>

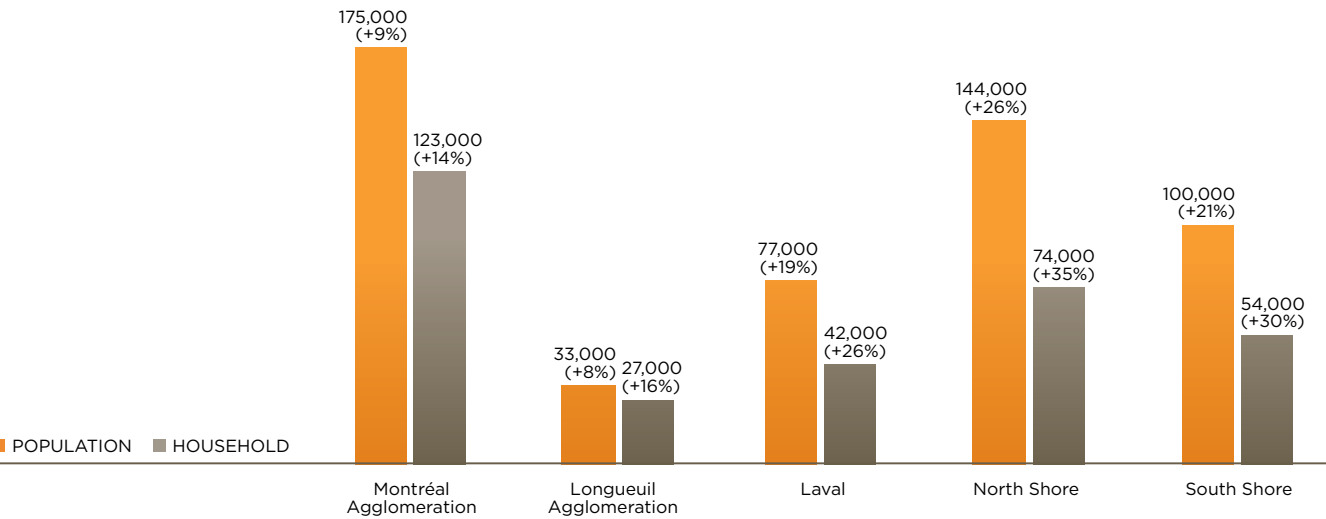
According to the reference scenario chosen by the CMM, the region's population should reach 4.3 million inhabitants by the year 2031. This population increase represents roughly 530,000 new inhabitants and 320,000 new households for Greater Montréal between 2011 and 2031.

According to the ISQ's demographic projections, the North Shore, followed by the South Shore and Laval, will experience the highest growth rates in the coming years.

In absolute numbers, the Montréal agglomeration should welcome the most new households (123,000), followed by the North Shore (74,000 households), the South Shore (54,000 households), Laval (42,000 households) and finally the Longueuil agglomeration (27,000 households).

Furthermore, demographic growth will slow in Greater Montréal, starting in 2016, which will lead to faster ageing population. According to the ISQ's estimates, almost one out of four residents (22%) of Greater Montréal will be 65 or older in 2031, while this figure was estimated at 15% in 2011.<sup>30</sup>

GRAPH 2 — Projected Population and Household Growth in Greater Montréal, by Geographic Area, 2011-2031



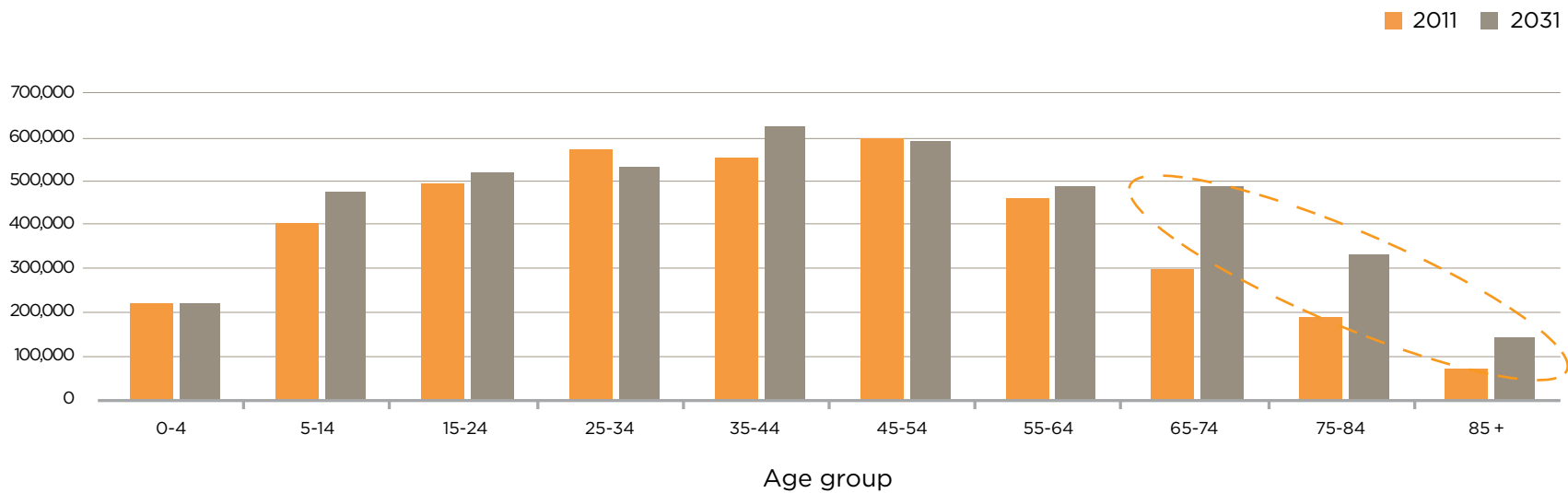
Source: Institut de la statistique du Québec, *Perspectives démographiques du Québec et des régions, 2006-2056*, 2009 edition. Calculations by the CMM, 2011.

29 The projections for the different scenarios were based on past and recent trends in fertility, life expectancy and internal and external migration, taking into account factors that could lead to changes in these trends. In the case of Greater Montréal, i.e., the Communauté métropolitaine de Montréal's territory, the projected population is 4 million by the year 2031 in the low-growth scenario, 4.3 million in the reference scenario and 4.6 million in the high-growth scenario.

30 Ageing populations are people who live longer and in good health. They now have higher standards of living, specific consumer and leisure demands and travel largely by car.



**GRAPH 3 — Projected Population of Greater Montréal, by Age Group, 2011-2031**



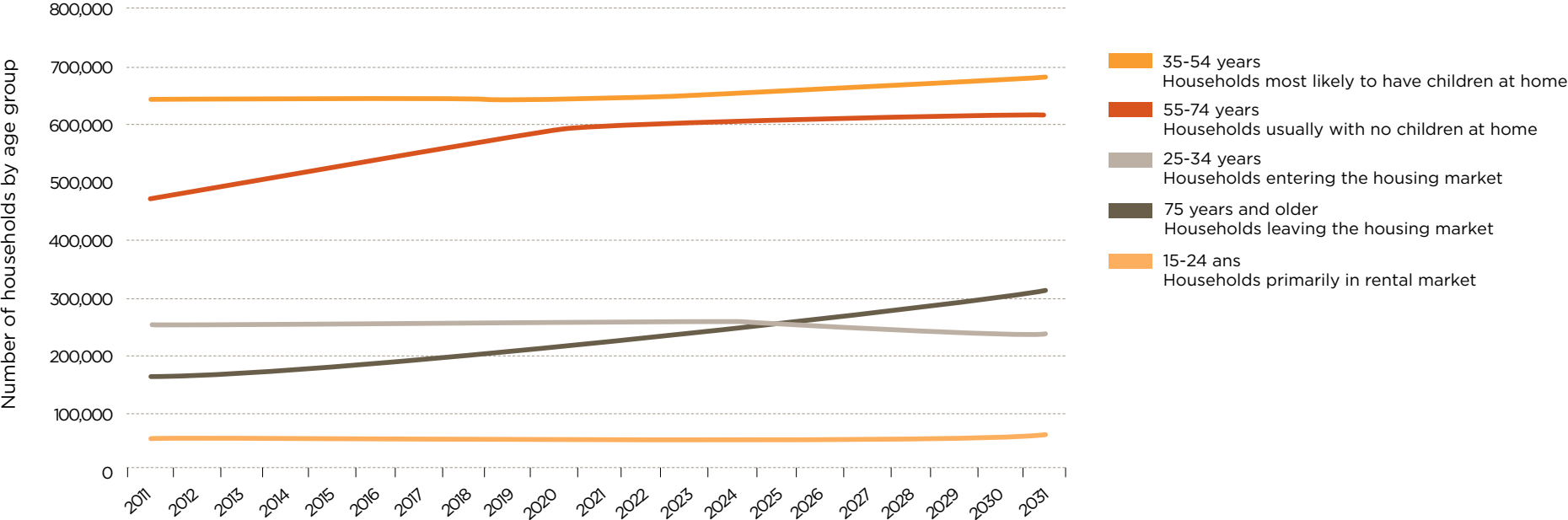
Source: Institut de la statistique du Québec, Perspectives démographiques du Québec et des régions, 2006-2056, 2009 edition. Calculations by the CMM, 2011.

The number of households age 55 to 74, a large percentage of which are couples or singles with no children living at home, will increase by 146,000 by the year 2031, including 126,000 by 2021. Households age 75 and older, who are the most likely to leave the single-family market to look for accommodations in the multi-family housing market, namely retirement homes, should increase by 149,000 households, including 92,000 between 2021 and 2031.

The number of households age 25 to 34, the main group entering the housing market, will stay relatively constant in the coming years. Their number could decrease by 21,000 households between 2021 and 2031. The 35 to 54 age group, those most likely to have children at home, will also stay relatively stable, though it will increase by 38,000 households between 2021 and 2031.

To summarize, of the 320,000 additional households projected between now and 2031, 295,000 (92%) will be of small size with a primary household maintainer aged 55 or more.

**GRAPH 4 — Projected Total Household Growth in Greater Montréal, by Age Group, 2011-2031**



Sources: Institut de la statistique du Québec, Perspectives démographiques du Québec et des régions, 2006-2056, 2009 edition, and Statistics Canada, 2001 Census. Calculations by the CMM, 2011.





**TABLE 6 — Growth in the Number of Households, 2011-2031**

GROWTH IN HOUSEHOLDS, 2011 TO 2031						
Geographic area	2011-2021		2021-2031		2011-2031	
	55 years and +	TOTAL	55 years and +	TOTAL	55 years and +	TOTAL
Montréal Agglomeration	69,300	67,500	48,300	55,300	117,600	122,900
Longueuil Agglomeration	20,700	16,200	9,300	10,400	30,000	26,600
Laval	22,400	23,600	14,800	18,300	37,100	41,900
North Shore	39,700	43,800	22,200	29,900	61,800	73,700
South Shore	31,200	32,900	17,500	21,400	48,700	54,300
Greater Montréal	183,200	184,100	112,100	135,300	295,300	319,400

Source: Institut de la statistique du Québec, *Perspectives démographiques du Québec et des régions, 2006-2056, 2009 edition*. Calculations by the CMM, 2011.

It should be noted that almost 60% of Greater Montréal's population growth should come from immigration. The number of immigrants living in the region will rise from 760,000 in 2006 to 1,483,000 in 2031. The number of immigrants will grow at a rate of 2.7% per year, 4.5 times faster than the population born in Canada (0.6% per year). The immigrant portion of the population will increase from 20.7% in 2006 to 30.3% in 2031.<sup>31</sup>

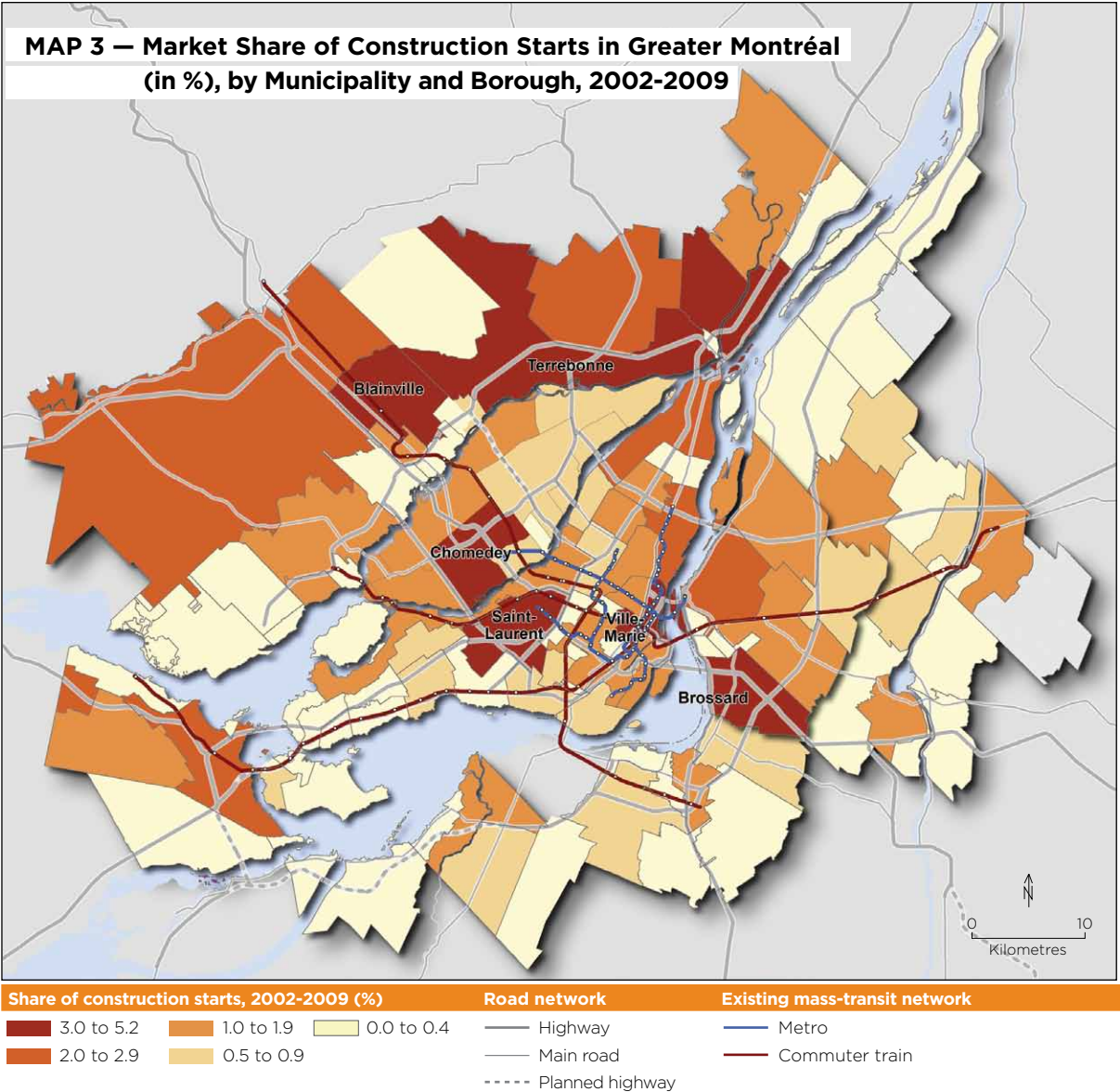
People born in Europe will make up the largest contingent of immigrants in 2006 (253,000 for the CMM). In 2031, however, people from Asia and Africa will form the two largest immigrant groups.

<sup>31</sup> Statistics Canada, *Projections of the diversity of the Canadian population, 2006-2031, 2010*. 71 p.

**A HOUSING MARKET OFFERING  
MORE AND MORE HIGH DENSITY PRODUCTS**

Since the end of the 1990s, Greater Montréal has shown a significant increase in residential construction starts throughout its five geographical areas.

From 2002 to 2009, when housing starts were particularly high, a little more than 175,000 new dwellings were constructed in the region. The largest share of these dwellings (33%) was built in the Montréal agglomeration. During the same period, 25% of residential construction starts were on the North Shore, 19% on the South Shore, 13% in Laval and 10% in the Longueuil agglomeration.



Source: CMHC, special compilation based on studies on The Starts and Completions Survey, 2004 to 2010. Calculations by the CMM, 2010.

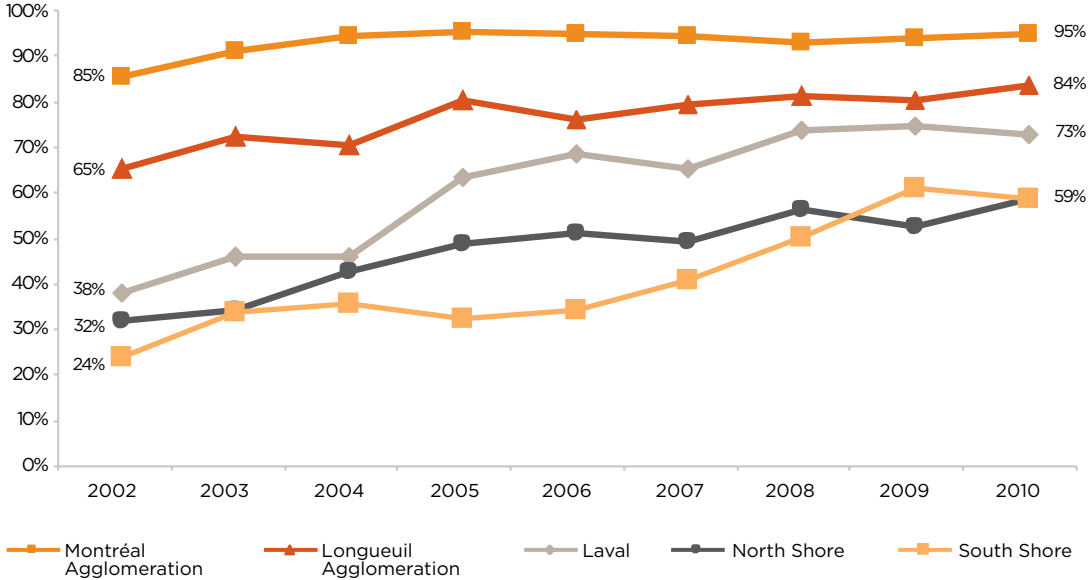
In the last few years, the residential construction market has changed and now favours higher density products. Thus, the market share of condominiums and apartment-style retirement homes has greatly increased, from 42% of construction starts in 2002 to 63% in 2009.

In the Longueuil agglomeration, Laval, the North Shore and the South Shore, areas characterized by a large proportion of single-family dwellings, the housing market has diversified in the last few years and there has been a significant increase in the market share of high density dwellings.<sup>32</sup>

The increase in property values, projected demographic changes in the next 20 years as well as new lifestyles all indicate that the real estate market will become more diverse. The decrease in fertility and the constant increase in single adult households, along with ageing baby-boomers who will inhabit “empty nests” after the departure of their children, are all factors that should, in the coming years, encourage the diversification of spaces currently dominated by single-family dwellings.

Urban development can therefore no longer be planned according to a dichotomous vision of space that contrasts the suburban single family dwellings with dense downtown urban dwellings. Moreover, in 2009, for the first time in the history of residential development on the North and South Shores, apartment dwellings recorded a market share almost equal to single family dwellings.<sup>32</sup>

**GRAPH 5 — Proportion of Construction Starts for Medium and High Density Dwellings (Apartments, Semi-detached or Row Housing), by Geographical Area, 2002-2010**



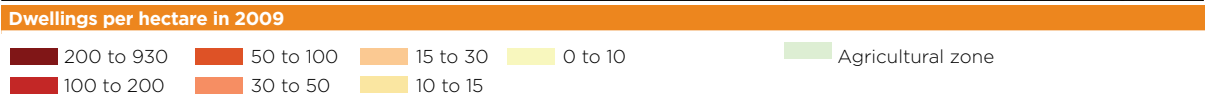
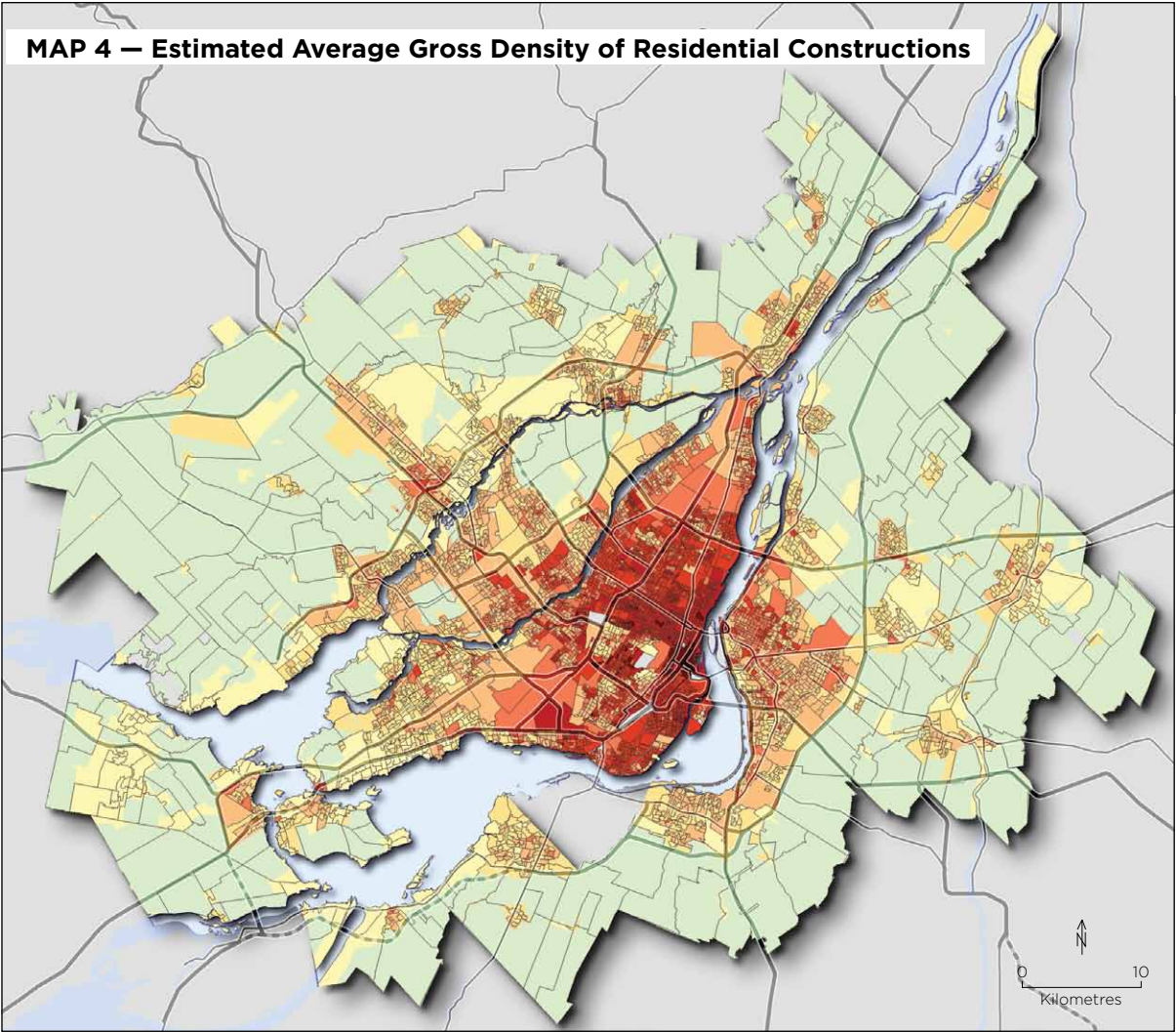
Source: Canada Mortgage and Housing Corporation, special compilation based on The Starts and Completions Survey, 2002 to 2009. Calculations by the CMM, 2011.

<sup>32</sup> GILL, D. Chapter 7. Les perspectives du marché résidentiel montréalais, in LEWIS, P., BARCELO, M. and C. LARRIVÉE. “Améliorer la mobilité en aménageant autrement – Examen du potentiel des mesures et stratégies pour améliorer la mobilité entre Montréal et la Rive-Sud,” 2002. p. 95-107.



This transformation of the housing market results in an increase in the average gross density of residential spaces. The Montréal agglomeration has an average density of 48.1 dwellings per hectare, the City of Laval has 21 dwellings per hectare, the Longueuil agglomeration has 22 dwellings per hectare, the North Shore has 12.9 dwellings per hectare and the South Shore has 10.7 dwellings per hectare.<sup>33</sup>

The map on the right illustrates this density for the municipalities of Greater Montréal.



<sup>33</sup> This density was calculated using the 2009 assessment roll. The gross developed area is obtained by multiplying the net developed area by 1.25 to take into account the space occupied by parks, streets and other uses.

Source: 2009 assessment roll.







# A DECENTRALIZED DISTRIBUTION OF METROPOLITAN EMPLOYMENT

The approximately 1.7 million jobs in the metropolitan region are located in multiple areas: these employment hubs are different sizes, offer different employment densities and feature different sectors of dominant economic activity.

An employment hub is defined as a concentration of jobs in an area with a mainly economic purpose.<sup>34</sup> There are 19 employment hubs in the metropolitan territory, accounting for about 680,000 jobs in 2006, or more than 39% of all metropolitan jobs. These hubs occupy a surface area of 377 km<sup>2</sup>, or nearly 10% of the entire territory.

There are three types of hubs: primary, secondary and isolated. The largest hubs are located at the centre of the agglomeration (downtown, Saint-Laurent/Dorval, Anjou, Laval, Longueuil). Smaller hubs, in terms of the number of jobs, are found all over the territory.

<sup>34</sup> Employment hubs, determined using enumeration areas, represent a minimum of 5,000 jobs in a territory with a primarily economic focus (which means that the ratio between the number of jobs and the active population is higher than 1). A primary hub includes at least one enumeration area of more than 12,500 jobs. A secondary hub includes at least two adjacent areas of more than 5,000 jobs each and a tertiary hub has only one area with more than 5,000 jobs. The employment hubs were defined with the help of the methodology created and used in the studies "Localisation de l'emploi: territoire de la CMM, de la RMR et des MRC avoisinantes en 1996 et 2001." The Cahier métropolitain L'emploi dans la Communauté métropolitaine de Montréal, 2003 presents the methodology and an analysis of the results. Maps 5 and 6 provide conceptual illustrations of these hubs.

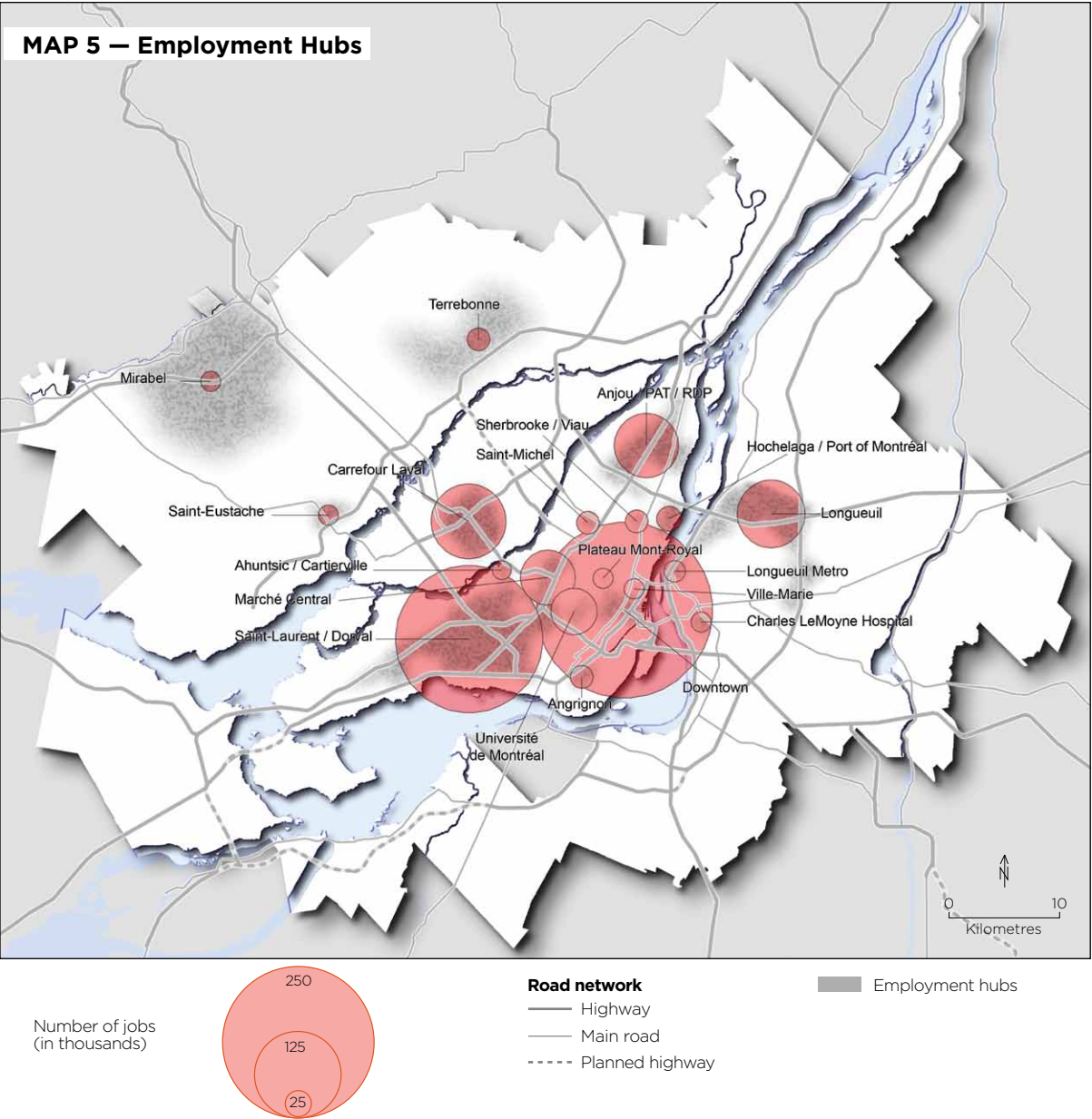




Table 7 identifies all the employment hubs of Greater Montréal according to 2006 data.

**TABLE 7 — Employment Hubs, 2006**

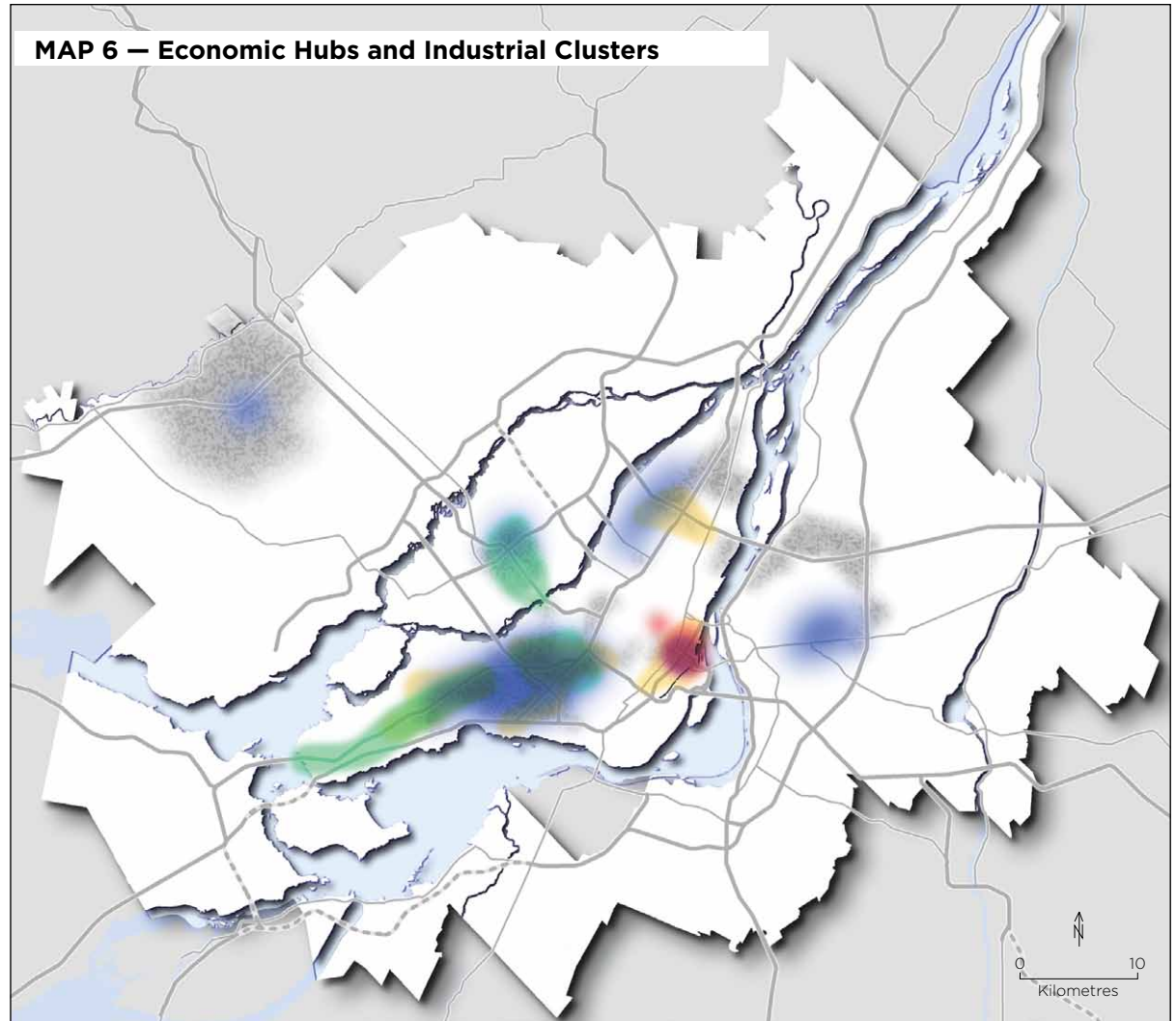
	Jobs	% of jobs located in employment hubs	% of metro jobs
<b>Primary</b>	<b>527,875</b>	<b>78%</b>	<b>30%</b>
Downtown Core	243,605	36%	14%
Saint-Laurent/Dorval	188,950	28%	11%
Laval	54,030	8%	3%
Anjou	41,290	6%	2%
<b>Secondary</b>	<b>75,740</b>	<b>11%</b>	<b>4%</b>
Longueuil	28,850	4%	2%
Université de Montréal	23,895	4%	1%
Marché Central	22,995	3%	1%
<b>Isolated</b>	<b>73,275</b>	<b>11%</b>	<b>4%</b>
Port of Montréal/Hochelaga	7,850	1%	0%
Saint-Michel	6,700	1%	0%
Terrebonne	6,660	1%	0%
Angrignon	6,615	1%	0%
Sherbrooke/Viau	6,420	1%	0%
Longueuil Métro	6,270	1%	0%
Plateau Mt-Royal	5,770	1%	0%
Saint-Eustache	5,740	1%	0%
Mirabel Airport	5,515	1%	0%
Ville-Marie	5,320	1%	0%
Charles LeMoyne Hospital	5,275	1%	0%
Ahuntsic	5,140	1%	0%
<b>Hub total</b>	<b>676,890</b>	<b>100%</b>	<b>39%</b>
<b>CMM outside hubs</b>	<b>1,031,970</b>		
<b>CMM total</b>	<b>1,708,860</b>		

Source: Statistics Canada, 2006 Census of Population. Calculations by the CMM, 2010.

In terms of objectives for consolidating employment hubs and improving their accessibility, not all employment hubs have the same strategic importance and some hubs are more region-oriented than metropolitan-oriented.

Furthermore, the hubs defined above tend to accommodate the metropolitan industrial clusters discussed in the economic development plan adopted on February 17, 2005, and updated in 2010.

**MAP 6 — Economic Hubs and Industrial Clusters**



**Industrial clusters**

- Aerospace
- Life sciences

- Information and communications technology (ICT)
- Culture (Film and television)

- Clean technology

**Economic hub**

- 

**Road network**

- Highway
- Main road
- Planned highway

## GROWTH OF 7,500 JOBS PER YEAR COMBINED WITH A CHANGED ECONOMY THAT REQUIRES LESS SPACE<sup>35</sup>

In total, the number of jobs in the CMM will rise from 1.809 million in 2011 to 1.956 million in 2031, an increase of more than 150,000 jobs over 20 years, or nearly 7,500 jobs per year.<sup>36</sup> The unemployment rate should decline over the next 20 years. According to the ISQ, the population age 15 to 64 (which constitutes the core of the active population) will increase by only 70,000 people, meaning 80,000 people less than the projected increase in jobs.

Employment growth will slow in all of the CMM's geographical areas and RCMs. The island of Montréal will record the lowest employment growth between 2011 and 2031 (with a rate, in fact, of zero), whereas the North Shore will show the highest increase, at 0.2% per year. This outcome is in line with recent trends since the North Shore posted the fastest employment growth between 2001 and 2006 (3.8% per year), while the island of Montréal's employment growth was 0.6% per year for the same period. The very different demographic changes in the North Shore and the island of Montréal already explain this considerable gap between the regions' growth rates from 2001 to 2006 and will remain a major cause of differences in the long term.

In terms of employment growth, notable trends are summarized below:

- The proportion of jobs in the goods-producing industries will continue to decline, dropping from 16.4% in 2011 to 14.3% in 2031.
- Continued development in emerging countries like China and India will cause the manufacturing sector to experience the most significant decrease in its share of jobs, from 12.1% in 2011 to 10.6% in 2031.
- Industries that are the most sensitive to overall population growth, such as construction, wholesale trade, retail trade as well as finance and insurance, will see their share of jobs stagnate or even decline.

- The industry most closely linked to the ageing population, i.e., health care and social assistance, will experience a major increase in its total share of jobs, which will jump from 11.8% to 13.3% between 2011 and 2031.
- Sectors related to a society composed of more retired people with more free time, such as the sectors of arts, entertainment and leisure as well as lodging and food services, will also record significant growth in their share of jobs in the next 20 years.
- Finally, to continue advancing, the CMM's economy must keep on pushing for new cutting-edge sectors, which should result in a strong increase in the share of jobs relating to professional, scientific and technical services. This sector should go from 10.1% to 10.7% between 2011 and 2031, the largest increase of any sector.

The North and South Shores and, to a lesser extent, the Longueuil agglomeration will feel the aftershocks of the reduced share of jobs in goods-producing industries over the next 20 years. In both the North and South Shore, the proportion of goods-producing sector jobs was about 22% in 2011, as opposed to 16% for the entire CMM and 14% on the island of Montréal. At the same time, the island of Montréal will benefit from employment growth in sectors such as health care and social assistance as well as professional, scientific and technical services. Despite these developments, overall employment growth will be faster in the North and South Shore than on the island of Montréal during the next 20 years since their population growth will be stronger.

<sup>35</sup> This section is based on Conference Board of Canada, *Projections de l'emploi pour le territoire de la Communauté métropolitaine de Montréal*, 2011, p. 16-18.

<sup>36</sup> It should be noted that this estimate was compiled by the Conference Board of Canada for the CMM's territory. The data in Table 8 reflect the Montréal census metropolitan area (CMA) territory.



This employment growth must be put into perspective along with the economy's shift towards service-producing industries, which reduces the need for more space. Thus, the major issues related to consolidating the major economic hubs deal, on the one hand, with the development and redevelopment of economic spaces and, on the other hand, with maintaining effective transportation corridors linked with continental markets and the labour pools on its territory (residential spaces).

**TABLE 8 — Changes in Total Employment and the Share of Manufacturing Jobs, 1987-2010, Montréal CMA (in thousands)**

	1987	1991	2001	2003	2005	2007	2009	2010
Total employment	1,510.0	1,497.8	1,699.9	1,788.3	1,823.5	1,902.6	1,880.4	1,932.4
Manufacturing	299.9	282.3	311.2	289.3	285.4	243.1	247.6	235.5
Manufacturing portion (%)	19.9	18.8	18.3	16.2	15.7	12.8	13.2	12.2

Source: Statistics Canada, Labour Force Survey. Calculations by the CMM, 2010.

The constant decline of the industrial economy across North America has not spared the Montréal metropolitan region, as confirmed by recent data. The proportion of industrial jobs in Greater Montréal was 12.2% in 2010, compared to 19.9% in 1987, a 38% decrease. This phenomenon is part of a North American trend where economic activities are increasingly characterized by population and business support operations.

Moreover, the transformation of economies towards support operations, combined with the 2008 economic crisis, have had a major impact on the availability of industrial space throughout the entire North American continent. In the specific case of the Greater Montréal region, the industrial vacancy rate was 10.3% in 2010, compared to 2.2% in 2000.

**TABLE 9 — Industrial Vacancy Rate (%), 2000 and 2004-2011**

Geographical area	2000	2004	2005	2006	2007	2008	2009	2010	2011
Montréal Agglomeration		7.5	7.7	7.7	8.4	9.0	10.3	10.5	10.1
Longueuil Agglomeration		9.6	5.5	5.8	6.6	7.0	6.6	9.3	8.5
Laval		6.5	6.6	10.1	8.8	11.0	10.8	8.2	8.3
North Shore							35.7*	17.6*	19.1*
Montréal CMA	2.2	7.6	7.5	7.7	8.2	9.0	10.4	10.3	10.0
Canada	3.4	5.6	5.0	5.4	5.7	6.3	8.1	7.4	6.9

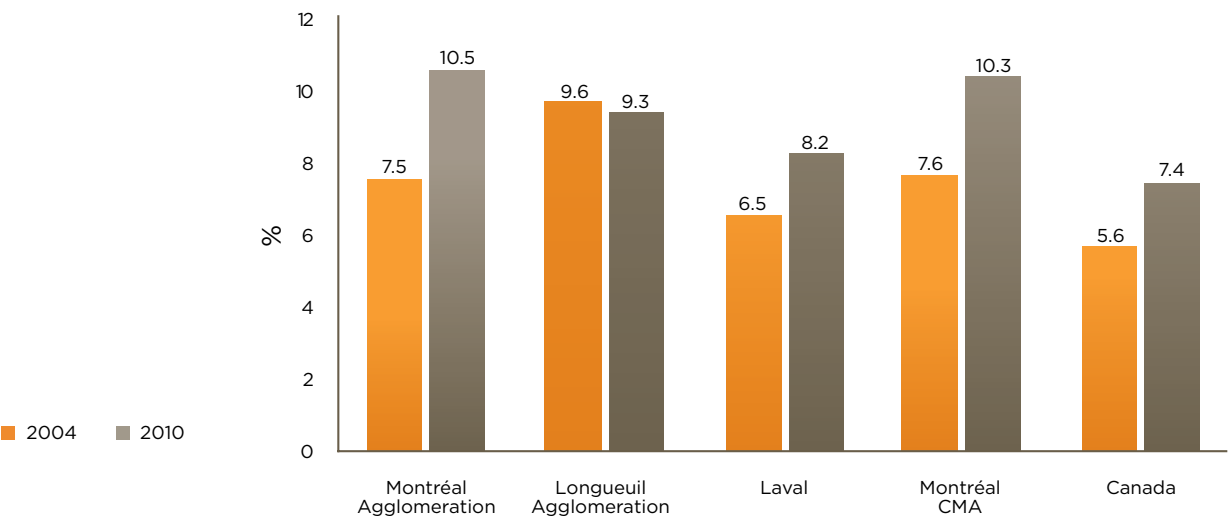
\*Estimated inventory

Note: The South Shore data were not available when the PMAD was written.  
Source: CB Richard Ellis. The 2011 data are for the year's second trimester. Calculations by the CMM, 2011.

The manufacturing industry on the North and South Shore is shaped by two opposing trends. On the one hand, the sharp increase in the price of land has forced manufacturers from the centre of Montréal to the surrounding areas, which has stimulated the demand for industrial space. On the other hand, the metropolitan region is experiencing massive deindustrialization, which slows the demand for industrial premises and increases vacancies. The result is a stagnation of jobs in manufacturing businesses of the North Shore, which decreased by 1.9% between 2003 and 2010 according to estimates from the Canadian Business Register.

The North Shore has the highest industrial vacancy rate of the metropolitan region. CB Richard Ellis (CBRE), a real estate services firm, estimated this number at 35.7% at the end of 2009 (out of an inventory of 5.7 million square feet) and at 17.6% at the end of 2010 (out of an inventory of 7.5 million square feet). Since the CBRE started covering the North Shore in 2009, its coverage of industrial building inventory is incomplete and the vacancy rate is an approximation of the real rate. However, its characterization of a real estate market with excess supply is accurate.

**GRAPH 6 — Changes in the Industry Vacancy Rate (%) in the Montréal CMA, 2004-2010**



Source: CB Richard Ellis. Calculations by the CMM, 2011.

## BOX — A Strategy to Redevelop Industrial Spaces

In 2004, the CMM conducted a study in collaboration with the Groupe Gauthier, Biancamano, Bolduc to examine the evolution of industrial uses. In particular, this study demonstrates the link between the urban development stages and industrial uses.

The Montréal metropolitan region underwent an initial wave of industrialization that lasted until 1950. Afterwards, between 1950 and 1971, industrial activity moved off-island to the North and South Shore, Laval and Longueuil. During the most recent phase, 1972 to 1999, industrial areas were consolidated on the island of Montréal and expanded on the North and South Shore. This report therefore demonstrates that industrial activities have gradually developed and shifted location over the years.

In 2009, the Thérèse-De Blainville Economic Development Corporation took the initiative by launching a study to describe the industrial spaces available for development. The goal of this study was to characterize these spaces in detail and to identify the constraints impeding their development.

The CMM is aware that there are constraints slowing the development of industrial spaces. Therefore, to ensure the optimal use of the industrial spaces in its territory, the CMM launched two studies in fall of 2011 to investigate, update and refine this issue.

The first study, undertaken by the Conference Board of Canada, aimed to determine the exact demand for industrial and commercial land on the CMM's territory between now and 2031 according to three scenarios: pessimistic, baseline and optimistic.

The second study, undertaken by the firm Plania, aimed to determine the demand for industrial land and specify the mitigation measures needed to address the constraints identified in the Thérèse-De Blainville Economic Development Corporation study so that these spaces could be fully developed.

These studies have determined that the total demand for industrial space is approximately 3,200 ha. As for supply, excluding the island of Montréal and including land slated for redevelopment, it stands at approximately 3,300 ha.

The preliminary results of the Plania study generally show that more than half of the net available industrial space (55.76%) is not encumbered by any constraints. Tenure constraints represent 19% of all constraints, technical constraints almost 13% and integration constraints almost 13%. It should be noted that land with natural constraints was removed right from the start.

Some possible measures for redeveloping land encumbered by constraints are to allow exceptions, create buffer zones, conduct studies and specific programs (e.g., hydrogeology, decontamination), identify incentives, offer compensatory measures, sign agreements, etc.

Current preliminary studies indicate that the industrial land supply is sufficient to meet short-term needs. Medium and long term demand could be filled by employing mitigation measures to ensure that land with constraints is useable.

A strategy to redevelop industrial spaces will be created as part of the PMAD action plan.





## RATIONALIZING THE RETAIL SECTOR

Greater Montréal's retail sector has 16 major commercial hubs that were identified in a 2009 study called, *Évolution récente du secteur du commerce de détail et analyse prospective*.<sup>37</sup>

According to this study produced by the firm Altus Géocom for the CMM, the evolution of business practices will be influenced by four major trends in the coming years:

- Declining population growth and an ageing population will create increased pressure to reduce costs.
- The erosion of the middle class, the evolution of technologies and an increasingly fragmented and complex market in terms of lifestyles will cause a transition from mass marketing to niche marketing.
- Distribution channels will diversify further, notably through an increase in online sales.
- Businesses will place a new emphasis on the buying experience to survive in a market that is becoming more complex.

Given changing business practices, the commercial landscape should evolve as follows:

- Global commercial stock should level off due to decreased demand and an ageing population.
- The number of superstores will decline to make way for medium and small-sized commercial buildings better adapted to local markets.
- Malls will gradually be replaced by multifunctional centres where people can not only shop, but also live, work and play.

Thus, in the coming years, Greater Montréal's retail sector will become more streamlined. This should result in less pressure to commercially develop large vacant lots located on the periphery of the region. In addition, in declining markets (demographic and/or economic), low performing “big box” stores will close, some arterial roads will have vacancy problems and shopping malls will become obsolete.

<sup>37</sup> Altus Géocom. *Évolution récente du secteur du commerce de détail et analyse prospective*, 2009. 47 p.

POPULATION AND JOB GROWTH WITH LIMITED AVAILABLE SPACE

In 2011, more than 17,000 hectares of available space were listed in non-agricultural zones, a little over 15,000 hectares of which are located within the current regional urban growth boundaries (UGB). Available space includes vacant lots and, for Montréal and Longueuil, spaces that can be redeveloped, notably existing buildings used for industrial and commercial purposes that can be converted to residential use or redeveloped for economic purposes. In total, the estimated area of spaces for redevelopment is 1,655 hectares for residential and 1,611 hectares for economic.

TABLE 10 — Available Residential and Economic Space, 2011

SECTOR	RESIDENTIAL ha		ECONOMIC ha		Total ha
	UGB	Outside UGB	UGB	Outside UGB	
Montréal Agglomeration	2,070 <sup>1</sup>		2,450 <sup>2</sup>		4,520
Longueuil Agglomeration	1,461 <sup>3</sup>		1,064 <sup>4</sup>		2,525
Laval	930		714		1,644
North Shore	1,234	1,513	859	542	4,148
South Shore	2,482	134	1,724	11	4,351
<b>CMM</b>	<b>8,177</b>	<b>1,647</b>	<b>6,811</b>	<b>553</b>	<b>17,188</b>

Notes:

1. Includes spaces suitable for housing development (720 hectares) as well as spaces to be consolidated or converted where it's assumed that 50% of the 2,700 ha of available spaces could accommodate a residential use.

2. Includes 50% of the 2,700 ha of space to be consolidated or converted.

3. Includes vacant residential spaces as well as residential redevelopment spaces and 50% of mixed redevelopment spaces.

4. Includes 50% of mixed redevelopment spaces.

Source: Data taken from partner proposals submitted as part of the PMAD (for Laval, the data were taken from the file on vacant spaces sent to the CMM).



Between 2003 and 2005, the CMM launched a study of the municipalities in Greater Montréal in order to draw up an inventory of spaces that could be rehabilitated. At the time, almost 90 potential sites were identified, for a total of more than 3,500 hectares. These sites are very interesting as potential sources of wealth and redevelopment, even if they are encumbered with major constraints that would require significant efforts from various stakeholders in terms of planning, preliminary studies and funding for rehabilitation operations. The PMAD therefore proposes an update to this survey and a development strategy for these sites to enable them to reach their full potential.

The rehabilitation of land to be redeveloped nevertheless requires sizable financial and technical resources. Therefore, municipalities must be able to count on significant support from the Québec government. Assistance programs for implementing the PMAD will have to be adopted. For example, there could be programs to support the following:

- the renovation of older neighbourhoods
- infrastructure upgrades in denser neighbourhoods
- the revitalization of contaminated land (brownfields)
- the design and development of neighbourhoods with high-quality design and architecture

With regard to the likelihood of such programs being implemented, it is promising that the government issued its new *Stratégie pour assurer l'occupation et la vitalité des territoires 2011-2016* in November 2011, which declares its aim to implement measures supporting more eco-responsible urbanization.



## BOX — Brownfield Redevelopment

Across Greater Montréal, many abandoned industrial lands offer excellent redevelopment potential. Indeed, many of these sites are serviced by infrastructure and located near transportation infrastructure, more specifically mass transit.

The redevelopment of contaminated sites or brownfields has several economic advantages. Indeed, such efforts save money in terms of urban and transportation infrastructure. According to the National Round Table on the Environment and the Economy (NRTEE) (2003), every hectare developed in a brownfield project can save up to \$66,000 a year in transportation costs.

That being said, decontamination costs are often an obstacle to redevelopment. With the ClimatSol program, the Québec government supports brownfield development projects that have a real and measurable impact on reducing or avoiding greenhouse gas emissions and that increase the energy efficiency of buildings. This program notably finances 50% of eligible costs for transporting and treating the soil and materials mixed with contaminated soil on a given site. This program, which had a total budget of \$60 million, still has a sum of almost \$29 million left as of February 2011. This program will end in March 2015.

The Urban Development Institute (UDI) of Québec has produced a study to document the brownfield development potential of eight Québec cities. Conducted by the firm Ventix, the study shows that in the eight cities studied (Montréal, Québec, Laval, Gatineau, Longueuil, Trois-Rivières, Shawinigan and La Prairie), the development potential for houses, multi-family dwellings and buildings for office, institutional, commercial or industrial use is over 50 million square meters, or 5 billion square feet, the equivalent of more than 7,000 soccer fields, or 1 million residential lots of average size (5,000 square feet).

The UDI therefore believes that “before contemplating the rezoning of farmland located on the outskirts of urbanized areas and thus promoting urban sprawl, (...) the government is well-advised to work with developers to identify the best ways to develop brownfields at a reasonable cost and in the interest of public health.”





TO SUMMARIZE ...

GREATER MONTRÉAL WILL SHOW MODERATE GROWTH CHARACTERIZED BY IMMIGRATION AND AN AGEING POPULATION.  
THE HOUSING MARKET WILL OFFER MORE AND MORE HIGH-DENSITY PRODUCTS.  
AN INCREASE OF 7,500 JOBS PER YEAR WILL BE COMBINED WITH A TRANSITION TO AN ECONOMY THAT TAKES UP LESS SPACE.  
MANY ABANDONED INDUSTRIAL SITES OFFER REDEVELOPMENT POTENTIAL.  
RECENT RETAIL TRENDS WILL HAVE AN IMPACT ON URBAN DEVELOPMENT.







# LAND USE AND DEVELOPMENT OBJECTIVES AND CRITERIA

TAKING INTO ACCOUNT CURRENT DEMOGRAPHIC TRENDS, THE NECESSITY TO OPTIMIZE PUBLIC INVESTMENT, AVAILABLE SPACE AND THE NEED TO MANAGE URBANIZATION ACCORDING TO THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT, SIX OBJECTIVES HAVE BEEN DEFINED FOR THE FIRST POLICY DIRECTION. THESE OBJECTIVES, AND THE CRITERIA THAT WILL HELP ENSURE THAT THEY ARE MET, ARE SUMMARIZED BELOW. EACH OBJECTIVE IS THEN DISCUSSED IN DETAIL.



## POLICY DIRECTION 1: A GREATER MONTRÉAL WITH SUSTAINABLE LIVING ENVIRONMENTS

### **1.1 Direct 40% of household growth towards structural metropolitan mass-transit network access points**

- 1.1.1 Location of Transit-Oriented Development (TOD) zones
- 1.1.2 Definition of minimum density thresholds applicable to TOD zones
- 1.1.3 Development of TOD zones

### **1.2 Optimize urban development outside of TOD zones**

- 1.2.1 Definition of minimum density thresholds outside of TOD zones
- 1.2.2 Definition of areas reserved for optimal urbanization
- 1.2.3 Consolidation of major economic and commercial hubs

### **1.3 Promote optimal occupancy by increasing the area of cultivated land**

- 1.3.1 Increase of 6% in surface area of cultivated land at the metropolitan level

### **1.4 Identify existing facilities of metropolitan importance and determine the location of planned metropolitan facilities**

- 1.4.1 Identification of existing and planned metropolitan facilities
- 1.4.2 Determine the location of planned metropolitan facilities

### **1.5 Identify the major constraints common to two or more RCMs**

- 1.5.1 Identification of landslide risks common to two or more RCMs
- 1.5.2 Identification of anthropogenic risks common to two or more RCMs
- 1.5.3 Identification of the risks related to ambient air quality and related health effects
- 1.5.4 Identification of the risks associated with weather-related events common to two or more RCMs

### **1.6 Set boundary for urbanization in keeping with sustainable development principles**

- 1.6.1 Definition of the 2031 metropolitan boundary
- 1.6.2 Modifications to the metropolitan boundary

## OBJECTIVE 1.1

Direct 40% of household growth towards structural metropolitan mass-transit network access points

One of the major land use planning goals of the PMAD is to develop Transit-Oriented Development (TOD) neighbourhoods around structural metropolitan mass-transit network stations throughout the territory to respond to the changing sustainable development values expressed by residents.

The PMAD recommends directing at least 40% of new households (2011-2031) towards TOD neighbourhoods located at structural metropolitan mass-transit network access points, generally defined as a station or stop.

### BOX — Changing Values

- 97% of Quebecers state that they are reducing their ecological footprint daily through small gestures (CROP survey, October 2009).
- 80% say they are willing to pay more for green products (CROP survey, October 2009).
- 76% believe that climate change is mankind's defining crisis (Harris-Decima survey, December 2009).
- 55% of Quebecers describe themselves as environmentalists, while only 48% of other Canadians say the same (Mustel Group, November 2009).
- 46% believe that of all levels of government, municipalities are best suited to improve the community's environmental record (Léger Marketing survey, March 2008).

TOD is a medium to high density urban development structured around a high-capacity mass-transit station, such as a train, metro or LRT station, or a bus stop (feeder service or BRT). Located within walking distance of a major mass-transit network access point, TOD offers housing, employment and commercial opportunities and do not exclude automobiles.

TOD can be a new or a redevelopment project designed to facilitate the use of public and active transportation.<sup>38</sup>



PHOTO CREDIT: CMM

TOD neighbourhoods promote energy-efficient real estate development and reduced fuel consumption for personal transportation. During the public consultations on the draft Plan, many environmental groups and public health representatives stated their desire to see automobile use decline over the next 20 years. Some believe that Greater Montréal should set an ambitious target to reduce the number of automobiles at rush hour. Such a goal could be established as part of the actions to implement and follow up the PMAD.

The creation of TOD neighbourhoods helps improve urban quality of life and simultaneously furthers many objectives:

- Increase the number of households and jobs located in the structural mass-transit network's area of influence to improve job accessibility for an increased number of workers.
- Increase accessibility to local services via public and active transportation.
- Reduce greenhouse gas emissions, notably by reducing the spatial mismatch between housing and areas of human activity as well as reducing traffic congestion.
- Optimize public spending, both provincial and municipal.
- Increase property values and better respond to diversified housing needs.
- Improve public health by reducing automobile dependency and promoting active transportation (cycling, walking).

- Reduce the impact of a growing urban footprint on natural and agricultural environments.

This PMAD objective will also help achieve the objectives of many Québec government strategies, such as:

- The *2006-2012 Climate Change Action Plan*, which sets a Québec target of reducing greenhouse gas (GHG) emissions to 20% less than 1990 levels by year 2020
- The *Québec Energy Strategy 2006-2015*, which targets a reduction of a little over 10% in Québec's petroleum product petrol
- The *Government Sustainable Development Strategy 2008-2013*, which proposes, among other things, a sustainable and integrated land use and development of the territory

The creation of TOD neighbourhoods effects a reduction in vehicle-kilometres driven in three ways: a modal shift towards mass transit, a modal shift towards active transportation and a reduction in the distances travelled by automobile. Furthermore, it has been observed that, for every 10 vehicles, TOD residents tend to own 1 to 3 fewer.<sup>39</sup> The PMAD could therefore reduce GHG emissions by about 14% by the year 2031 compared to the status quo.<sup>40</sup>

By establishing this objective of directing growth towards structural metropolitan mass-transit network access points, the PMAD aims to increase consistency in land use planning and transportation interventions so as to increase their mutual benefits.

The desired result is to optimize the synergy between transportation projects and urban development and to provide citizens access to various means of transportation, including a metropolitan-wide mass transit system. In doing so, the CMM is responding to the Québec government's invitation to join the fight against climate change.

Moreover, this objective responds to Vision 2025, adopted on September 13, 2003, wherein the CMM stated the importance of meeting the challenge of mass transit by developing a fast, accessible, attractive and flexible network that will meet the needs of users and significantly reduce the use of automobiles. Vision 2025 also states the CMM's ambition for the region to rank as one of the top performing metropolitan regions in terms of curbing the production of greenhouse gas emissions.

<sup>38</sup> To find out more about Transit-Oriented Development: [http://pmad.ca/fileadmin/user\\_upload/pmad2011/documentation/20111004\\_guideAiresTOD.pdf](http://pmad.ca/fileadmin/user_upload/pmad2011/documentation/20111004_guideAiresTOD.pdf)

<sup>39</sup> Todd Litman, *Land Use Impacts on Transport – How Land Use Factors Affect Travel Behavior*. Victoria Transport Policy Institute. 2010.

<sup>40</sup> CMM estimates.





### BOX — Social Diversity and the Development of TOD Neighbourhoods

The creation of TOD neighbourhoods around structural metropolitan mass-transit network stations, as prescribed by the PMAD, is also an opportunity to encourage social diversity in these neighbourhoods.

Social diversity can be defined as the coexistence in one space of social groups with different characteristics. Social diversity, as many studies have demonstrated, creates vital neighbourhoods and helps residents maintain their quality of life. Social diversity aims to curb the negative effects of segregation and enable society to make the most of each individual's potential.

The presence of a variety of dwellings, both in terms of type and cost, contributes to a neighbourhood's social diversity while meeting the needs of citizens from various types of households, at different stages of their life and with different levels of income. Furthermore, social diversity is an integral part of a sustainable development approach.

Social diversity already exists in many areas of Greater Montréal, and it is this diversity that is often cited as one of the region's assets.

A study by the Dukakis Center for Urban and Regional Policy shows that investing in transportation to develop TOD neighbourhoods frequently leads to neighbourhood gentrification and, paradoxically, the replacement of residents with more affluent households that are less likely to use mass transit.

Projects that encourage and consolidate new dense, high-quality living environments near a structural mass-transit network composed primarily of the metro system and commuter trains must also aim for social diversity to ensure the success of these projects in terms of sustainable development principles.

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To find out more...

Dansereau, F. (ed.) in collaboration with L. Aubrée, G. Divay, D. Rose, A.-M. Séguin and G. Sénécal, 2005. *Politiques et interventions en habitation; analyse des tendances récentes en Amérique du Nord et en Europe*. Presses de l'Université Laval and Société d'habitation du Québec, 240 p.

Stephanie Pollack, Barry Bluestone and Chase Billingham, 2010. *Maintaining Diversity In America's Transit-Rich Neighborhoods: Tools for Equitable Neighborhood Change*. Dukakis Center for Urban and Regional Policy at Northeastern University. <http://www.dukakiscenter.org/TRNEquity>



PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ

### BOX — Land Use Planning, Transportation and Public Health

In terms of public health, many benefits can be derived from planning the built environment of cities differently in order to promote active transportation.

Many strategies within the reach of public authorities can work towards this result:

- Improved mass transit (in terms of quantity, quality and affordability) can create a modal shift away from automobiles to mass transit, which leads to an increase in transport-related physical activity. In conjunction with increased mass-transit service, a policy against the expansion of the urban road network to prevent more traffic also contributes to the modal shift towards mass transit and therefore to an increase in active transportation.
- Physical modifications to reduce the speed of traffic and the number of vehicles on local streets create an environment more conducive to active transportation, notably for children going to school. Improvements to intersections and crosswalk safety can also reduce conflicts between road users, decreasing a pedestrian's exposure to danger and making walking and bicycling more attractive.
- The presence of sidewalks and their maintenance, winter and summer, allows for safer movement; moreover, improvements like the installation of benches, the planting of trees and flowers and a dedicated pedestrian lighting system all promote walking. In the same way, it has been demonstrated that investing in the development of a safe bicycle network leads to an increase in bicycling.
- Finally, at both the metropolitan and local levels, the development of a denser, more compact city and the development of neighbourhoods with residents, jobs and local services (such as grocery stores, schools, medical clinics, libraries, etc.) are nonetheless conditions that encourage an increase in active transportation.

To find out more...

Bergeron, P., and Reyburn, S. 2010. *L'impact de l'environnement bâti sur l'activité physique, l'alimentation et le poids*. Québec, INSPQ.

Drouin, L., Morency, P., Thérien, F., King, N. et al. 2006. *2006 Annual Report on the Health of the Population - Urban Transportation, a Question of Health*, Direction de santé publique de l'Agence de la santé et des services sociaux de Montréal. 132 p.

## CRITERION 1.1.1

### Location of Transit-Oriented Development (TOD) zones

The *Metropolitan Land Use and Development Plan* identifies all existing and planned access points in the structural metropolitan mass-transit network (see Criterion 2.1.1) as areas to be densified and urbanized using the TOD integrated land use/transportation planning approach.

As for portions of the mass-transit network under study as well as the feeder services, the PMAD identifies transportation corridors as potential areas for urbanization and densification, taking into account current and projected service levels.<sup>41</sup>

The area of a TOD zone is defined by the type of service (mass-transit infrastructure):

- Metro, commuter train and LRT: within a 1-km radius around the access point
- Tramway, bus (BRT and feeder service): within a minimum 0.5-km radius from the access point

The RCMs and agglomerations must incorporate the location and area of the TOD zones and projected transport corridors into their planning documents without overstepping the 2011 agricultural zone boundary.<sup>42</sup> TOD zones are identified on Map 7.<sup>43</sup> Depending on the characteristics of the environments, the densification area of a TOD zone could be adjusted upwards around certain access points.

#### BOX — Location of TOD Zones

TOD zones are located near existing and planned structural metropolitan mass-transit network access points. As for the projected network, the PMAD identifies some TOD zones in accordance with requests expressed by partners during the characterization and definition exercise for the structural metropolitan mass-transit network. Even though the PMAD has identified these TOD zones, it should be noted that feasibility studies and technical analyses of the access points with which they are associated have not been completed.

That being said, some partners, notably the Vaudreuil-Soulanges RCM, have expressed reservations about the locations of some of the existing and planned train stations in the AMT's planning. This is the case, notably, for the Île-Perrot train station, which the RCM would like to relocate in order

to build a new intermodal station. Moreover, this RCM also has significant reservations concerning the possibility of adding a new station between the existing stations of Vaudreuil and Hudson. The PMAD recognizes the land use policy directions preferred by the Vaudreuil-Soulanges RCM in regards to these two stations.

Finally, during the public consultations on the draft *Metropolitan Land Use and Development Plan*, many participants requested additional TOD zones. These requests will be examined in the framework of the action plan, which proposes the creation of a working committee to identify new TOD zones in Greater Montréal and conduct opportunity analyses on them.

<sup>41</sup> Many RCMs have identified new TOD zones that they would like to add to the PMAD. This is the case with future TODs located in the municipalities of Châteaugay, Beauharnois, La Prairie and Saint-Philippe as well as the Vaudreuil-Soulanges RCM. Since these TOD zones are linked to the planning of new transportation corridors, the action plan stipulates that opportunity analyses be done on the identification of new TOD zones. These analyses will eventually be used to evaluate whether these new TOD zones should be included in the PMAD.

<sup>42</sup> In light of Objective 1.6 and the priority given to urbanizing territories located near metropolitan mass-transit access points, some land located in agricultural zones could be the subject of an opportunity analysis.

<sup>43</sup> In the case of train stations located on Île-Perrot, the Vaudreuil-Soulanges RCM will have to adjust the size of the TOD zone according to the new location of the Île-Perrot train station.



## BOX — Characterization of TOD Zones

The qualitative characterization initiated by the CMM aims to provide a description of the territory located near the structural metropolitan mass-transit network access points.

To paint a picture of the urban realities of these environments, a characterization sheet with a series of questions was assigned to each structural mass-transit access point and then sent to the regional partners so they could complete it.

The sheets covered the followings topics:

- type of environment
- potential and constraints for TOD enhancement
- any major projects planned for the area under study
- area planning
- parking management
- spaces suitable for development and redevelopment

Even though this exercise was aimed at regional partners, they, in turn, requested input from municipalities so they could participate. Therefore, the majority of regional and municipal partners collaborated on this exercise that contributed to the PMAD and its action plan.

Moreover, this qualitative characterization, inspired by the objectives and criteria proposed in the PMAD, also contributed to the discussion of the CMM's administration with regard to implementing a technical and financial assistance program to support TOD planning.

In the end, this exercise, which continues to evolve, will contribute to PMAD implementation efforts, including detailed planning and the follow-up of TOD zones. Data on the subject will be updated over time to reflect the measures implemented and the modifications to these environments.

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To find out more...

Communauté métropolitaine de Montréal, 2011. *Caractérisation qualitative des aires d'influence des points d'accès au réseau de transport en commun*. 18 p.

[http://pmad.ca/fileadmin/user\\_upload/pmad2011/documentation/20110218\\_caracterisationAiresInfluence.pdf](http://pmad.ca/fileadmin/user_upload/pmad2011/documentation/20110218_caracterisationAiresInfluence.pdf)

Communauté métropolitaine de Montréal, 2011. *Aires TOD – Fiches synthèses de caractérisation*.

AECOM, 2011. *Guide d'aménagement pour les aires de TOD*. 83 p. [http://pmad.ca/fileadmin/user\\_upload/pmad2011/documentation/20111004\\_guideAiresTOD.pdf](http://pmad.ca/fileadmin/user_upload/pmad2011/documentation/20111004_guideAiresTOD.pdf)

# CRITERION 1.1.2

## Definition of minimum density thresholds applicable to TOD zones

Minimum density thresholds are defined for every metropolitan structural mass-transit network access point (TOD zone). Minimum density thresholds are established by taking four parameters into account:

- the mass-transit access point's location within the territory of Greater Montréal, namely whether it is located in the centre of Greater Montréal or not; the centre of Greater Montréal corresponds to the metropolitan territory's central area, as illustrated in Map 7
- the type of environment (regional, urban centre, suburban or neighbourhood)<sup>44</sup> indicated by the partners during the 2010-2011 exercise to characterize mass-transit access points<sup>45</sup>
- the median gross residential density recorded in the area surrounding the access point
- the characteristics specific to certain areas

In the case of bus networks (BRT and feeder services), the minimum density thresholds were determined by using recognized practices for mass-transit services that complement a structural network. For example, the densities recommended by the government of Ontario and used by the City of Ottawa vary from 30 to 50 dwellings per gross hectare depending on the desired level of service.<sup>46</sup>

**TABLE 11 — Minimum Residential Density Thresholds at Structural Metropolitan Mass-Transit Access Points, According to the Environment's Characteristics (dwelling/ha)**

	METRO-LRT	COMMUTER TRAIN	TRAMWAY-BRT-FEEDER SERVICES
Very high	150	110	80
High	110	80	60
Medium	80	60	40
Low	60	40	30




Minimum residential density<sup>47</sup> is the average gross density measured in dwellings per hectare. It corresponds to the average density applicable to all lots that are vacant or slated for redevelopment, between 2011 and 2031, and that are meant for residential or mixed use within an access point area to be urbanized and densified, allowing for a modulation of the density within the TOD zone.

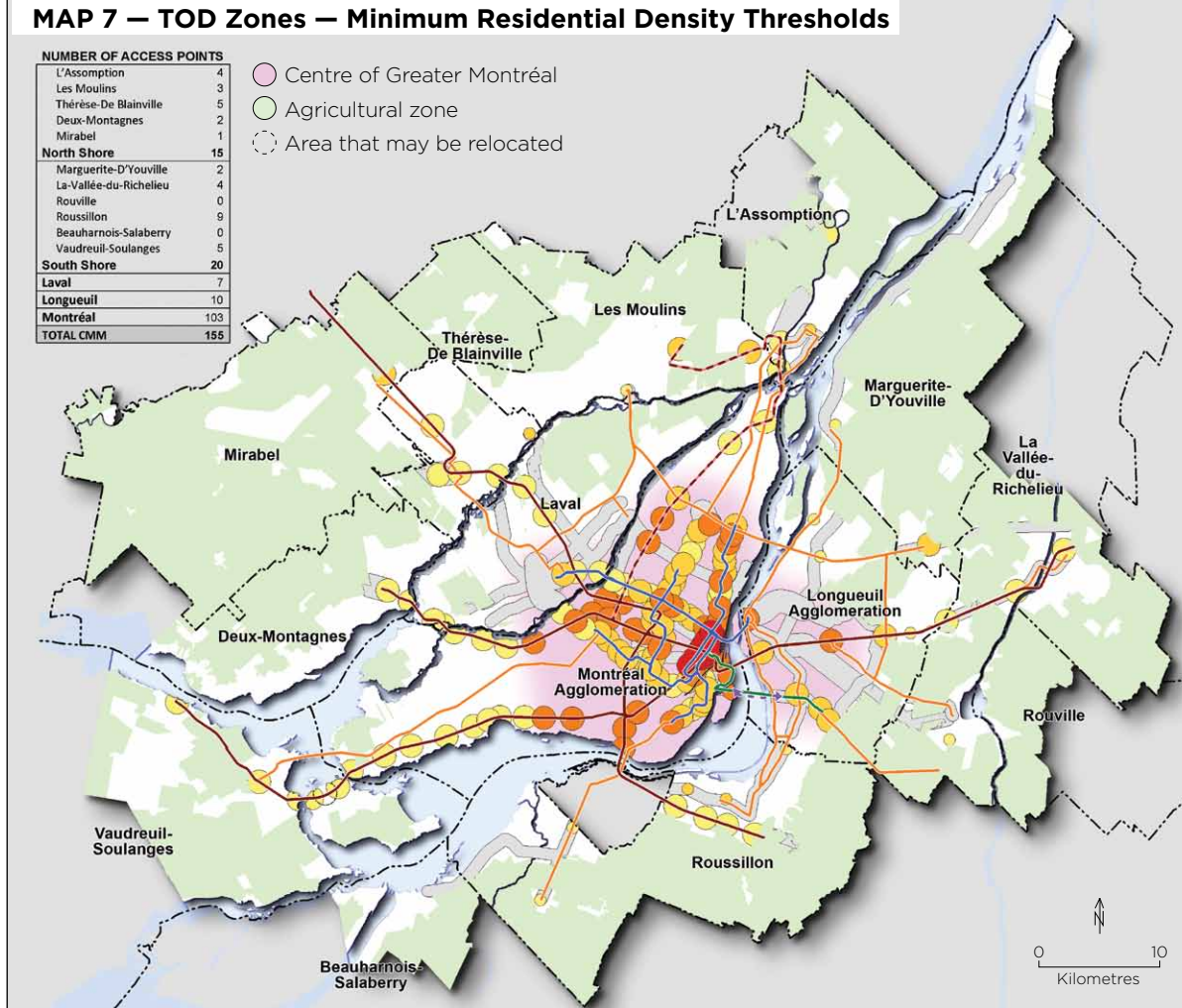
For conformity and complementarity purposes, these minimum density thresholds and the territory they apply to must be incorporated into the planning documents of RCMs and agglomerations. When TOD zones overlap, the highest minimum residential density threshold applies. The minimum residential density threshold for each TOD zone is specified in Map 7 and in the table in Annex 2.

As for the existing transportation corridors identified on Map 7, the CMM is asking the RCMs and agglomerations to define minimum density thresholds in line with those defined in Table 11.

**NUMBER OF ACCESS POINTS**

L'Assomption	4
Les Moulins	3
Thérèse-De Blainville	5
Deux-Montagnes	2
Mirabel	1
<b>North Shore</b>	<b>15</b>
Marguerite-D'Youville	2
La-Valleée-du-Richelieu	4
Rouville	0
Roussillon	9
Beauharnois-Salaberry	0
Vaudreuil-Soulanges	5
<b>South Shore</b>	<b>20</b>
Laval	7
Longueuil	10
<b>Montréal</b>	<b>103</b>
<b>TOTAL CMM</b>	<b>155</b>

-  Centre of Greater Montréal
-  Agricultural zone
-  Area that may be relocated



### Structural metropolitan mass transit network

Metro or LRT

Commuter train

Tramway or bus

- 150
- 110
- 80
- 60

 110  
 80  
 60  
 40

- 80
- 60
- 40
- 30

- Transportation corridors

— Metro

— Train

 Train under construction

- - ➔ Light rail transit un

— Bus-rapid transit

— Bus feeder service

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- 44 According to the characterization, a “regional centre” type environment has a variety of uses (residential, offices, businesses, services, institutions) and represents a destination of choice for economic activity (supralocal visibility). A “(sub)urban centre” has a variety of local uses (residential, offices, businesses, services). A “neighbourhood” type environment has residential uses as well as neighbourhood services/businesses uses.
- 45 A status report on the characterization of TOD zones was produced and is available on the PMAD website: [http://pmad.ca/fileadmin/user\\_upload/pmad2011/documentation/20110218\\_caracterisationAiresInfluence.pdf](http://pmad.ca/fileadmin/user_upload/pmad2011/documentation/20110218_caracterisationAiresInfluence.pdf)
- 46 Government of Ontario, Ministry of Infrastructure, Growth Plan for the Greater Golden Horseshoe, 2006, Sections 2.2.2 and following. [https://www.placestogrow.ca/index.php?option=com\\_content&task=view&id=9&Itemid=14](https://www.placestogrow.ca/index.php?option=com_content&task=view&id=9&Itemid=14)
- 47 Many partners have stated the importance of setting a minimum threshold using an approach that reflects both population and jobs. In the framework of the action plan, a study will be undertaken to analyze the feasibility of this approach.



According to 2006 census results, it is estimated that 40% of Greater Montréal's households are already located in or near the 155 TOD zones identified on Map 7.

**TABLE 12 — Estimated Number of Households in TOD Zones**

HOUSEHOLDS			
	Number inside TOD zones <sup>(1)</sup>	Number in entire territory	% inside TOD zones
Montréal Agglomeration	497,905	831,540	60%
Longueuil Agglomeration	20,582	159,810	13%
Laval	24,044	144,200	17%
North Shore	24,069	185,780	13%
South Shore	21,381	162,010	13%
<b>CMM</b>	<b>587,981</b>	<b>1,483,340</b>	<b>40%</b>

(1) 155 TOD zones have been identified. The number of households in TOD zones was estimated based on data on the number of households in Statistics Canada dissemination areas located in whole or in part in TOD zones. A dissemination area is retained when its territory overlaps a TOD zone by 30% or more.

Source: Statistics Canada, 2006 Census of Population. Calculations by the CMM, 2011.

The characterization of TOD zones undertaken in the last months also allows for the estimation that the housing capacity of these areas is over 117,000 households in 2011.

**TABLE 13 — 2011 Estimated Housing Capacity of TOD Zones, According to Characterization Sheet Data**

	Total 2011-2031 household growth (no.) <sup>(1)</sup>	TOD housing capacity (no. dwellings) <sup>(2)</sup>	% of 2011-2031 household growth inside TOD zones
Montréal Agglomeration	122,900	90,000	73%
Longueuil Agglomeration	26,600	6,000	23%
Laval	41,900	6,600	16%
North Shore	73,700	5,800	8%
South Shore	54,300	9,000	17%
<b>Greater Montréal</b>	<b>319,400</b>	<b>117,400</b>	<b>37%</b>

(1) Institut de la statistique du Québec, Perspectives démographiques du Québec et des régions, 2006-2056, 2009 Edition. Calculations by the CMM, 2011.

(2) The estimated housing capacity includes the number of dwellings in planned residential projects and the number of dwellings that could be constructed in spaces to be developed or redeveloped according to proposed average gross density and the following hypothesis:

- Lots to be redeveloped (no specific use and residential use) and vacant lots (no specific use and mixed use): 50% of the area was retained for residential development and redevelopment purposes
- Vacant residential lots: 60% of the area was retained for residential development purposes
- Lots to be optimized or densified: 10% of the area was retained for residential redevelopment purposes

In light of the estimated housing capacity of TOD zones and the proportion of households already located in them, the PMAD aims to maintain what it has achieved and therefore sets a goal of having at least 40% of new households (2011-2031) in TOD neighbourhoods located around structural metropolitan mass-transit network access points.

According to this 40% goal, nearly 128,000 new households will be added to TOD zones by the year 2031.

As for the transportation corridors that are planned or under study, including metro extensions, the CMM will undertake integration and urban development potential studies in the areas surrounding the structural metropolitan mass-transit network to identify TOD zones and the applicable minimum density thresholds.

The goal of locating a minimum of 40% of households in TOD zones will be revised upwards if the transportation supply is increased by the creation of new structural mass-transit infrastructure.

If all the investment requested for mass transit is allocated, this objective could be increased to nearly 60%. This objective will be evaluated as part of the studies on the potential capacity of these new transportation corridors.

### **BOX – Integration and Urban Development Potential Studies in Areas Surrounding the Structural Metropolitan Mass-Transit Network**

In 2009, the Communauté métropolitaine de Montréal, in collaboration with the Montréal and Longueuil agglomerations, conducted a study on the urban development potential of a mass-transit route set along the Champlain Bridge corridor.

The study was part of a strategy to optimize the effects of synergy between urban development and mass-transit service and infrastructure development. Specifically, the study's goal was to:

- Create a land use and development vision and develop urban development scenarios that integrate TOD planning principles.
- Evaluate the resulting development potential and estimate the urban and fiscal impact.
- Propose an action plan to support and protect the urban development potential.

As part of the PMAD's action plan, such integration and urban development potential studies will be undertaken for the main access points and corridors of the structural metropolitan mass-transit network.

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To find out more...

Groupe Gauthier, Biancamano, Bolduc, 2009. *Étude sur le potentiel de développement urbain d'un corridor de transport collectif renforcé dans l'axe du pont Champlain et dans l'axe du boulevard Taschereau.*

## CRITERION 1.1.3

### Development of TOD zones

According to the PMAD, the areas identified on Map 7 must become TOD zones. It is requested that this development be incorporated into a detailed land use/transportation planning approach. This planning exercise will allow the area within the TOD zone to be adapted to suit the characteristics and potentials specific to each environment and ensure consistency across all interventions. By starting with a development vision for the TOD zone and establishing development phases in a way that takes into account the current and projected potential of the mass-transit network, the detailed planning exercise must aim to:

- Better integrate the station into its surrounding environment by promoting its visibility and accessibility (mass-transit access point interfaces).
- Adjust the territory's density so there is a gradation from the access point outwards and so lot development is maximized while respecting local particularities like heritage, landscape, natural environment, facilities and services (density of uses adapted to the environment).
- Promote diversity and a better horizontal and vertical integration of uses (businesses, services, residences and institutions) to cultivate a dynamic community life (mixed use).
- Encourage the construction of a wide variety of dwellings (typologies and tenures) to better meet the needs of different household types and better integrate different socio-economic groups into community life (upholding social diversity).
- Facilitate access to the mass-transit infrastructure while prioritizing active transportation (road network and accessibility).
- Facilitate active transportation (walking, biking, etc.) through planning that will ensure security and comfort (road network and accessibility).
- Manage off-street parking that limits the number of available spots while encouraging other forms of parking — underground or aboveground — and prioritizing public and active transportation (manage parking).
- Encourage distinctive planning that emphasizes the location's identity (urban design, safety, quality of facilities and location identity).

- Implement a street-front built environment as well as diversified architecture to reduce the walking distance to mass-transit stops and create a friendly environment for pedestrians (building layout and diversified architecture).
- Promote sustainable facilities to improve the quality of life of these spaces, notably by constructing high-energy-efficiency buildings, adapting the landscaping to the environment, protecting natural environments and areas with a historic, heritage and cultural character, recycling and managing stormwater run-off (sustainable planning).

Furthermore, the RCMs and agglomerations are encouraged to consider detailed land use/transportation planning for the transportation corridors identified on Map 7.

To support this detailed planning exercise, the CMM has created a planning guide for TOD zones<sup>48</sup> and made summary data available<sup>49</sup> from the characterization of TOD zones undertaken by the CMM in collaboration with the RCMs and agglomerations between August 2010 and April 2011.

<sup>48</sup> AECOM, *Guide d'aménagement pour les aires de TOD (Transit-Oriented Development)*, 2011. 83 p. [http://pmad.ca/fileadmin/user\\_upload/pmad2011/documentation/20111004\\_guideAiresTOD.pdf](http://pmad.ca/fileadmin/user_upload/pmad2011/documentation/20111004_guideAiresTOD.pdf)

<sup>49</sup> Communauté métropolitaine de Montréal, *Aires TOD – Fiches synthèse de caractérisation*. 2011.



## BOX — The Action Plan: A TOD Incentive Program

It is suggested that municipalities planning a TOD zone be supported by an incentive based program.

This program should be closely tied to the implementation of the next government climate change action plan. The fight against climate change is also a unique opportunity to introduce a new energy model and initiate a new economic cycle, that of a green economy, i.e., an economy less dependent on petroleum that generates significant economic benefits in Québec.

This TOD program would support the consolidation, densification and quality of living environments located near mass-transit access points and thereby promote:

- An increase in the number of households located within walking distance of a high-performing mass-transit service
- A reduction in vehicle-kilometres travelled (GHG reduction)
- An increase in active transportation (walking and bicycling)

For example, the content of this program would:

- Define measures to support the detailed planning of areas located near mass-transit network access points, land management and the development and redevelopment of the public domain from a TOD viewpoint
- Define measures to support residential demand for a denser typology and price structure for diversified housing near mass-transit infrastructure (example: housing financial assistance)
- Identify and adapt existing government assistance programs to promote synergy among them and greater consistency between provincial and municipal actions (e.g., ClimatSol program to support TOD zones)

### **BOX — Metropolitan Action Plan for Affordable Public Housing, 2009-2013**

In June 2008, the CMM unanimously adopted its first Metropolitan Action Plan for Affordable Public Housing, for the period 2009-2013. This plan, like the economic development plan and the Blue Fund, must be seen as a tool which, in conjunction with the PMAD, will ensure the planning and development of an attractive, competitive and sustainable Greater Montréal.

Since its founding, the CMM has been active in financing affordable public housing and, year after year, helps support 27,000 households living in low-cost housing and 9,000 households who are eligible for rent supplements. The CMM has also contributed, since 2001, to the construction of approximately 12,000 housing cooperatives and NPOs. With the Metropolitan Action Plan for Affordable Public Housing, 2009-2013, elected officials have pledged to increase their efforts and are ready to create at least 2,000 units of housing cooperatives and NPOs (AccèsLogis) per year in Greater Montréal.

The objectives of the five-year Metropolitan Action Plan for Affordable Public Housing converge with those of the PMAD in many areas, for example: increase the continuum of housing options; preserve or even extend the diversity of the housing supply in terms of typology and costs; support development in all areas of the CMM; support the creation of high-quality residential projects.

This convergence should facilitate the development of strategies for the protection and inclusion of affordable public housing inside and outside TOD zones. By providing a diverse housing supply, TOD zones will preserve or even improve housing accessibility for low and moderate income households, thus improving social diversity.

Moreover, it should be noted that social and community housing initiatives often spearhead the rehabilitation and revitalization of older or rundown neighbourhoods and the renewal of certain living environments. Thus, social and affordable housing must play a key role whether it is located inside a TOD zone (many TOD zones are in older neighbourhoods) or outside a TOD zone. This is why a TOD incentive program, which should be developed as part of the PMAD action plan, should include measures to support social and affordable housing.

### **BOX — Culture and TOD Neighbourhoods**

Arts and culture contribute to the quality of a living environment and the quality of life of citizens. In addition, they have a structural effect on the community and generate significant economic benefits.

With their added value, attractiveness and unifying nature, arts and cultures can also be an asset in encouraging the consolidation of existing TOD zones and promoting the growth of new TOD zones.

Arts and culture should therefore be an integral part of the planning and development of living environments. It would be beneficial to find municipal distributors that offer artistic programming like concerts, shows, exhibits and movies around these structural mass-transit access points. In this way, TODs become an opportunity to promote existing cultural areas and create new ones.





*Social and community housing initiatives often spearhead the rehabilitation and revitalization of older or rundown neighbourhoods and the renewal of certain living environments. Thus, social and affordable housing must play a key role whether it is located inside a TOD zone (...) or outside a TOD zone.*



# OBJECTIVE 1.2

## Optimize urban development outside of TOD zones

Even if Objective 1.1 of directing 40% of household growth towards structural metropolitan mass-transit network access points is achieved by 2031, almost 200,000 households will be located elsewhere on the CMM's territory.

The lack of residential space in the central area is causing municipalities to favour the consolidation and redevelopment of their territory. On the other hand, on the North and South Shore, the proximity of farmlands sometimes prompts municipalities to consider urban expansion into agricultural zones.

Urbanization choices regarding lots that are vacant or slated for redevelopment will help determine a territory's need to expand into the agricultural zone. Specifically, the minimum density thresholds outside TOD zones, in relation to the number of households to be located inside TOD zones, are an indication of the speed at which space will be used over the next 20 years.

To establish minimum density thresholds, socio-demographic changes must be taken into account due to their significant impact on the housing market. Specifically, ageing and changing ways of life have already modified the housing market, which must now offer more diversified residential products, particularly on the North and South Shore of the metropolitan region.

For that matter, with the population ageing faster due to the gradual retirement of the baby-boomer generation (group born between 1946 and 1966), many housing researchers and organizations (notably the CMHC and the SHQ) foresee a marked increase in the number of households seeking high-density housing in the coming years. According to demographic projections from the Institut de la statistique du Québec, the 320,000 new households projected for the region between now and 2031

will result in a marked increase in the number of households age 55 and over, which are generally small, and a levelling off in the number of younger households, often families with children.

The establishment of minimum density thresholds must also help limit the environmental and infrastructure costs associated with urban growth. To this end, a study by the C.D. Howe Institute indicates that urban form has an effect on the costs of providing services and infrastructure.<sup>50</sup> In fact, according to some studies, compact development could considerably reduce the construction ( $\pm 50\%$ ) and maintenance ( $\pm 30\%$ ) costs of road networks and aqueduct and sewer infrastructure.<sup>51</sup>

To create the PMAD in collaboration with its partners, in September 2010 the CMM signed agreements with the five geographic areas concerning the PMAD subjects of defining minimum density thresholds and defining territories reserved for optimal urbanization.

Under these agreements, partners promised to define policy directions, objectives and criteria over a 20-year planning horizon for their respective territories, outside metropolitan mass-transit corridors, from a sustainable-development viewpoint, with regard to:

- the definition of minimum density thresholds according to the characteristics of the locality
- the definition of territories reserved for optimal urbanization

Criterion 1.2.1 on the definition of minimum density thresholds outside TOD zones and Criterion 1.2.2 on the definition of territories reserved for optimal urbanization take into account the proposals given to the CMM by the five geographic areas.

<sup>50</sup> Slack, E., C.D. Howe Institute. "Municipal Finance and the Pattern of Urban Growth," Commentary, No 160, 2002, 25 p. [http://www.cdhowe.org/pdf/commentary\\_160.pdf](http://www.cdhowe.org/pdf/commentary_160.pdf)

<sup>51</sup> The subject of urbanization costs deserves an in-depth analysis which is planned as part of the action plan.

PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ



## BOX — Managing Urban Growth on the Outskirts of the CMM

In 2001, the MAMROT stated, with regard to government orientations sent to the CMM, that “The Ministère des Affaires municipales et de la Métropole must ensure consistency between the CMM’s orientations and those of the peripheral RCMs and coherent growth management to prevent dispersion of the population outside the metropolitan territory, among other consequences.” (*Planning Framework and Government Orientations*, p. 128)

This issue, commonly called “leapfrog development”, is still a subject of major concern for the municipalities in the CMM.

In the *Addenda modifiant les orientations gouvernementales en matière d’aménagement pour le territoire de la Communauté métropolitaine de Montréal*, adopted in May 2011, the government notes that land occupancy and the planning that must precede it must be done in a sustainable way to preserve resources. To this end, the government considers that the growth management it requires of the CMM must result in complementary actions from the surrounding RCMs so as to create a strategic and sustainable alliance.

Thus, the government believes that, to ensure the complementarity of metropolitan and perimetropolitan planning, the development of perimetropolitan RCMs should be consolidated in the primary service and facility hub located in their territory.

To ensure this objective is reached, the MAMROT expects the perimetropolitan RCMs to:

- Consolidate and reuse the existing urban fabric, notably by:
  - optimizing existing communal infrastructure and facilities, primarily with regard to water supply and mass transit
  - redeveloping and reclassifying land
  - increasing land occupancy density and intensity in accordance with the environment’s characteristics
- Concentrate urban development inside the urban growth boundaries while giving priority to that of the primary service and facility hub in the RCM in question.
- Within the development areas listed in the design plan included in the primary service and facility hub of the RCM in question, plan urbanization measures that ensure the sustainable and continued use of land and the diversity of uses.
- Outside the primary service and facility hub of the RCM in question, prioritize urban development and consolidate the existing urban fabric in areas served by water supply and mass-transit infrastructure.

The CMM invites the government, as it promised in the *Stratégie pour assurer l’occupation et la vitalité des territoires 2011-2016* made public in November 2011, to make sure this policy and its expectations are implemented to ensure consistent planning between the CMM’s territory and its surrounding areas. This consistency is essential to reaching the metropolitan objectives related to densification of the territory and the integration of land use planning and mass transit (TOD section).

Furthermore, as part of the PMAD’s follow-up, the CMM intends to keep its data up to date with regard to residential mobility within the territory of Greater Montréal’s and its surroundings.

# CRITERION 1.2.1

## Definition of minimum density thresholds outside of TOD zones

The establishment of minimum density thresholds is one measure to help optimize urban development and diversify the housing supply. However, a density threshold cannot be a precise measurement applied universally across the metropolitan region.

The definition of a density threshold must take into account the area’s current specific characteristics and the development vision of regional and municipal bodies.

Therefore, the CMM has set a planning horizon of 20 years (to the year 2031) for the establishment of minimum density thresholds and asked its partners for proposed thresholds based on the characteristics of their respective environments.

Definition of the Types of Density Used in the PMAD	
<b>HOUSING DENSITY:</b> Number of dwellings per hectare of land specifically reserved for housing. Ratio of the number of dwellings to the size of the developed land:	
<b>Number of dwellings</b>	$\frac{\text{Number of dwellings}}{\text{Area of land (ha)}} = \text{Residential density}$
As the area of the land occupied by housing does not just include dwellings, but also space for road networks, public spaces and sometimes even other buildings (local facilities, activities, etc.), there should be a distinction between gross density and net density.	
<b>GROSS DENSITY:</b> Calculation of the ratio of the total number of dwellings, divided by the total area of the developed land, including the area taken up by streets and public spaces. Calculation of the gross density is mostly used for the planning of housing developments.	
<b>NET DENSITY:</b> Calculation of the ratio of the total number of dwellings, divided by the area of all the defined building lots. The area taken up by streets and public spaces is excluded from this calculation.	

The CMM has defined the PMAD’s minimum density thresholds by taking into account the proposals from partners, demographic trends and the impact of ageing on the residential market,<sup>52</sup> and then comparing these data to CMHC housing starts data.

The PMAD’s minimum density thresholds were therefore developed using CMHC housing starts data for the period 2005-2010 and by associating typical lot sizes with residential typologies. It was this standardization exercise that made the definition of minimum density thresholds possible.



Furthermore, considering the current densities of the five areas, it is suggested that the North and South Shore gradually adopt high-density thresholds. However, in Laval, Longueuil and Montréal, high thresholds are proposed right from the first five-year period since the current density in these areas is ready to increase.

The PMAD defines the following minimum density thresholds:

**TABLE 14 — Minimum Density Thresholds Outside TODs Applicable to Agglomerations and RCMs**

	Minimum gross density threshold dwelling/ha			
SECTORS	2011-2016	2017-2021	2022-2026	2027-2031
<b>Montréal Agglomeration</b>				
Centre	60	60	60	60
Outside the centre <sup>53</sup>	30	30	30	30
<b>Longueuil Agglomeration</b>				
Centre	35	35	35	35
Outside the centre <sup>54</sup>	30	30	30	30
<b>Laval</b>	30	30	30	30
<b>North Shore</b>				
Deux-Montagnes	17	19	21	23
L'Assomption	19	21	23	25
Les Moulins	18	20	22	24
Mirabel	18	20	22	24
Thérèse-De Blainville	21	23	25	27
<b>South Shore</b>				
Beauharnois-Salaberry	18	20	22	24
La Vallée-du-Richelieu	18	20	22	24
Marguerite-D'Youville	19	21	23	25
Roussillon	17	19	21	23
Vaudreuil-Soulanges	16	18	20	22
Rouville	16	18	20	22

In the Montréal agglomeration, two thresholds are applicable: 60 dwellings/ha for the central part of the island of Montréal and 30 dwellings/ha for the areas at either end of the island.

In the Longueuil agglomeration, two thresholds are also applicable: 35 dwellings/ha for the central part and 30 dwellings/ha for the surrounding areas.

In the Laval RCM, the minimum threshold of 30 dwellings/ha applies to the entire territory.

In the North Shore and South Shore RCMs, the initial minimum density threshold is set at 16 to 21 dwellings/ha, to account for the environment's characteristics. These thresholds reflect the densification efforts made by the RCMs in the past few years, particularly in the municipalities of the Thérèse-De Blainville RCM. This threshold then increases by two dwellings every five years and will reach 22 to 27 dwellings per hectare for the period 2027-2031.

It should be noted that since the CMM must follow up the implementation of the PMAD and evaluate the progress toward plan objectives, the minimum thresholds defined for the periods beyond 2017 could be subject to review, depending on the findings of the first follow-up report.

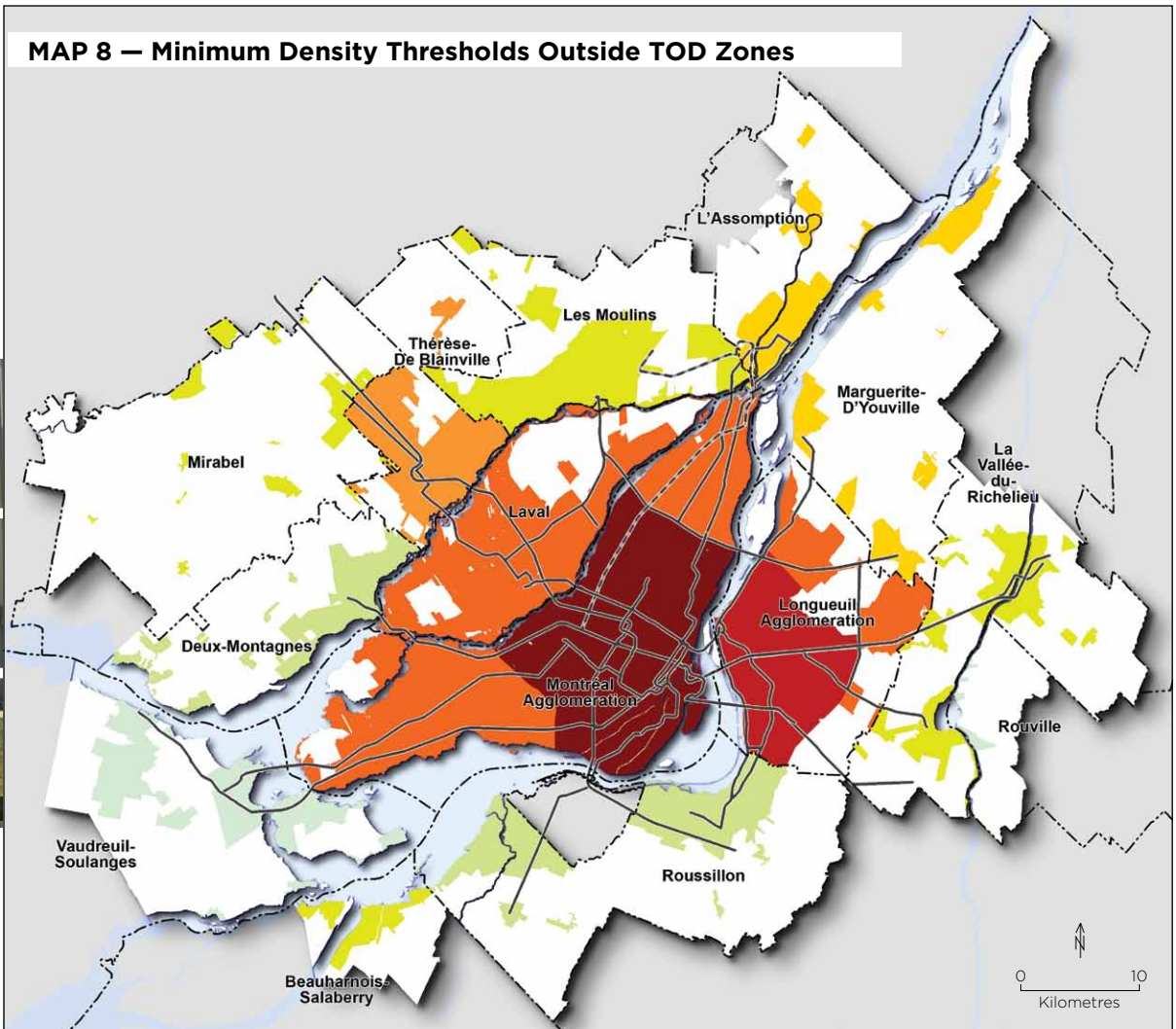
<sup>52</sup> See pages 58 to 64 of this document.

<sup>53</sup> Includes areas located west of Highway 13 and east of Highway 25.

<sup>54</sup> Includes Longueuil areas located east of Highway 30 and the municipalities of Boucherville and Saint-Bruno-de-Montarville.



PHOTO CREDIT: CMM



Dwellings per hectare, gross density outside TOD zones

	2011-16	2017-21	2022-26	2027-31
	60	60	60	60
	35	35	35	35
	30	30	30	30
	21	23	25	27
	19	21	23	25
	18	20	22	24
	17	19	21	23
	16	18	20	22

Structural metropolitan mass-transit network

- In service
- Planned

The minimum gross density threshold set for each RCM or agglomeration constitutes an average target that applies to all territories reserved for optimal urbanization, in other words, all lots that are vacant or slated for redevelopment. This minimum threshold can be modified depending on the local environment's characteristics, such as market or densification areas targeted by certain economic sectors. In this way, municipalities will be able to offer projects with higher or lower densities, according to the environment's characteristics.

The calculation of and compliance with minimum density thresholds apply to the entire territory in question and not necessarily to each local municipality.

The notion of density is directly linked to land use. In an effort to comply with principles of sound growth management and farmland protection in the metropolitan planning framework as well as the government orientations and expectations, the CMM is asking its partners to take concrete action to increase the density of future developments in their respective territories.

The RCMs and municipalities involved will need to integrate the minimum density into their respective land use plans to ensure that local municipalities comply and incorporate it into their local planning tools (planning programs and by-laws). This integration must notably appear in the land use plan as follows:

- A policy direction, objectives and means of implementation must be added to target the densification and redevelopment of the territory.
- A minimum density threshold must be defined for development areas that include a residential use. The RCMs and agglomerations affected will therefore have to connect the spaces to be developed and/or redeveloped with the target density.
- Indicators must be determined for the follow-up and monitoring of densification and redevelopment.

In their land use plans, the RCMs and agglomerations could, exceptionally and if justified, modify or provide exceptions to the minimum density threshold as it applies to specific situations related to public safety (in the case of physical or natural constraints) or to ensure the protection of areas with heritage or environmental characteristics.

Through their respective land use plans, the RCMs and agglomerations must ask local municipalities to provide for compliance with the minimum density threshold in one or more of the following ways:

- The planning program must include an objective and means of implementation that aim to diversify residential typologies.
- Density thresholds that reflect the thresholds established in the land use plan must be identified.
- The planning program must include an objective and means of implementation that aim to create Special Planning Programs (SPP) for vacant spaces currently available for development.
- The planning program must include an objective and means of implementation that aim to create a Comprehensive Development Program (CDP) by-law for vacant spaces currently available for development.
- The planning program or by-laws must include a floor space index for each zone or development area.
- A register of lots and vacant buildings must be created and maintained.
- A redevelopment plan must be drawn up for the existing urban fabric.
- The proximity of public services must be noted.

In addition to applying minimum density thresholds, the RCMs and agglomerations of the metropolitan territory are encouraged to create a *Politique particulière de densification et de redéveloppement du territoire* that includes the following elements:

- Densification targets for each environment and/or municipality
- Minimum percentage of semi-detached and row housing
- Maximum percentage of detached single-family housing
- Methodology for calculating the compliance of local planning tools with the land use plan's minimum density threshold
- Calculation of redevelopment potential
- Identification and prioritization of areas to redevelop



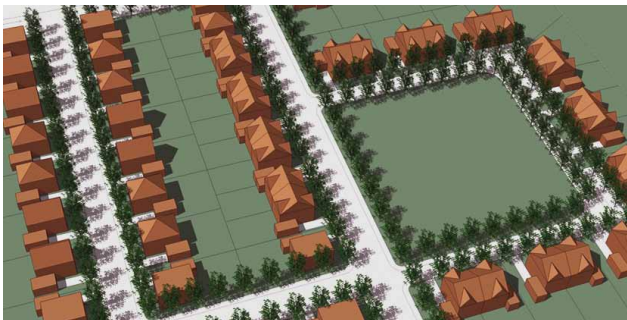
# DENSITY VISUALIZATION — FICTIONAL CASES



## Gross residential density (12 dwellings/hectare)

Total site area: 4 hectares  
Number of dwellings: 52 dwellings  
Distribution: 52 single-family detached dwellings  
Lot size: 412.5 m<sup>2</sup> to 687.5 m<sup>2</sup>

Percentage used by parks: 10%  
Percentage used by roads: 20%  
Collector road right of way (ROW): 15 metres  
Local street ROW: 10 metres  
Neighbourhood street ROW: 6 metres



## Gross residential density (18 dwellings/hectare)

Total site area: 4 hectares  
Number of dwellings: 71 dwellings  
Distribution: 38 single-family detached dwellings  
18 semi-detached single-family dwellings  
15 single-family row houses attached at the garage  
Lot size: 412.5 m<sup>2</sup> (detached)  
343.75 m<sup>2</sup> (semi-detached)  
275 m<sup>2</sup> (row house)

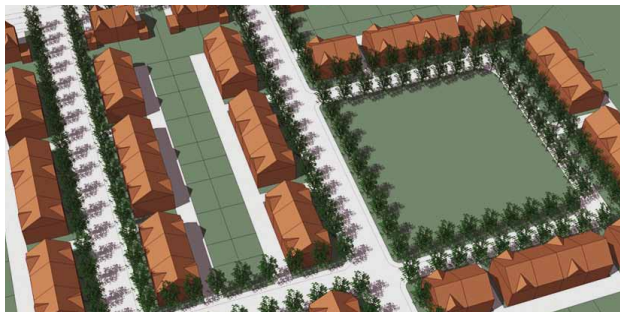
Percentage used by parks: 10%  
Percentage used by roads: 20%  
Collector road ROW: 15 metres  
Local street ROW: 10 metres  
Neighbourhood street ROW: 6 metres



## Gross residential density (20 dwellings/hectare)

Total site area: 4 hectares  
Number of dwellings: 82 dwellings  
Distribution: 40 semi-detached single-family dwellings  
42 single-family row houses attached at the garage  
Lot size: 412.5 m<sup>2</sup> (semi-detached)  
275 m<sup>2</sup> (row house)

Percentage used by parks: 10%  
Percentage used by roads: 20%  
Collector road ROW: 15 metres  
Local street ROW: 10 metres  
Neighbourhood street ROW: 6 metres



#### **Gross residential density (24 dwellings/hectare)**

Total site area: 4 hectares  
 Number of dwellings: 98 dwellings  
 Distribution: 22 semi-detached single-family dwellings  
 76 single-family row houses  
 Lot size: 343.75 m<sup>2</sup> (semi-detached)  
 206.25 m<sup>2</sup> (row house)

Percentage used by parks: 10%  
 Percentage used by roads: 20%  
 Collector road ROW: 15 metres  
 Local street ROW: 10 metres  
 Neighbourhood street ROW: 6 metres



#### **Gross residential density (30 dwellings/hectare)**

Total site area: 4 hectares  
 Number of dwellings: 122 dwellings  
 Distribution: 24 single-family detached dwellings  
 16 semi-detached single-family dwellings  
 6 single-family row houses attached at the garage  
 16 duplex dwellings  
 60 triplex dwellings

Lot size: 412.5 m<sup>2</sup> (detached)  
 343.75 m<sup>2</sup> (semi-detached)  
 275 m<sup>2</sup> (row house)  
 330 m<sup>2</sup> (duplex, triplex)  
 Percentage used by parks: 10%  
 Percentage used by roads: 20%  
 Collector road ROW: 15 metres  
 Local street ROW: 10 metres  
 Neighbourhood street ROW: 6 metres



#### **Gross residential density (42 dwellings/hectare)**

Total site area: 4 hectares  
 Number of dwellings: 166 dwellings  
 Distribution: 16 semi-detached single-family dwellings  
 36 single-family row houses attached at the garage  
 114 triplex dwellings  
 Lot size: 343.75 m<sup>2</sup> (semi-detached)  
 275 m<sup>2</sup> (row house)  
 330 m<sup>2</sup> (triplex)

Percentage used by parks: 10%  
 Percentage used by roads: 20%  
 Collector road ROW: 15 metres  
 Local street ROW: 10 metres  
 Neighbourhood street ROW: 6 metres

Source: Atelier B.R.I.C. (2007). *Étude de visualisation – Densités résidentielles brutes. Communauté métropolitaine de Montréal*. 20 p.



## DENSITY VISUALIZATION — REAL CASES



### **MONTREAL, ROSEMONT NEIGHBOURHOOD**

Angus development  
(42 dwellings/hectare)



### **MONTREAL, ST-LAURENT NEIGHBOURHOOD**

Bois-Franc development  
(70 dwellings/hectare)



### **SOUTH SHORE NEIGHBOURHOOD**

La Prairie  
(21 dwellings/hectare)

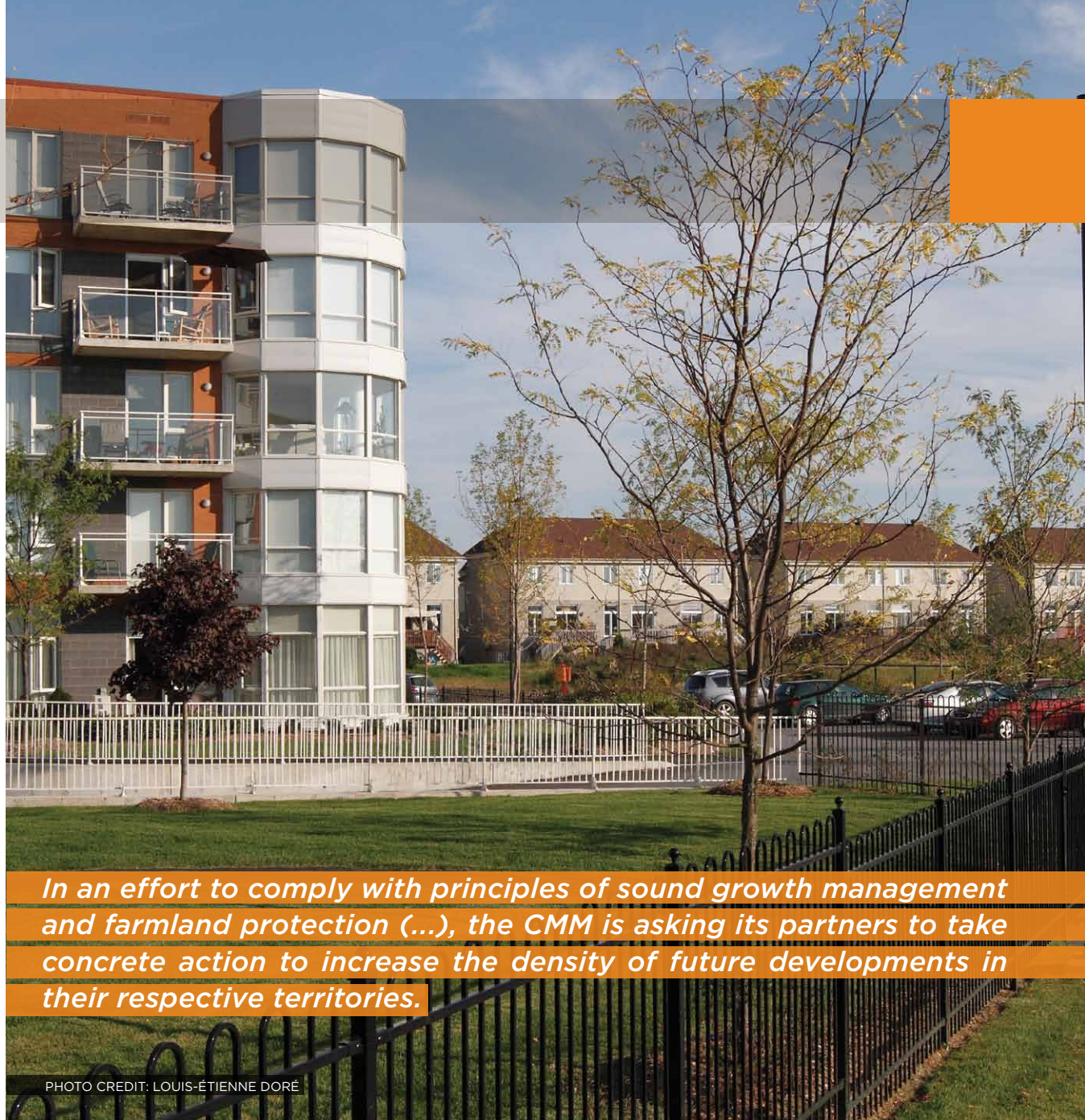
*Source: Atelier B.R.I.C. (2007). Étude de visualisation – Densités résidentielles brutes, Communauté métropolitaine de Montréal, 20 p.*





## **LONGUEUIL NEIGHBOURHOOD**

Saint-Lambert  
(24 dwellings/hectare)



*In an effort to comply with principles of sound growth management and farmland protection (...), the CMM is asking its partners to take concrete action to increase the density of future developments in their respective territories.*

PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ

# CRITERION 1.2.2

## Definition of areas reserved for optimal urbanization

Areas reserved for optimal urbanization include all lots that are vacant or slated for redevelopment inside the metropolitan boundary as defined in Criterion 1.6.1, as well as industrial spaces located in non-agricultural zones around Mirabel Airport.

Table 15 lists the estimated size of these areas according to data supplied by the five geographical areas.

**TABLE 15 — Size of Areas Reserved for Optimal Urbanization, 2011**

Sectors	Residential ha	Economic ha	Total ha
Montréal Agglomeration	2,070 <sup>1</sup>	2,450 <sup>2</sup>	4,520
Longueuil Agglomeration	1,461 <sup>3</sup>	1,064 <sup>4</sup>	2,525
Laval	930	714	1,644
North Shore	2,559	1,348	3,907
South Shore	2,482	1,724	4,206
<b>CMM</b>	<b>9,502</b>	<b>7,300</b>	<b>16,802</b>

Notes:

1. Includes spaces suitable for housing development (720 hectares) as well as spaces to be consolidated or redeveloped where, according to the hypothesis adopted, 50% of the 2,700 ha of available space in these spaces could accommodate a residential use.

2. Includes 50% of the 2,700 ha of space to be consolidated or redeveloped.

3. Includes vacant residential spaces as well as residential redevelopment spaces and 50% mixed redevelopment.

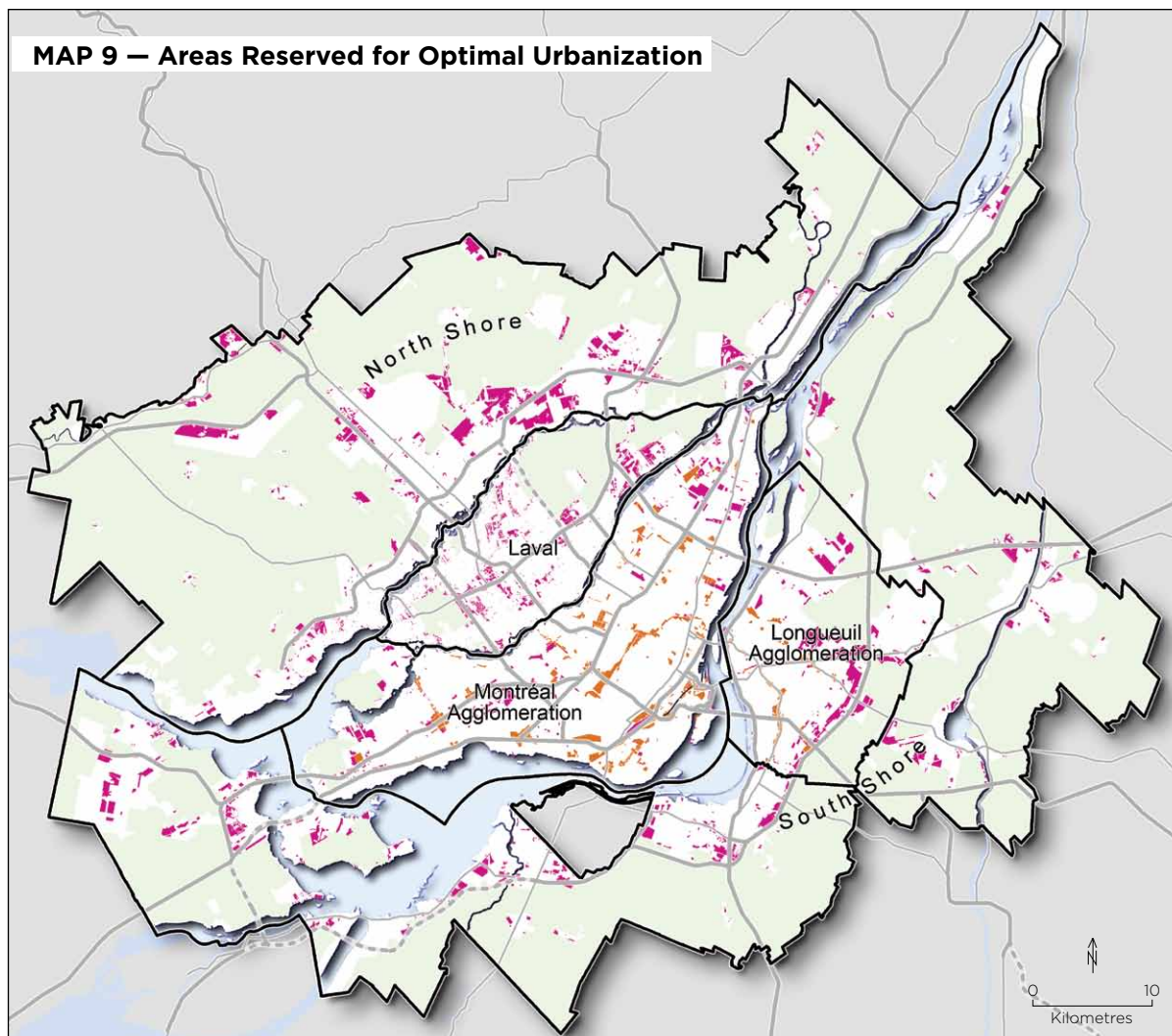
4. Includes 50% of the mixed redevelopment spaces.

Source: Data taken from proposals submitted by partners for the PMAD (for Laval, data were taken from the file on vacant spaces sent to the CMM).

Map 9 illustrates the location of these areas.



**MAP 9 — Areas Reserved for Optimal Urbanization**



■ Vacant space  
■ Space slated for redevelopment

■ Agricultural zone

**Road network**

— Highway  
— Main road  
---- Planned highway

The CMM is asking RCMs and agglomerations to begin consolidating the existing urban fabric by using lots that are vacant or slated for redevelopment, which are or will be served by water and sewer infrastructure, inside the metropolitan boundary as well as around Mirabel Airport.

Furthermore, the CMM is asking its partners to direct their development toward areas adjacent to existing city cores containing public services, which are served or are close to infrastructure and mass-transit facilities. Peripheral territories must be the subject of subsequent development, specifically in tandem with the planning of metropolitan community facilities and infrastructure or any other existing or planned types of mass transit.

The CMM is also asking RCMs and agglomerations to specifically consider urban centres, older neighbourhoods and major commercial arteries as opportunities for optimizing the use of space and community facilities. The PMAD encourages interventions targeting the rehabilitation and redevelopment of these areas that are underused or in need of renewal. Such interventions are also an opportunity to meet the needs of households by creating planning tools better adapted to integrating a wide variety of dwelling types and prices.

The minimum density thresholds defined in Criterion 1.2.1 primarily apply to areas reserved for optimal urbanization.

The RCMs and agglomerations must identify these areas in their planning tools.



## CRITERION 1.2.3

### Consolidation of major economic and commercial hubs

#### ECONOMIC HUBS

There are nine major economic hubs within the territory of the CMM: Downtown Montréal, Saint-Laurent/Dorval, Anjou, Laval, Longueuil, Université de Montréal, Marché Central, Port of Montréal and Mirabel Airport. These hubs are of metropolitan importance because of the number of jobs, the presence of major freight transport infrastructure, or their contribution to Greater Montréal's international character, as specified by the Québec government in its 2001 government orientations.<sup>55</sup>

In addition to the major economic hubs that generate 20,000 to 240,000 jobs are the Port of Montréal and Mirabel Airport, hubs that host facilities key to the transport of goods. The characteristics of the nine major economic hubs are summarized in Tables 16 and 17.

**TABLE 16 — Jobs in the Major Economic Hubs**

	Jobs	Goods production	Service production	Goods production (in %)	Service production (in %)
Downtown	243,605	11,365	232,240	5	95
Saint-Laurent/Dorval	188,950	61,955	126,995	33	67
Laval	54,030	14,520	39,510	27	73
Anjou	41,290	15,225	26,065	37	63
Longueuil	28,850	11,970	16,880	41	59
Université de Montréal	23,895	315	23,580	1	99
Marché Central	22,995	8,885	14,110	39	61
Port of Montréal/Hochelaga	7,850	3,205	4,645	41	59
Mirabel Airport	5,515	3,285	2,230	60	40
<b>Hub total</b>	<b>616,980</b>	<b>130,725</b>	<b>486,255</b>	<b>21</b>	<b>79</b>
<b>CMM outside hubs</b>	<b>1,091,880</b>				
<b>CMM total</b>	<b>1,708,860</b>				

Source: Statistics Canada, 2006 Census of Population. Calculations by the CMM, 2011.

**TABLE 17 — Estimated Employment Density (jobs/ha)**

Economic hubs	Non-agricultural or forestry jobs	Area of commercial activity (in ha)	Density (jobs/ha)
Downtown	243,290	221	1,100.42
Saint-Laurent/Dorval	188,640	2,123	88.85
Laval	53,815	817	65.91
Anjou	41,035	1,536	26.71
Longueuil	28,680	958	29.92
Université de Montréal	23,885	96	248.01
Marché Central	22,930	138	165.74
Port of Montréal/Hochelaga	7,840	186	42.26
Mirabel Airport	5,270	839	6.28
<b>Hub total</b>	<b>615,385</b>	<b>6,914</b>	<b>89.00</b>

Sources: Statistics Canada, 2006 Census of Population; 2010 Assessment Roll.<sup>55</sup>

Thanks to their function and size, together these hubs are a major economic force for Greater Montréal and all of Québec. At the metropolitan level, their location and the transportation infrastructure that serves them constitute the main structural element of metropolitan land use for the 2031 planning horizon.

The CMM is aiming to consolidate and reinforce this economic and structural force of the metropolitan region. This consolidation of economic hubs is part of a broader objective to protect and enhance major economic activities and existing infrastructure essential to Greater Montréal's competitiveness.

To support the consolidation of the major metropolitan economic hubs, the CMM plans to encourage the optimization and development of the transportation infrastructure supporting the mobility of goods and people. Among other things, this involves redeveloping and adding capacity to routes suffering from recurring congestion, implementing transit priority corridors, improving the road network's fluidity (Objective 2.3) and modernizing and developing the structural metropolitan mass-transit network (Objective 2.2).

With the goal of optimizing facilities and infrastructure, notably by investing in transportation infrastructure, the RCMs, agglomerations and their constituent municipalities must promote integrated land use and transportation planning to help consolidate the uses of economic hubs served by major transportation infrastructure. This contribution can include, for example, the optimal development of vacant areas and the redevelopment of economic spaces by encouraging the installation of complementary businesses.

This contribution by regional and municipal partners must also involve territory-wide planning that encourages, when the context allows, locating employment-generating businesses near mass-transit services so as to promote the goal of increasing the modal share of mass transit to 30% and locating trucking-generating businesses near metropolitan road networks.

<sup>55</sup> Québec Government, Ministère des Affaires municipales et de la Métropole, *Planning Framework and Government Orientations, Montréal Metropolitan Region, 2001-2021*, p. 25.

<sup>56</sup> Land occupancy in employment hubs was validated by visual assessment.

COMMERCIAL HUBS

Greater Montréal's retail sector has 16 major commercial hubs that were identified in a 2009 study called, *Évolution récente du secteur du commerce de détail et analyse prospective*.

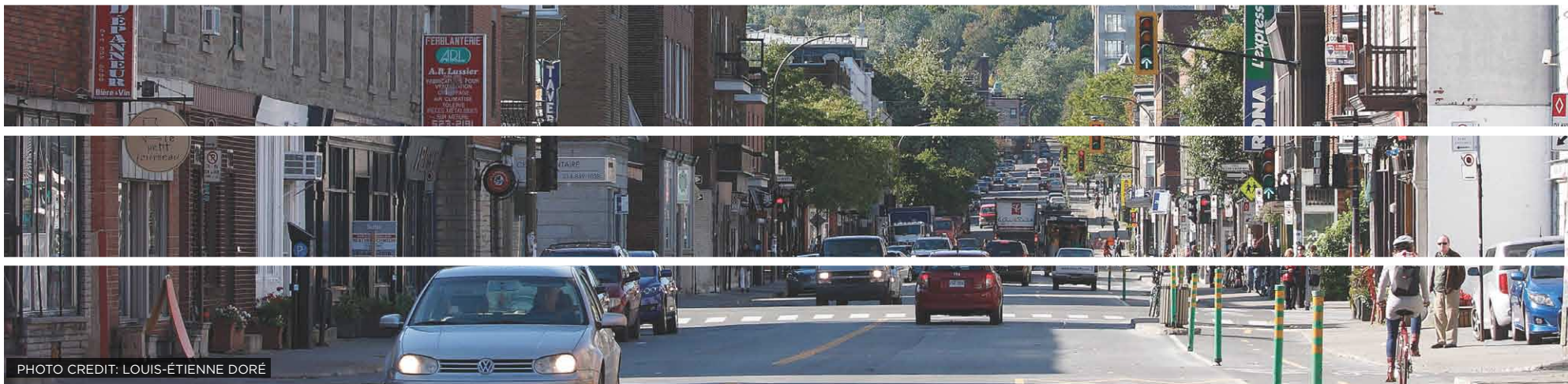
In the short and medium terms, certain sites should see growth in their commercial stock. On the other hand, more vulnerable sites like small unrenovated malls and commercial arteries with an ill-defined focus could be affected by the process of replacing retail space.

TABLE 18 — Commercial Hubs of Greater Montréal

Sector	Hub
Montréal Agglomeration	<ul style="list-style-type: none"><li>• Downtown</li><li>• Anjou including Galeries d'Anjou, Place Versailles as well as a series of malls, mega malls and superstores along Jean-Talon, Renaude-Pointe and Henri-Bourassa</li><li>• Fairview including the Fairview mall, commercial strips, mega malls and other superstores located along Highway 40 and north-south collector roads: St. Jean, Sources and St. Charles</li><li>• Marché Central/Rockland including Marché Central, the Rockland Centre, the businesses along Acadie Boulevard and the area at the intersection of Highway 15 and Highway 40</li><li>• Place Vertu including Place Vertu, Le Bazar mega mall and the businesses along Côte-Vertu Road</li><li>• Angrignon/Newman including Carrefour Angrignon and the businesses along Newman and Dollard Boulevards</li></ul>
Longueuil Agglomeration	<ul style="list-style-type: none"><li>• St-Bruno including Promenades St-Bruno and the stand-alone superstores on adjacent land between Routes 116 and 112</li><li>• Boulevard Taschereau including Champlain Mall</li><li>• Quartier Dix30</li></ul>
Laval	<ul style="list-style-type: none"><li>• Carrefour de la Rive Sud in Boucherville</li><li>• Carrefour Laval including Carrefour Laval, Centre Laval, Galeries Laval, Centropolis, Quartier Laval and the businesses in the arterial zone at the intersection Highways 440 and 15</li></ul>
North Shore	<ul style="list-style-type: none"><li>• Highway 13 mega malls</li><li>• Rosemère/Boisbriand including Faubourg Boisbriand, Place Rosemère and Labelle Boulevard</li><li>• Galeries Rive Nord/Brien Boulevard in Repentigny</li></ul>
South Shore	<ul style="list-style-type: none"><li>• Highway 640/Highway 40 in Terrebonne</li><li>• Highway 540/Highway 40 mega malls in Vaudreuil-Dorion</li></ul>

Altus Géocom, *Évolution récente du secteur du commerce de détail et analyse prospective*. 2009. 47 p.





**TABLE 19 — Probable Changes in Commercial Stock**

Sites where commercial stock is likely to grow in the short and medium term	More vulnerable sites that could be affected by the “natural” process of replacing commercial stock
<ul style="list-style-type: none"> <li>• Areas with strategic potential: Highway 440/Highway 25</li> <li>• Downtown, Saint-Bruno, Anjou, Carrefour Laval, Rosemère/Boisbriand, Fairview, Highway 640/Highway 40, Quartier Dix30, Rockland/Acadie, Highway 540/Highway 40 and Highway 440/Highway 19</li> </ul>	<ul style="list-style-type: none"> <li>• Des Laurentides and Curé Labelle Boulevards (on the North Shore and in Laval)</li> <li>• Traditional commercial arteries on the island of Montréal, notably those that are not focussed on retail goods and services or entertainment</li> <li>• Boulevard Taschereau, Chemin Chambly/Cousineau in Longueuil</li> <li>• Boulevard Harwood in Vaudreuil-Dorion</li> <li>• Part of Highway 132 between Candiac and Saint-Constant</li> <li>• Part of Boulevard Saint-Jean-Baptiste/Anjou in Châteauguay</li> </ul>

Considering that some of these hubs should continue their growth while other sites could be the subject of a natural replacement process, the CMM is asking RCMs and agglomerations to encourage the consolidation of commercial spaces and evaluate the potential of diversifying activities in more vulnerable areas. The CMM is asking RCMs and agglomerations to promote integrated land use and transportation planning in Greater Montréal’s commercial hubs.

# OBJECTIVE 1.3

## Promote optimal occupancy by increasing the area of cultivated land

The Montréal metropolitan region differs from other North American metropolitan regions thanks to an agricultural zone that covers 58% of its territory, or 220,520 hectares. However, from 2001 to 2006, the surface area of cultivated land decreased by 3%, in contrast to the rest of Québec where it increased by 5%.

TABLE 20 — Cultivated Land Area, 2001 to 2006

	2001 Size in ha	2006 Size in ha
CMM	121,298	117,764
Rest of Québec	1,728,640	1,815,510

Source: Observatoire Grand Montréal, compiled from the 2001 and 2006 Census of Agriculture.

An area’s agricultural potential relies on the quality of its soil. Located in the St. Lawrence Plain, the CMM’s territory has high-quality soil. In fact, almost 95% of the permanent agricultural zone has soil suitable for agriculture (classes 1 to 5 and organic). According to the Canada Land Inventory (CLI),<sup>57</sup> the majority of soils are in classes 2 to 4. Soils in classes 1, 2 and 3, excellent for producing crops, cover 73% of the CMM’s agricultural territory.

These characteristics offer the region’s farmers a competitive advantage, helping them produce a high yield per hectare.


It should be mentioned that from 2001 to 2006 in Greater Montréal, the value of agricultural production per hectare increased by 18%, compared to 6.7% in the rest of Québec. This gap can be explained primarily by the presence of high-quality soil and the area’s proximity to a market of 3.7 million inhabitants.

TABLE 21 — Gross Farm Receipts per Hectare in the CMM, 2001 to 2006  
(in 2006 Constant Dollars)

	2001 \$	2006 \$	Growth rate %
CMM	2,725	3,215	18.0
Rest of Québec	1,957	2,087	6.7

Source: Observatoire Grand Montréal, compiled from the 2001 and 2006 Census of Agriculture.

57 Institut de recherche et de développement en agroenvironnement. Agricultural and Rural Development Act. 2000.



Overall, the metropolitan agri-food industry constitutes a major economic lever for Greater Montréal. More than two-thirds of Québec's food processing activities take place in Greater Montréal. The agri-food industry alone accounts for approximately 11% of metropolitan jobs. Greater Montréal's agricultural zone extends through all five geographical areas. However, 92% of it is located on the North and South Shore, where 71% and 74% of each area's total territory, respectively, is farmland.

In 2010, the agricultural advisory committee, in collaboration with several partners, created *Portrait statistique des activités et du territoire agricoles de la CMM*. This document updates metropolitan data on the CMM's agricultural zone and activities and provides information that has been agreed upon by organizations involved in the field. This document, issued on January 31, 2011, clearly states the issues of land use planning, including reconciling urban needs with sustaining and promoting an agricultural zone so as to support farmers and the agri-food industry.

Greater Montréal's territory features many urban agricultural initiatives, from individual efforts in urban and peri-urban environments (backyards, balconies, roofs, etc.) to collective efforts (community gardens). Urban agriculture offers diverse potential in terms of social and educational development, food security and the greening of neighbourhoods.

A first Montréal citizens' charter on urban agriculture, developed through a citizen participation approach, was also created in 2011. The goal of this charter is to have municipal, provincial and national policies integrate and recognize urban agriculture.

Considering the growing importance of urban agriculture and its potential for helping improve the quality of living environments, the CMM is encouraging RCMs and agglomerations to recognize urban agriculture in their planning tools.

The CMM intends to encourage RCMs and agglomerations to create regional tools to develop and promote the agricultural zone. Designed to promote dynamic, agriculture-based land use, these tools are a means to enhance agricultural activities. Moreover, the Roussillon RCM has already conducted a pilot project.



## CRITERION 1.3.1

### **Increase of 6% in surface area of cultivated land at the metropolitan level**

Given the importance of enhancing agriculture and the agri-food industry in the metropolitan region, the CMM intends to encourage RCMs and agglomerations to create regional tools to develop and promote the agricultural zone. The success of such an approach relies on having all of the agricultural community's partners work together.

Such planning would, among other things, help enhance the region's agricultural potential and maintain the stability of farming enterprises in two areas:

- a regional plan for access to quality soil at a competitive price
- the possibility of investing in land improvements over an economically acceptable horizon

By helping enhance and revitalize agricultural activities in the metropolitan territory, the CMM and its partners aim to ensure the development, vitality and sustainability of agricultural activities, notably in terms of the surface area of cultivated land and production value per hectare compared to the rest of Québec.

To achieve this, the CMM is setting an objective of increasing the overall area of cultivated land by 6% at the metropolitan level. This increase in cultivated land, which could notably be achieved by recultivating fallow land, could make up for the loss in cultivated land observed in the last few years.

The increase in cultivated land will, however, need to respect metropolitan concerns with regard to sustainable development, specifically the objective of protecting woodlands, forest corridors, wetlands, riverbanks, shorelines and flood plains. The preservation of water quality (drainage basins) will also need to be the subject of special attention in the framework of this objective.

Moreover, the CMM intends to continue the following initiatives it has already launched:

- Adapt regulations under the Agricultural Operations Regulations (REA) to allow the recultivation of fallow land
- Follow up projects to reparcel small lots in the agricultural zone
- Implement a biofood cluster





## OBJECTIVE 1.4

### Identify existing facilities of metropolitan importance and determine the location of planned metropolitan facilities

This objective must be clearly distinguished from the jurisdiction and obligations of the CMM as established in sections 156 and following in the *Act respecting the Communauté métropolitaine de Montréal*. For the purposes of the PMAD, identifying a facility of metropolitan importance does not constitute the designation of an equipment, infrastructure, service or activity of metropolitan scope as defined in the *Act respecting the Communauté métropolitaine de Montréal*.

Broadly speaking, a facility is a building, premises, development or space reserved for the production of goods or services that make it possible to provide a population (residents, workers, businesses) with access to the public services it needs. A facility is generally a well-defined unit in the territory.

Facilities that support economic and social activity and, more specifically, offer public services, require metropolitan-wide regional planning since they have an impact on the structure of the territory. Such facilities can be considered structural since they offer a service to the entire metropolitan territory and their influence is measured at the metropolitan or national level.

Facilities of metropolitan importance are also distinguished by a minimum capacity threshold. Finally, the identification of facilities of metropolitan importance also takes into account their specialization and their influence across Greater Montréal.

#### BOX — Facilities Planned or Being Considered by Government Departments and Bodies

In the next 20 years, government departments and bodies will need to determine the location of many facilities of metropolitan and regional importance. For example, Greater Montréal could create more than 15 elementary schools throughout its territory in the coming years. In December 2010, the Ministère de la Santé et des services sociaux also announced a new hospital to be built in the territory of the Vaudreuil-Soulanges Centre de santé et des services sociaux (CSSS).<sup>58</sup>

Even if these projects are not always of metropolitan importance, they are important for the areas in which they will be built and offer an opportunity to consolidate or redevelop the urban fabric. In certain situations, these projects could require modifications to the metropolitan boundary. Should

this happen, requests to modify the metropolitan boundary will be analyzed based on Criterion 1.6.2.

An overview of all the facilities being planned by government departments and bodies between now and 2031 could help provide a better evaluation of the impact of all these projects on the land use and development of the metropolitan territory. Such an overview will be created as part of the work done by the Interdepartmental Committee of Greater Montréal to be set up under the *Stratégie gouvernementale pour assurer l'occupation et la vitalité des territoires 2011-2016*.

<sup>58</sup> <http://www.santemonteregie.qc.ca/vaudreuil-soulanges/apropos/csssvs/hopitalcsssvs.fr.html>





PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ

## CRITERION 1.4.1

### Identification of existing and planned metropolitan facilities

RCMs and agglomerations must identify in their land use planning and development plans facilities of metropolitan importance that meet the following criteria:

#### *Health facilities*

- University hospital centres, affiliated university centres, university institutes and hospital centres affiliated with universities

#### *Education facilities*

- University-level educational institutions including their affiliated schools and college-level institutions including special schools and conservatories

#### *Sports, cultural and tourism facilities*

- High-quality sports facilities with a capacity of 500 seats or more that host national and international competitions
- Multidisciplinary or specialized halls and centres with a capacity of 650 seats or more
- Museum and exhibition centres with an area of 1,000 m<sup>2</sup>, excluding theatres
- Amusement parks with a million visitors or more per year
- Business tourism facilities with an area of 5,000 m<sup>2</sup> or more that host conventions, meetings and trade shows

## CRITERION 1.4.2

### Determine the location of planned metropolitan facilities

Location criteria must ensure the optimal use and accessibility of planned facilities of metropolitan importance. Optimal location means it is located within urban growth boundaries, near mass-transit routes, far from dangerous zones, near existing urbanized areas and not on the outskirts. This optimal location helps concentrate housing and activities and maximizes the benefits of public investment.<sup>59</sup>

New facilities of metropolitan importance, matching Criterion 1.4.1, must be located:

- within 1 km of a structural metropolitan mass-transit network access point
- on a site accessible by active transportation
- within the urban growth boundary, near existing urbanized areas
- on sites that take into account any natural and anthropogenic constraints

<sup>59</sup> MAMROT, La prise de décision en urbanisme: <http://www.mamrot.gouv.qc.ca/amenagement-du-territoire/guide-la-prise-de-decision-en-urbanisme/planification/planification-des-infrastructure-et-des-equipements/>

## OBJECTIVE 1.5

### Identify the major constraints common to two or more RCMs

The identification of any part of the territory that is situated within the territory of two or more RCMs and is subject to significant constraints for reasons of public security, public health or general well-being is an important step in the adoption of a more comprehensive land use and development strategy. It aims to guarantee public safety in land use planning and reduce vulnerability to extreme meteorological events (climate change).

A safe healthy environment is one of the basic requirements for a competitive and attractive region. Better planning for managing risks and natural disasters should therefore help improve public health and safety as well as residents' general well-being.

Six types of major constraints common to two or more RCMs could create safety hazards and damage in Greater Montréal: floods caused by the Great Lakes or the Ottawa River, landslides at escarpments, man-made disasters (e.g., Saint-Amable tire fire of 1990), air quality, disturbance by noise and weather-related events.

The development of knowledge about the hazards associated with various public safety problems helps underscore the importance of informing citizens about the location of these hazards and planning land use that takes into account their needs and expectations.

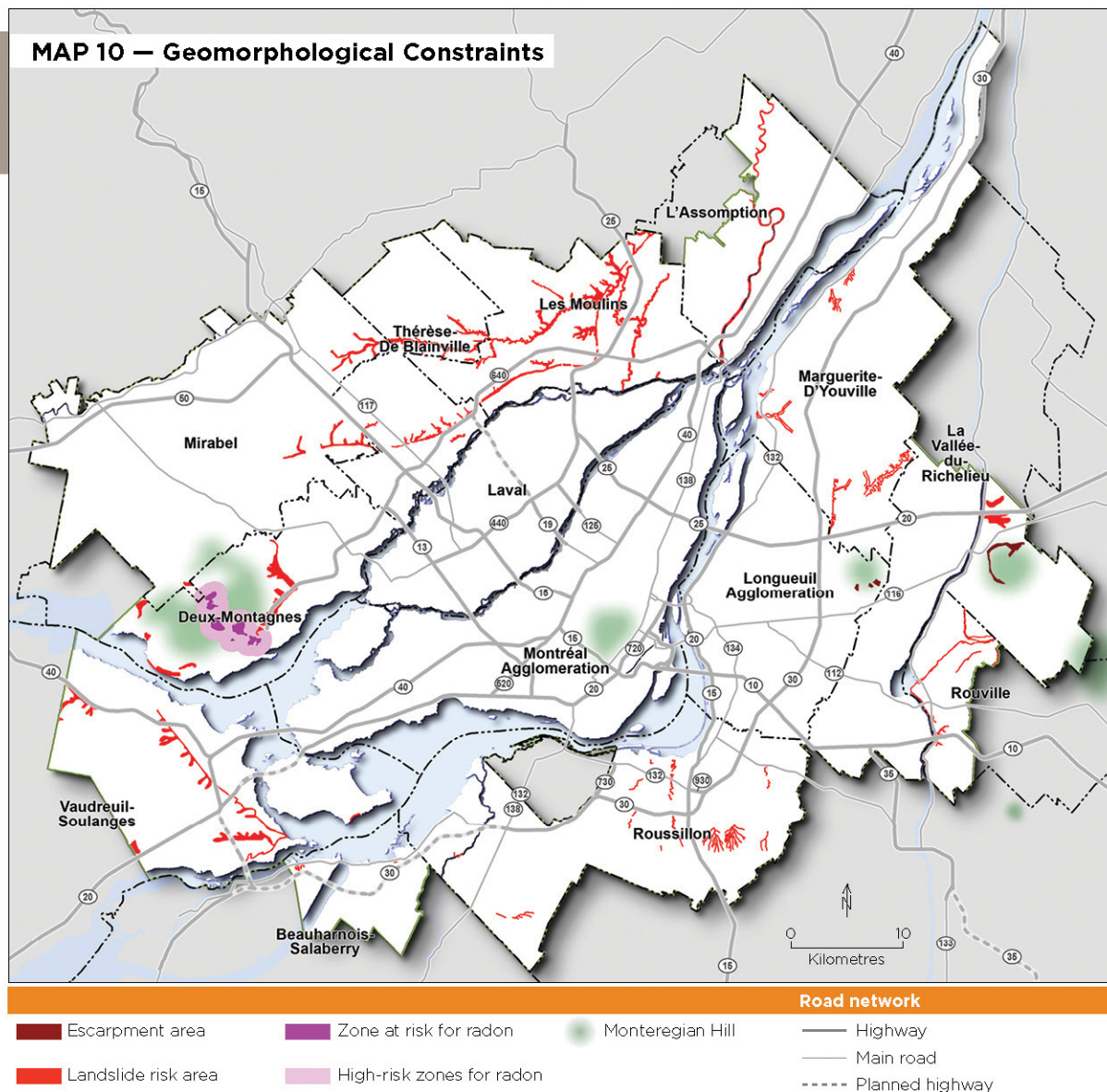
The issue of flood risks common to two or more RCMs is discussed in Criterion 3.2.1 of Objective 3.2 about protecting riverbanks, shorelines and flood plains.

## CRITERION 1.5.1

### Identification of landslide risks common to two or more RCMs

The issue of geomorphological constraints, such as landslide areas, is comparable to that of flood-prone areas in terms of public health. RCMs and agglomerations must work together to ensure that the planning tools complementary to the PMAD take these hazards into account and conform with the regulatory framework for the safety of people and goods.

A map illustrating the sites in need of specific intervention by each RCM and agglomeration concerned is being drawn up by the Québec Ministère de la Sécurité publique.





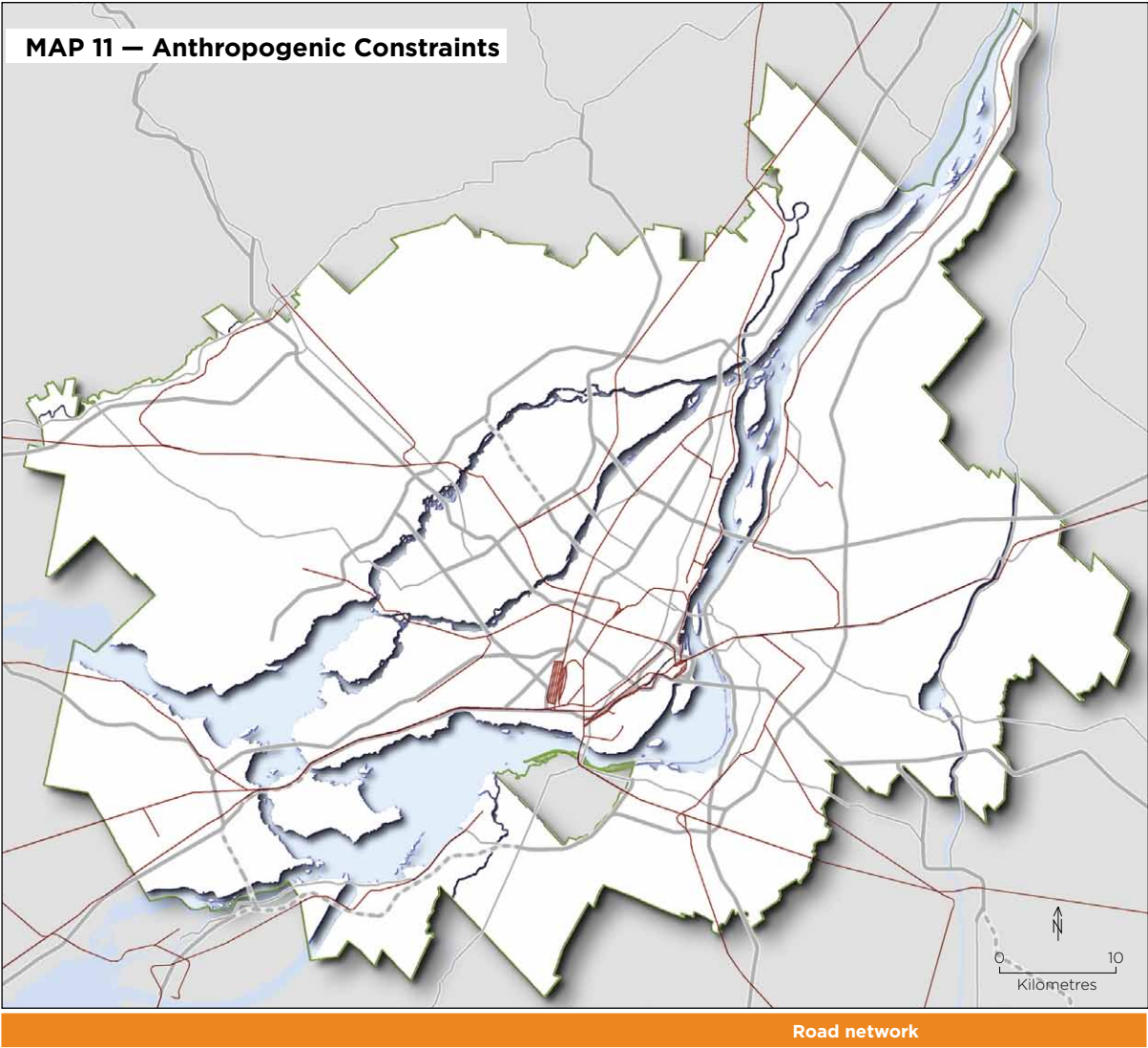
# CRITERION 1.5.2

## Identification of anthropogenic risks common to two or more RCMs

Problems linked to possible man-made disasters are already managed by regional authorities. The *Civil Protection Act*<sup>60</sup> introduced a regional planning tool, the civil protection plan. This plan, which can be implemented by regional county municipalities in collaboration with local authorities, is part of an approach that specifically aims to improve the knowledge about the risks of major disaster risks in the territory and establish objectives for reducing vulnerability.

Many RCMs, agglomerations and municipalities in the CMM's territory have already completed or begun drawing up a civil protection plan and the CMM intends to consult its regional partners to identify risks whose constraint area is common to two or more RCMs and requires harmonized protective measures for public health and safety.

The PMAD identifies the road and rail networks illustrated in Map 11 as possible sources of risk to the health, safety and general well-being of the population. Indeed, these networks are used to transport dangerous goods and are also a source of noise and vibration. The areas alongside these networks need to be developed in a way that takes these risks into account. The CMM is therefore asking RCMs and agglomerations to create measures that will ensure a harmonious coexistence of uses, including residential use, by adopting a normative or performance approach that will establish minimum distances to observe and conditions that would allow the reduction of these distances.<sup>61</sup>



60 LQ, 2001, chapter 76, assented to on December 20, 2001.

61 In particular, RCMs and agglomerations could draw inspiration from the provincial road noise policy: [http://www.mtq.gouv.qc.ca/portail/page/portail/Librairie/bpm/politique\\_bruit.pdf](http://www.mtq.gouv.qc.ca/portail/page/portail/Librairie/bpm/politique_bruit.pdf)

## CRITERION 1.5.3

### Identification of the risks related to ambient air quality and related health effects

On many occasions, the Montréal public health department (DSP) has stated its concerns about the impact of road transportation on public health. According to the DSP, the presence of toxic elements such as ground-level ozone and fine particulate matter near is a worrisome public health concern in both the short and long term.

An analysis from the Montréal DSP has found that people age 60 or over who live along very busy traffic arteries run a greater risk of developing health problems.<sup>62</sup>

Though this concern is already taken into account by regional partners, the CMM nevertheless is encouraging regional county municipalities and agglomerations to complete their regulatory framework in this regard, notably by identifying constraint areas near major roads and highways, with the goal of increasing public health and safety.

## CRITERION 1.5.4

### Identification of the risks associated with weather-related events common to two or more RCMs

Weather-related events, recent and unpredictable phenomena, are likely to have major effects on the environment and human activity. Some examples:

- Warmer summers will contribute to an increase in the number of smog days per year.
- More frequent heat waves will heighten the effects of urban heat islands on public health.
- Milder winters will increase the number of frost and thaw cycles and their effects on things like infrastructure and reduce the spring run-off that supplies lakes and stream.
- There will be more storms with high winds and intense precipitation over a short period of time, which have an impact on building structure, transportation infrastructure and the disposal of surface water.
- Irregular precipitation, notably prolonged periods without rainfall, will accentuate the water level problems of waterways and water supply problems (intakes on the St. Lawrence and its tributaries).

In light of these effects, the CMM is encouraging its regional and local partners to continue their respective efforts to integrate climate change adaptation measures into their land use practices, such as:

- Determine the appropriate balance, in terms of density.
- Improve access to various modes of transportation (walking, cycling, mass transit).
- Landscape to ensure an adequate area of permeable soils and sufficient water-holding capacity.
- Intervene to counteract the negative effects of urban heat islands.
- Preserve wetlands to maintain plant and animal biodiversity.
- Increase the size of green spaces in residential and commercial areas and employment hubs.
- Better protect plant life near riverbanks and ravines to counter erosion.
- Rehabilitate contaminated or underused vacant spaces with green development, particularly near areas considered as urban heat islands.

<sup>62</sup> Audrey SMARGIASSI et al, BAPE, Rapport DB 14 sur le Projet de prolongement de l'autoroute 25 entre l'autoroute 440 et le boulevard Henri-Bourassa, September 2005.

# OBJECTIVE 1.6

## Set boundary for urbanization in keeping with sustainable development principles

The metropolitan boundary defines the space to be urbanized by the year 2031. It was established by taking into account the projected demographic and economic growth throughout the CMM in order to optimize the use of space available for development and redevelopment.

To define the metropolitan boundary, the CMM started by estimating the housing capacity of the available residential spaces inside the existing regional urban growth boundaries, taking into account Criteria 1.1.2 and 1.2.1 related to density inside and outside TOD zones. By applying the average gross density for the period 2011-2031 to spaces available outside TOD zones and applying the objective of directing 40% of new households towards TOD zones, the housing capacity is 345,000 households, or 25,000 more than the demographic projections.

Then, given the importance of avoiding a housing shortage, the area of the Les Moulins RCM, that is not in the agricultural zone and is not included within the regional urban growth boundary of that RCM, could also accommodate around 25,000 additional households by 2031, which brings the total housing capacity of the entire CMM territory to around 370,000 households.

Graph 7 illustrates the housing capacity of the spaces located inside the existing regional urban growth boundaries as well as the capacity of the area of the Les Moulins RCM that is not in the agricultural zone or within the regional urban growth boundary of that RCM.

**GRAPH 7 — Development Horizon According to Estimated Housing Potential, Greater Montréal, 2011-2031**

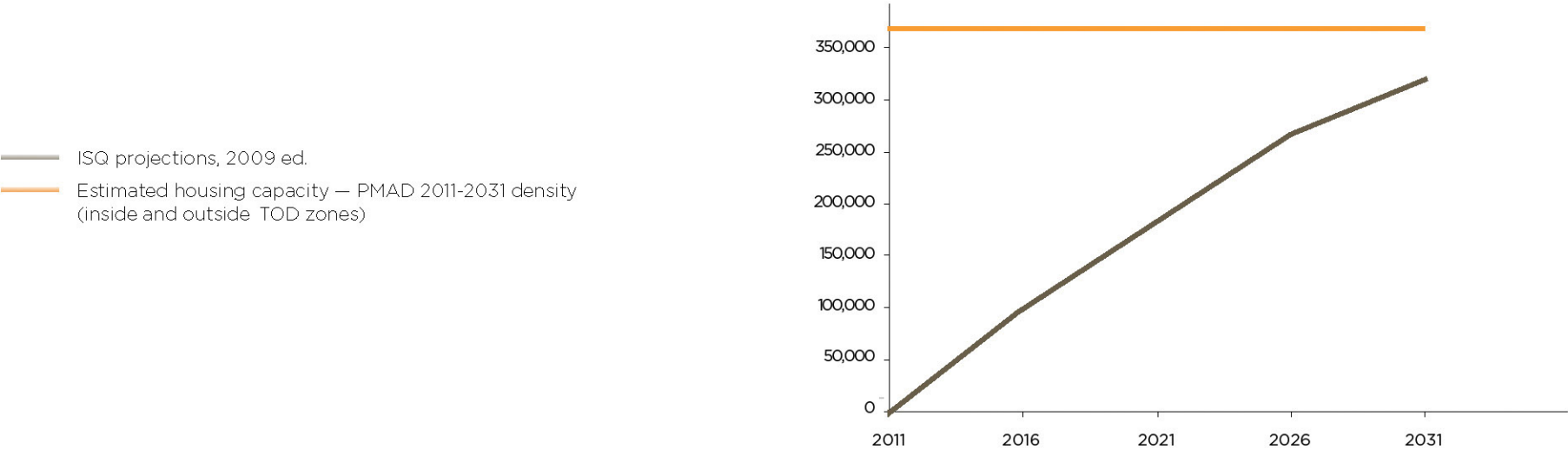






PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ

These spaces are, a priori, sufficient to accommodate the overall demographic growth projected for the metropolitan region by the year 2031. They also appear to be sufficient to avoid creating a tight supply/demand situation in the real estate market, which could result in an accelerated exodus or residents outside of the CMM's territory.

The CMM has approximately 7,000 hectares for business needs (industrial and commercial). An ongoing study, undertaken by the firm Plania for the CMM, indicates that about 3,300 hectares are available for industrial use,<sup>63</sup> not counting the industrial spaces located on the island of Montréal.<sup>64</sup>

An ongoing study undertaken by the Conference Board of Canada for the CMM estimates, with regard to the need for industrial spaces, that approximately 3,174 ha will be required under an optimistic scenario of employment growth. As for the Plania firm's study, it estimates that of the 3,300 hectares available for industrial use, excluding the island of Montréal, more than 1,800 hectares can be developed immediately while approximately 1,500 hectares require major work to eliminate the constraints that keep them from immediate development.<sup>65</sup>

A study undertaken by the Geocom firm for the CMM estimates the need for retail space at approximately 15 million square feet of gross leasable area between 2009 and 2026, which represents a little over 550 hectares of land.<sup>66</sup> By extending the projection to 2031, we can estimate the demand at around 700 hectares.

It is therefore estimated that the need for economic space totals 3,900 ha at most, while the supply of land is approximately 7,000 hectares, including land that needs to be developed.

Long-term planning over a period of 20 years remains a forward-looking exercise that cannot plan for every possible situation. Thus, even if the overall supply of land is sufficient to accommodate the demographic and economic growth projected for 2031, some parts of the metropolitan territory may experience specific situations that justify a modification of the metropolitan boundary. RCMs and agglomerations could then submit requests to the CMM to modify the metropolitan boundary so as to recognize the exceptional residential, institutional and economic needs expressed by some municipalities. Such requests will, however, be subject to the conditions and analysis defined in Criterion 1.6.2.

<sup>63</sup> Technical note from the Plania firm sent to the CMM on October 27, 2011.

<sup>64</sup> Industrial spaces located on the island of Montréal are, however, included in the 7,000 hectares available for economic use.

<sup>65</sup> Technical note from the Plania firm sent to the CMM on October 27, 2011.

<sup>66</sup> This is calculated using a ratio of 1:4 (one square metre of gross leasable area for 4 metres of land).

## CRITERION 1.6.1

### Definition of the 2031 metropolitan boundary

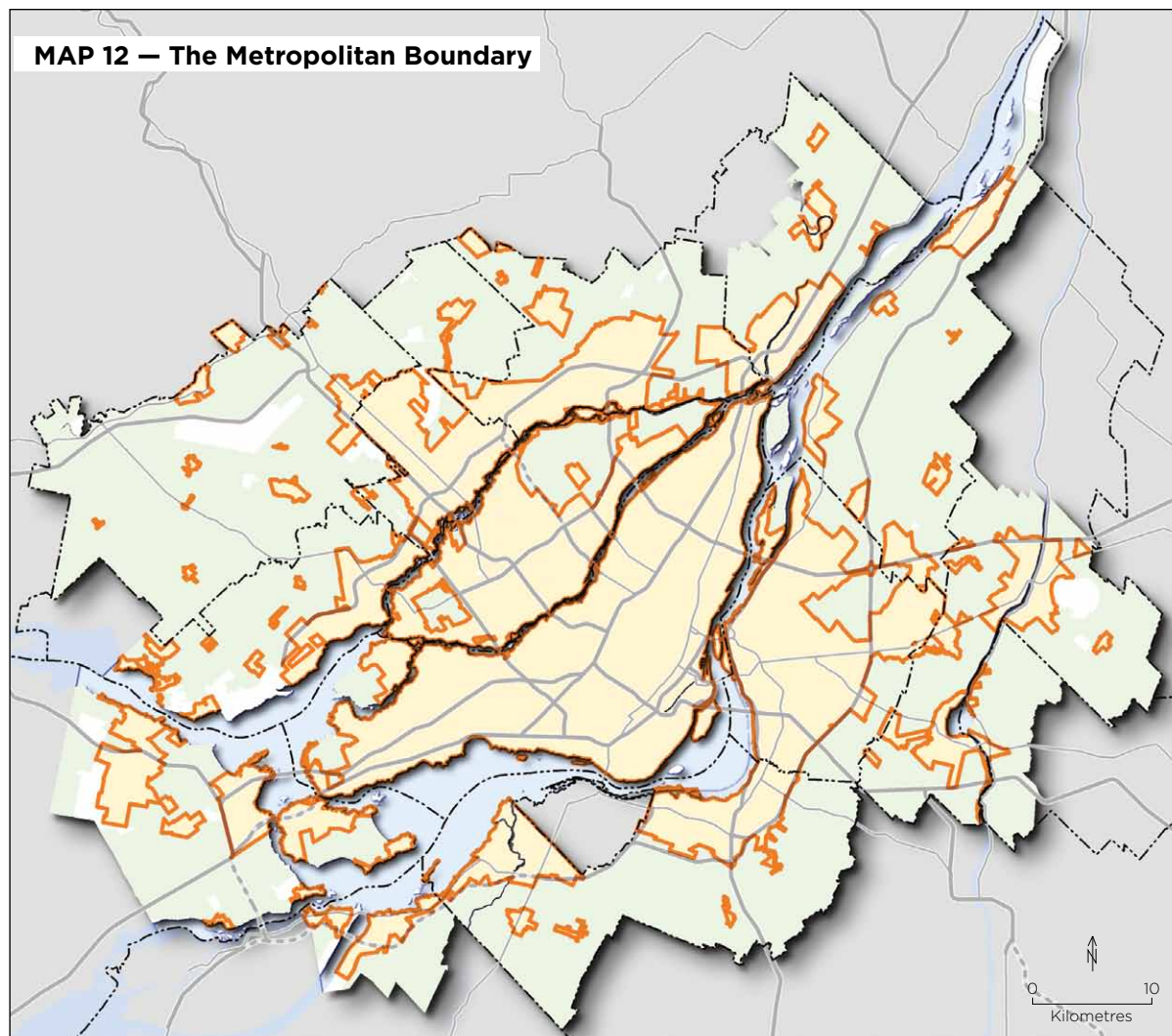
The 2031 metropolitan boundary includes the regional urban growth boundaries in force on the date the PMAD was adopted, identified in the land use and development plans of RCMs and agglomerations, plus a portion of the area of the Les Moulins RCM that is currently outside the urban growth boundary of that RCM but is not included in its permanent agricultural zone.<sup>67</sup>

Moreover, the PMAD recognizes the urban growth areas identified in the land use and development plan of the Marguerite-D'Youville RCM, approved by the Minister of Municipal Affairs, Regions and Land Occupancy and in force since February 14, 2006.

Map 12 illustrates the 2031 metropolitan boundary.

<sup>67</sup> The 2031 metropolitan boundary includes certain lots that were reinstated in the permanent agricultural zone by a decision of the Commission de la protection du territoire agricole du Québec. Moreover, the metropolitan boundary also includes the area of the L'Assomption RCM that was the subject of a favourable ruling by the Commission de la protection du territoire agricole du Québec (decision no. 348405 by the CPTAQ, issued on July 4, 2008). Peripheral lots located in the northwest section of the Les Moulins RCM can only be included in the regional urban growth boundary in the medium term and only if they are served by water and sewer services. Until they are included in the regional urban growth boundary, these lots must maintain their current designation as periurban land, as defined in the Les Moulins RCM development plan in force at the time of the PMAD's adoption.

MAP 12 — The Metropolitan Boundary



Orange outline: Metropolitan boundary  
Light green area: Agricultural zone





PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ



# CRITERION 1.6.2

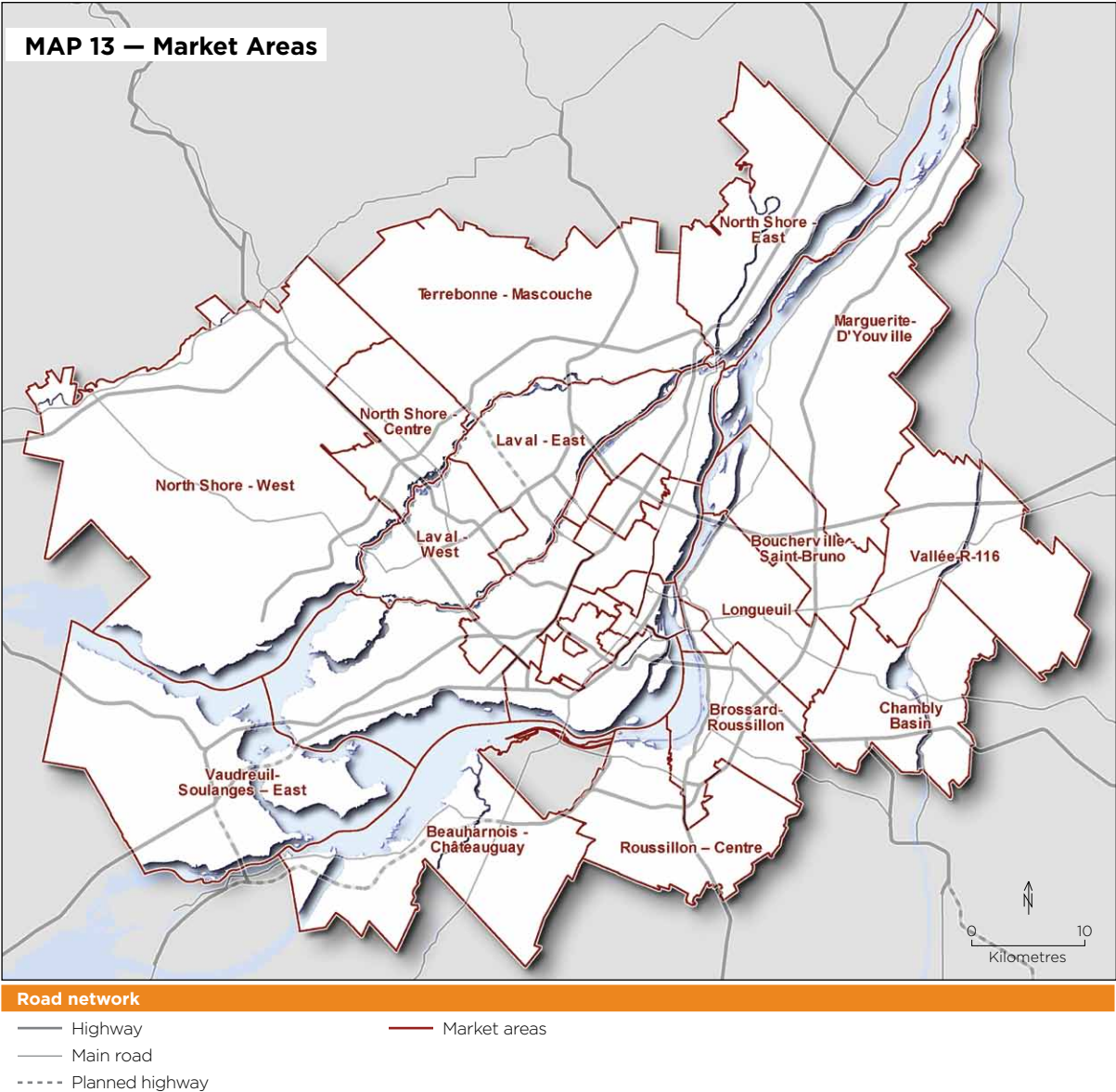
## Modifications to the metropolitan boundary

The metropolitan boundary, identified on Map 12, could be modified to:

- Support projects located in the TOD zones identified in Criterion 1.1.1.
- Meet **specific needs for residential, institutional and economic spaces** expressed by a regional county municipality or agglomeration.

**In the case of residential space**, as the CMM considers the request to modify the metropolitan boundary, it will look at the available land to be developed or redeveloped throughout the metropolitan territory in light of the land supply of that specific territory's market area.

The market areas that will be used for this analysis are presented in Map 13 and were defined by the Greater Montréal Real Estate Board. Adjustments were made to ensure consistency with the CMM's territory. These market areas are defined by taking into account the following criteria: market, price, property types, age of properties, pool of transactions, territorial proximity.



**In the case of institutional and economic space**, as the CMM considers the request to modify the metropolitan boundary, it will look at the available land to be developed or redeveloped throughout the metropolitan territory in light of the area's land supply, any constraints (insertion, technical and tenure) and the schedule of the development project motivating the modification request.

To be admissible, a request to the CMM to modify the metropolitan boundary must be preceded by:

- modifications to the land use and development plan and, in concordance with the plan, modifications to the planning program and regulations that ensure these tools conform to the PMAD in force
- a regional development and enhancement tool for the agricultural zone of the RCM in question

The request to modify the metropolitan boundary will be analyzed based on a presentation document supplied by the RCM or agglomeration. This document will allow the CMM to analyze the request based on the following criteria:

- the development project's contribution to complying with and achieving the policies, objectives and criteria of the PMAD, particularly:
  - minimum density thresholds as described in Criteria 1.1.2 and 1.2.1
  - location near current and projected high and medium capacity mass-transit facilities as identified in Criterion 2.1.1
  - access to existing or projected road transportation infrastructure as identified in Criterion 2.3.1
  - preservation of natural environments, built environments and landscapes as defined in Policy Direction 3
- continuity with existing urban zones that are already served by urban infrastructure and facilities
- the development project's impact on facilities and infrastructure (road network, mass transit, water system, sewer system and wastewater treatment plants, etc.)
- the development project's target market in the area issuing the request
- the development project's ripple effects on other urban activities
- the search for sites of less impact on agriculture when the request targets farmland

For modification requests concerning projects with an economic or institutional use, the CMM also takes into account:

- the expansion needs of an existing business or institution
- the need for a new business or institution to be located near existing businesses and institutions
- the need to have land with a large surface area
- the need to establish government facilities and services to meet the population's needs

For requests targeting rural environments, the CMM will consider the issue of maintaining the population and services in these environments.

Modifications to the metropolitan boundary that are needed to permit occasional necessary municipal interventions such as maintaining the operations of the water supply system and wastewater treatment network, managing waste snow and completing a street must be submitted to the CMM, who can exempt them from the requirements in Criterion 1.6.2 should the project's schedule require it.



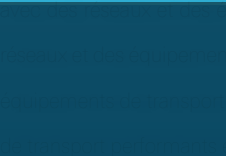


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# **POLICY DIRECTION 2**

## **A GREATER MONTRÉAL WITH EFFICIENT, STRUCTURAL TRANSPORTATION NETWORKS AND FACILITIES**



Transportation networks are essential to the proper functioning of metropolitan regions because they interconnect the various parts of the region and enable trade with the exterior. They contribute to the economic, social and cultural vitality of a metropolitan region.

### **BOX — Transportation Highlights in Greater Montréal**

- The number of vehicle trips during morning rush hour increased by 2% from 2003 to 2008.
- Public transit's modal share during the morning rush hour increased by 3 percentage points compared to 2003 and is now at 25%.
- Despite this increase, automobiles remain the primary mode of personal transportation, with the exception of travel to downtown Montréal, which has the most public transit options of any area.
- Vehicle ownership increased by 10% between 2003 and 2008 in the CMM's territory, compared to a 6% increase in the number of households.
- In terms of value, 59% of the north-south trade between Québec and the US market goes through Greater Montréal's road networks.
- According to OECD projections, global freight transport activity should double, or even triple, in the next 30 years.
- Between 1998 and 2003, the costs of congestion increased by 65% and were estimated at \$1.4 billion in 2003.
- In 2003, 27% of the vehicle-kilometres driven during morning rush hour were affected by congestion.





This policy direction is closely tied to the projects identified in the Ministère des Transports du Québec’s planning. Transportation supply and demand, accessibility requirements, and the use or performance of transportation networks all influence the definition of the metropolitan urbanization boundary, minimum density thresholds and TOD zones. It is therefore essential that the Québec government’s spending on transportation infrastructure take into account the policy directions, objectives and criteria of the PMAD.

In this context, it is necessary to quickly establish a political coordination mechanism to ensure consistency between government spending and the planning produced by the CMM for metropolitan Montréal. The proposal to set up a Québec-Greater Montréal coordinating committee is discussed in Chapter 3 of the PMAD.

In the coming decades, it will be necessary to meet the mobility needs of a growing and ageing population. As the population grows, it develops additional needs; as it ages, it creates new accessibility needs and generates new travel patterns. Continued residential growth on the North and South Shore, particularly in housing, and employment growth in the CMM’s centre, notably in downtown Montréal, will lead to an increase in metropolitan travel.

Greater Montréal must optimize existing and planned land transportation networks to support the increased movement of people and goods and consolidate urban growth, particularly around heavy mass-transit infrastructure.

The optimization of land transportation networks must also contribute to the fight against climate change since the transportation sector is the largest emitter of GHG, producing 40% of metropolitan Montréal’s emissions.

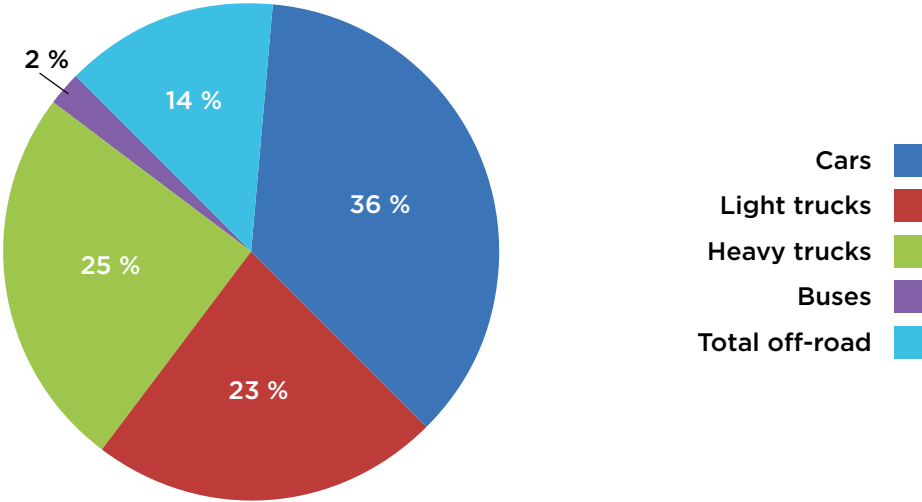
**GRAPH 8 — Transport-Related GHG Emissions in Greater Montréal, 2006**

Mode of transport	GHG Emissions (kt CO <sub>2</sub> e)
Cars	4,598
Light trucks <sup>(1)</sup>	2,960
Motorcycles	27
City buses	197
Intercity and school buses	116
Heavy trucks	3,175
<b>Total road</b>	<b>11,073</b>
Off-road land transport	408
Maritime transport	555
Heavy rail transport	347
Light rail transport <sup>(2)</sup>	24
Air transport	509
<b>Total off-road</b>	<b>1,843</b>
<b>Total transport</b>	<b>12,917</b>

(1) Includes pick-ups, minivans and SUVs.

(2) Includes the electric commuter train line and the metro.

Source: AECOM. Portrait des émissions de gaz à effet de serre sur le territoire de la Communauté métropolitaine de Montréal. 2010.



In addition to being the biggest emitter of GHG, the road transport sector is the primary source of the increase in GHG emissions in the CMM. Emissions attributed to this sector increased by 27% between 1990 and 2006. This increase can be primarily attributed to the popularity of sports utility vehicles and minivans at the expense of smaller, more fuel-efficient automobiles, followed by the proliferation of urban sprawl, which increases travel distances, and, finally, by the increase in trucking.

Improving the performance of transportation networks and optimizing the structural effect of these networks on land use planning should enable Greater Montréal to:

- Provide enhanced mass-transit services for the movement of people, thereby supporting a shift towards mass transit and fewer single-passenger trips.
- Improve intrametropolitan travel times for people and goods by reducing delays caused by congestion.
- Increase the productivity of all economic sectors by meeting the mobility needs of people and goods.
- Maintain and develop its role as a hub for merchandise across the continent.
- Facilitate trade with the outside to help develop the economic activities of both the region and Québec.

**MOBILITY THAT INCREASINGLY RELIES ON ACTIVE TRANSPORTATION AND MASS TRANSIT**

In 2008, the residents of Greater Montréal took 1.8 million passenger trips during the morning rush hour period (6-9 a.m.), an increase of 6% (or 108,000 trips) in 10 years. However, the number of trips in a 24-hour period tended to drop. According to Origin-Destination surveys, there has been a relative drop of 5% in the number of regular weekday trips in the CMM. This relative decrease applies to all modes of transport, except mass transit, which has shown an increase of more than 19% in the number of passenger trips.

**TABLE 22 — Breakdown of Trips by CMM Residents, by Mode of Transport and Time of Day, 1998, 2003 and 2008**

	VARIATION (no.)				VARIATION (%)		
	2008	2003	1998	03-08	98-08	03-08	98-08
<b>AM rush hour (6-9 am)</b>							
Car	1,066,440	1,102,376	1,048,067	-35,936	18,373	-3.3	1.8
Mass-transit <sup>1</sup>	409,848	353,048	326,899	56,800	82,949	16.1	25.4
Other motorized modes <sup>2</sup>	156,609	155,150	162,096	1,459	-5,487	0.9	-3.4
Active transportation	206,016	190,998	194,032	15,018	11,984	7.9	6.2
<b>TOTAL AM RUSH HOUR</b>	<b>1,838,913</b>	<b>1,801,572</b>	<b>1,731,094</b>	<b>37,341</b>	<b>107,819</b>	<b>2.1</b>	<b>6.2</b>
<b>24-hour period</b>							
Car	4,578,088	4,855,157	5,051,046	-277,069	-472,958	-5.7	-9.4
Mass-transit <sup>1</sup>	1,360,127	1,193,668	1,139,420	166,459	220,707	13.9	19.4
Other motorized modes <sup>2</sup>	373,452	372,490	390,794	962	-17,342	0.3	-4.4
Active transportation	964,897	885,097	1,040,283	79,800	-75,386	9.0	-7.2
<b>TOTAL 24-HOUR PERIOD</b>	<b>7,276,564</b>	<b>7,306,412</b>	<b>7,621,543</b>	<b>-29,848</b>	<b>-344,979</b>	<b>-0.4</b>	<b>-4.5</b>

1. Mass-transit trips include bi-modal travel, meaning trips that use both automobiles and mass transit.  
2. Other motorized modes include trips by school bus, other buses, taxis and motorcycles.  
Source: Origin-Destination Survey Secretariat, Mobilité des personnes dans la région de Montréal, Enquêtes Origine-Destination 1998, 2003 et 2008. Calculations by the CMM, 2011.

Internal travel within each sector accounts for the majority of vehicle trips in Greater Montréal. This form of travel recorded the highest growth between 1998 and 2008, particularly in the North and South Shore. The Montréal agglomeration attracts the greatest number of vehicle trips: it is the main destination centre. To a lesser degree, Laval attracts a significant number of trips from the North Shore and Montréal, while the Longueuil agglomeration receives an increasing number of trips from the South Shore and Montréal.

TABLE 23 — Breakdown of Morning Rush Hour Motorized Trips, All Purposes, 2008 (change since 1998)

ORIGIN	DESTINATION				
	Montréal Agglomeration	Longueuil Agglomeration	Laval	North Shore	South Shore
Montréal Agglomeration	<b>753,000 (+12,000)</b>	15,000 (-1,000)	19,000 (+3,000)	8,000 (0)	7,000 (+1,000)
Longueuil Agglomeration	67,000 (0)	<b>109,000 (+6,000)</b>	1,000 (0)	1,000 (0)	9,000 (+1,000)
Laval	75,000 (+3,000)	2,000 (0)	<b>94,000 (+11,000)</b>	8,000 (0)	1,000 (0)
North Shore	56,000 (-2,000)	2,000 (0)	22,000 (+3,000)	<b>144,000 (+28,000)</b>	1,000 (0)
South Shore	63,000 (+8,000)	32,000 (+7,000)	1,000 (0)	1,000 (1,000)	<b>104,000 (+12,000)</b>

Note: Motorized modes of travel include automobile, mass transit, bimodal, school bus, other buses, taxi, motorcycle and paratransit.  
Source: Origin-Destination Survey Secretariat, Mobilité des personnes dans la région de Montréal, Enquêtes Origine-Destination 1998, 2003 et 2008. Calculations by the CMM, 2011.

As for mass-transit use, travel towards the Montréal agglomeration accounts for the biggest modal share, with rates varying from 27% to 51%. It should also be noted that the greatest increases in mass-transit use between 1998 and 2008 were for travel towards Greater Montréal. Despite the high number of internal vehicle trips within the North and South Shore, mass transit networks must be developed to favour a shift in modal share from automobiles to mass transit.

TABLE 24 — Modal Share of Mass-Transit during Morning Rush Hour, All Purposes, 2008 (change since 1998)

ORIGIN	DESTINATION				
	Montréal Agglomeration	Longueuil Agglomeration	Laval	North Shore	South Shore
Montréal Agglomeration	<b>37.3% (+4.8 points)</b>	19.4% (+3.0 points)	12.1% (+3.6 points)	n.s.	n.s.
Longueuil Agglomeration	51.5% (+11.0 points)	<b>10.7% (+0.9 point)</b>	n.s.	n.s.	n.s.
Laval	32.2% (+11.1 points)	n.s.	<b>10.8% (+1.8 point)</b>	n.s.	n.s.
North Shore	27.3% (+12.9 points)	n.s.	n.s.	<b>2.2% (+0.8 point)</b>	n.s.
South Shore	32.0% (+13.9 points)	3.6% (+0.5 point)	n.s.	n.s.	<b>n.s.</b>

Note: The modal share of mass transit is calculated by dividing the number mass-transit and bimodal trips by the number of all motorized trips (automobile, mass transit, bimodal, school bus, other buses, taxi, motorcycle and paratransit).  
Source: Origin-Destination Survey Secretariat, Mobilité des personnes dans la région de Montréal, Enquêtes Origine-Destination 1998, 2003 et 2008. Calculations by the CMM, 2011.



## EFFICIENT MASS-TRANSIT NETWORKS, WITH GROWING RIDERSHIP AND SIGNIFICANT INVESTMENT NEEDS

In metropolitan Montréal, mass-transit services are provided by 14 transit operating authorities (known by the French acronym, AOT) and one government agency serving the various areas of the region. The Montréal agglomeration, Longueuil agglomeration and the City of Laval are each served by one public transit corporation, while the North and South Shore are served by a total of 11 municipal or inter-municipal transit authorities (or CITs), whose territories often overlap with that of the CMM. Since 1996, the Agence métropolitaine de transport (AMT), which reports to the Québec government, runs the commuter train service and operates metropolitan facilities (terminals, park-and-ride lots) throughout the region. Its territory includes that of the CMM, plus the City of Saint-Jérôme.

Greater Montréal's mass-transit services are structured around three networks, which work as integrated whole: the metro, commuter trains and buses.

- Inaugurated in 1966, the **metro network** has become the backbone of the metropolitan mass-transit network and a formidable catalyst for urban and economic development. The 2007 agreement<sup>68</sup> between the CMM's municipalities confirmed the metropolitan role of this system and established regional sharing of its operating costs. With its four lines totalling 68 stations and its 235 million trips per year in 2009, the metro alone accounts for half of the region's mass-transit trips. Essential to the proper functioning of metropolitan Montréal, the metro is an integral part of the main economic, cultural, institutional and commercial hubs in the centre of the region.
- The **commuter train network** radiates out from the centre of Montréal to connect with the North and South Shore. The annual ridership of the five commuter train lines reached 15.2 million passengers in 2009 and is composed primarily of workers and students travelling to central Montréal during rush hour periods. A sixth line (the East Train) will be inaugurated in 2012 and will serve the northeast population of the metropolitan territory.
- All the **AOTs of the metropolitan region** operate bus services, therefore the vast majority of Greater Montréal residents enjoy local bus service. Bus service in outer areas is provided by 3,000 vehicles<sup>69</sup> serving a total of 300 routes. The bus system accounts for 90% of mass-transit trips in Greater Montréal, either in whole or in part. In addition to extended local service, buses provide efficient feeder services to the metro and commuter trains via bus terminals. Moreover, bus service performance is enhanced in some major corridors thanks to reserved lanes and priority measures for buses.

Medium capacity modes of transport such as light rail transit (LRT) and tramways are still non-existent in the region, but have been the subject of studies in some major transportation corridors. Several AOTs are also thinking of implementing bus-rapid transit (BRT), which offers better service and higher commercial speeds.

<sup>68</sup> 2007 Metro-deficit-sharing agreement.

<sup>69</sup> Canadian Urban Transit Association. *Canadian Transit Fleet and On-Board Equipment Fact Book (2009 operating data)*, 2010. 155 p.



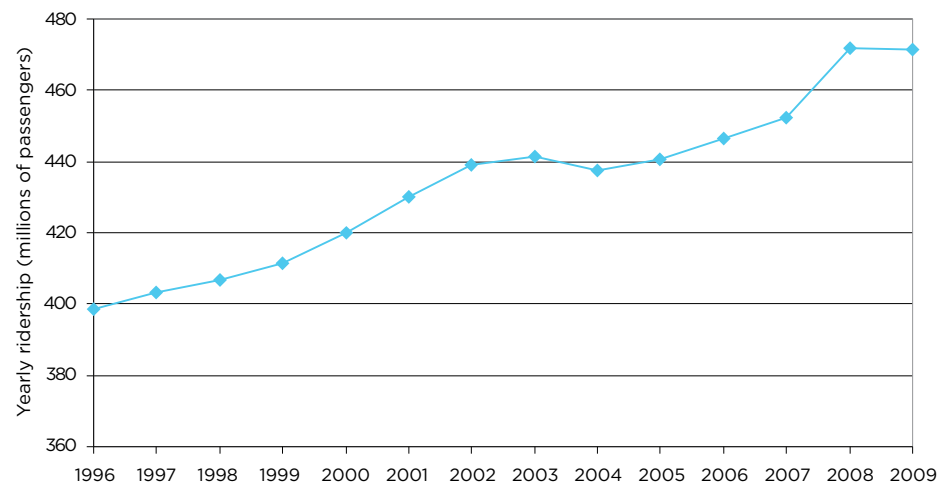
Since 1996, mass-transit services improved in several ways:

- The AMT has boosted commuter train service, increasing the number of lines from two to five.
- The network of CIT buses has expanded, supported by the AMT's development of terminals, park-and-ride lots and metropolitan reserved lanes.
- The metro was extended to Laval in 2007.
- Reserved lanes and priority measures for buses have improved the performance of bus service on major roads and near terminals.
- With the Québec Public Transit Policy, service was gradually increased by 16% between 2006 and 2011, and the cost is financed jointly by the Québec government and municipalities.

These measures have led to a steady growth in ridership since 1996. With nearly 1.4 million passenger trips each day in 2008, mass transit accounts for one out of every five trips in metropolitan Montréal.<sup>70</sup> During the morning rush hour period, the modal share of mass transit increased by 3 percentage points between 2003 and 2008 to reach 25% of all passenger trips.<sup>71</sup> Downtown Montréal remains the preferred destination for mass-transit travel with a modal share of 66% during the morning rush hour period.

The region's mass-transit networks provided more than 471 million trips in 2009, 18% more than in 1996, or a 1.4% average annual increase. Mass-transit ridership was particularly high in 2008, when it reached 472 million passengers.

**GRAPH 9 — Change in Mass-Transit Ridership in Greater Montréal, 1996-2009**



Source: Agence métropolitaine de transport. Calculations by the CMM, 2010.

All the networks of the region's AOTs experienced a significant increase in ridership from 1996 to 2009. Of the 72.7 million passenger trips added during this period, 63% were in the Société de transport de Montréal (STM) network, therefore mostly by metro. The remaining 37% came from the other AOTs: 11% from the AMT's commuter trains, 12% from CITs, 7% from the Réseau de transport de Longueuil (RTL) and 5% from the Société de transport de Laval (STL). While the STM took the largest share of the recent growth in ridership, the networks with the highest relative increase are the AMT's commuter trains, whose ridership more than doubled since 1996 (+119%), and the CIT buses (+71%).

**TABLE 25 — Change in Mass-Transit Ridership in Greater Montréal, by AOT, 1996-2009**

(in millions of passengers)	1996	2002	2009	Overall Growth 1996-2009		Growth Rate 1996-2009	
				Absolute	%	Period (13 years)	Annual average
Société de transport de Montréal	337.0	363.2	382.8	45.8	63%	14%	1.0%
<i>metro only</i>	<i>194.0</i>	<i>219.2</i>	<i>235.2</i>	<i>41.2</i>	<i>57%</i>	<i>21%</i>	<i>1.6%</i>
Réseau de transport de Longueuil	26.8	30.1	32.1	5.3	7%	20%	1.5%
Société de transport de Laval	16.0	17.9	19.5	3.6	5%	22%	1.7%
CIT and OMIT	11.9	14.2	20.4	8.5	12%	71%	5.5%
AMT (commuter trains)	6.9	12.9	15.2	8.3	11%	119%	9.1%
AMT (express metropolitan bus)	0.0	0.7	1.3	1.3	2%	-	-
	<b>398.6</b>	<b>439.0</b>	<b>471.3</b>	<b>72.7</b>	<b>100%</b>	<b>18%</b>	<b>1.4%</b>

Source: Agence métropolitaine de transport. Calculations by the CMM, 2010.

The increased ridership observed in the last few years has created growing pressure on mass-transit networks. Heavy modes of transport (metros, trains) are particularly popular, which leads to overcrowded vehicles (maximum number of spots) and increased loading in many parts of the network (maximum frequency of trains).

For example, some segments of the metro are overloaded during rush hours, notably the Orange Line east and the Green Line downtown. As for commuter trains, 18 out of the 31 trains travelling towards Montréal already had people standing during morning rush hour in the fall of 2007, representing as many as 50% of the users per train. In addition to problems of vehicle availability and capacity, problems sharing railway rights-of-way (commuter trains/freight trains) and road infrastructure (buses/automobiles/trucks) also limit available capacity.

Significant investments are committed (for example, to replace first-generation metro cars) or planned to modernize and develop these networks. Combining all AOT projects over a 10-year planning horizon makes a total investment of nearly \$23 billion to maintain mass-transit assets and develop networks.

70 According to data from the 2008 Origin-Destination Survey.

71 This figure comes from the 2008 Origin-Destination Survey highlights produced by the AMT and, for reasons of historical comparability, refer only to the comparable area of the 1987 Origin-Destination Survey.





PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ

**TABLE 26 — Mass-Transit Network**  
**List of AOT Projects in Greater Montréal**

Planned capital expenditures for the period 2010-2020	
<b>MAINTENANCE AND IMPROVEMENT PROJECTS</b>	
METRO NETWORK Ex.: replacement of MR-63 and MR-73 + Réno programs	\$6.5 B
COMMUTER TRAIN NETWORK Ex.: replacement of rolling stock + maintenance centres and garages	\$1.0 B
BUS NETWORK Ex.: infrastructure maintenance and renewal of bus fleet	\$2.3 B
OTHER PROJECTS Ex.: administrative projects and customer service for all networks	\$0.5 B
<b>TOTAL MAINTENANCE AND IMPROVEMENT PROJECTS</b>	<b>\$10.3 B</b>
<b>DEVELOPMENT PROJECTS</b>	
METRO NETWORK Ex.: extension of metro and additional rolling stock	\$6.5 B
COMMUTER TRAIN NETWORK Ex.: East Train + AMT planning	\$2.1 B
TRAMWAY AND LRT NETWORK Ex.: initial Montréal tramway and LRT network A-10	\$2.5 B
BUS NETWORK Ex.: Pie-IX reserved lanes and priority measures + new buses	\$1.5 B
<b>TOTAL DEVELOPMENT</b>	<b>\$12.6 B</b>
<b>TOTAL — ALL PROJECTS</b>	<b>\$22.9 B</b>

*Note: Although the airport shuttle is a high-priority project for the region, it is not included in this list because its funding comes from outside the financial framework.*  
*Source: Compiled by the CMM.<sup>72</sup>*

The time is right to invest more in mass transit. Given the extent of the investment required to meet the various modernization and development needs of Greater Montréal's mass-transit networks, choices will have to be made. It is therefore pertinent and timely that elected officials undertake this prioritization, since they are accountable to their populations under the framework of the *Metropolitan Land Use and Development Plan* because mass-transit infrastructure has a structural effect. This prioritization must also enable the CMM to accelerate the shift towards mass transit and reduce automobile use as specified in Vision 2025, while directing real estate growth to high-density areas near public transit.

It should be noted that the airport shuttle, which should come into service in 2016, is not included in this list of projects since it receives funding from outside the metropolitan mass-transit financial framework. This project, which will serve clients of Trudeau Airport, is nevertheless a priority and essential to the attractiveness and competitiveness of Greater Montréal. The desire to quickly create a shuttle between the Trudeau Airport and Central Station has been favourably received in the metropolitan region as evidenced by the position adopted in 2005 by the metropolitan coalition in favour of public transit, which agreed upon five priority capital projects for the region's development, including the "rail shuttle connecting the Montréal-Trudeau Airport with downtown Montréal."

<sup>72</sup> The mass-transit network projects listed in the table were collated from the following documents: AMT, Three-year capital expenditures plan 2011-2012-2013. Reference document; STM, Three-year capital expenditures plan 2011-2012-2013; STL, 2010 Budget and Three-year plan 2011-2012-2013; RTL, 2010 Budget and Five-year plan 2010-2014; CMM, Report on consultations with RCMs and CITs concerning the North and South Shore. Ensembles urbains, générateurs de déplacements et projets de développement de transport collectif. February 2010. For medium and long term projected needs, we looked at: the protocol for metro extensions; the metro's rolling stock acquisition needs as expressed by the STM and the R-042-3. STM borrowing by-law for the replacement of MR-63 metro cars; the City of Montréal transportation plan; the STM's Ten-year plan, according to information available in the fall of 2009. The development needs of bus networks and the acquisition and maintenance needs of AOTs and CITs in the medium and long term were estimated using a linear projection of annual projected expenses in the three-year capital expenditures plans.



### INTERCITY MASS-TRANSIT NETWORKS LINKING GREATER MONTRÉAL WITH MANY OTHER NORTH AMERICAN CITIES

Mass transit also covers national and international travel by train and bus and includes major intermodal terminals: Montréal's Central Station (Bonaventure metro station) and the Central Bus Terminal (Berri-UQAM metro station).

Furthermore, the rail network linking Montréal to Ontario is currently the subject of major investments.<sup>73</sup> VIA's CN Kingston Subdivision Project (Canada's Steel Speedway), which is valued at over \$200 million, will considerably increase the capacity of one of the fastest and busiest railways in North America. It will decrease congestion at key areas of this double railway, and lighten the traffic of CN freight trains and VIA passenger trains, whose schedules must be respected. This project will add new passenger service to and from Montréal and ensure the punctuality of both companies' trains.

The development of a high-speed rail (HSR) system is a response adapted to new issues of national, and even international, transportation planning: the creation of a transportation network to support economic growth that is increasingly integrated into its surrounding area, the desire to reduce greenhouse gas emissions to fight climate change, and the objective of achieving energy self-sufficiency while promoting the quality of life of communities with a safe, efficient mode of transportation.

In recent months, the United States has shown renewed interest in developing a high-speed train network in travel corridors that are 100 to 600 miles long (160 to 1000 km). On the Canadian side, the implementation of a high-speed train linking the cities of the Québec-Windsor corridor has also been studied.<sup>74</sup>

The implementation of high-speed rail in the Québec-Windsor corridor, combined with the American president's vision, specifically with regard to the plan to connect Montréal-Boston-Albany-New York, would have a significant economic impact on the cities served by helping to better integrate the economies of the Great Lake, St. Lawrence and northeast United States regions. The Québec-Windsor corridor could give new momentum to east-west trade that has gradually weakened while the Montréal-New York corridor could consolidate the economic development of cities located near this corridor by giving them access to a vast market in a context of free trade that would encourage north-south trade. These projects are currently at the preliminary stage.

The issues of implementing HSR in the metropolitan region are significant, in terms of economic, environmental and socioeconomic impacts. Moreover, stations could become a structural element for urban development.

<sup>73</sup> <http://www.viarail.ca/en/about-via-rail/media-room/latest-news/1357/16-july-2009-via-receives-first-environmentally-enhanced-f-40-locomotive-from-cad-railway-industries>

<sup>74</sup> The Premier of Québec, Mr. Jean Charest, and the Premier of Ontario, Mr. Dalton McGuinty, announced on January 9, 2008, their intention to update studies done in 1995. In spring 2009, the cities of Québec, Montréal, Laval, Toronto and Windsor as well as the Communauté métropolitaine de Montréal also ordered a study from the Société nationale des chemins de fer de France (SNCF) on the benefits of high-speed rail between Québec and Windsor.



## A SATURATED ROAD NETWORK THAT MUST BE COMPLETED

The CMM's territory is crosshatched by more than 17,300 kilometres of roads that make up the road transportation supply for vehicular traffic. This network is made up of the major road network (national, regional and collector highways)<sup>75</sup> and municipal arteries, to which are added 24 bridges connecting the islands of Montréal and Laval.

The major road network provides consistent service for the metropolitan territory. Its highways, which stretch over nearly 1,770 kilometres, were constructed primarily in the late 1950s to the mid-1970s.

In the territory of the CMM, mass transit only competes with automobiles for travel towards the centre of the region during rush hour periods. For every other destination area, including numerous industrial sectors that represent a significant portion of jobs, automobiles offer travel conditions superior to mass transit.

Thanks to its flexibility, speed and high level of competitiveness, the road network handles most of the trade in Québec. In terms of value, 59% of the north-south trade between the province and the American market went through Montréal's road networks in 2007.<sup>76</sup> At the regional or even interregional level, road transportation ensures practically the entire transport of goods, between industries, institutions, businesses and consumers.

Activities that generate the movement of goods remain extremely concentrated.<sup>77</sup> In 2002, more than 70% of jobs in industries that generate the movement of goods in the Montréal census metropolitan area (CMA) were concentrated in the central part of the region, which only represents 21% of the region's total surface area.<sup>78</sup> This observation must, however, be nuanced by mentioning the presence of employment hubs in Laval and Longueuil.

The strong concentration of jobs generating the movement of goods is supported by the island of Montréal having the vast majority of maritime, rail and air transport platforms. The heart of the Montréal metropolitan region, specifically the island of Montréal, therefore draws in shipping activities, which almost always involve trucking. In 1999, 85% of the trucks crossing the borders of the CMA, having originated from or been heading to the region, were originating from or going to the island of Montréal.<sup>79</sup>

The most significant flow of goods by truck therefore takes place in the heart of the region, on segments of the road network most consistently affected by congestion.

The problem of congestion throughout the network continues to increase. During both the morning and afternoon rush hours, a significant portion of the arterial and highway networks of Greater Montréal suffers from recurrent congestion, in each of the region's five geographical areas. Between 1998 and 2003, mostly due to the increase in the number of vehicle trips in the region, the costs of congestion increased by 65% and were estimated at \$1.4 billion in 2003.<sup>80</sup> In the same year, for the whole territory, it is estimated that 27% of the vehicle-kilometres driven during the morning rush hour were affected by congestion.

The metropolitan road network remains incomplete and discontinuous. It is also ageing and has shortcomings compared to current North American standards. These shortcomings exacerbate the operational problems of some busy roads. According to the MTQ,<sup>81</sup> this is true of many segments of the network, including Highway 20, which is the main road corridor on Île-Perrot and in the Vaudreuil-Dorion area, as well as Highway 40 on the island of Montréal, both of which constitute the main route for the transport of goods. The accelerated deterioration of overused infrastructure is a major issue for the region and major efforts must be made to modernize this network.

Just like mass-transit networks, highway networks will require significant investment in their maintenance and development. Table 27 lists the major projects for repairing and developing the metropolitan road network.

75 This nomenclature refers to the functional classification of the Québec road network set forth in the Québec Act respecting Roads. This classification is illustrated in the map "Classes des routes" in the *Ministère des transports du Québec transportation atlas* at the following address: <http://transports.atlas.gouv.qc.ca/InfraClassesRoutes.asp>

76 Conseil de la science et de la technologie. *L'innovation dans la chaîne logistique des marchandises*. 2010; Ministère des Transports du Québec. *Politique 2009-2014 sur le transport routier des marchandises*. 2009.

77 Alexandre Lambert. *Aménagement de la "plaque tournante" montréalaise. Survol du contexte d'évolution et des infrastructures logistiques stratégiques*. Report produced for the Communauté métropolitaine de Montréal. 2010.

78 TECSULT/AECOM. *Étude sur les générateurs de transport de marchandises dans la région de Montréal, 2006*. Study produced for the Ministère des Transports du Québec. 2006.

79 Ministère des Transports du Québec. *Les déplacements interurbains de véhicules lourds au Québec: Enquête sur le camionnage de 1999, 2003*.

80 ADEC. *Évaluation des coûts de la congestion routière dans la région de Montréal pour les conditions de référence de 2003*. 2009 study produced for the Ministère des Transports du Québec.

81 MTQ. *Politique 2009-2014 sur le transport routier des marchandises*. 2009.



**TABLE 27 — Main Improvement Projects for the Metropolitan Road Network  
(Current or Projected)**

Infrastructure	Name of project/Description	Reference
A-10	Addition of a 3rd lane between Boulevard Taschereau and A-30 Transformation of the Bonaventure Highway into an urban boulevard	1 3
A-40	Optimization of the A-40, between Anjou and Côte-de-Liesse	1
A-13	Extension of the A-13 to the Mirabel International Airport	4,5,6
A-15	Improvement of the A-15 in Laval (access roads, overpass, A-15/Rte-117 interchange and access to A-15)	1
A-19	Extension of A-19 between Laval and Bois-des-Filion 4-lane extension + 2 lanes for mass transit over 7.5 km, construction of 4 interchanges, redevelopment of the A-640 interchange	2,6
A-20	Completion of A-20 in Vaudreuil-Dorion and on l'Île-Perrot Connection of the two existing segments of Highway 20 by creating a 4-lane highway over 7 km	1,2
A-30	Completion of A-30 between Châteauguay and Vaudreuil-Dorion Connection of A-30 to A-20 and A-540 by creating a 4-lane segment over 35 km. Includes the redevelopment of the A-20/A-540/A-30 interchange Widening of A-30 between A-20 and A-10	1,2
A-640	Addition of a 3rd lane on A-640 between A-13 and A-15 East	6
Notre-Dame Street	Modernization of Notre-Dame Street	1,2,3
BRIDGES	Repair/replacement of the Champlain Bridge Repair of the Mercier Bridge (R138)	1,2
INTERCHANGES	Redevelopment of the Turcot Complex (A-15/A-20/A-720 interchanges)	2,3
	Redevelopment of the A-15/A-640 interchange – Boisbriand	1,2
	Redevelopment of the Des Laurentides interchange (A-40/A-15)	1,2
	Redevelopment of the northern end of the Décarie interchange (Décarie/A-40)	1,2
	Redevelopment of the Dorval interchange (A-20/A-520)	1,2,3
	Redevelopment of the A-20/Des Sources interchange	1
	Redevelopment of the A-20 and A-25 interchange and Route 132 (+ rebuilding a segment of A-20)	1,2
	Repair of the Saint-Pierre interchange	2

*References:*

1. MTQ. *Transportation Management Plan - Montréal Region, 2000.*

2. MTQ website.

3. City of Montréal. *Transportation Plan. 2008.*

4. Deux-Montagne RCM plan.

5. Mirabel RCM plan.

6. Thérèse-De Blainville RCM plan.

7. The Jacques-Cartier and Champlain Bridges Incorporated (JCCBI).

Source: AECOM, 2011. Calculations by the CMM, 2010.

Regional and national road networks are much more developed, but many segments, caught by urbanization, have lost their primary function and now play the role of municipal artery.

With regard to the transport of goods, most of the trade between Québec and the United States is done by truck on the following strategic highways:

- A-20 East: central and eastern Québec and the Maritimes
- A-20 West: southern Ontario and the American Midwest and West
- A-40 East: central and northern Québec
- A-40 West: northern Ontario and Western Canada
- A-10: Eastern Townships and Maine
- A-10/A-55: New England
- A-15 South: eastern and southern United States

These highways are also the main access for tourists coming to Québec from the United States and the rest of Canada.

To manage heavy vehicle travel, in 1996 the MTQ implemented a trucking network on public roads under its jurisdiction (major road network). The goal of this trucking network is to preserve road infrastructure assets and the safety of road users. It provides the MTQ with a global vision of heavy vehicle traffic management on Québec's road network. The trucking network has three categories: roads that can always be accessed, roads with restricted access and roads closed to heavy vehicles.

At the local level, municipalities are responsible for managing heavy vehicle traffic on the public roads they maintain; they can adopt municipal trucking by-laws with a list of roads on which heavy vehicle traffic is prohibited. The majority of municipalities in the CMM's territory have adopted a municipal by-law that is MTQ approved.<sup>82</sup>

The implementation of such a trucking network controls the negative impacts of heavy vehicle movements on the territory, including residents' quality of life (ambient air quality, noise, vibrations) and safety issues (accidents, transportation of hazardous materials).

### **GREATER MONTRÉAL: A TRANSPORTATION HUB FOR MERCHANDISE WITH INTERMODAL CAPACITY AND ROOM TO GROW**

The Montréal region is called a transport hub for merchandise due to its historic and strategic location in North America and the presence of longstanding, geographically central intermodal networks and platforms. Montréal boasts four modes of transporting merchandise: port infrastructure including the Port of Montréal; the Trudeau and Mirabel Airports; CN and CP continental rail networks; and a well-developed highway network.

Greater Montréal's strength as a shipping hub lies in its efficient intermodal facilities that take advantage of each mode. Metropolitan Montréal has become a strategic North American hub supporting a transportation and storage industry that employed 170,000 people in 2009.

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<sup>82</sup> Many by-laws are being adopted in the territory of the Montréal agglomeration (the boroughs of Verdun, LaSalle, Lachine, St-Laurent and Pierrefonds-Roxboro, Dorval, Île-Dorval, Pointe-Claire and Westmount) while others are upcoming (Île-Bizard-Sainte-Genève borough, Côte-St-Luc, Dollard-Des Ormeaux, Senneville, Ste-Anne-de-Bellevue, Baie-d'Urfé, Kirkland and Beaconsfield). Source: MTQ. Réseau de camionnage sur l'île de Montréal: état d'avancement de l'adoption des règlements sur le territoire municipal, Direction de l'Île-de-Montréal, April 2008.

**MAP 14 — Main North American Trade Corridors and the NASCO Corridor<sup>83</sup>**



Source: Ministère des Transports du Québec. 2009.

<sup>83</sup> North America Super Corridor Coalition.



PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ





**The Port of Montréal**, the main intermodal platform of Greater Montréal, is located more than 1,500 km from the ocean, at the end of an 11.3-metre deep dredged navigation channel. It is one of the largest inland ports in the world, the ninth largest container port in North America in 2009 and the main gateway into the specific sector of transatlantic trade. In 2009, 24.5 million metric tonnes<sup>84</sup> of merchandise passed through the Port of Montréal, of which 11.2 million tonnes were containerized cargo, for a total of over 1.2 million containers per year. Half of the containerized cargo was transported by rail, and with trucking accounts for 50% of total traffic. Approximately 2,000 truck movements linked to container traffic were recorded in each direction, entering and exiting the port on business days, without directly using the nearby highway network.

The port's facilities will soon reach capacity. To meet the anticipated demand, the Montréal Port Authority is currently evaluating expansion scenarios. According to the Montréal Port Authority, it is possible to develop additional container treatment capacity on the Montréal site to accommodate up to 2.2 million containers; the port's current capacity is 1.6 million. In light of this situation, improved road access to the Port of Montréal constitutes a priority investment for numerous stakeholders, including the Montréal Port Authority and the City of Montréal. In the medium term (5 to 10 years), the Montréal Port Authority favours the Contrecoeur site for increasing the Port of Montréal's total processing capacity to 3 million containers. This increase in capacity will probably require the addition of an intermodal terminal.

**The rail network** of Greater Montréal provides strategic access to the major North American markets and is the reason behind the Port of Montréal's intermodal competitiveness. The region is a meeting point for rail systems from Halifax to Chicago.<sup>85</sup> The CN and CP networks cross the country from ocean to ocean in addition to linking most of Canada's major metropolitan regions:

- CN enjoys two access points for intermodal transportation for both the Pacific and Atlantic (including Montréal), in addition to direct access to the Mississippi Delta's port facilities via American railway tracks acquired after it was privatized.
- CP focusses on Vancouver and Montréal to play its role as a continental bridge, hence its major role in routing traffic from the Port of Montréal.

The railways have been deeply affected by the emergence of trucking and containerization, which has led to a consolidation of terminals and activities structured around the corridors linking the largest markets. With these changes, CN and CP have gone from national rail carriers to continental carriers. In their new positions, the major carriers have acquired intermodal capacity by developing rail/road terminals in their facilities in the central west area of the island of Montréal (CN's Intermodal Terminal at Taschereau Yard, Expressway Terminal in the Saint-Luc Yard and CP's Lachine terminal), while maintaining their relationship with the Port of Montréal.

The reorganization of railway service also gives rise to the implementation of intermodal logistics parks, which are real estate developments undertaken directly by railway companies or in collaboration with real estate developers. The construction of CP's Les Cèdres Intermodal Complex, adjacent to the Alta industrial park, is part of this trend.

The territory's rail network also includes segments of the Québec-Gatineau short-line railways in Laval and on the North Shore, a yard in Boisbriand, the CSX Company on the South Shore,<sup>86</sup> as well as the Montréal Port Authority rail network, which covers about one hundred kilometres of track on its own land.

**The air transport** of goods meets the recurrent or occasional needs of a great many industries for the prompt shipment over long distances of high-value goods or products sensitive to shipping delays. It is also an essential link in the logistics chain of key Montréal industries, notably aerospace, pharmaceutical, bio-food and textile.

The amount of air cargo passing through Montréal's facilities, which is essentially dependent on regional economic activity, represented 174,000 metric tonnes of merchandise in 2009 (50% went through Trudeau and 50% through Mirabel). If air cargo numbers are somewhat low, the same cannot be said of the value of the goods transported by plane: in terms of value, these goods represented a fifth of all goods transported in 2007. The market value of products transported by plane is much higher (\$45/kg) than that of products shipped other ways (\$0.32/kg).

Air transport has a lot of intermodal synergy with road transport, which enables distribution to happen with minimal delays. Both people and freight transportation activities, particularly at Trudeau Airport, make a significant contribution to road traffic in the surrounding corridors, which were recently allocated significant public funds.

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<sup>84</sup> Montréal Port Authority, *Annual Report*, 2009.

<sup>85</sup> Alexandre Lambert, *Aménagement de la "plaque tournante" montréalaise. Survol du contexte d'évolution et des infrastructures logistiques stratégiques*. Report produced for the Communauté métropolitaine de Montréal, 2010.

<sup>86</sup> Since this railway could be used to transport both merchandise and people, it therefore could introduce the economic players of Greater Montréal to new markets, served by the American company CSX Transportation Inc.'s network, which complements the Canadian National (CN) and Canadian Pacific (CP) networks.

**Intermodal centres and logistics hubs.** In the shipping sector, intermodality is without a doubt the most significant innovation of the past few years.<sup>87</sup> Intermodality followed the massive adoption of containers; by facilitating the transshipment from one mode to another (road/rail/port), containers limit the impact of transfers and therefore reduce costs. Containers have also led to an increase in ship size and train length, which created significant savings and a phenomenal expansion of global trade. The presence of all four modes therefore constitutes a key advantage for Greater Montréal.

The concept of intermodal centres was recently augmented by the creation of logistics hubs. These sites have many uses related to the distribution, storage and handling of merchandise. These hubs are designed specifically to work with an intermodal rail or port terminal that links all levels distributing, procuring and conveying significant traffic, which established logistics businesses can take advantage of.<sup>88</sup>

These integrated logistics hubs have started to appear in the Montréal region. The Les Cèdres intermodal complex and the Alta industrial park in Côteau-du-Lac, in Montérégie, are good examples; they are part of the distribution system of massive traffic coming from Asia via West Coast ports. There is also a concentration of logistics services and

intermodal platforms in the central west area of the island of Montréal, at the intersection of Highways 520 and 13, which stimulates its integration. There is also an intermodal transportation centre in Beauharnois, operated by the company CSX.<sup>89</sup> The expansion of the Port of Montréal's activities on the Contrecoeur site will also require the development of an intermodal facility.

The upcoming completion of Highway 30 will make it possible to bypass the island of Montréal's road network, therefore reducing congestion. It will also help consolidate Greater Montréal's role as a hub for merchandise. It has been suggested that the impact of Highway 30's completion on the economic and urban development plan be more thoroughly evaluated, particularly in terms of merchandise logistics.

As outlined by the Comité interrégional pour le transport des marchandises (CITM) in its opinion sent to the CMM,<sup>90</sup> "The size of logistics platforms presents some problems for their insertion into the urban fabric and some interface problems with other urban functions. They create noise, take up a lot of space and have low architectural value. The environmental impact is also significant, notably a deterioration in ambient air quality due to the concentration of heavy vehicles and an almost complete lack of vegetation over a large area.(...)

On the other hand, aggregating a large number of businesses minimizes the infrastructure required. In addition, it is easier to create a buffer zone around a single, large site than having to develop many similar zones around many parks."

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<sup>87</sup> Alexandre Lambert. 2010.

<sup>88</sup> Alexandre Lambert. 2010.

<sup>89</sup> CSX is currently relocating its switching yard to the Beauharnois industrial park. Work should be completed by the end of November 2011, according to information provided by the Beauharnois-Salaberry RCM.

<sup>90</sup> Opinion of the Comité interrégional pour le transport des marchandises (CITM) of the Conférence régionale des élus de Montréal on the transportation of goods section in the Metropolitan Land Use and Development Plan (PMAD). January 28, 2011.

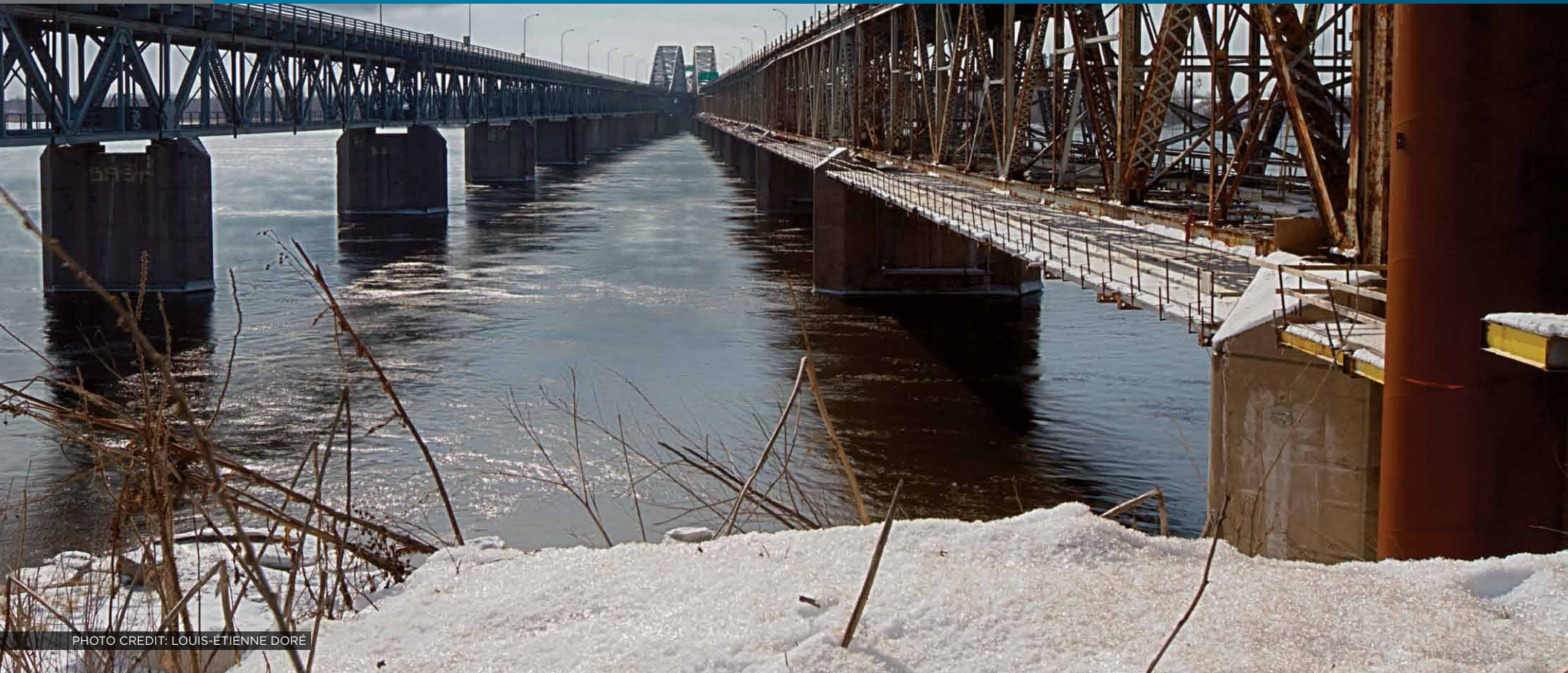


## TO SUMMARIZE...

GREATER MONTRÉAL HAS EFFICIENT MASS-TRANSIT NETWORKS (METRO, TRAIN, BUS) WITH A CONSTANTLY GROWING RIDERSHIP AND SIGNIFICANT INVESTMENT NEEDS.

AN INTERCITY TRANSPORTATION NETWORK LINKS GREATER MONTRÉAL TO MANY OTHER NORTH AMERICAN REGIONS.

THE ROAD NETWORK IS SATURATED AND MUST BE OPTIMIZED AND COMPLETED TO ENSURE THE MOBILITY OF PEOPLE AND CONSOLIDATE THE REGION'S ROLE AS A HUB FOR MERCHANDISE.







## LAND USE AND DEVELOPMENT OBJECTIVES AND CRITERIA

IN LIGHT OF THE NEED TO ENSURE THE MOBILITY OF PEOPLE AND GOODS AND THE SIGNIFICANT INVESTMENT REQUIRED TO MAINTAIN AND DEVELOP INFRASTRUCTURE, FOUR OBJECTIVES HAVE BEEN DEFINED FOR THE SECOND POLICY DIRECTION. THESE OBJECTIVES, AND THE CRITERIA THAT WILL HELP ENSURE THAT THEY ARE MET, ARE SUMMARIZED BELOW. EACH OBJECTIVE IS THEN DISCUSSED IN DETAIL.

## POLICY DIRECTION 2: A GREATER MONTRÉAL WITH EFFICIENT, STRUCTURAL TRANSPORTATION NETWORKS AND FACILITIES

### **2.1 Identify a mass-transit network in order to shape urban development**

2.1.1 Identification of a structural metropolitan mass-transit network

### **2.2 Increase the modal share of mass-transit trips during morning rush hour travel to 30% by 2021**

2.2.1 Modernize and develop the metropolitan mass-transit network

### **2.3 Optimize and complete the road network to ensure the efficient movement of people and goods**

2.3.1 Identification of the metropolitan road network

2.3.2 Definition of the metropolitan arterial road network

2.3.3 Reduction in waiting times and delays caused by congestion

2.3.4 Location of logistical hubs

### **2.4 Promote active transportation at the metropolitan level**

2.4.1 Definition of the Metropolitan Bicycle Network



## OBJECTIVE 2.1

### Identify a mass-transit network in order to shape urban development

The identification of the structural metropolitan mass-transit network is the foundation of the integrated land use and transportation planning sought by the CMM. The structural metropolitan mass-transit network complements land use planning. Improvements to the mass-transit network increase real estate development potential and densification at the access points of this network increases the demand for mass transit. The implementation of this integrated planning involves identifying the mass-transit modes that have a possible long-term impact on the organization of urban functions in terms of location and density.

The metropolitan region has a hierarchical mass-transit network that integrates several modes of transport. The structural impact varies depending on the mode and host environment.

- At the centre of the region, the structural effect of heavy modes (metro, commuter train) is undeniable: they help concentrate a large travel volume with relatively little ill effect for those living nearby.
- Recent developments abroad in intermediate modes (BRT, tramway) have demonstrated that such modes definitely have an impact on redevelopment.
- Bus rapid transit (BRT) has structural potential, due to its sustainability and an efficiency that is equivalent to intermediate modes thanks to its operation at its own permanent site.
- On the North and South Shore, in addition to commuter trains that have a definite structural impact, bus services can be structural as long as they provide an effective link to more structural modes.

Aside from capacity, factors such as the sustainability of complementary transportation infrastructure and facilities and service quality (during and outside rush hours) can act as location factors for households and businesses. Therefore, major mass-transit corridors (current or projected) can offer opportunities for higher density and more diverse development.

Transit operating authorities (AOTs) and municipal partners were asked to evaluate the CMM's hypotheses on the structural nature of mass-transit modes,<sup>91</sup> using their knowledge of the field. The AOTs consulted generally confirmed the working hypotheses of the CMM. For transit authorities, metro extension projects and intermediate modes (including tramway, BRT and LRT projects) can be qualified as structural inasmuch as they provide an opportunity to densify and/or reorganize the urban fabric. Inter-municipal transit authorities (CITs) consider all the projects that concern them to be structural. RCMs and agglomerations have shown an interest in characterizing the development potential of certain areas near mass-transit facilities such as park-and-ride lots and metropolitan terminals as well as some near train stations, metro stations and planned LRT.

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<sup>91</sup> A document demonstrating the consultation process for AOTs and municipal partners was produced and can be consulted on the PMAD website. See the technical report: *Identification of a structural metropolitan mass-transit network*.



*Improvements to the mass-transit network increase real estate development potential and densification at the access points of this network increases the demand for mass transit.*

## CRITERION 2.1.1

### Identification of a structural metropolitan mass-transit network

The CMM uses the following criteria to identify the structural metropolitan mass-transit network:

- the metro (2011 network) and its extensions
- commuter trains (2011 networks) and their extensions
- light rail transit systems under consideration
- tramways under consideration
- bus rapid transit (BRT)
- metropolitan feeder service provided by buses from the North and South Shore (with or without priority measures), under the following conditions:
  - the buses use the metropolitan road network
  - they feed into metro or LRT (under consideration) access points, or they serve downtown Montréal or economic hubs
  - they offer a direct route with a limited number of stops

Around this structural metropolitan mass-transit network, TOD zones have been defined as spaces located within a one-kilometre radius of stations. Around BRT, tramway and feeder service stops, areas of influence have a radius of 500 metres. This distance could be adjusted upwards around certain access points to promote the development of TOD projects.

Map 15 illustrates the current structural metropolitan mass-transit network and corridors under study. This network will serve as a reference for all municipal partners that take action in integrated mass-transit and land use planning. High service levels during and outside rush hours are desirable on this network, notably to support the emergence of TOD neighbourhoods and help achieve the objective of directing growth towards structural metropolitan mass-transit network access points.

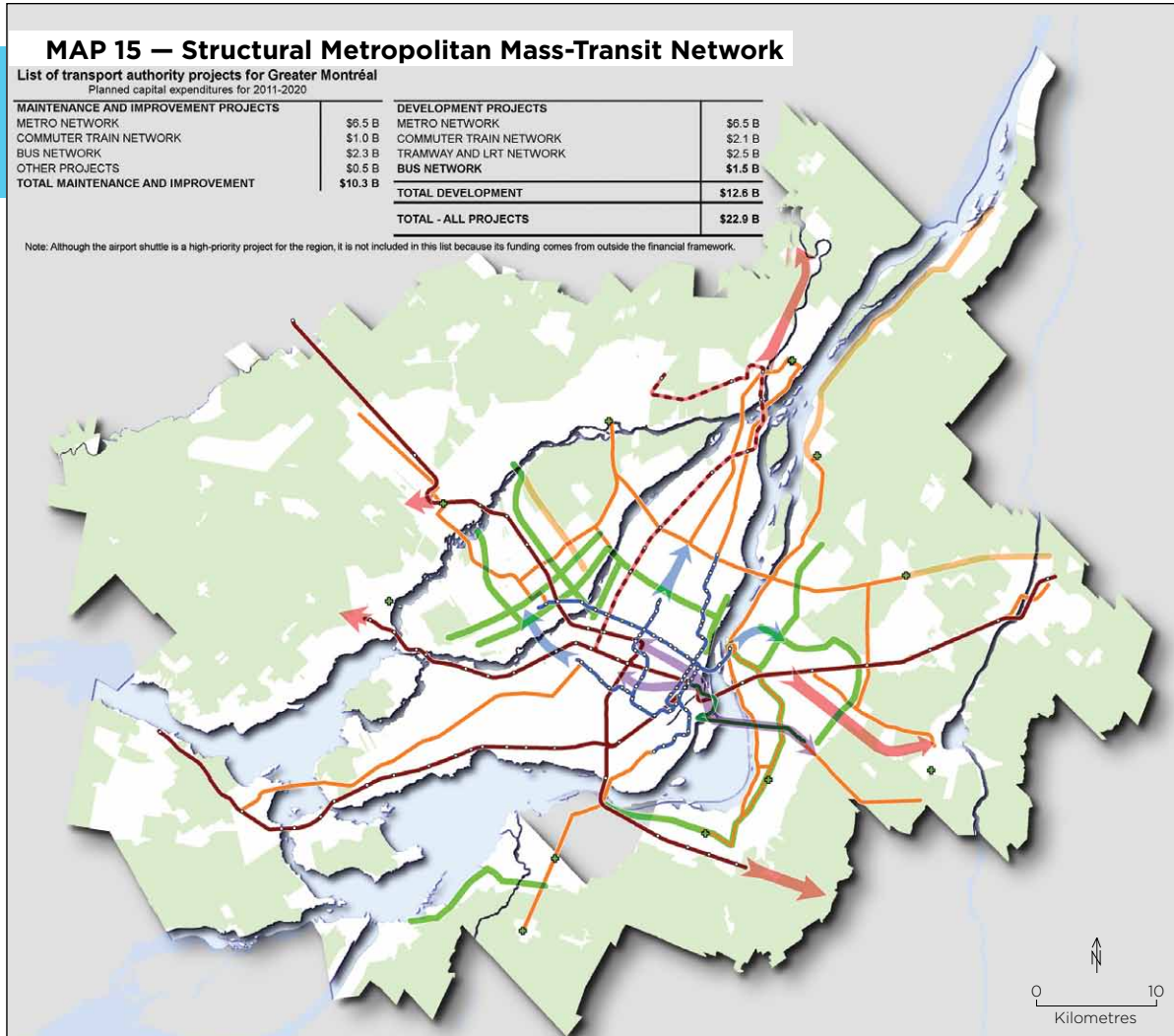


# MAP 15 — Structural Metropolitan Mass-Transit Network

List of transport authority projects for Greater Montréal  
Planned capital expenditures for 2011-2020

MAINTENANCE AND IMPROVEMENT PROJECTS		DEVELOPMENT PROJECTS	
METRO NETWORK	\$6.5 B	METRO NETWORK	\$6.5 B
COMMUTER TRAIN NETWORK	\$1.0 B	COMMUTER TRAIN NETWORK	\$2.1 B
BUS NETWORK	\$2.3 B	TRAMWAY AND LRT NETWORK	\$2.5 B
OTHER PROJECTS	\$0.5 B	BUS NETWORK	\$1.5 B
<b>TOTAL MAINTENANCE AND IMPROVEMENT</b>	<b>\$10.3 B</b>	<b>TOTAL DEVELOPMENT</b>	<b>\$12.6 B</b>
		<b>TOTAL - ALL PROJECTS</b>	<b>\$22.9 B</b>

Note: Although the airport shuttle is a high-priority project for the region, it is not included in this list because its funding comes from outside the financial framework.



	Metro	Commuter train	Light rail transit	Bus-rapid transit	Bus feeder service	Terminal/Parking	Agricultural zone
In service	—	—	—	—	—	+	■
Under Construction	—	- - -	—	—	—	+	■
Proposed corridors under study	➡	➡	➡	—	—	+	■



PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ

## OBJECTIVE 2.2

### Increase the modal share of mass-transit trips during morning rush hour travel to 30% by 2021

The CMM believes that completing priority mass-transit projects will ensure that at least 30% of morning rush hour travel will be by mass transit in 2021, a 5 percentage points increase over 2008. This ambitious goal could increase the annual ridership of mass-transit to 640 million passenger trips. This major modal shift could eliminate almost 180,000 automobile trips.<sup>92</sup> For the 2031 planning horizon, the CMM suggests maintaining this ridership growth to increase it to 35% of morning rush hour travel.

The CMM periodically measures progress towards this performance criterion using the results of major five-year Origin-Destination surveys and the annual operating reports of AOTs.

### CRITERION 2.2.1

#### Modernize and develop the metropolitan mass-transit network

In the past few years, mass transit has become a key element in sustainable development and the fight against climate change due to its contribution to the spatial, economic and social structuring of cities and this role has been reinforced by government transportation and land use planning policies and policy directions.

However, Greater Montréal requires significant investment if it is to modernize the mass-transit networks so as to maintain service quality. It is the top investment priority for the CMM. Many components of the mass-transit network have reached the end of their useful life and require significant upgrades to ensure continued service, including the replacement of the MR-63 (ongoing) and MR-73 metro cars, as well as the continued modernization of fixed infrastructure and metro stations; the replacement of the rolling stock of commuter trains (ongoing); the modernization of infrastructure and the construction of maintenance centres and garages; and the gradual replacement of bus fleets.

The development of Greater Montréal's mass-transit networks also remains a priority and requires increased investment. In addition to supporting more sustainable land use planning, development of the metropolitan mass-transit network is essential to accommodating the growing ridership and reaching the targeted 30% increase in the modal share of trips set in Criterion 2.2.1. This investment will also make it possible to inject millions of dollars into the economy and create jobs while increasing the inventory of infrastructure likely to increase the region's long-term competitiveness. The CMM has identified projects related to its land use planning objectives that should be undertaken in the next ten years.



PHOTO CREDIT: CMM

Elected officials of the CMM are prioritizing the following projects in the next ten years:

- Extensions to the metropolitan metro network and the additional rolling stock required<sup>93</sup>
- The replacement of MR-73 cars
- Bus rapid transit (BRT) in the Pie-IX corridor
- Priority measures for the bus network, notably reserved lanes on the North and South Shore<sup>94</sup>
- The West Train as a mitigation measure for work on the Turcot Interchange<sup>95</sup>
- The light rail transit (LRT) project in the Highway 10 corridor<sup>96</sup>

These projects are in addition to major projects that are already in progress, notably the upgrading of first-generation metro cars (MR-63) and the East Train.

For the CMM, completing these projects will confirm Greater Montréal's position as one of the most sustainable metropolitan regions in North America. The implementation of these projects involves all AOTs and municipalities in Greater Montréal, as well as the Agence métropolitaine de transport, all of whom must adopt mass-transit development plans at both the local and metropolitan levels. It is a major undertaking that will make it possible to meet the challenge of projected population growth, reduce road congestion and promote sustainable mobility for the metropolitan region and help Greater Montréal become a North American model of integrated land use and transportation planning.

Given the scope of the investment required, it will be necessary to determine an investment sequence that considers the ability of the Québec government and municipalities to pay, in terms of fixed assets and operating costs. This work will be undertaken with municipal partners, including all AOTs, in the framework of the metropolitan transportation plan, taking into consideration:

- The sustainability of existing programs dedicated to the maintenance and development of mass transit taking, given the scope of their needs
- The determination of the financial impact of projects on municipalities, in accordance with the principles of the CMM's February 2010 financial framework, and the impact on ridership, accessibility to economic hubs, particularly those related to the service sector, and the consolidation of the territory to reach the targeted increase in the modal share of mass transit (30% during rush hour)

Moreover, the CMM's Executive Committee has already informed the government of its intention to gradually increase the fuel tax by five cents to finance mass-transit investment over the next ten years. In a global financing framework, new sources will be identified to meet the total investment and operating needs of mass transit.

Other considerations like the improved energy efficiency of vehicles and the reinforcement of measures to manage demand (parking, employer programs, etc.) will also be considered.

All mass-transit projects must conform to Objective 1.1 and its underlying land use criteria, i.e., direct growth towards structural metropolitan mass-transit network access points.

<sup>92</sup> Agence métropolitaine de transport. *Plan stratégique de développement du transport métropolitain*. 2011 p. 47.

<sup>93</sup> According to the memorandum of understanding for the extension of the metropolitan metro network. Cities of Laval, Longueuil and Montréal, September 15, 2009. In September 2009, the Premier of Québec, Mr. Jean Charest, announced the creation of a project management office with a three-year \$12 million budget, to carry out the necessary studies for the extension of the metro in Montréal, Longueuil and Laval as presented by the mayors of Montréal, Laval and Longueuil. The project management office is mandated to conduct the studies and analyze all project costs and benefits.

<sup>94</sup> In accordance with the list of projects to improve connections with the centre of Greater Montréal, as identified by the RCMs and CITs of the North and South Shore. Reference: CMM. *Rapport de consultation des MRC et CIT des couronnes Nord et Sud*, 2010. Tables 4 and 5.

<sup>95</sup> Preliminary engineering studies for its creation were started on February 14, 2011, by the Québec Minister of Transport, Mr. Sam Hamad. This work, with a projected cost of \$22 million, will study the design and engineering of the West Train, which will connect Hudson to downtown Montréal.

<sup>96</sup> The LRT project in the Highway 10 corridor is a priority for the CMM in accordance with positions already adopted by elected officials (*Coalition métropolitaine pour la relance du transport en commun dans la région métropolitaine*, April 2005). The undertaking of this major mass-transit project is dependent on the repair schedule of the Champlain Bridge, which should be rebuilt by 2021, as announced by Canada's Minister of Transport, Mr. Denis Lebel, in October 2011. Moreover, the CMM has already analyzed the urban development potential of this transportation corridor (CMM, *Étude sur le potentiel de développement urbain d'un corridor de transport collectif renforcé dans l'axe du pont Champlain et dans l'axe du boulevard Taschereau*, 2009).



## OBJECTIVE 2.3

### Optimize and complete the road network to ensure the efficient movement of people and goods

This objective primarily aims to improve traffic conditions for trucks transporting merchandise as well as implement priority measures for mass transit or optimize road capacity, depending on the environment's characteristics, in order to improve the transportation of people. Moreover, to improve intermodal accessibility to strategic sectors or facilities, the targeted addition of capacity or road segments should be considered.

To optimize networks, the operations and development of arterial networks under municipal jurisdiction must complement the metropolitan road network. For the same reason, the municipal trucking network must complement the MTQ's trucking network.

Improving traffic conditions on the arterial road network is a concern for the CMM. Therefore, as part of the *Metropolitan Land Use and Development Plan*, the CMM intends to finish identifying the metropolitan arterial road network as well as measures to optimize the functionality of the arterial network as stipulated in section 158.1 of the *Act respecting the Communauté métropolitaine de Montréal*. Such a network would guarantee the efficient movement of goods throughout the region while providing support for regional mass-transit planning.

Since Québec's economy is closely tied to trade with other provinces and the United States, the Montréal region's role as a hub can be consolidated by targeting investment to ensure the mobility of people and goods in the major trade corridors with other regions, inside and outside Québec. The region's attractiveness and competitiveness are also dependent on efficient accessibility to economic hubs, particularly those linked to the production of goods.

The CMM has asked the Comité interrégional pour le transport des marchandises (CITM) for an opinion on Greater Montréal's freight issues and situation. In this opinion, the members of the CITM reassert the importance of freight transport to the economy and quality of life of Greater Montréal. The same is true of its role as a freight transportation hub thanks to the presence of all four modes and high-performing intermodal facilities. Moreover, its intermodal potential continues to increase with the arrival of new projects in the metropolitan territory.

To enhance connectivity to continental and intercontinental transportation networks, the PMAD identifies priority projects at the metropolitan level with a view to implementing the Continental Gateway.

In July 2007, the governments of Canada, Ontario and Québec signed a memorandum of understanding on the development of the Ontario-Québec Continental Gateway and Trade Corridor.<sup>97</sup> This initiative aims to create an

intervention strategy for this international trade corridor and receives funding from a \$2.1 billion federal fund<sup>98</sup> for the financing of ports, airports, intermodal facilities and strategic border crossings, as well as essential highway, rail and marine infrastructure that ensures transportation system's connection to, and seamless integration with, Canada's other gateways: Asia-Pacific and Atlantic.

During the consultation process undertaken by Continental Gateway Office in 2009, elected officials of the CMM invited higher levels of government to consider the priority development and financing of the following three strategic projects for Greater Montréal:<sup>99</sup>

- Enhance the intermodality and accessibility of strategic transportation facilities and infrastructure, i.e., the Port of Montréal, the Trudeau, Mirabel and Longueuil airports and the CN and CP rail terminals.
- Improve mass-transit services as a way to help relieve congestion on the strategic road network and thus improve the performance of freight transportation.
- Implement mitigation measures to ensure a harmonious interface between urbanization and strategic freight transportation facilities and infrastructure.

Given that global transport activity should double or even triple in the next 30 years,<sup>100</sup> developing the capacity and intermodal accessibility of primary facilities/infrastructure, particularly the rail and road networks and the Port of Montréal, is the CMM's primary concern as it works to maintain and strengthen Greater Montréal's role as a hub. As such, maintaining the physical and functional integrity of the Port of Montréal and rail corridors is also desired by the CMM. In addition to issues directly related to transportation, the CMM recognizes the importance of improving knowledge about the movement of merchandise, for each mode, particularly when it comes to intrametropolitan traffic.

The CMM also recognizes the importance of positioning Greater Montréal as a transport logistics hub. The upcoming completion of Highway 30 and the Port of Montréal's expansion on the Contrecoeur site will consolidate Greater Montréal's role as a hub and, more specifically, the development of transport

logistics on the South Shore. It is also suggested that there be an evaluation of how the setting up of transport logistics sites, notably in the areas of the Vaudreuil-Soulanges and Roussillon RCMs and the City of Contrecoeur, will affect the urban and economic development plan.

Map 16 illustrates freight transportation facilities of metropolitan importance.

Moreover, a freight logistics and transportation cluster that will bring together government and private players from the logistics and transportation sector in the metropolitan region will soon be launched. Infrastructure, existing services as well as the significant number of actors in the sectors of logistics and transportation clearly demonstrate that there is a firmly established cluster throughout the metropolitan territory. The metropolitan logistics and transportation cluster will face significant challenges, including those of effective land use planning and the implementation of infrastructure to ensure the region's competitiveness.<sup>101</sup>

As for the road network, the refurbishment of major components of the metropolitan highway network (the Champlain Bridge, the Turcot Interchange, the Bonaventure corridor and Highway 40 between Anjou and Côte-de-Liesse) is an essential priority for ensuring the competitiveness and development of Greater Montréal. These major rebuilding projects must be accompanied by strong measures to promote mass transit, both during and after their construction. During construction, there must also be mitigation measures for freight transportation.

The completion of the metropolitan highway network (Highways 19, 20 and 30) and improved access to the ports and airports of Greater Montréal are also priority actions for the CMM.

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97 Canada-Ontario-Québec memorandum of understanding on the Ontario-Quebec Continental Gateway and Trade Corridor.

98 This funds was created by the 2007 budget as part of the long-term federal infrastructure plan. Before the creation of this fund, \$1 billion was committed to the Asia-Pacific Gateway. Out of this \$2.1 billion fund, an amount of \$400 million has already been committed to the Windsor-Detroit corridor.

99 CMM. *Mémoire de la Communauté métropolitaine de Montréal concernant la Porte Continentale et le Corridor de commerce Ontario-Québec*. 2009. 13 p.

100 According to OECD projections:  
[http://www.oecdobserver.org/news/fullstory.php/aid/2503/Transport\\_and\\_energy.html](http://www.oecdobserver.org/news/fullstory.php/aid/2503/Transport_and_energy.html)

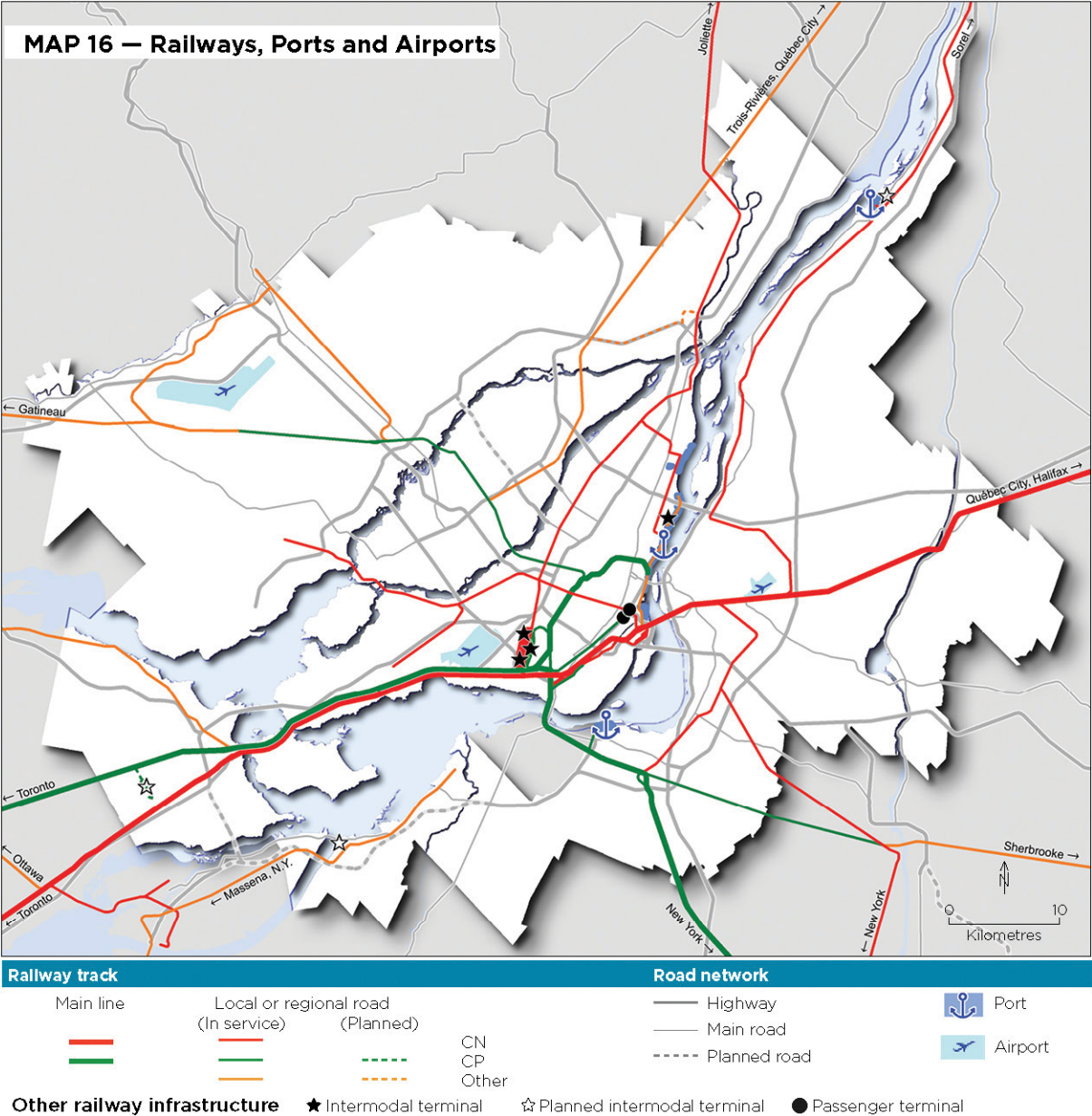
101 Ms. Sylvie Vachon, President and Chief Executive Officer of the Montréal Port Authority, will lead the cluster. A business plan, which includes a development plan and a three-year action plan, is currently under development.

In a long-term planning horizon, it is also important to preserve the rights-of-way belonging to the Ministère des Transports du Québec (MTQ). This CMM concern deals more specifically with the Highway 13 right-of-way between Highway 640 and Highway 50 in Mirabel<sup>102</sup> as well as the Highway 440 right-of-way in Laval. In Map 17, the metropolitan road network, the PMAD also identifies the highway extensions included in the RCM land use plans in force, that is:

- The Highway 440 extension into the MTQ right-of-way in western Laval
- The Highway 13 extension into the MTQ right-of-way between Highway 640 and Highway 50 in the Mirabel RCM

Finally, it is suggested that a process be launched to discuss finalizing the metropolitan road network in some areas of the region by creating new functional links that would complete the road bypassing the metropolitan region:

- A connection between Highway 640 and Highway 40 in the Oka/Hudson area
- A connection between Highway 640 and Highway 30 in the Repentigny/Varennnes area



<sup>102</sup> The MTQ does not own all of the land required to extend the A-13 between A-640 and A-50.



## BOX — Planning and Financing Greater Montréal's Transportation Infrastructure

The transportation maintenance and development needs of the Montréal region are significant. The numerous road infrastructure and mass-transit projects being carried out or in development attest to this. In terms of financing, the issue can be summarized as follows: the funding needed to maintain and develop transportation networks exceeds the financial resources of public authorities (municipal and provincial).

Planning exercises currently underway indicate that, in the next 20 years, several billion dollars must be committed to properly maintain transportation networks. Several billion dollars in development will also be needed to meet the additional transportation demands of people and goods and the PMAD's land use and transportation objectives.

In its recent 2011-2012 budget, the Québec government maintains its commitment to balance the budget in the short term and reduce the debt by 2025-2026. The provincial budget also plans to gradually cut back the total amount budgeted for infrastructure investment. The \$44.6 billion Québec infrastructure plan allocates \$20.4 billion to transportation infrastructure (road network, mass transit and marine infrastructure) for the 2010-2015 period, \$16.8 billion to the road network and \$2.9 billion to mass transit, mostly for asset maintenance.

The proper maintenance of road and mass-transit networks is clearly a priority for the CMM. For example, the rebuilding of the Champlain Bridge, the rebuilding of the Turcot Interchange, the optimization of the Metropolitan Highway and the upgrading of metro cars are unquestionably priorities for Greater Montréal.

However, developing the mobility of people and goods remains a condition essential to the competitiveness of Greater Montréal and the achievement of our objectives for more compact, sustainable urban growth. For development projects, it will therefore be necessary to identify, on the one hand, a series of investments in capital expenditures and operations that takes into account the ability of the Québec government and municipalities to pay and, on the other hand, new financing sources related to the region's long-term goals and objectives with regard to land use, the environment and the movement of people and goods. To mitigate the anticipated impact of repair projects on the major road network, it would also be convenient to identify projects that could be launched quickly, such as bus transit systems with priority measures.



PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ

## CRITERION 2.3.1

### Identification of the metropolitan road network

The goal of identifying a road network of metropolitan importance is to determine the CMM's desired priorities for action to ensure road accessibility and the intermodality of strategic freight transportation facilities and infrastructure, i.e., the bridges, airports and intermodal terminals located within the CMM's territory.

The metropolitan road network includes road segments under provincial and federal jurisdiction (highways and national highways)<sup>103</sup> as well as municipal, whose efficiency contributes to the attractiveness and competitiveness of Greater Montréal. The following criteria were used to identify the metropolitan road network:

- Conveys passengers taking mass transit from the North and South Shore to the metro or projected light rail transit (LRT) (Table 28)
- Provides access to major employment hubs in the CMM's territory (Table 29)
- Conveys merchandise to support trade with other regions inside and outside Québec (Table 30)
- Provides access to port and airport facilities and intermodal rail terminals that are hubs of continental trade corridors (Table 31)

<sup>103</sup> Highways are defined as high-speed limited access roads with no, exceptions excluded, level crossings. They are numbered from 0 to 99 and from 400 to 999. National highways include the major interregional and extraprovincial corridors, connections between major urban agglomerations (generally 25 000 inhabitants or more), major tourist corridors as well as access to airports, ports and ferries of international or national importance.

<sup>104</sup> The MTQ plans to complete A-19 between A-440 and A-640 by the year 2015.

<sup>105</sup> The A-13 extension between A-640 and A-50 is part of the MTQ's 2000 Transportation Management Plan. It was also requested in the plans of the Mirabel, Deux-Montagnes and Thérèse-De Blainville RCMs. The MTQ does not own all of the land required to extend the A-13 between A-640 and A-50.

**TABLE 28 — Road Segments that Convey Bus Feeder Service to Terminals in the Metropolitan Structural Mass-Transit Network**

ROAD SEGMENTS	
A-10	(Richelieu/Downtown Terminal)
A-19 - projected	(Bois-des-Filion/Cartier Station)
A-20	(Sainte-Julie/ Longueuil Terminal)
A-20	(Vaudreuil/Lionel-Groulx Terminal)
A-25	(Terrebonne/Henri-Bourassa Terminal) (Terrebonne/Cartier Station) (Terrebonne/Radisson Station)
A-30	(between A-10 and A-20)
A-40	(Repentigny/Radisson Station)
A-40	(Vaudreuil/Côte-Vertu Station)
Route 112	(Chambly/Longueuil Terminal)
Route 116	(Mont-Saint-Hilaire/Longueuil Terminal)
Route 117-A-15	(Blainville/Montmorency Terminal)
Route 132	(Delson/Longueuil Terminal)
Route 132	(Varennnes/Longueuil Terminal)
Route 134	(Laprairie/Downtown Terminal)
Route 138-132	(Mercier/Angrignon Terminal) (Beauharnois-Châteauguay/Angrignon)
Route 138	(Repentigny/Radisson Terminal)

**TABLE 29 — Road Segments that Provide Access to Major Economic Hubs in the CMM**

HUBS	ROAD SEGMENTS
Downtown	A-10, A-13, A-15, A-20, A-25, A-40, A-520, A-720
Saint-Laurent/Dorval	A-13, A-15, A-20, A-40, A-520
Anjou	A-25, A-40
Laval	A-13, A-15, A-19 <sup>104</sup> , A-25, A-440
Longueuil	A-10, A-20, A-25, A-30, R-132
Marché Central	A-15, A-40
Université de Montréal	A-15 (Décarie Highway)
Port of Montréal	A-25, Notre-Dame Street/Dickson Street/Souigny Ave, A-40
Mirabel Airport	A-15, A-50, A-13 <sup>105</sup> , A-640



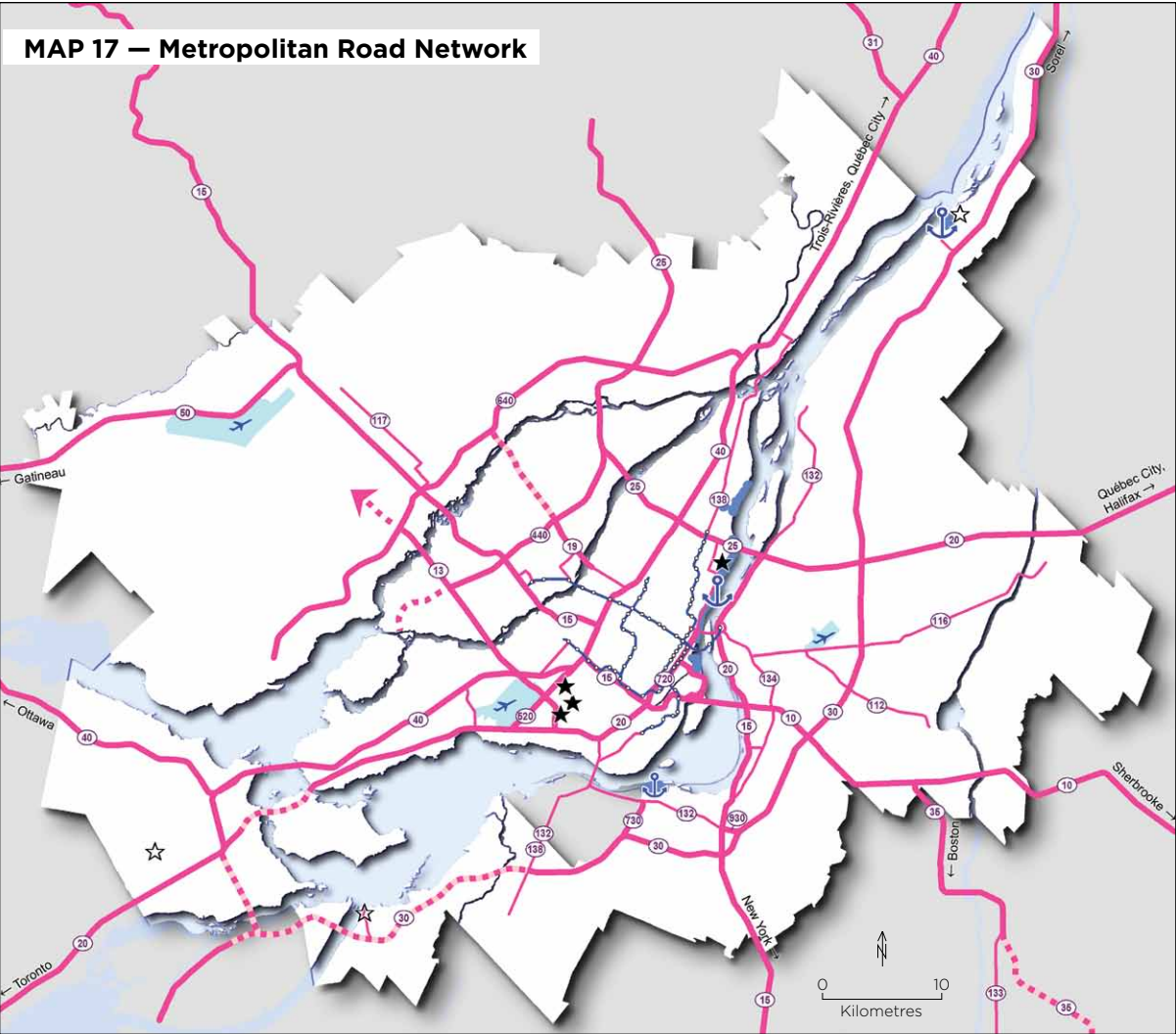
**TABLE 30 — Road Segments that Support Trade with Other Regions Inside and Outside Québec**

DESTINATIONS	ROAD SEGMENTS
Central and northern Québec	A-20, A-40
Northwest Québec	A-15
Eastern Québec and the Maritimes	A-10, A-20, A-30
Ontario and Western Canada	A-20, A-40
Central and Western United States	A-20
Eastern United States	A-15, A-10/A-35

**TABLE 31 — Road Segments that Provide Access to Port and Airport Facilities and Intermodal Rail Terminals**

FACILITIES	ROAD SEGMENTS
Port of Montréal	A-25, Notre-Dame Street/Dickson/Souligny Ave, A-40
Port of Montréal (Contrecoeur site)	A-30, R-132, Montée Lapierre
Port of Côte-Sainte-Catherine	A-30, R-132
Montréal-Trudeau Airport	A-13, A-20, A-520, Sources Boulevard
Montréal-Mirabel Airport	A-15, A-50
Saint-Hubert Airport	A-30, R-112/R-116
Taschereau intermodal terminal (CN)	A-13, A-15, A-20, A-520
Lachine intermodal terminal (CP)	A-13, A-20, A-520
Expressway intermodal terminal (CP)	A-15, A-20
Les Cèdres intermodal terminal (CP) (projected)	A-20, A-30 (western section) <sup>106</sup> , A-40, A-530
Beauharnois intermodal terminal (projected)	A-30, R-236

<sup>106</sup> The project to complete the bypass road (A-30) in Montérégie is being done in two phases. The eastern section, completed in November 2010, is a four-lane 12.2 km highway between Candiac and Saint-Constant. The western section, which includes a segment between Vaudreuil-Dorion near the border with Châteaugay and Mercier, as well as an extension of A-530 into the city of Salaberry-de-Valleyfield, is under construction. The projected opening in 2012 will complete the bypass highway and greatly improve accessibility to CP's future Les Cèdres intermodal complex.



#### Components of the metropolitan road network

- |                                   |       |                                  |         |
|-----------------------------------|-------|----------------------------------|---------|
| Highway                           | Metro | Intermodal terminals<br>Existing | Port    |
| Road                              |       | Planned                          | Airport |
| Planned highway                   |       |                                  |         |
| Requested highway extension (RCM) |       |                                  |         |



## CRITERION 2.3.2

### Definition of the metropolitan arterial road network

To successfully target improvements to the travel conditions of people and goods, according to the environment's characteristics, metropolitan road infrastructure must be ranked, which will also make it possible to better manage and mitigate the regional effects of roadwork and road building sites, ensure a more peaceful co-existence with areas along the river and guarantee that infrastructures are operated and developed in a complementary manner.

Improving traffic conditions is an important concern. Therefore, as part of the PMAD action plan, the CMM intends to identify the metropolitan arterial road network as well as measures to optimize its functionality in conformity with section 158.1 of the *Act respecting the Communauté métropolitaine de Montréal*.

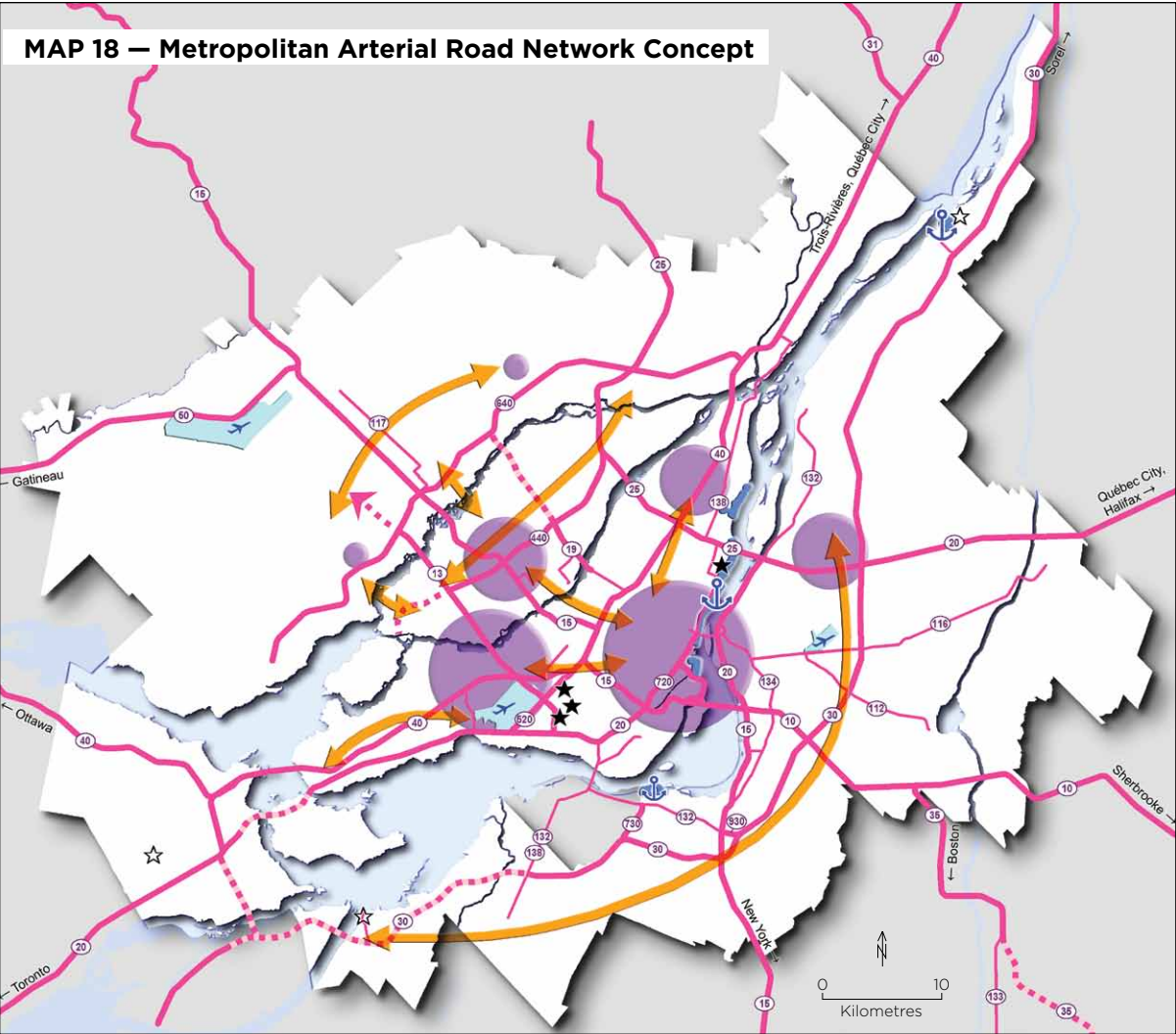
Such a network would guarantee the efficient movement of people and goods throughout the CMM and its five geographical areas while providing support for mass-transit planning, the serving of economic hubs and structured urban growth.

Map 18 illustrates the major principles that the CMM intends to embody in the identification of the metropolitan arterial road network. To be identified as elements of this network, major roads must therefore:

- Convey people and goods travelling throughout the region and the CMM's five geographical areas while supporting regional mass-transit planning.
- Complement the metropolitan road network identified on Map 17.
- Be owned or managed by a municipality.
- Have a layout and organization that encourages a safe flow of people and goods so as to direct a large share of long-distance travel towards high-capacity corridors, particularly during rush hour.
- Integrate the bridges crossing the Prairies and Mille-Îles rivers as well as those crossing the St. Lawrence River that are not identified in the metropolitan road network (Map 17).
- Efficiently direct heavy vehicles (trucks or mass transit) and through traffic towards a road network with suitable lanes to accommodate them.
- Advance the CMM's goals in terms of functional road transportation, as stated in Criterion 2.3.1 of the PMAD.



**MAP 18 — Metropolitan Arterial Road Network Concept**



**Components of the metropolitan road network**

- Highway
- Road
- ... Planned highway
- - - Requested highway extension (RCM)

**Metropolitan arterial road network**

- ★ Existing
- ☆ Planned

**Economic employment hubs**

- Employment hub
- ⚓ Port
- ✈ Airport

## CRITERION 2.3.3

### Reduction in waiting times and delays caused by congestion

Congestion is a concept with several definitions. In general, there is congestion when an additional travel demand on a network leads to losses (in time or money) for users already present and, possibly, for non-users.<sup>107</sup> Moreover, congestion can be recurrent or non-recurrent (also known as incidental). Recurrent congestion happens regularly, such as during rush hour. Non-recurrent congestion is more unpredictable and associated with random events, such as traffic accidents or construction that, locally or in combination with something else, causes limited delays.

The PMAD suggests taking action to counter the negative effects of congestion by carrying out projects that will enable an optimal use of the road network for the movement of people and goods. The follow-up of the proposed measures will only focus on recurrent congestion, the only type that is currently measured on major highways.

This criterion could be followed up with the help of the Ministère des Transports du Québec, which periodically produces a report on the costs of recurrent traffic congestion in the Montréal region. In 2003, the costs of congestion were estimated at \$1.4 billion.

## CRITERION 2.3.4

### Location of logistical hubs

Regardless of the site chosen, new logistics hubs must guarantee the efficiency and capacity of the transportation infrastructure providing intermodality between the various modes of transport (marine, rail, air and road).

The PMAD encourages RCMs and agglomerations to consider sites with the following characteristics when selecting locations for logistics hubs:

- direct access to the metropolitan road network (see Map 17)
- direct access to the rail network (see Map 16)
- located near a port or airport facility (see Map 16)
- able to accommodate a buffer zone to minimize the impact of the site's activities (e.g., noise, hazardous materials)

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<sup>107</sup> Ministère des Transports du Québec. *Évaluation des coûts de la congestion routière dans la région de Montréal pour les conditions de références 2003*. March 2009, page 13.





*The PMAD suggests taking action to counter the negative effects of congestion by carrying out projects that will enable an optimal use of the road network for the movement of people and goods.*



## OBJECTIVE 2.4

### Promote active transportation at the metropolitan level

Developing active transportation, including cycling, for recreational and utilitarian uses is an important component in integrated land use and transportation planning. This land use planning objective prioritizes active transportation by encouraging non-motorized travel with a continuous, interconnected walking and cycling network that provides access to commercial, employment and residential sectors and mass-transit stations. The development of such a route would mean that the public rights-of-way made available for modes of active transportation like walking and cycling must be shared on a daily basis.

According to a 2010 Vélo Québec study on the state of bicycling in Québec,<sup>108</sup> there has been a huge increase in the use of bicycles as a mode of transportation in the last ten years. In 2000, one-fifth of Québec's adult cyclists (20%) used bicycles as a mode of transportation, either occasionally or daily. Ten years later, this percentage had climbed to 37% and the increase is even higher in cities with more developed cycling infrastructure. In Montréal, the number grew from 25% to 53% between 2000 and 2010, while in Laval and Longueuil, it reached 38% and 39%, respectively. Even though the modal share of cycling for commuting to work remains modest, it is significantly higher in densely populated sectors with bicycle paths and quiet streets.

According to the same report, cyclists cover almost three-quarters (73%) of their travel distances on bicycle paths and streets or roads with light traffic. Therefore, bike paths located in interesting environments or areas that provide access to different service points are used. Paths that were constructed for recreational and tourism uses have become transportation corridors used daily by a growing number of people to get to work or school. Several segments of the Route verte bicycle route in Greater Montréal illustrate this fact: traffic is heavier during the morning and late afternoon, and weekdays are busier than weekends.

The development of a utilitarian recreational bicycle network throughout the metropolitan region, in other words, a high-quality continuous Metropolitan Bicycle Network, would not only be attractive to citizens of Greater Montréal, it would also complement existing tourist products. Local bicycle networks should connect to the metropolitan network.

## CRITERION 2.4.1

### Definition of the Metropolitan Bicycle Network

In its current form, the bicycle network enables users to discover several of Greater Montréal's natural attractions. However, an analysis reveals that the quality of this network is far from consistent. Some segments are missing, while others require upgrading.

The proposed Metropolitan Bicycle Network concept was designed to complete and upgrade the existing bicycle network and interconnect the various areas of Greater Montréal. In its finished form, it will be a continuous network of almost 1,000 kilometres of bicycle paths across the entire metropolitan region, connecting all the municipal bicycle paths.

The concept of the Metropolitan Bicycle Network for the 2031 planning horizon is illustrated in Map 19. This concept includes bicycle corridors and crossings for the major rivers of the metropolitan region. It consists of the following:

- the entire Route verte network
- additional segments that provide access to:
  - employment hubs (Map 5)
  - TOD zones and mass-transit facilities (Map 7)
  - components of the Green and Blue Network
  - metropolitan facilities and infrastructure

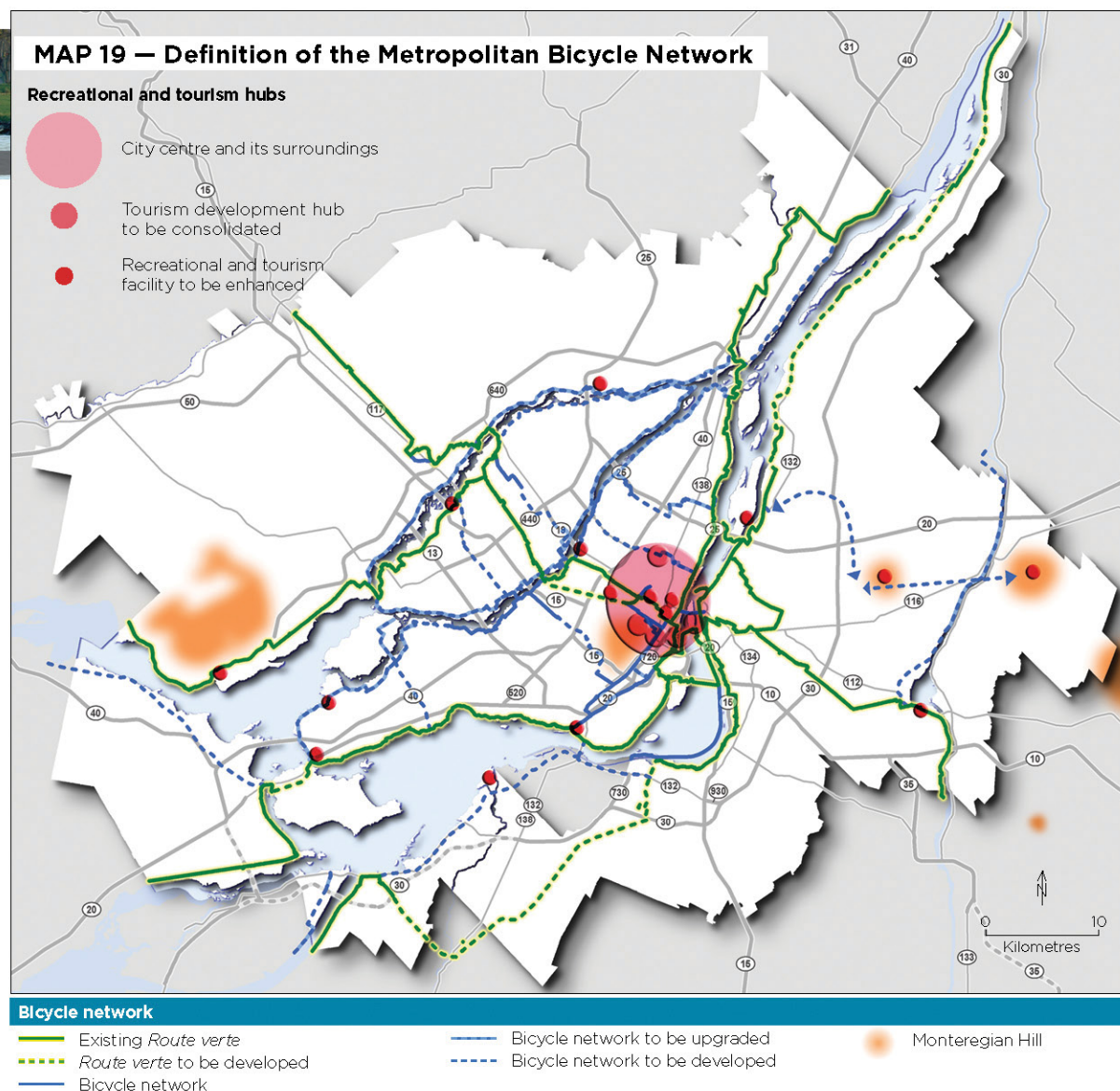
<sup>108</sup> Vélo Québec. *Bicycling in Québec in 2010*.



PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ

The network would be developed in accordance with recognized technical parameters to make it a pleasant and safe route to travel. Road markings and signs will give it a signature look. In addition to the paths illustrated in the map, the Metropolitan Bicycle Network could include spur trails to access major transportation facilities like Trudeau Airport or circulate within employment hubs, which, in most cases, will be defined later.

As part of the PMAD action plan, the CMM will draw up a master plan for the Metropolitan Bicycle Network using the concept illustrated in Map 19. The goal of this plan is to equip Greater Montréal with a Metropolitan Bicycle Network that can be used for transportation, recreation and tourism. An action plan will then specify the major planning phases suggested for the network, while will include identifying the Metropolitan Bicycle Network, determining a funding framework and defining the roles of the various stakeholders.



Source of bicycle network: Vélo-Québec, October 2011.







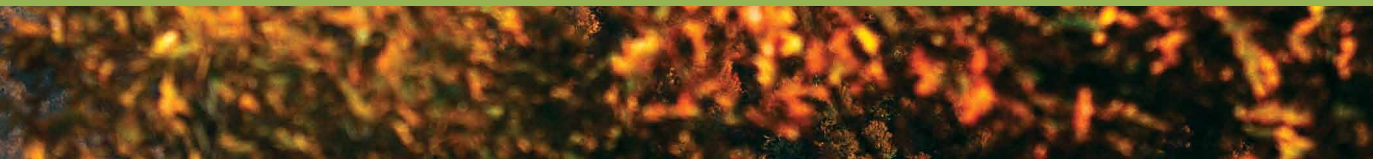


# **POLICY DIRECTION 3**

## **A GREATER MONTRÉAL**

### **WITH A PROTECTED,**

#### **ENHANCED ENVIRONMENT**



Metropolitan regions offer diverse living environments. The natural and built environments that characterize them, the forest, agricultural and urban environments that compose them, and the landscapes that distinguish them, all contribute to the identity and vitality of these regions and the quality of life of their populations.

These natural spaces help characterize the different geographical areas that make up a metropolitan region. They have a positive impact on the region's image and identity and play an important role in the protection and renewal of biodiversity. Thanks to their attractive power, these spaces can also influence a region's economic vitality.

The urbanization of an area has an inevitable impact on quality of life and the environment, be it natural or built: loss of biodiversity, deforestation, diminished landscapes, fragmentation of ecosystems, building architecture that fails to integrate into its surroundings, heritage at risk, etc. In other words, metropolitan regions can be seen as fragile living environments that need to be consolidated and protected.

However, regional development can, at the same time, open up opportunities to better enhance some of a region's assets and correct certain failings or characteristics that diminish it. From this viewpoint, a metropolitan region is a living environment whose attractiveness must be bolstered by new practices, new projects and the development of certain sites, all in the context of ongoing competition among metropolitan regions.









PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ

From a sustainable-development viewpoint, the primary role of public authorities is to increase the protection of natural environments and ecosystems by promoting the cultural heritage and history of sites, encouraging high-quality urban design, introducing new urban planning and recognizing and protecting the geographical and geological characteristics of a region and its landscapes.

These actions will strengthen a region's assets at a time when quality of life is increasingly becoming a distinguishing factor for metropolitan regions.

This policy direction is in line with efforts in the field of conservation and the sustainable use of biological diversity. Like climate change, the preservation of biodiversity is the subject of an international convention with three objectives:

- the conservation of biological diversity
- the sustainable use of its components
- the fair and equitable sharing of the benefits arising out of the use of genetic resources, for commercial or other uses<sup>109</sup>

The governments of Canada and Québec agree with the Convention's goals and have produced strategies to encourage biodiversity. In Québec, this has led to an increase in the number of protected hectares of land, which rose from 1% of the province's surface area in 2003 to 8.12% in 2009. In 2010, the International Year of Biodiversity, Québec promised to continue its protection efforts and increase the amount of protected areas to 12% of the province's surface area, and then to 17% by the year 2020.

Currently, more than 42,000 hectares of Greater Montréal are listed on the Québec government's register of protected areas and enjoy protected status recognized under International Union for Conservation of Nature (IUCN) criteria. The CMM's total surface area is 436,350 hectares, so the proportion of protected areas is 9.6%. Since more than three-quarters of these protected areas (32,858 ha) are in aquatic environments, efforts must now be concentrated on protecting natural environments in terrestrial environments. The MDDEP's 2009-2014 strategic plan has a stated goal of protecting 12% of the area, as recognized by international organizations.

**TABLE 32 — Protected Areas in Greater Montréal<sup>110</sup>**

Protected status	Area (ha) <sup>(1)</sup>	%
Habitat of a threatened or vulnerable plant species	41	0.1
Wildlife habitat — Water fowl gathering area	32,444	77.1
Wildlife habitat — Muskrat habitat	414	1.0
Wildlife habitat — Heronry <sup>(2)</sup>	0	0
Natural environment voluntary conservation <sup>(3)</sup>	1,993	4.7
National park	3,764	9.0
Migratory bird sanctuary	1,274	3.0
Wildlife reserve	250	0.6
Ecological reserve	107	0.3
National wildlife area	484	1.2
Recognized nature reserve	1,251	3.0
Total protected area	42,022	100.0

Notes: (1) Source: MDDEP, Direction du patrimoine écologique et des parcs. Registre des aires protégées, November 2010.

(2) These areas are buffer zones (0-200 m).

(3) Some area calculations need to be validated.

The objectives and criteria of the third policy direction aim to give the CMM measures for protecting natural environments and biodiversity and to benefit from the ecosystem services rendered by these spaces. Some of the benefits of these natural environments are the mitigation of floods and droughts, air purification, climate regulation, carbon sequestration as well as numerous sociocultural and socioeconomic advantages such as well-being, cognitive development and recreational and tourism potential.

<sup>109</sup> United Nations Environment Programme, Convention on Biological Diversity, [www.cbd.int](http://www.cbd.int)

<sup>110</sup> This table lists the various types of protected status and the size of Greater Montréal's protected areas according to the Québec register. It is important to note that these surface areas do not include municipal and regional environmental protection initiatives such as municipal and regional parks.



### USE OF THE TERRITORY IN GREATER MONTRÉAL

Greater Montréal’s environment is a territory with a 4,360 km<sup>2</sup> total surface area, more than half of which is taken up by protected farmland (58%). Water bodies cover 12% of the region’s surface area, forest environments, 19.2%, and wetlands, 4.8%. Table 33 specifies the various uses of the metropolitan territory.

**TABLE 33 — Use of the CMM’s Territory**

Use of the territory	Area (ha)	%
<b>Terrestrial environment<sup>(1)</sup></b>	<b>383,850</b>	<b>88.0</b>
• Agricultural environment <sup>(2)</sup>	220,520	57.5
• Urban environment	163,330	42.5
• Woodland areas (0.5 ha or more) <sup>(1)</sup> included in the terrestrial environment	73,727	19.2
<b>Aquatic environment<sup>(1)</sup></b>	<b>52,500</b>	<b>12.0</b>
• Wetlands (0.3 ha or more) included in the terrestrial and aquatic environments <sup>(3)</sup>	20,012	4.6
<b>Total area</b>	<b>436,350</b>	<b>100.0</b>

Sources: (1) *Communauté métropolitaine de Montréal*, 2010.  
 (2) *Commission de protection du territoire agricole du Québec, Special Compilation*, 2010.  
 (3) Beaulieu J., Daigle G., Gervais, F., Murray, S., Villeneuve, C. *Rapport synthèse de la cartographie détaillée des milieux humides du territoire de la Communauté métropolitaine de Montréal*, Ducks Unlimited – Québec Government and the Ministère du Développement durable, de l’Environnement et des Parcs, Direction du patrimoine écologique et des parcs. 2010, 60 pages.



## FOREST COVER

Over time, urban development and agricultural activities have led to a loss of forest cover in both urban and agricultural environments. This forest depletion is constant and ongoing (loss of 1,100 ha, or 11 km<sup>2</sup>/per year) on the Communauté métropolitaine de Montréal's territory. The latest metropolitan inventory, produced in April 2009, revealed that woodlands now cover only 19.2% of the terrestrial territory of Greater Montréal. Furthermore, it is generally acknowledged that there is a significant decline in biological diversity when the forest cover in an area falls below 30% of its surface.<sup>111</sup>

Today's forest environments are fragmented and dispersed throughout the metropolitan region's territory. The largest stretches are found mainly on the edges of agricultural and residential zones or on thin soil unfit for agriculture.

Greater Montréal has several mature forest stands with a rich plant diversity, which account for the various exceptional forest ecosystems (EFE) registered in the territory, including old-growth forests, rare forests and shelter forests for threatened or vulnerable species.

The North Shore has the largest area of woodlands in the region, with 34,700 hectares, followed by the South Shore with 26,500 hectares, the Longueuil agglomeration with 5,100 hectares, the Montréal agglomeration with 4,900 hectares and, finally, Laval with 3,000 hectares. On the North Shore, forested areas cover 26% of the land surface while in the Montréal agglomeration, only 10% of the sector's area is made up of woodlands of at least 0.5 hectares.

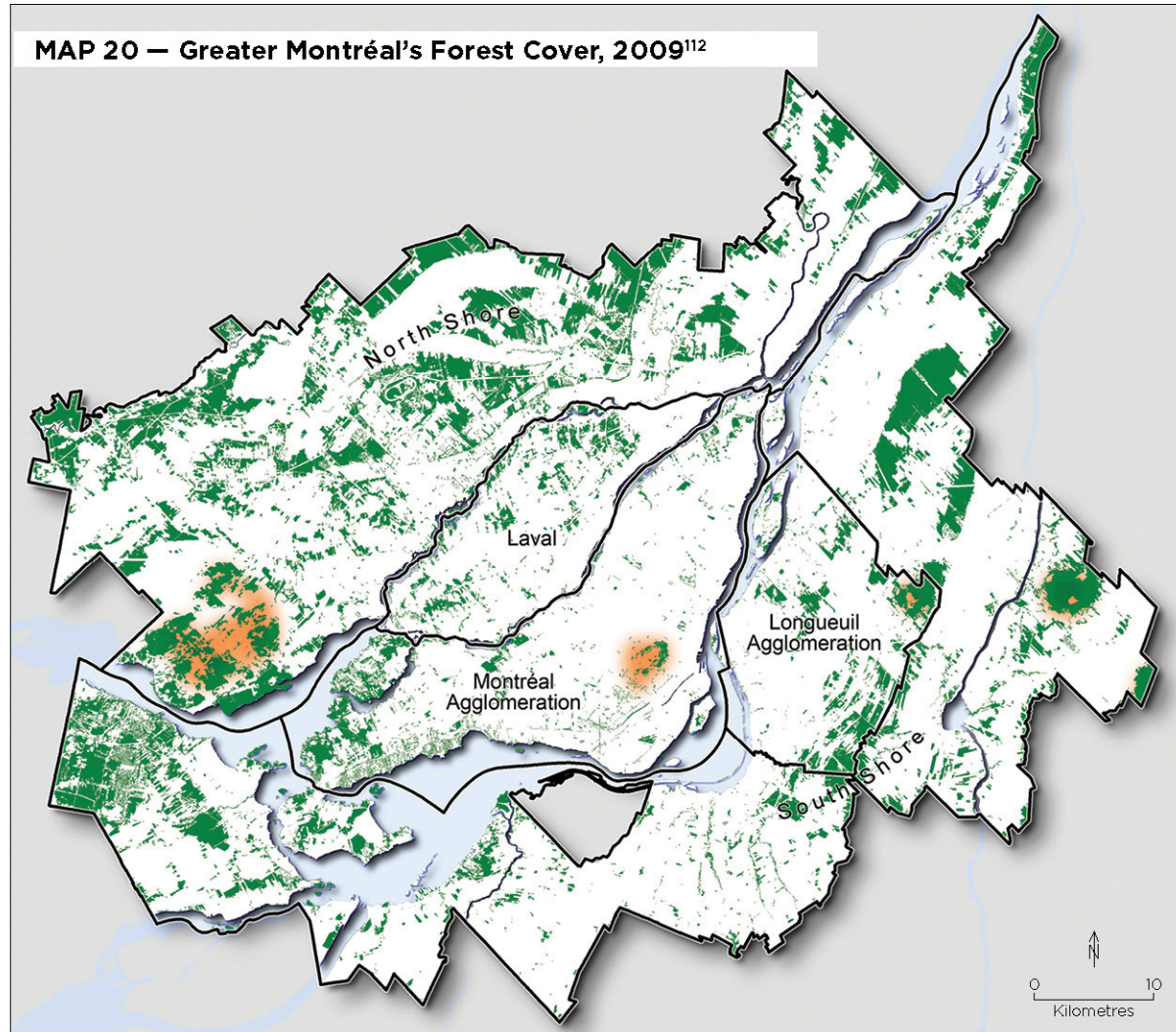
These spaces are found mainly in agricultural zones but some, notably parks and protected spaces, are located in non-agricultural zones. For reasons of environmental protection and to preserve an enhanced quality of life and attractiveness for the region, this natural heritage must be better protected.

Moreover, even though green spaces and wetlands are not included in the GHG assessment, they have the added benefit of carbon sequestration, thus decreasing the net impact of GHG emissions.

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<sup>111</sup> Duchesne, S., Bélanger L., Grenier M., Hone, F. *Guide de conservation des corridors forestiers en milieu agricole*, Environment Canada, Canadian Wildlife Service, 1999. 60 pages.

**MAP 20 — Greater Montréal's Forest Cover, 2009<sup>112</sup>**



- Woodlands of 0.5 hectares or more
- Monteregian Hill

<sup>112</sup> The metropolitan inventory of forest areas creates videogrammetric measurements using aerial photographs with a resolution of 10 cm per pixel. To avoid overestimating the size of forest areas, the measurements do not include gaps with a radius of more than 20 metres and deforested corridors more than 10 meters wide. The CMM intends to re-assess the evolving forest cover every two years, alternating between April and July.

**TABLE 34 — Size and Relative Share of Forest Cover,\* Five Geographical Areas of Greater Montréal, 2009**

Geographical area	Total land area (ha)	Size of forested areas (ha)	% of total land area	% of Greater Montréal's forest cover
Montréal Agglomeration	50,376	4,946	9.8	6.7
Longueuil Agglomeration	27,392	4,558	16.6	6.2
Laval	24,540	3,004	12.2	4.1
North Shore	134,960	34,726	25.7	47.1
South Shore	146,582	26,494	18.1	35.9
Greater Montréal	383,850	73,727	19.2	100.0

*\*Includes woodland areas 0.5 hectare or more.*

*Source: Communauté métropolitaine de Montréal. Portrait of Greater Montréal - 2010 Edition. 2010*

Since signing the first *Community Agreement on Sustainable Development 2002-2007* with the Québec government in October 2002, the Communauté métropolitaine de Montréal has coordinated the implementation of two programs to enhance green and blue spaces via the Metropolitan Secretariat for the Enhancement of Blue and Green Spaces (SMEBV). These programs are the primary tools the CMM can use to protect and enhance the region's natural areas. To this end, the City of Laval and the North Shore have suggested adding an Archipelago 2020 project to the PMAD that would dovetail nicely with the various blue and green projects underway in the territory.

**BOX — Urban Biodiversity: A Sign of Metropolitan Quality of Life**

Maintaining biodiversity is an essential component of sustainable development. In urban environments, biodiversity is a growing concern for municipal governments that wish to enjoy the benefits of nature while offering their citizens privileged access to it.

To encourage urbanization based on sustainable development, the RCMs and agglomerations of Greater Montréal can adopt the following practices to take action within urban ecosystems:

- Create new housing developments that encourage on-site conservation ("Growing Greener" principles).
- Preserve and develop ecological networks and corridors: green bridges, wildlife crossings, etc.
- Create new parks to advance urban biodiversity.
- Manage existing green spaces using an ecological approach.
- Adopt by-laws conducive to increased greenery: green alleys, green roofs, vegetated parking lots, anti-heat island measures, urban agriculture, etc.

To find out more...

*La biodiversité et l'urbanisation, Collection de guides de bonnes pratiques sur la planification territoriale et le développement durable*, MAMROT, 2010, or the international initiatives of Local Action for Biodiversity, [www.iclei.org/lab](http://www.iclei.org/lab)





PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ

## BOX — Territories of Regional Importance: An Innovative Approach

Under its *Policy on the Protection and Enhancement of Natural Habitats*, the City of **Montréal** has identified ten “ecoterritories” of natural spaces located in both protected environments (large parks, nature reserves, etc.) and in sites slated for development. The City’s approach is to integrate natural spaces into the urban fabric and include conservation costs in the construction costs of housing projects.

With a view to maximizing future residents’ access to natural spaces and helping developers earn more on their investment, the City is encouraging a denser use of land in these ecoterritories while reducing tree removal, protecting wetlands, etc. This approach makes it possible to preserve strategic land at a time when space for urban development is increasingly hard to find. Since 2004, these ecoterritories have been the site of numerous conservation projects.

\*\*\*

To protect and enhance its wetlands and natural environments of metropolitan importance, in 2005 the **Longueuil** agglomeration adopted a policy that follows up a 2004 inventory of wetlands and threatened species in its territory.

This natural environment enhancement policy identifies sectors of ecological importance. The City of Longueuil intends to ensure the long-term viability of natural environments while making them part of adapted, sustainable urban development. To achieve this, the City has produced a conservation and management plan for natural environments of recognized importance and protects 12.9% of its territory with the help of its different planning tools such as the land use and development plan, planning program and planning by-laws.

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The City of **Laval** officially adopted its *Policy on Preserving and Enhancing Natural Environments of Interest* on February 25, 2009. Using an ecosystem approach, the City of Laval recognizes several natural sites that form a representative mosaic of the territory’s biodiversity. These natural sites, which have significant social value, include several types of environment (ponds, marshes, swamps, riverbanks and shorelines, forest stands, wildlands, grasslands, flood plains, etc.). Based on these natural sites, 13 *zones d’aménagement écologique particulières* (ZAEP) have been designated, both in urban and agricultural environments. The City of Laval plans to preserve and enhance the natural environments of metropolitan importance located in ZAEP zones.

To find out more...

[http://ville.montreal.qc.ca/portal/page?\\_pageid=5697,32919586&\\_dad=portal&\\_schema=PORTAL](http://ville.montreal.qc.ca/portal/page?_pageid=5697,32919586&_dad=portal&_schema=PORTAL)

[http://www.longueuil.ca/vw/asp/gabarits/Gabarit.asp?ID\\_CATEGORIE=2133&ID\\_MESSAGE=26849&CAT\\_RAC=7&CHANG\\_ARROND=40](http://www.longueuil.ca/vw/asp/gabarits/Gabarit.asp?ID_CATEGORIE=2133&ID_MESSAGE=26849&CAT_RAC=7&CHANG_ARROND=40)

<http://www.ville.laval.qc.ca/wlav3/index.php?pid=1821>



### BOX — Preserving Greater Montréal's Natural Resources

In 2006, the Ministère des Ressources naturelles et de la Faune gave the regional conferences of elected officers (CRÉ) the mandate to create regional land and natural resource commissions (CRRNT). Each commission must develop and implement a regional plan for integrated land and natural resource development (forest, fauna, water, mines, etc.).

Greater Montréal is home to four of these commissions (Vallée-du-Haut-Saint-Laurent, Montérégie-Est, Lanaudière and Laurentides), which are composed of representatives from the environmental sector, RCMs, forest agencies and lumber producers.

The regional plan is subject to an official consultation process with regional organizations, so financing from CRÉs and CRRNTs must support the plan's objectives. Regional organizations can participate on a voluntary basis.

To find out more...

<http://www.mrnf.gouv.qc.ca/english/regions/commissions/index.jsp>

### BOX — Stakeholders in Environmental Conservation

To increase the forest cover and try to achieve the objective of having 30% of the territory covered by forest, there are five priorities for action:

1. Create a legal framework for forest conservation.
2. Protection current forests, which cover 19.2% of Greater Montréal.
3. Restore and connect existing and prospective sites.
4. Determine and implement financial (and other) strategies to encourage protection and reforestation.
5. Rally the community around a common vision.

As for the possibility of enhancing natural environments, everyone agrees that the PMAD should propose a fabric of natural and anthropogenic zones, built on a network of protected blue and green spaces, for recreational, tourism and educational purposes, covering urban and agricultural environments and designed, supported and created through the efforts of multiple stakeholders.

To help increase the forest cover, the PMAD action plan includes a “Reforestation” project to identify the partners and activities likely to contribute to the region's reforestation and thus help achieve the minimum forest cover threshold of 30% needed to protect biodiversity.

## BLUE SPACES

A metropolitan water system stretching over 1,800 kilometres of shoreline and composed of several water bodies and islands distinguishes Greater Montréal from other North American metropolitan regions. The largest of these water bodies is the St. Lawrence River. With an average flow of 9,000 m<sup>3</sup>/s, it is the 10th largest river in the world. Water bodies take up 12% of the metropolitan territory's surface area. Despite the presence of rapids in several places, some metropolitan water bodies and stretches of the river are suitable for commercial and recreational navigation. They are also characterized by a wealth of flora and fauna, despite the shoreline development and water quality degradation in some areas.

The archipelago is characterized by the presence of two large islands, the island of Montréal and Île Jésus, some islands of average size, Île-Perrot, Île des Soeurs, Île Bizard and Île Charron, as well as a plethora of small islands dotting the St. Lawrence River, Des Prairies River and the Milles-Îles River. Many uninhabited islands are used for recreational or agricultural purposes.

Riparian environments are essential to the survival of the ecological and biological components of aquatic ecosystems. They include the shorelines of both water bodies and islands, which are subject to the *Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains*. This environmental and cultural heritage not only has strong development potential, it also presents unique opportunities for affirming the identity of Greater Montréal's residents.

Located primarily along the edges of large water bodies and rivers, wetlands include the marshes, swamps, peat bogs, meadow marshes and aquatic plant beds of the flood plain of the St. Lawrence River and its tributaries. The majority of marshes are located in the St. Lawrence River system, while there are several swamps in its flood plain. Finally, there are several large peat bogs in the CMM's North Shore.

In early 2000, Québec adopted integrated water management at the watershed level. While several watershed organizations manage most of Québec's rivers, the Montréal archipelago is still orphaned. Since 1998, the St. Lawrence Plan, the result of a co-operation agreement between the governments of Canada and Québec, has made possible the creation of priority intervention zones and various community interaction programs to protect and enhance specific sections of the river. In Phase V, the St. Lawrence Plan will give metropolitan communities responsibility for coordinating and leading a regional round table on the integrated management of the St. Lawrence (*Table de concertation régionale pour la gestion intégrée du Saint-Laurent*), making the CMM an important player in the regional dialogue about the rivers surrounding the Montréal archipelago. This role will reinforce the CMM's involvement in the creation of Greater Montréal's Green and Blue Network.

## LANDSCAPES

Metropolitan Montréal is located in the heart of the St. Lawrence Valley. To the north rise the Laurentians and, to the south, the Appalachians. Farming occupies more than 50% of the metropolitan territory, creating different landscapes, depending on the crop. Large orchards stretch from the base of the Rougemont, St. Hilaire and St. Bruno mountains and, to the north, in Saint-Joseph-du-Lac and Oka. These agricultural landscapes are another exceptional characteristic that is typical of the CMM.

Of the nine Monteregian Hills, four are located in the CMM's territory (Mount Royal, Mount St. Hilaire, Mount St. Bruno and part of Mount Rougemont) and stand out against the landscape. They are visible from many areas and serve as landmarks. Almost 300 wildlife species are found in the Monteregian Hills. The flora characteristic of the Monteregian Hills is thought to be composed of 500 to 800 plant species. Dating analyses of minerals found in the rocks have determined that the Monteregian Hills are approximately 125 million years old. The Oka and St. André hills are part of much older geological formations, although their importance to the metropolitan landscape is just as distinctive.

The Communauté métropolitaine de Montréal has a wide variety of landscapes in its territory, all of them different. From rural landscapes to natural and urban landscapes, each of them features distinctive characteristics and offers visitors a variety of spatial experiences.



## BUILT HERITAGE

Greater Montréal's built heritage bears witness to the events and trends that have marked the region's culture and history: archaeological sites, commemorative sites, different forms of land use, and innovative, original architecture and urban planning. Protecting this heritage remains a responsibility that is ably handled by the region's municipalities.

The issue at hand is the need to enhance it. Attention could also be paid to newer buildings and developments that will be part of the modern heritage of the future. The integration of new approaches and openness to new lines of thought (for example, notions and principles inspired by New Urbanism or LEED for Neighbourhood Development) must influence the design and planning of projects likely to revitalize the region's architectural and urban attractions and its international reputation.

## TO SUMMARIZE...

**GREATER MONTRÉAL HAS A RICH BUILT AND NATURAL HERITAGE AS WELL AS EMBLEMATIC LANDSCAPES THAT ARE AN IMPORTANT ASSET TO THE POPULATION'S QUALITY OF LIFE AND THE REGION'S ATTRACTIVENESS.**

**HOWEVER, THESE LANDSCAPES AND HERITAGE DESERVE TO BE BETTER PROTECTED AND ENHANCED.**







## LAND USE AND DEVELOPMENT OBJECTIVES AND CRITERIA

GIVEN THE WEALTH OF BUILT AND NATURAL HERITAGE AND ITS IMPORTANCE TO GREATER MONTRÉAL'S ATTRACTIVENESS AND QUALITY OF LIFE, FIVE OBJECTIVES HAVE BEEN DEFINED FOR THE THIRD POLICY DIRECTION. THESE OBJECTIVES, AND THE CRITERIA THAT WILL HELP ENSURE THAT THEY ARE MET, ARE SUMMARIZED BELOW. EACH OBJECTIVE IS THEN DISCUSSED IN DETAIL.

### POLICY DIRECTION 3: A GREATER MONTRÉAL WITH A PROTECTED, ENHANCED ENVIRONMENT

#### **3.1 Protect 17% of Greater Montréal's surface area**

- 3.1.1 Identification of protected areas, metropolitan woodlands and forest corridors
- 3.1.2 Identification and characterization of wetlands
- 3.1.3 Protection of metropolitan woodlands and forest corridors
- 3.1.4 Adoption of a wetlands conservation plan

#### **3.2 Protect riverbanks, shorelines and flood plains**

- 3.2.1 Identification of flood plains
- 3.2.2 Protection of riverbanks, shorelines and flood plains

#### **3.3 Protect landscapes of metropolitan importance**

- 3.3.1 Identification of landscapes of metropolitan importance
- 3.3.2 Protection of landscapes of metropolitan importance

#### **3.4 Protect built heritage of metropolitan importance**

- 3.4.1 Identification of built heritage of metropolitan importance
- 3.4.2 Protection of built heritage of metropolitan importance

#### **3.5 Enhance landscapes and the natural and built environments in a comprehensive, integrated manner for recreational and tourism purposes**

- 3.5.1 Enhancement of the components of the Green and Blue Network



## OBJECTIVE 3.1

### Protect 17% of Greater Montréal's surface area

In Greater Montréal, the protection of woodlands, forest corridors and wetlands is an essential condition for maintaining the region's biodiversity. In addition, the presence of forest cover is a major contributor to Greater Montréal's attractiveness and its citizens' quality of life.

Woodlands represent added value for the metropolitan region due to their rarity and recreational and ecological potential. They help protect soil from water and wind erosion; control surface and sub-surface water; protect the ecological balance by maintaining habitats that encourage biological, wildlife and plant diversity; and safeguard the potential of maple syrup production, recreational and tourism activities, and landscapes.

In 2005, the CMM created the Programme d'acquisition et de conservation des espaces boisés (Green Fund). The main objective of the Green Fund is to support local and regional initiatives to acquire and protect woodland areas. Since it is important to interconnect these wooded parcels, primarily to promote interactions between the species that inhabit them, in 2008 the CMM Planning Commission recommended adding 52 forest corridors (25,373 ha) to the list of spaces already eligible for the acquisition program.

The program has already acquired and protected 155 hectares of woodland areas at a total cost of \$11.6 million, \$1.8 million of which came from the CMM. Although the program stipulates equal investment from all parties, it has been shown that this type of program can expect to have a significant leverage effect.

Recent acquisitions of natural environments in Greater Montréal (Anse-à-l'Orme, île Charron and the Brossard woods) confirm the Québec government's intention to get involved in preserving natural environments in southern Québec. In accordance with the 2011-2015 Strategy for Protected Areas, the government is indicating that its involvement will be reinforced through collaboration with land use and planning bodies. Even though other modes of governance exist, the CMM favours acquiring woodland areas to ensure their conservation. To financially support municipal and RCM projects to acquire natural environments in need of protection, the CMM, in collaboration with the Québec government, would like to provide Greater Montréal's Green Fund with stable, long-term financing. Several measures have been suggested to the government, most notably a proposal to increase the park contributions of real estate developers from 10% to 15%. This extra 5% would be dedicated to the protection of natural environments. A "Financing" working group will then be set up, in collaboration with several partners, to create and operate a metropolitan woodland acquisition fund.

Even though natural environments do not directly increase municipal tax revenues, a recent study published by Québec en forme (March 2011) discusses the economic benefits of green spaces, recreational facilities and urban developments that encourage walking. It is henceforth recognized that the higher tax assessments of property located near protected natural sites, as well as the economic activity likely to be generated by enhancement initiatives, can help compensate host municipalities.

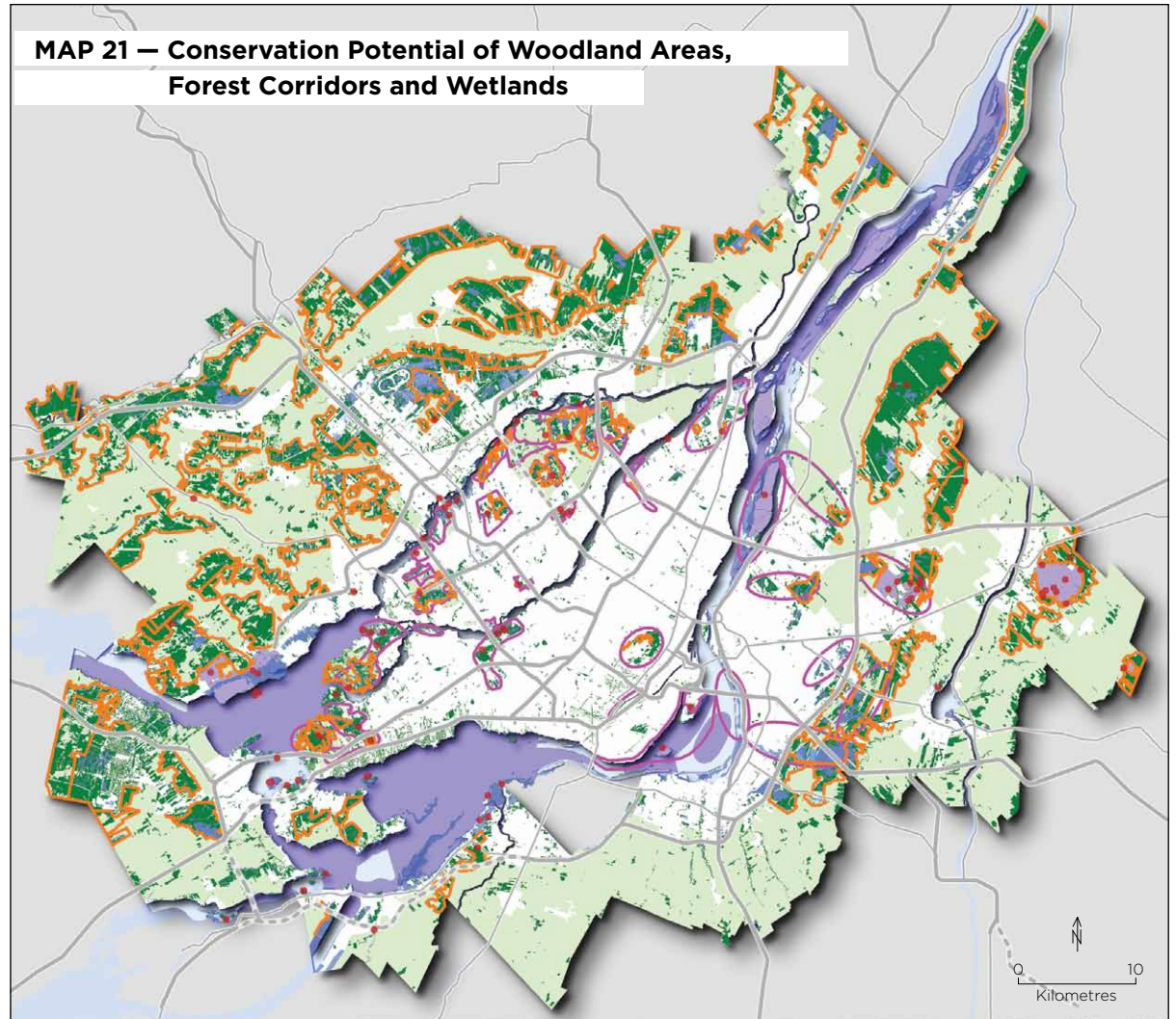
Alongside provincial, local and regional initiatives, the CMM intends to contribute to the government goal by protecting the forest cover of 31 woodland areas of metropolitan importance, forest corridors and wetlands.

Greater Montréal therefore has a conservation potential of 21.1%, which breaks down as follows: 7.5% aquatic environments, 11.6% terrestrial environments and 2% wetlands. It should be noted that the region has a total wetland area of 20,012 ha, the bulk of which (11,311 ha) is already in woodland areas, forest corridors and protected areas; the remaining area is listed in Table 35. The international objectives of the United Nations Convention on Biological Diversity, revised at the 10th Meeting of the Conference of the Parties held in Nagoya, Japan, propose increasing the percentage of protected areas to 10% of aquatic environments and 17% of terrestrial environments by 2020. Conservation areas requiring protection measures will be evaluated in greater detail during the identification exercise to be done by the region’s agglomerations and RCMs. Finally, areas in this table do not include municipal initiatives (e.g., nature parks, regional and local parks).

**TABLE 35 — Conservation Potential of Natural Environments in Greater Montréal**

Statut	Definition	Area		Total	%
Protected areas	Areas enjoying protected status (IUCN) and listed on the MDDEP register	32,858 ha (7.5%) in aquatic environments	9,163 ha (2.1%) in terrestrial environments	42,022 ha	9.6%
Metropolitan woodland areas and forest corridors not included in protected areas	<b>In urban zones:</b> metropolitan woodland areas (2003) <b>In agricultural zones:</b> woodland areas and forest corridors shown in map 702-120-01 (2009)	2,156 ha in urban zones	39,296 ha in agricultural zones	41,452 ha	9.5%
Wetlands (outside protected areas, woodland areas and forest corridors)	Wetlands not included in protected areas or metropolitan woodland areas and forest corridors	8,701 ha		8,701 ha	2.0%
TOTAL				92,175 ha	21.1%

**MAP 21 — Conservation Potential of Woodland Areas,  
Forest Corridors and Wetlands**



- |   |                                     |                             |
|---|-------------------------------------|-----------------------------|
| Protected area                              | Wetland                             | Forest cover                |
| Metropolitan woodlands and forest corridors | Exceptional forest ecosystems (EFE) | Area of regional importance |
| Agricultural zone                           |                                     |                             |

Sources: Wetlands: Ducks Unlimited, December 2010. Protected areas: Government of Québec, October 2011.





PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ

### BOX — Proposed Montréal Archipelago Ecological Park

For years, the region's citizens and organizations have been pleading for the creation of a Montréal archipelago ecological park. The idea put forth by the Partenaires du parc écologique de l'Archipel de Montréal (PPÉAM) is to protect and enhance a mosaic of forests, wetlands, green corridors and islands connected to each other by the rivers that crosshatch southern Québec.

In particular, the project plans to safeguard a minimum of 12% of the sugar maple-bitternut hickory bioclimatic domain in southwest Québec. This endangered natural heritage area is one of the most biodiverse in Québec.

The proposal covers a vast ecological domain stretching from the Lower Laurentians to the American border, and from Suroît to Sorel. This major project intends to establish a green belt for Montréal and southwestern Québec — a green belt of forests, wetlands, flood plains and islands, all interconnected by the green corridors, streams and rivers that crosshatch southern Québec.

Supported by a dozen municipal administrations including Longueuil, Boucherville, Hudson and Mascouche, the project aims to protect natural environments, including the metropolitan woodlands identified by the CMM in 2003.

This project greatly exceeds the Communauté métropolitaine de Montréal's territory. It is therefore suggested that the RCMs contiguous to the CMM be asked to collaborate on developing this project which could become an extension of the Green and Blue Network.

To find out more...

[www.greencoalitionverte.ca/parc/Parc%20ecologique%20de%20l'Archipel%20de%20Montréal.html](http://www.greencoalitionverte.ca/parc/Parc%20ecologique%20de%20l'Archipel%20de%20Montréal.html)

## CRITERION 3.1.1

### Identification of protected areas, metropolitan woodlands and forest corridors

In April 2003, 31 woodlands of metropolitan importance were identified by the CMM according to the following criteria:

- mature (60 years or more) or century old forest
- woodlands with an upper tree stratum that has more than six dominant and co-dominant species
- woodlands that include at least one wetland, stream or river
- woodlands with a surface area greater than or equal to 30 hectares located within 200 metres of another woodland (the surface area criterion does not apply to the Montréal and Longueuil agglomerations or the Laval RCM)
- woodlands that shelter wildlife or plant species at risk identified by the Ministère des Ressources naturelles et de la Faune, the Ministère du Développement durable, de l'Environnement et des Parcs or Environment Canada
- woodlands that shelter an exceptional forest ecosystem identified by the Ministère des Ressources naturelles et de la Faune
- woodlands that shelter an essential wildlife habitat recognized by the Société de la faune et des parcs du Québec
- woodlands included in a by-law, policy or conservation plan adopted by a municipality, RCM or agglomeration

On October, 2009, the CMM revised the boundaries of these woodlands and added 52 forest corridors to be eligible for the Green Fund funding program (map number 705-120-01).

Protected areas listed on the MDDEP register must also be identified by RCMs and agglomerations.

RCMs and agglomerations must, at a minimum, identify the wooded areas included in the 31 metropolitan woodlands identified in 2003. In agricultural zones, RCMs and agglomerations must, at a minimum, identify and add the wooded areas included in the revised woodland boundaries as well as forest corridors eligible for the Green Fund funding program. Woodlands and forest corridors are identified on Map 21.

## CRITERION 3.1.2

### Identification and characterization of wetlands

In July 2008, the Ministère du Développement durable, de l'Environnement et des Parcs published the *Guide d'élaboration d'un plan de conservation des milieux humides*. In addition to establishing conservation priorities using criteria such as surface area, hydrologic connections and the presence of threatened or rare species, the proposed approach can be used to take inventory of wetlands; characterize them; evaluate their ecological value and harmonize their uses. The Montréal and Longueuil agglomerations and the City of Laval have, to various degrees, already undertaken such an exercise.

On January 31, 2010, Ducks Unlimited Canada, in collaboration with the Ministère du Développement durable, de l'Environnement et des Parcs, launched the mapping of Greater Montréal's wetlands larger than 0.3 hectares as well as their major characteristics. This tool could be used as a reference for agglomerations and RCMs.

The CMM requests that the RCMs and agglomerations of Greater Montréal identify and characterize wetlands larger than 0.3 hectares on their territory.

## CRITERION 3.1.3

### Protection of the metropolitan woodlands and forest corridors

For woodlands and forest corridors identified in Criterion 3.1.1, the CMM requests that RCMs and agglomerations identify uses compatible with protection, such as agriculture, recreation and tourism, low-density housing, parks and conservation, and adopt measures to ban tree-cutting. These measures can regulate tree-cutting according to the uses permitted and stipulate exceptions for sanitation cutting, salvage cutting, selective cutting, in-stream work and facilities to provide access to a natural environment for observation and interpretation purposes.

## CRITERION 3.1.4

### Adoption of a wetlands conservation plan

The CMM recognizes the protection and enhancement initiatives already undertaken by the Montréal and Longueuil agglomerations and the City of Laval. The CMM requests that the RCMs of Greater Montréal follow these initiatives and ask their constituent municipalities to develop their own wetlands conservation plans, which are consistent with the approach proposed by the Ministère du Développement durable, de l'Environnement et des Parcs in the *Guide d'élaboration d'un plan de conservation des milieux humides*.



## OBJECTIVE 3.2

### Protect riverbanks, shorelines and flood plains

The CMM has already undertaken some initiatives to protect and enhance the blue spaces in its territory. For example, the *Action Plan for Accessibility to Greater Montréal's Blue Network of Shorelines and Bodies of Water* or "Blue Fund" was adopted by the CMM in 2002. This plan aims to protect and enhance the shorelines, islands and water bodies of Greater Montréal while respecting the support capacity of the environments in question. As previously stated, recent acquisitions of natural environments in Greater Montréal confirm the Québec government's intention to get involved in preserving natural environments in southern Québec, in collaboration with land use and planning bodies. To finance accessibility initiatives for the shores and water bodies of Greater Montréal, the CMM, in collaboration with the Québec government, would like to provide Greater Montréal's Blue Fund with stable, long term financing. The establishment of the Blue Fund is also part of the "Financing" working group mentioned earlier.

### CRITERION 3.2.1

#### Identification of flood plains

The identification of flood plains is an important objective, notably for maintaining the quality of rivers, the safety of people and protection of property. To this end, the CMM requests that the RCMs and agglomerations of Greater Montréal integrate the flood-risk maps of flood plains for rivers and lakes common to two or more RCMs into their land use and development plans.

The rivers in question are:

- St. Lawrence River
- Des-Prairies River
- Richelieu River
- Lake of Two Mountains
- Lake St. Louis
- Mille-Îles River
- St. Jacques River

Annex 3 specifies the flood risk and, when available, the maps that the RCMs and agglomerations need to integrate into their respective land use and development plans.

In December 2011, discussion was still ongoing about the new flood-risk areas of the Mille-Îles and Des-Prairies rivers. In the meantime, the affected RCMs and agglomerations will continue to use the flood-risk maps currently included in their respective land use and development plans.

As part of its action plan, the CMM will assess and map the flood risk of the Des-Prairies and Mille-Île rivers, as well as the Lake St. Louis flood plains. These maps must also be integrated into the land use and development plans of RCMs and agglomeration as soon as they are adopted.

## CRITERION 3.2.2

### Protection of riverbanks, shorelines and flood plains

The provisions of the *Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains* (R.R.Q., c. Q-2, r. 35) must be integrated into the land use and development plans of RCMs and agglomerations. The RCMs and agglomerations can agree on the detailed approach with the Ministère du Développement durable, de l'Environnement et des parcs and the Ministère de la Sécurité publique as part of their management plans.

#### BOX — Water Management on a Watershed Basis

Watershed Organizations (WO) are coordinating committees made up of stakeholders and users of water working within the same watershed. They are not environmental groups, but organizations that plan and coordinate water management activities.

Southern Québec was divided into 40 WOs after the Ministère du Développement durable, de l'Environnement et des Parcs adopted an integrated water management approach in 2009. Recognized in the *Act to Affirm the Collective Nature of Water Resources and Provide for Increased Water Resource Protection*, WOs are mandated to:

- 1) develop a Water Master Plan for their territory
- 2) facilitate and monitor the Plan's implementation
- 3) increase awareness and inform stakeholders and citizens about the efficient use of water

RCMs can integrate these master plans into their land use and development plans or, at least, take them into account.

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To find out more...

Consult the Regroupement des organismes de bassins versants du Québec website: [www.robvq.qc.ca](http://www.robvq.qc.ca)

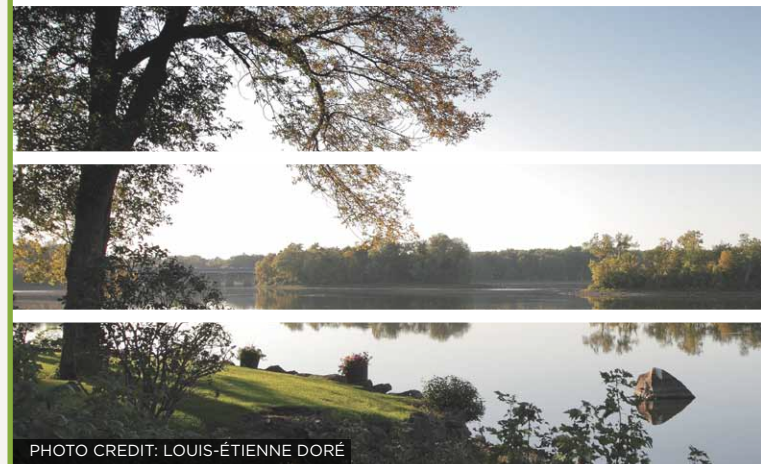


PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ

## OBJECTIVE 3.3

### Protect landscapes of metropolitan importance

Given the importance of landscapes in the definition of Greater Montréal's identity and the collective issues associated with them, notably in terms of the region's quality of life and attractiveness, the CMM wishes to protect landscapes of metropolitan importance.

Landscapes must be part of an integrated enhancement approach in all sectors of land use and development. The main issue remains recognizing the notion of landscape and integrating it into the planning and decision-making process.

The CMM agrees with the principles of the Québec Landscape Charter (Charte du paysage québécois), put forward by the Conseil du paysage québécois as an awareness-raising tool for public and private stakeholders.

### CRITERION 3.3.1

#### Identification of landscapes of metropolitan importance

Having already identified and characterized metropolitan landscapes during the creation of the 2005 draft Plan,<sup>113</sup> the CMM confirms their importance and need for protection and enhancement.

The following criteria were used when identifying landscapes of metropolitan importance:

- the scale of the landscape
- aesthetic, heritage and historic value
- typical and unique landscapes
- access to scenic points and lookout points of interest

The following were identified as major components of the metropolitan landscape:

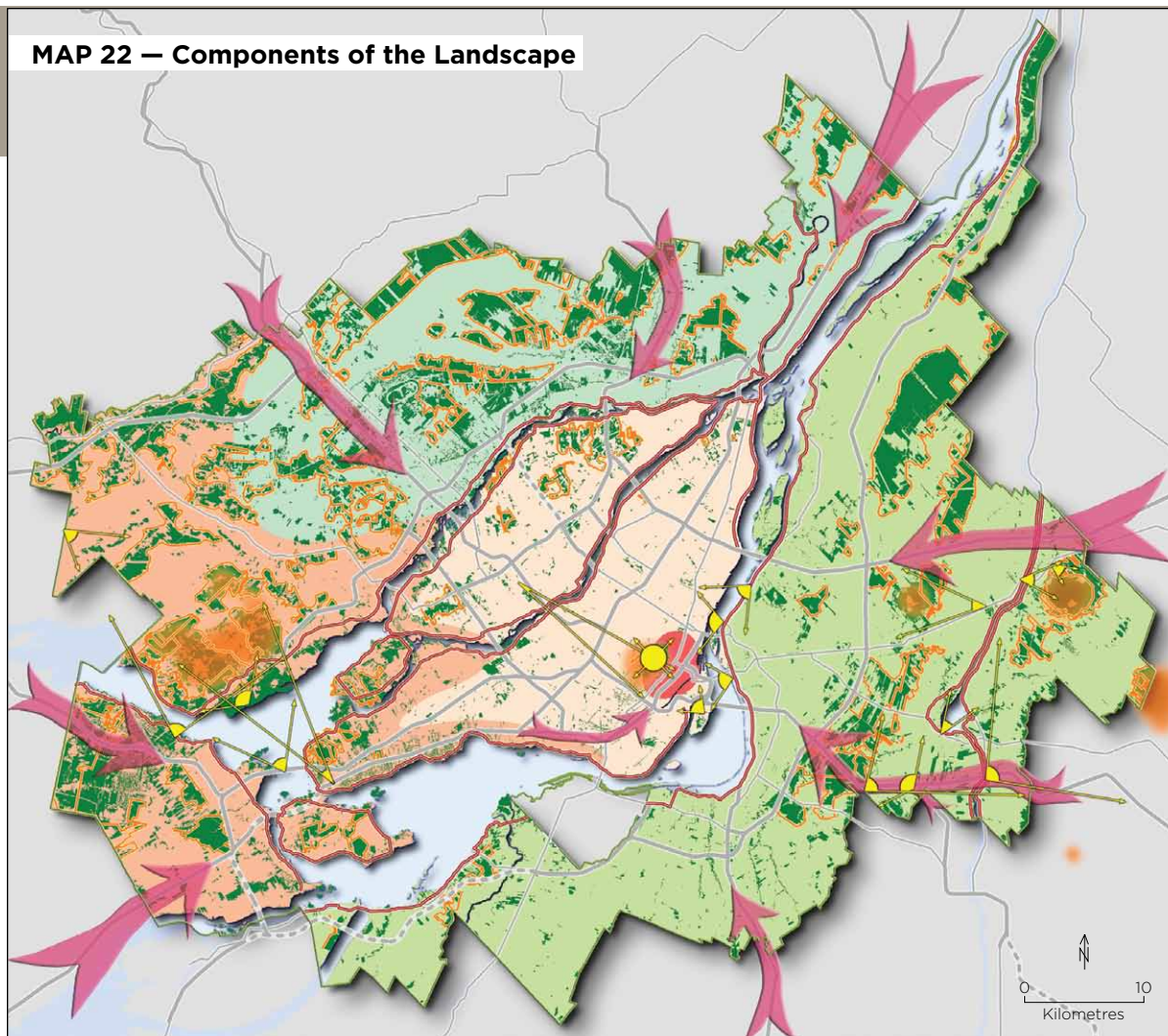
- the Monteregian Hills
- the Lower Laurentians
- the Laurentian topography
- the central area of the region (island of Montréal, Île Jésus and the immediate South Shore)
- downtown Montréal, Mount Royal and the Harbourfront
- the archipelago (St. Lawrence River, the rivers and the major watersheds)
- metropolitan woodlands

RCMs and agglomerations must integrate the major components of the metropolitan landscape identified above into their planning tools and identify the scenic routes, access road corridors and exceptional lookout points on Map 22.

<sup>113</sup> CMM. *Les paysages métropolitains, Rapport final*. 2004. 29 p.



**MAP 22 — Components of the Landscape**



**Components of the landscape**

Monteregian  
 Central area  
 Downtown  
 West  
 Laurentian

Metropolitan woodlands and forest corridors  
 Forest cover  
 Monteregian Hill

Scenic route  
 Exceptional lookout point  
 Access road corridor

## CRITERION 3.3.2

### Protection of landscapes of metropolitan importance

The protection of landscapes aims to ensure the preservation of the primary structural elements of these landscapes. The CMM requests that RCMs and agglomerations:

- Recognize the symbolic value of landscapes of metropolitan importance at the RCM and agglomeration level.
- Respect the structural elements of landscapes of metropolitan importance.
- Maintain access to scenic points and lookout points of metropolitan importance identified on Map 22 under Criterion 3.3.1.
- Recognize the socio-economic benefits of landscapes.
- Recognize landscapes' contribution to biodiversity.

## OBJECTIVE 3.4

### Protect built heritage of metropolitan importance

Metropolitan built heritage bears witness to events and trends that have marked the culture and history of Greater Montréal. These events and trends are visible in the sense of place, architecture, landscape and urban planning of each municipality.

The protection of heritage areas can be a tool for the economic development of metropolitan Montréal. If these heritage areas are identified and enhanced, they can become assets for the attractiveness of Greater Montréal in addition to being commemorative sites and different forms of land use.

### CRITERION 3.4.1

#### Identification of built heritage of metropolitan importance

In 2005, during development of the draft Plan, more than more than 200 heritage areas were identified. These areas were then characterized to assess their value and determine their metropolitan importance, based on the following criteria:

- rarity
- exemplary nature
- originality
- integrity
- age

To be recognized as having metropolitan importance, heritage elements must be grouped together and clearly show the influence of organization and development modes specific to the metropolitan region. In total, 51 heritage areas of metropolitan importance with what is considered to be “major” global appeal were identified; of these, Mount Royal/McGill, the Lachine Canal and Old Montréal were rated “exceptional.” These heritage areas are illustrated in Map 23 below.

RCMs and agglomerations must integrate the metropolitan areas identified above into their planning tools.

## MAP 23 — Heritage Areas of Metropolitan Importance

### Name of area

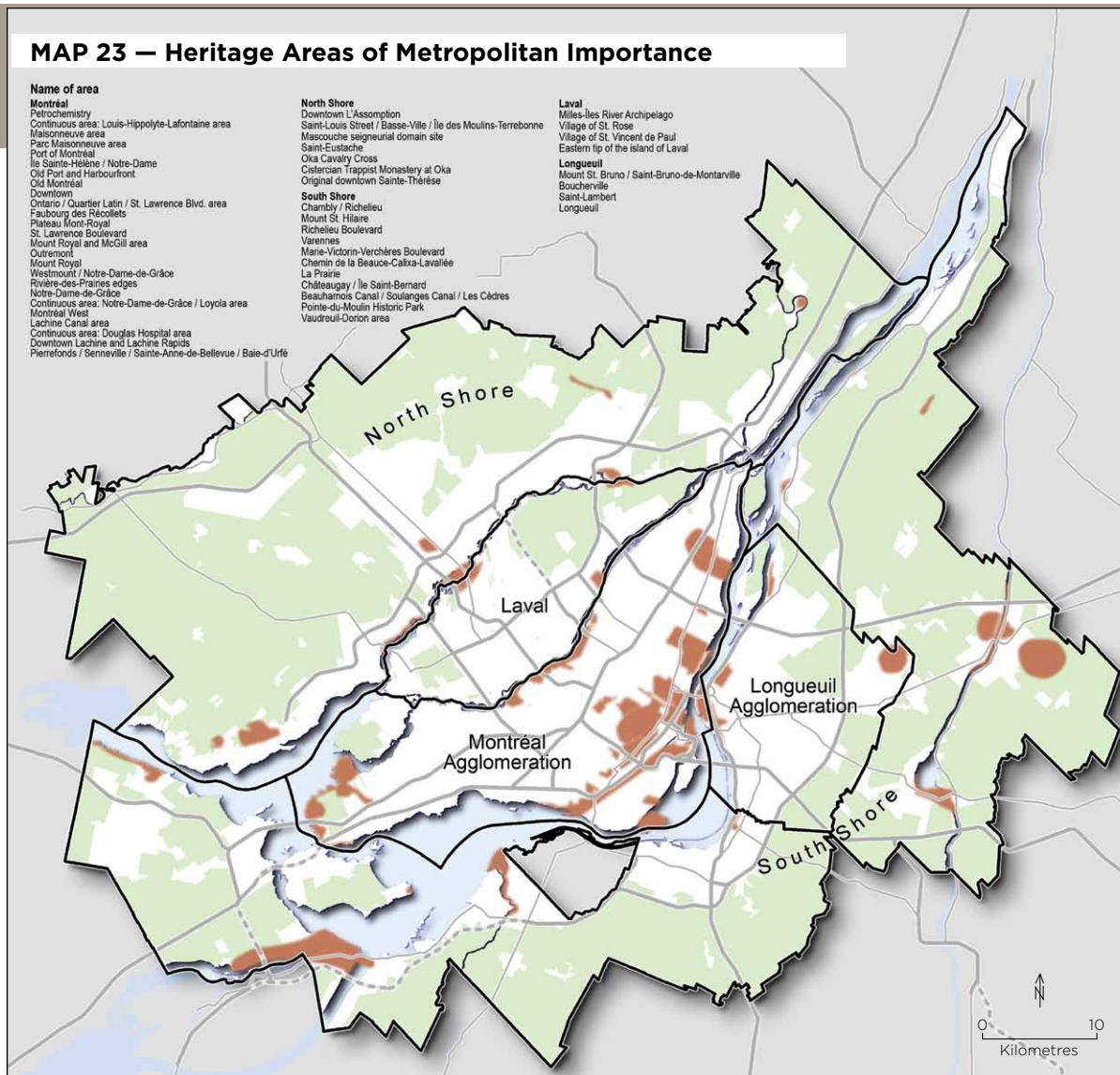
**Montréal**  
 Petrochemie  
 Continuous area: Louis-Hippolyte-Lafontaine area  
 Maisonneuve area  
 Parc Maisonneuve area  
 Port of Montréal  
 Île Sainte-Hélène / Notre-Dame  
 Old Port and Harbourn  
 Old Montréal  
 Downtown  
 Ontario / Quarter Latin / St. Lawrence Blvd. area  
 Faubourg des Récollets  
 Plateau Mont-Royal  
 St. Lawrence Boulevard  
 Mount Royal and McGill area  
 Outremont  
 Mount Royal  
 Westmount / Notre-Dame-de-Grâce  
 Rivière-des-Prairies edges  
 Notre-Dame-de-Grâce  
 Continuous area: Notre-Dame-de-Grâce / Loyola area  
 Montréal West  
 Lachine Canal area  
 Continuous area: Douglas Hospital area  
 Downtown Lachine and Lachine Rapids  
 Pierrefonds / Senneville / Sainte-Anne-de-Bellevue / Baie-d'Urfé

**North Shore**  
 Downtown L'Assomption  
 Saint-Louis Street / Basco-Ville / Île des Moulins-Terrebonne  
 Masouche seigneurial domain site  
 Saint-Eustache  
 Oka Cavalry Cross  
 Cistercian Trappist Monastery at Oka  
 Original downtown Sainte-Thérèse

**South Shore**  
 Chambly / Richelieu  
 Mount St. Hilaire  
 Richelieu Boulevard  
 Varennes  
 Marie-Victorin-Verchères Boulevard  
 Chemin de la Beauce-Cabix-Lavalée  
 La Prairie  
 Châteauguay / Île Saint-Bernard  
 Beauharnois Canal / Soulanges Canal / Les Cèdres  
 Pont-de-Moulin Historic Park  
 Vaudreuil-Dorion area

**Laval**  
 Milles-Îles River Archipelago  
 Village of St. Rose  
 Village of St. Vincent de Paul  
 Eastern tip of the island of Laval

**Longueuil**  
 Mount St. Bruno / Saint-Bruno-de-Montarville  
 Boucherville  
 Saint-Lambert  
 Longueuil



## CRITERION 3.4.2

### Protection of built heritage of metropolitan importance

Concerning the protection of metropolitan built heritage, the CMM requests that RCMs and agglomerations:

- Identify the significant elements of each heritage area illustrated on Map 23.
- Ensure the protection of these significant elements.

Heritage areas of metropolitan importance

Larger copies of the PMAD maps are available at the following website: [www.pmad.ca](http://www.pmad.ca)



## OBJECTIVE 3.5

### Enhance landscapes and the natural and built environments in a comprehensive, integrated manner for recreational and tourism purposes

Considering the close association between landscapes, natural environments and the built environment, the PMAD proposes that these structural elements be enhanced in an integrated manner as part of a Green and Blue Network.<sup>114</sup> Greater Montréal's Green and Blue Network proposes implementing enhancement projects for natural environments, built heritage and landscapes for recreational and tourism purposes, while contributing to the protection of natural environments.

Greater Montréal's Green and Blue Network primarily covers the elements previously identified and protected in Objectives 3.1, 3.2, 3.3 and 3.4:

- protected areas, woodlands and forest corridors
- wetlands
- riverbanks and shorelines
- landscapes of metropolitan importance
- built heritage of metropolitan importance

Inspired by the “green belt” concept in place elsewhere in the country and around the world, Greater Montréal's Green and Blue Network will be set up in collaboration with numerous partners to enhance protected natural environments as well as the landscapes and built heritage elements that are strong symbols of Greater Montréal's identity.

Made up of the region's rivers and large green spaces of the Monteregian Hills and national parks, the Network multiplies the number of accessible sites near residential areas, and creates links to interconnect them. Accessible by bicycle paths, waterways and mass transit, the Network enables residents and visitors to take full advantage of the archipelago and the benefits of outdoor activities in natural environments.

In proposing a Green and Blue Network to help enhance and protect exceptional natural environments, the CMM hopes that citizens with access to such resources, which greatly contribute to the region's attractiveness, will become better guardians of this wealth. However, access to natural environments must not threaten ecosystem protection and must be planned in a manner that respects the environments' support capacity.

Each RCM and agglomeration already has well-developed guides and routes. However, these are seldom interconnected or only serve to enhance one particular recreational or tourism feature in their territory.



PHOTO CREDIT: LOUIS-ÉTIENNE DORÉ

Greater Montréal's Green and Blue Network will become a reality as part of the action plan that will follow the PMAD's adoption. Partners identified to take part in this vast project will have to:

- Establish the vision.
- Identify the components of the Network in greater detail.
- Agree on a form of governance.
- Suggest a regulatory framework.
- Recommend necessary policies and resources.
- Suggest measures for interconnecting and creating the network.

Moreover, the previously introduced “reforestation” project will add to the forest cover and greatly improve Greater Montréal's urban and rural landscapes. The metropolitan concept will enhance Greater Montréal's profile and attract more local, Québec, North American and international visitors.

### BOX — The Vermont Example

The State of Vermont is often cited as an example where heritage and landscapes have become synonymous and significantly contribute to the area's attractiveness.

Vermont's networks of attractions and tours do indeed highlight an authentic heritage product considered unique in North America. In 2007, visitors made 14.3 million trips to Vermont (pop.: 600,000) and spent \$1.6 billion.<sup>115</sup>

To find out more...

Gris Orange Consultant Inc. *Le patrimoine d'intérêt métropolitain: une richesse pour la Communauté, des ensembles à offrir aux visiteurs*. 2011.

<sup>114</sup> This integrated approach was the subject of a specific study in 2004; Communauté métropolitaine de Montréal. *Projet de Schéma métropolitain d'aménagement et de développement, Récréation et Tourisme, rapport final, 2004*. 37 p. plus annexes.

<sup>115</sup> Vermont Department of Tourism, 2008.



## CRITERION 3.5.1

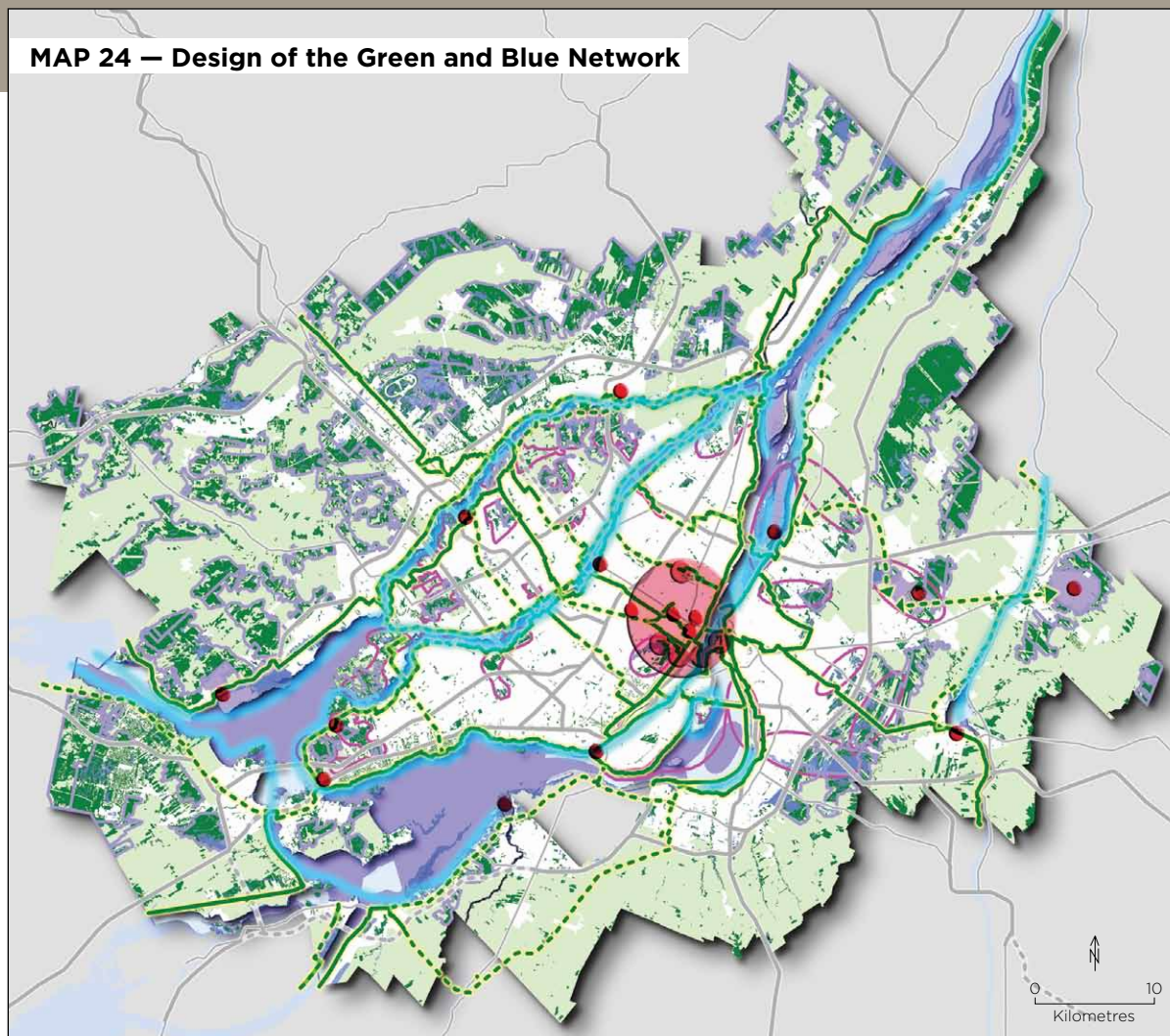
### Enhancement of the components of the green and blue network

To complement the work undertaken as part of the action plan on the Green and Blue Network and to ensure the enhancement of the components of the Green and Blue Network concept, the CMM requests that RCMs and agglomerations work to:

- Consolidate the recreational and tourism vocation of areas of metropolitan importance while simultaneously encouraging the preservation of heritage and landscape features of these environments and the development of a critical mass of attractions and services.
- Put in place mass-transit services to serve the access points of the components identified on Map 24.
- Develop the metropolitan bicycle network and boating network and increase the number of contact points between these two networks as identified in Map 24.
- Increase the number of recreational water access points (swimming areas, boat launches, shoreline recreational activities, mooring areas, etc.).



**MAP 24 — Design of the Green and Blue Network**



Bicycle network		Recreational and tourism hubs
Protected area	Existing	City centre and surroundings
Metropolitan woodlands and forest corridor	To be upgraded	Tourism development hub to be consolidated
Wetlands	To be developed	Recreational and tourism facilities to be enhanced
Forest cover	Greater Montréal Blue Experience	
Area of regional importance		
Agricultural zone		

Sources: Wetlands: Ducks Unlimited, December 2010. Protected areas: Government of Québec, October 2011. Bicycle network: Vélo Québec, October 2011.



**In attendance at the press conference held March 12, 2012, to announce the coming into force of the Metropolitan Land Use and Development Plan (PMAD) (from left to right):**

Mr. Jean-Marc Robitaille, Mayor of Terrebonne, Reeve of the Les Moulins RCM and member of the CMM Executive Committee,  
Ms. Caroline St-Hilaire, Mayor of Longueuil, Chair of the Longueuil agglomeration and Vice-Chair of the CMM Executive Committee,  
Ms. Nicole Ménard, Minister of Tourism and Minister responsible for the Montérégie region,  
Mr. Gérald Tremblay, Mayor of Montréal and Chair of the CMM,  
Mr. Laurent Lessard, Minister of Municipal Affairs, Regions and Land Occupancy,  
Ms. Michelle Courchesne, Minister responsible for Government Administration, Chair of the Conseil du trésor and Minister responsible for the Laval region, the Laurentides region and the Lanaudière region,  
Mr. Gilles Vaillancourt, Mayor of Laval and Vice-Chair of the CMM Council,  
Mr. Michel Gilbert, Mayor of Mont St. Hilaire and member of the CMM Executive Committee.



# 3. COORDINATION BETWEEN GREATER MONTRÉAL AND THE PROVINCE



**THE SUCCESSFUL IMPLEMENTATION OF THE PMAD AND, MORE SPECIFICALLY, THE PMAD'S ACTION PLAN, WHICH IS THE SUBJECT OF A SEPARATE DOCUMENT, RELIES HEAVILY ON CLOSE COOPERATION WITH THE QUÉBEC GOVERNMENT.**

In the last few years, the CMM has repeatedly asked to set up a Québec-Greater Montréal coordinating committee, notably to discuss land use and development issues.

In its *Stratégie pour assurer l'occupation et la vitalité des territoires, 2011-2016*, published in November 2011, the Québec government announced the creation of a metropolitan working table and an interdepartmental committee for the land use and development of the metropolitan Montréal region.

The Québec-Greater Montréal working table on land use and development will bring together key ministers and elected officials of the CMM, as well as major regional stakeholders. This table will suggest major policy directions and priorities for action to ensure consistent government actions with regard to the sustainable land use and development of the metropolitan region.

The interdepartmental committee, made up of administrators from the major ministries and government bodies involved in the territorial development of the metropolitan region, will be in charge of planning and implementing these policy directions. The table and committee will therefore foster better synergy between government actions and the major players in metropolitan development as well as a more efficient use of public funds.<sup>116</sup>

As part of this strategy, the government announced its intention to ensure the consistency of its efforts throughout Greater Montréal and in the surrounding area. Thus, in addition to supporting the CMM in the creation and implementation of the Metropolitan Land Use and Development Plan that it must adopt, the Québec government intends to equip itself to better manage the phenomenon

of perimetropolitan urbanization. To this end, it will, more specifically, review government land use planning orientations.

The provincial government also announced its intention to support the achievement of the PMAD policy directions, objectives and criteria by adopting measures to support more sustainable urbanization. For instance, these measures could optimize the region's existing public infrastructure and invest in new ones to encourage the densification of the region's central area, a continuous urban fabric, enhanced heritage, social diversity and the retention of young families, notably through the rehabilitation of strategic sites.

Finally, the provincial government recognizes the complexity of the institutional framework of Greater Montréal, where several administrative and political bodies overlap and intersect. To this end, it is necessary to clarify the respective roles and mandates of each governing body to improve the functioning and consistency of all the public actions in several areas of planning and intervention. The goal is to better articulate everyone's role without engaging in a municipal reorganization.

<sup>116</sup> Government of Québec, Ministère des Affaires municipales, des Régions et de l'Occupation du territoire. *Stratégie pour assurer l'occupation et la vitalité des territoires, 2011-2016*, 2011. p. 62.



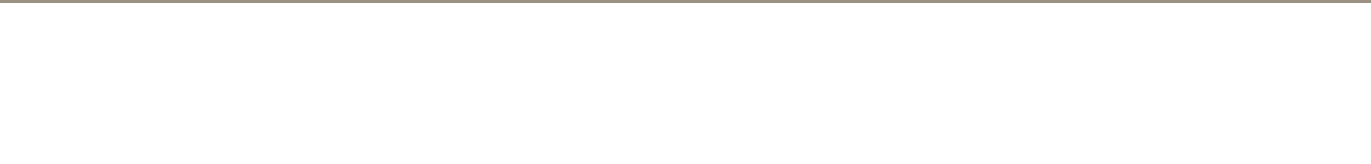
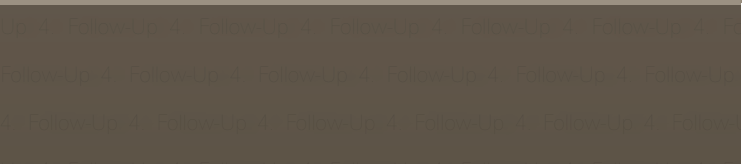
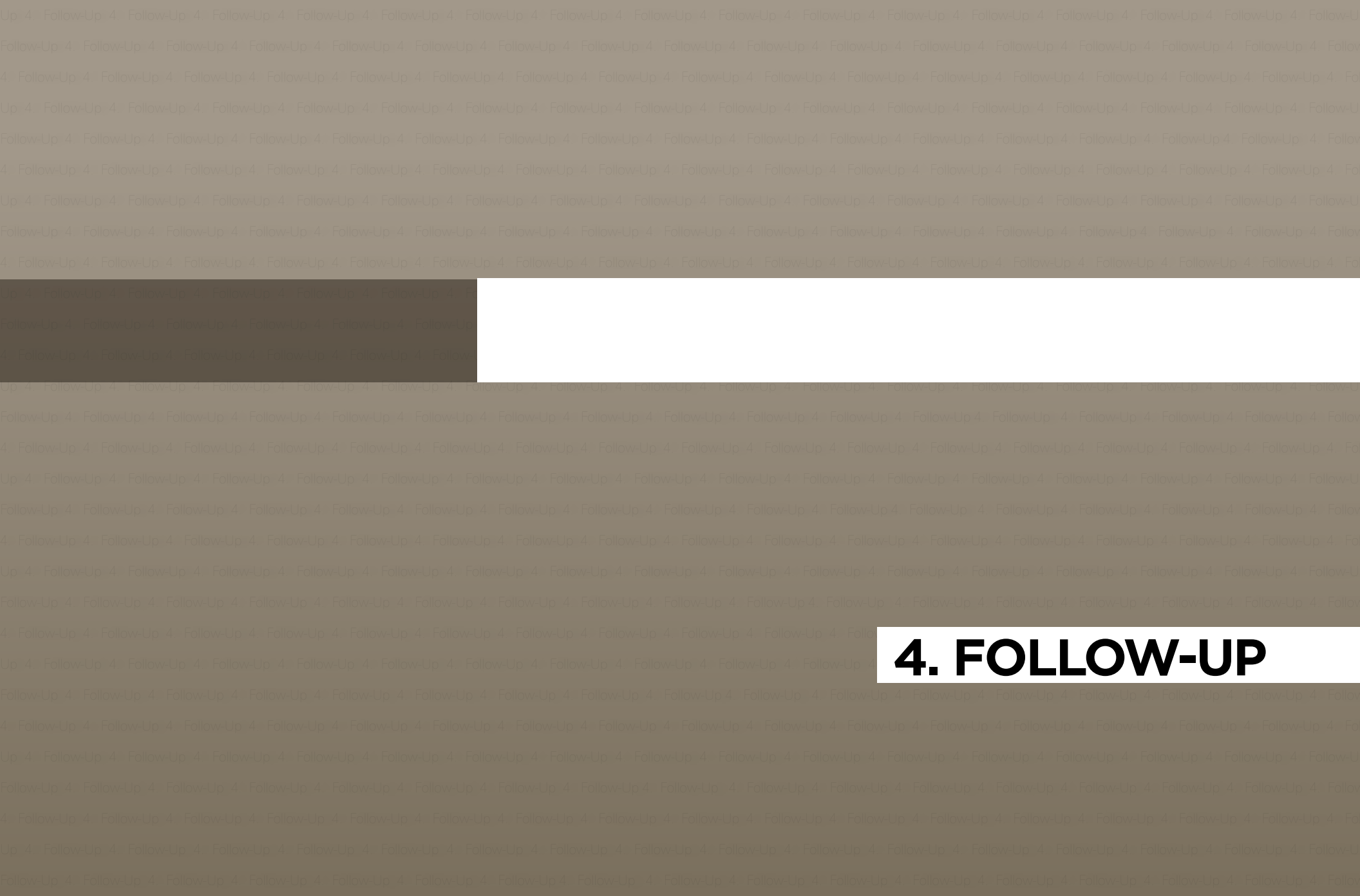


*The provincial government also announced its intention to support the achievement of the PMAD policy directions, objectives and criteria by adopting measures to support more sustainable urbanization.*









## 4. FOLLOW-UP

## **CMM COMMISSIONS**

CMM commissions will be called upon to play a major role in implementing the PMAD. Indeed, many aspects of the PMAD's action plan will be the political responsibility of the CMM's commissions. Each commission will be supported by the administration of the CMM. Technical committees made up of representatives from each of the CMM's five geographical areas (RCMs and agglomerations) will support the commissions' work. Representatives from the provincial ministries involved and civil society will also be called upon to collaborate. If necessary, public consultations will be organized.

The CMM Executive Committee and Planning Commission will be in charge of monitoring the activities of the PMAD.

## **THE METROPOLITAN AGORA**

The creation of a metropolitan vision requires significant involvement from all stakeholders and, more specifically, from elected officials and civil society. This new exercise demands that everyone involved follow the policy directions that apply to a territory that goes beyond local and regional boundaries. Each partner must gradually adopt and share the "supralocal and regional vision" of the PMAD.

It is in this context that a biennial metropolitan "agora" or assembly of elected officials and citizens will enable stakeholders to get informed, discuss, debate and suggest ideas for the PMAD's implementation. It is also an exercise to raise citizen awareness about the land use and development issues of Greater Montréal and will help create a real sense of belonging to the CMM. This agora will also enable the CMM to present the PMAD's evolution, as expressed in the future PMAD scorecard, which resembles those developed for waste management and social housing.

## **THE GREATER MONTRÉAL OBSERVATORY**

The CMM must acquire the tools needed to follow up and implement the PMAD and evaluate the progress achieved towards its objectives and the completion of its proposed actions. Every two years, the Council must adopt a report on these subjects.

The CMM will use the Greater Montréal Observatory ([observatoire.cmm.qc.ca](http://observatoire.cmm.qc.ca)), a site for the dissemination of information and data on Greater Montréal, its five geographical areas and 82 municipalities, to measure progress towards the policy directions, objectives and criteria of the PMAD.

The Greater Montréal Observatory already contains about a hundred indicators, sorted by theme and sub-theme. Themes include a sociodemographic category as well as six other categories directly linked to the CMM's jurisdiction: land use planning, transportation, economic development, housing, the environment and metropolitan facilities.

The Greater Montréal Observatory also has scorecards to follow up the implementation of the various CMM plans. Like the scorecards for the Residual Materials Management Plan (RMMP) and the Metropolitan Action Plan for Affordable Public Housing (PAMLSA), a PMAD scorecard will be developed by the CMM and made accessible online to citizens and all of the CMM's institutional partners.

Recognized as a management support tool, the scorecard is a popular way to follow up the implementation of policies and planning tools. It can interpret, in a summary manner, the level of progress or the achievement of objectives by using a limited number of indicators. To provide the most succinct summary of the information, scorecards generally use graphs, tables and maps to present the level of progress or the evolution of a phenomenon.

In the case of the PMAD scorecard, it will use a number of indicators, illustrated in various graphical forms, to assess the progress achieved towards the Plan's objectives and the completion of its proposed actions.

It is important, however, to remember that these indicators do not present a complete picture of the situation. The questions they raise lead to more in-depth assessments that better explain the phenomena described. Biennial PMAD progress reports, which will discuss the scorecard findings, will complete the follow-up exercise.



*A biennial metropolitan “agora” or assembly of elected officials and citizens will enable stakeholders to get informed, discuss, debate and suggest ideas for the PMAD’s implementation.*



# REFERENCES

## **AECOM-TECSULT (2006).**

*Étude sur les générateurs de transport de marchandises dans la région de Montréal, 2006.* Study produced for the Ministère des Transports du Québec.

## **BOARD OF TRADE OF METROPOLITAN MONTRÉAL (2004).**

*Public Transit: A powerful engine for the economic development of the metropolitan Montreal area.* Study produced in collaboration with SECOR Consulting. [http://www.ccmq.ca/documents/memoires/2004\\_2005/BTMM\\_PublicTransit\\_study.pdf](http://www.ccmq.ca/documents/memoires/2004_2005/BTMM_PublicTransit_study.pdf)

## **CANADIAN URBAN TRANSIT ASSOCIATION (2010).**

*Canadian Transit Fleet and On-Board Equipment Fact Book (2009 operating data),* 155 p.

## **CITY OF LAVAL (2009).**

*Politique de conservation et de mise en valeur des milieux naturels d'intérêt,* 32 pages and annexes [http://www.ville.laval.qc.ca/wlav2/docs/folders/portail/fr/administration/grandes\\_politiques/document/politique\\_milieu\\_naturel\\_4\\_novembre.pdf](http://www.ville.laval.qc.ca/wlav2/docs/folders/portail/fr/administration/grandes_politiques/document/politique_milieu_naturel_4_novembre.pdf)

## **CITY OF LONGUEUIL (2005).**

*Politique de protection et de mise en valeur des milieux naturels – Une vision à partager,* 12 p. [http://www.longueuil.ca/vw/asp/attachements/MESSAGES-MSG\\_FICHIER-10054-5.PDF](http://www.longueuil.ca/vw/asp/attachements/MESSAGES-MSG_FICHIER-10054-5.PDF)

## **CITY OF MONTRÉAL (2004).**

*Policy on the Protection and Enhancement of Natural Environments,* 35 p. [http://ville.montreal.qc.ca/pls/portal/docs/page/nature\\_en\\_ville\\_en/media/documents/ppmnang060123.pdf](http://ville.montreal.qc.ca/pls/portal/docs/page/nature_en_ville_en/media/documents/ppmnang060123.pdf)

## **CITY OF MONTRÉAL (2007).**

*Le réseau bleu, Premier plan concerté de mise en valeur des rives de l'agglomération de Montréal à des fins socio-récréatives,* 38 p.

## **CITY OF MONTRÉAL (2008).**

*Transportation Plan.* [http://ville.montreal.qc.ca/pls/portal/docs/PAGE/TRANSPORT\\_V2\\_EN/MEDIA/DOCUMENTS/transportation\\_plan\\_2008.pdf](http://ville.montreal.qc.ca/pls/portal/docs/PAGE/TRANSPORT_V2_EN/MEDIA/DOCUMENTS/transportation_plan_2008.pdf)

## **CITIES OF LAVAL, LONGUEUIL AND MONTRÉAL (2009).**

*Protocole d'entente sur les prolongements du réseau métropolitain de métro,* 6 p.

## **COMMITTEE ON AGRICULTURE, FISHERIES, ENERGY AND NATURAL RESOURCES (2010).**

*Journal des débats (Hansard) of the Committee on Agriculture, Fisheries, Energy and Natural Resources,* November 5, 2010, Vol. 41, No. 59.

## **COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL (2003).**

*Règlement de contrôle intérimaire de la Communauté métropolitaine de Montréal,* 22 p. and annexes.

## **COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL (2004).**

*Les paysages métropolitains, Rapport final,* 29 p.

## **COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL (2005).**

*Cap sur le monde: pour une région métropolitaine de Montréal attractive, projet de schéma métropolitain d'aménagement et de développement,* 132 p. and annexes.

## **COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL (2008).**

*Rapport du comité technique métropolitain sur les éléments de contenu du nouvel outil métropolitain dans le suivi de la résolution CC08-022 du conseil de la Communauté métropolitaine de Montréal,* 22 p.

## **COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL (2009).**

*Étude sur le potentiel de développement urbain d'un corridor de transport collectif renforcé dans l'axe du pont Champlain et dans l'axe du boulevard Taschereau.*

## **COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL (2009).**

*Mémoire de la Communauté métropolitaine de Montréal concernant la Porte Continentale et le Corridor de commerce Ontario-Québec,* 13 p.

## **COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL (2010).**

*Economic Development Plan 2010-2015,* 50 p.

## **COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL (2010).**

*Portrait des émissions de GES sur le territoire de la Communauté métropolitaine de Montréal,* Report produced by AECOM-Tecsult, 199 p.

## **COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL (2010).**

*Rapport de consultation des MRC et des CIT des couronnes Nord et Sud.*

## **COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL (2010).**

*Portrait of Greater Montreal, 2010 Edition, Metropolitan Reports, No. 1,* 52 p.

## **CONSEIL DE LA SCIENCE ET DE LA TECHNOLOGIE (2010).**

*L'innovation dans la chaîne logistique des marchandises. Ministère des Transports du Québec (2009). Politique 2009-2014 sur le transport routier des marchandises.*

## **GOVERNEMENT DU QUÉBEC (1994).**

*Les orientations du gouvernement en matière d'aménagement. Pour un aménagement concerté du territoire.*

**GOUVERNEMENT DU QUÉBEC (1995).**

*Les orientations du gouvernement en matière d'aménagement. Pour un aménagement concerté du territoire. Document complémentaire*, 31 p. <http://www.mamrot.gouv.qc.ca/amenagement-du-territoire/orientations-gouvernementales/presentation/>

**GOUVERNEMENT DU QUÉBEC (2001).**

*Une vision d'action commune. Cadre d'aménagement et orientations gouvernementales. Région métropolitaine de Montréal 2001-2021*, 143 p.

**GOUVERNEMENT DU QUÉBEC (2001).**

*Cadre d'aménagement et orientations gouvernementales*, 173 p.

**GOUVERNEMENT DU QUÉBEC (2009).**

*Quelle cible de réduction d'émissions de gaz à effet de serre à l'horizon 2020? Le Québec et les changements climatiques*, 16 p.

**HURTUBISE, Jules (2008).**

*Évolution du marché de la construction résidentielle et perspectives probables, Communauté métropolitaine de Montréal.*

**HYDRO-QUÉBEC.**

*Hydro-Québec's Action Plan for transportation electrification.* [online]. <http://www.hydroquebec.com/transportation-electrification/action-plan.html>

**KAMAL-CHAOUI, Lamia (2009).**

*Competitive Cities and Climate Change.* In *Les Cahiers de l'IAU*, p. 51-54.

**LAMBERT, Alexandre (2010).**

*Aménagement de la "plaque tournante" montréalaise. Survol du contexte d'évolution et des infrastructures logistiques stratégiques.* Report produced for the Communauté métropolitaine de Montréal.

**MINISTÈRE DU DÉVELOPPEMENT DURABLE, DE L'ENVIRONNEMENT ET DES PARCS (2007).**

*Government Sustainable Development Strategy 2008-2013*, 83 p. [http://www.mddep.gouv.qc.ca/developpement/strategie\\_gouvernementale/strat\\_gouv\\_en.pdf](http://www.mddep.gouv.qc.ca/developpement/strategie_gouvernementale/strat_gouv_en.pdf)

**MINISTÈRE DES AFFAIRES MUNICIPALES, DES RÉGIONS ET DE L'OCCUPATION DU TERRITOIRE (2010).**

*La prise de décision en urbanisme* [online]. <http://www.mamrot.gouv.qc.ca/amenagement-du-territoire/guide-la-prise-de-decision-en-urbanisme/planification/planification-des-infrastructures-et-des-equipements/>

**MINISTÈRE DES TRANSPORTS DU QUÉBEC (2009).**

*Évaluation des coûts de la congestion routière dans la région de Montréal pour les conditions de références 2003.*

**MINISTÈRE DU DÉVELOPPEMENT DURABLE, DE L'ENVIRONNEMENT ET DES PARCS (2008).**

*Guide d'élaboration d'un plan de conservation des milieux humides*, 68 p.

**MINISTÈRE DES RESSOURCES NATURELLES ET DE LA FAUNE (2006).**

*L'énergie pour construire le Québec de demain. La stratégie énergétique du Québec 2006-2015*, 119 p.

**MINISTÈRE DES TRANSPORTS DU QUÉBEC (2000).**

*Plan de gestion des déplacements. Pour une décongestion durable*, 81 p. [http://www.mtq.gouv.qc.ca/portal/page/portal/ministere/ministere/plans\\_transport/montreal\\_plan\\_gestion\\_deplacements](http://www.mtq.gouv.qc.ca/portal/page/portal/ministere/ministere/plans_transport/montreal_plan_gestion_deplacements)

**MONTRÉAL PORT AUTHORITY (2009).**

*2009 Annual Report.*

**ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (2004).**

*Territorial Reviews: Montreal, Canada*, 179 p.

**SECRETARIAT OF THE CONVENTION ON BIOLOGICAL DIVERSITY.**

*United Nations Environment Programme.* [www.cbd.int](http://www.cbd.int)

# ANNEX 1 — CONCORDANCE TABLE BETWEEN THE ACT AND THE THREE PROPOSED POLICY DIRECTIONS

PROPOSED POLICY DIRECTIONS	BILL 58 ASSENTED TO ON JUNE 2, 2010
1. A Greater Montréal with sustainable living environments (land use planning)	<ul style="list-style-type: none"> <li>• Definition of minimum density levels according to the characteristics of the locality.</li> <li>• Definition of territories reserved for optimal urbanization.</li> <li>• The identification of any part of the CMM's territory that must be the subject of integrated land use and transportation planning.</li> <li>• The <i>Metropolitan Land Use and Development Plan</i> must determine the metropolitan boundary to support the policy directions, objectives and criteria it defines.</li> <li>• The identification of any facility that is of metropolitan interest and the determination of the site, use and capacity of any new such facility.</li> <li>• The development of agricultural activities.</li> <li>• The identification of any part of the CMM's territory situated within two or more RCMs and that is subject to significant constraints for reasons of public security, public health or general well-being.</li> </ul>
2.A Greater Montréal with efficient, structural transportation networks and facilities (transportation)	<ul style="list-style-type: none"> <li>• Land transportation planning.</li> <li>• The identification of any part of the CMM's territory that must be the subject of integrated land use and transportation planning.</li> </ul>
3.A Greater Montréal with a protected, enhanced environment (environment)	<ul style="list-style-type: none"> <li>• The protection and enhancement of the natural and built environments and landscapes.</li> </ul>





## ANNEX 2 – MINIMUM DENSITY THRESHOLDS IN TOD ZONES

MUNICIPALITY	NAME	STATUS	LINE	MINIMUM DENSITY THRESHOLD <sup>1</sup>
Montréal	Angrignon	Existing metro station	1-Green	110
Montréal	Monk	Existing metro station	1-Green	80
Montréal	Jolicoeur	Existing metro station	1-Green	60
Montréal	Verdun	Existing metro station	1-Green	80
Montréal	De l'Église	Existing metro station	1-Green	80
Montréal	LaSalle	Existing metro station	1-Green	80
Montréal	Charlevoix	Existing metro station	1-Green	60
Montréal	Lionel-Groulx	Existing metro station	1-Green, 2-Orange	110
Montréal	Atwater	Existing metro station	1-Green	150
Montréal	Guy-Concordia	Existing metro station	1-Green	150
Montréal	Peel	Existing metro station	1-Green	150
Montréal	McGill	Existing metro station	1-Green	150
Montréal	Place-des-Arts	Existing metro station	1-Green	150
Montréal	Saint-Laurent	Existing metro station	1-Green	150
Montréal	Berri-UQAM	Existing metro station	1-Green, 2-Orange, 4-Yellow	150
Montréal	Beaudry	Existing metro station	1-Green	110
Montréal	Papineau	Existing metro station	1-Green	110
Montréal	Frontenac	Existing metro station	1-Green	110
Montréal	Préfontaine	Existing metro station	1-Green	60
Montréal	Joliette	Existing metro station	1-Green	60
Montréal	Pie-IX	Existing metro station	1-Green	110
Montréal	Viau	Existing metro station	1-Green	80
Montréal	L'Assomption	Existing metro station	1-Green	80
Montréal	Cadillac	Existing metro station	1-Green	80
Montréal	Langelier	Existing metro station	1-Green	110
Montréal	Radisson	Existing metro station	1-Green	110
Montréal	Honoré-Beaugrand	Existing metro station	1-Green	80
Montréal	Snowdon	Existing metro station	2-Orange, 5-Blue	80
Montréal	Côte-des-Neiges	Existing metro station	5-Blue	80
Montréal	Université-de-Montréal	Existing metro station	5-Blue	110
Montréal	Édouard-Montpetit	Existing metro station	5-Blue	80
Montréal	Outremont	Existing metro station	5-Blue	80
Mont-Royal	Acadie	Existing metro station	5-Blue	80
Montréal	Parc	Existing metro station	5-Blue	80
Montréal	De Castelnau	Existing metro station	5-Blue	80
Montréal	Jean-Talon	Existing metro station	2-Orange, 5-Blue	110
Montréal	Fabre	Existing metro station	5-Blue	80
Montréal	D'Iberville	Existing metro station	5-Blue	80
Montréal	Saint-Michel	Existing metro station	5-Blue	80
Montréal	Côte-Vertu	Existing metro station	2-Orange	80
Montréal	Du Collège	Existing metro station	2-Orange	80
Montréal	De la Savane	Existing metro station	2-Orange	80
Montréal	Namur	Existing metro station	2-Orange	80
Montréal	Plamondon	Existing metro station	2-Orange	60
Montréal	Côte-Sainte-Catherine	Existing metro station	2-Orange	60
Montréal	Villa-Maria	Existing metro station	2-Orange	80
Montréal	Vendôme	Existing metro station	2-Orange	60
Montréal	Place-Saint-Henri	Existing metro station	2-Orange	80
Montréal	Georges-Vanier	Existing metro station	2-Orange	80
Montréal	Lucien-L'Allier	Existing metro station	2-Orange	150
Montréal	Bonaventure	Existing metro station	2-Orange	150
Montréal	Square-Victoria	Existing metro station	2-Orange	150



MUNICIPALITY	NAME	STATUS	LINE	MINIMUM DENSITY THRESHOLD <sup>1</sup>
Montréal	Place-d'Armes	Existing metro station	2-Orange	150
Montréal	Champ-de-Mars	Existing metro station	2-Orange	150
Montréal	Sherbrooke	Existing metro station	2-Orange	110
Montréal	Mont-Royal	Existing metro station	2-Orange	80
Montréal	Laurier	Existing metro station	2-Orange	60
Montréal	Rosemont	Existing metro station	2-Orange	80
Montréal	Beaubien	Existing metro station	2-Orange	110
Montréal	Jarry	Existing metro station	2-Orange	60
Montréal	Crémazie	Existing metro station	2-Orange	80
Montréal	Sauvé	Existing metro station	2-Orange	60
Montréal	Henri-Bourassa	Existing metro station	2-Orange	60
Montréal	Canora	Existing train station	Deux-Montagnes	80
Mont-Royal	Mont-Royal	Existing train station	Deux-Montagnes	80
Montréal	Montpellier	Existing train station	Deux-Montagnes	80
Montréal	Du Ruisseau	Existing train station	Deux-Montagnes	80
Montréal	Sunnybrooke	Existing train station	Deux-Montagnes	40
Montréal	Roxboro/Pierrefonds	Existing train station	Deux-Montagnes	40
Montréal	Chabanel	Existing train station	Blainville—Saint-Jérôme	80
Montréal	Bois-de-Boulogne	Existing train station	Blainville—Saint-Jérôme	80
Montréal	Montréal-Ouest	Existing train station	Vaudreuil-Hudson, Candiac, Blainville—Saint-Jérôme	80
Montréal	Lachine	Existing train station	Vaudreuil-Hudson	80
Dorval	Dorval	Existing train station	Vaudreuil-Hudson	80
Dorval	Pine Beach	Existing train station	Vaudreuil-Hudson	40
Pointe-Claire	Valois	Existing train station	Vaudreuil-Hudson	40
Pointe-Claire	Pointe-Claire	Existing train station	Vaudreuil-Hudson	40
Pointe-Claire	Cedar Park	Existing train station	Vaudreuil-Hudson	40
Beaconsfield	Beaconsfield	Existing train station	Vaudreuil-Hudson	40
Beaconsfield	Beaurepaire	Existing train station	Vaudreuil-Hudson	40
Baie-d'Urfé	Baie-d'Urfé	Existing train station	Vaudreuil-Hudson	40
Sainte-Anne-de-Bellevue	Sainte-Anne-de-Bellevue	Existing train station	Vaudreuil-Hudson	40
Montréal	LaSalle	Existing train station	Candiac	80
Montréal	Pie-IX	Planned metro station	5-Blue	80
Montréal	Viau	Planned metro station	5-Blue	60
Montréal	Lacordaire	Planned metro station	5-Blue	60
Montréal	Langelier	Planned metro station	5-Blue	80
Montréal	Galerie d'Anjou	Planned metro station	5-Blue	110
Montréal	Poirier	Planned metro station	2-Orange	60
Montréal	Bois-Franc	Planned metro station	2-Orange	80
Montréal	Gouin/Laurentien	Planned metro station	2-Orange	60
Montréal	A-13	Planned train station	Deux-Montagnes	80
Montréal	Cheval Blanc	Planned train station	Deux-Montagnes	40
Montréal	Lachine	Planned train station	Candiac	80
Montréal	Pie-IX	Planned train station	Mascouche	80
Montréal	Lacordaire	Planned train station	Mascouche	80
Montréal	Anjou/L.H.Lafontaine	Planned train station	Mascouche	60
Montréal	Rivière-des-Prairies/St-Jean-Baptiste	Planned train station	Mascouche	40
Montréal	Pointe-aux-Trembles	Planned train station	Mascouche	40
Montréal	Bonaventure (Ottawa/William)	Planned LRT		110
Montréal	Bassin Peel	Planned LRT		110
Montréal	Pointe-Saint-Charles business park	Planned LRT		110
Montréal	Northern tip of L'Île-des-Soeurs	Planned LRT		110

1. When TOD zones overlap, the highest minimum residential density threshold applies.

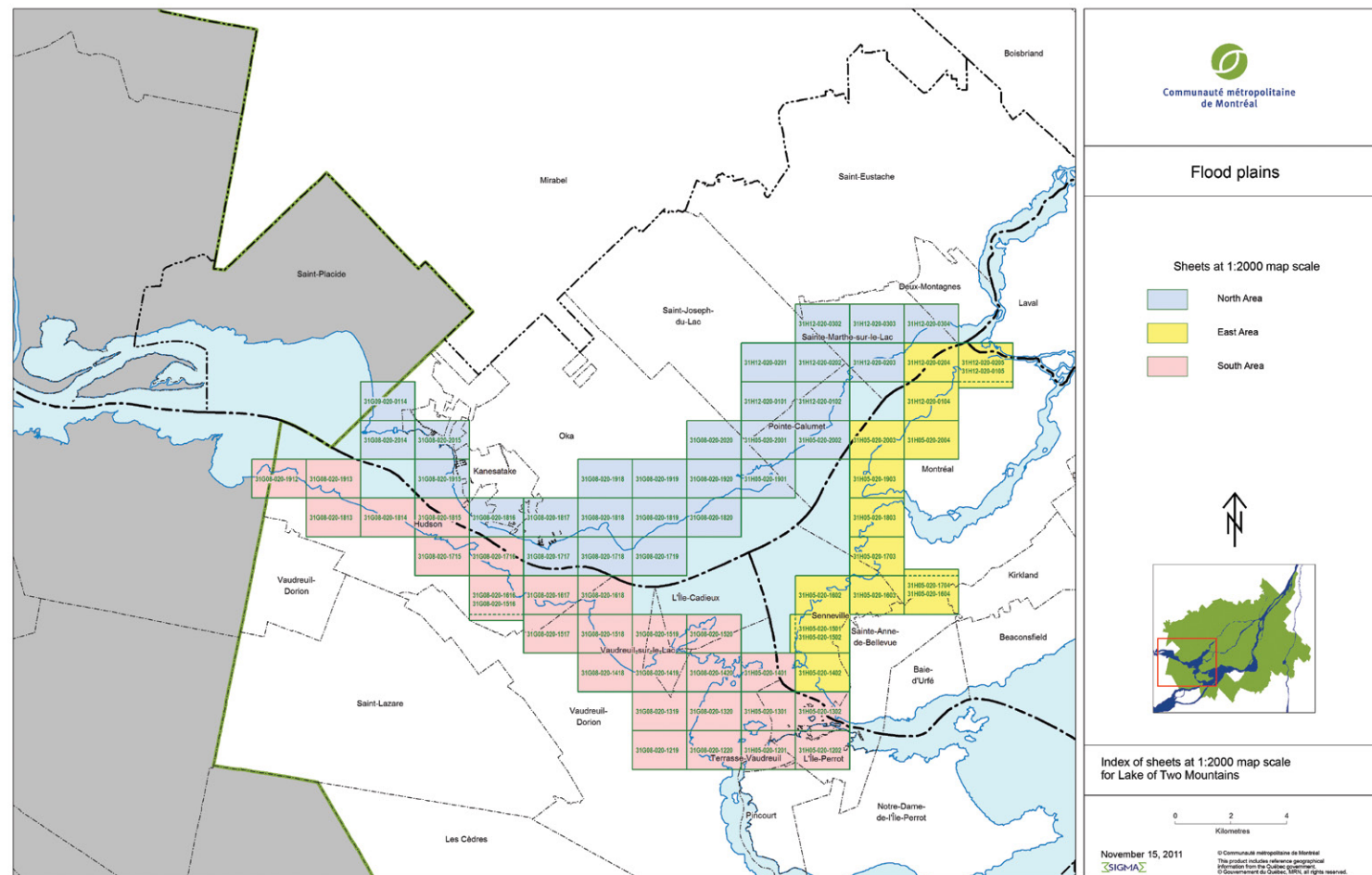


RCM	MUNICIPALITY	NAME	STATUS	LINE	MINIMUM DENSITY THRESHOLD¹
Longueuil	Longueuil	Longueuil	Existing metro station	4-Yellow	110
Longueuil	Saint-Lambert	Saint-Lambert	Existing train station	Mont-Saint-Hilaire	60
Longueuil	Longueuil	Saint-Hubert	Existing train station	Mont-Saint-Hilaire	80
Longueuil	St-Bruno-de-Montarville	Saint-Bruno	Existing train station	Mont-Saint-Hilaire	60
Longueuil	Brossard	Brossard-Panama	Planned LRT		80
Longueuil	Brossard	Brossard-Chevrier	Planned LRT		80
Longueuil	Brossard	Quartier	Planned LRT		80
Longueuil	Boucherville	De Montarville	Existing terminal		30
Longueuil	Boucherville	De Mortagne	Existing parking lot		30
Longueuil	St-Bruno-de-Montarville	Seigneurial	Existing parking lot		30
Laval	Laval	Cartier	Existing metro station	2-Orange	60
Laval	Laval	De la Concorde	Existing metro station	2-Orange	60
Laval	Laval	Montmorency	Existing metro station	2-Orange	80
Laval	Laval	Vimont	Existing train station	Blainville—Saint-Jérôme	40
Laval	Laval	Sainte-Rose	Existing train station	Blainville—Saint-Jérôme	40
Laval	Laval	Île-Bigras	Existing train station	Deux-Montagnes	40
Laval	Laval	Sainte-Dorothée	Existing train station	Deux-Montagnes	40
L'Assomption	Repentigny	Repentigny/Le Gardeur	Planned train station	Mascouche	40
L'Assomption	L'Assomption	L'Assomption	Planned train station		40
L'Assomption	Repentigny	Repentigny	Existing terminal		40
Les Moulins	Terrebonne	Terrebonne	Planned train station	Mascouche	60
Les Moulins	Terrebonne	Charlemagne	Planned train station	Mascouche	40
Les Moulins	Mascouche	Mascouche	Planned train station	Mascouche	60
Les Moulins	Terrebonne	Terrebonne	Existing terminal		30
Thérèse-De Blainville	Blainville	Blainville	Existing train station	Blainville—Saint-Jérôme	40
Thérèse-De Blainville	Sainte-Thérèse	Sainte-Thérèse	Existing train station	Blainville—Saint-Jérôme	40
Thérèse-De Blainville	Rosemère	Rosemère	Existing train station	Blainville—Saint-Jérôme	40
Thérèse-De Blainville	Boisbriand	Boisbriand	Planned train station	Montréal—Boisbriand	40
Thérèse-De Blainville	Bois-des-Filion	Bois-des-Filion	Planned parking lot		40
Deux-Montagnes	Deux-Montagnes	Deux-Montagnes	Existing train station	Deux-Montagnes	40
Deux-Montagnes	Deux-Montagnes	Grand-Moulin	Existing train station	Deux-Montagnes	40
Mirabel	Mirabel	Mirabel	Planned train station	Blainville—Saint-Jérôme	60

RCM	MUNICIPALITY	NAME	STATUS	LINE	MINIMUM DENSITY THRESHOLD <sup>1</sup>
Marguerite-D'Youville	Sainte-Julie	Sainte-Julie	Planned parking lot		40
Marguerite-D'Youville	Varenes	Varenes	Planned parking lot		30
La Vallée-du-Richelieu	Saint-Basile-le-Grand	Saint-Basile-le-Grand	Existing train station	Mont-Saint-Hilaire	40
La Vallée-du-Richelieu	McMasterville	McMasterville	Existing train station	Mont-Saint-Hilaire	40
La Vallée-du-Richelieu	Mont-Saint-Hilaire	Mont-Saint-Hilaire	Existing train station	Mont-Saint-Hilaire	40
La Vallée-du-Richelieu	Chambly	Chambly	Existing parking lot		30
Roussillon	Saint-Constant	Sainte-Catherine	Existing train station	Candiac	40
Roussillon	Saint-Constant	Saint-Constant	Existing train station	Candiac	40
Roussillon	Delson	Delson	Existing train station	Candiac	40
Roussillon	Candiac	Candiac	Existing train station	Candiac	40
Roussillon	Châteauguay	Châteauguay	Existing parking lot		30
Roussillon	La Prairie	La Prairie	Existing parking lot		30
Roussillon	Mercier	Mercier	Existing parking lot		30
Roussillon	Sainte-Catherine	Sainte-Catherine	Planned parking lot		40
Roussillon	Delson	Delson	Planned parking lot		40
Vaudreuil-Soulanges	L'Île-Perrot	Île-Perrot	Existing train station	Vaudreuil-Hudson	40
Vaudreuil-Soulanges	Terrasse-Vaudreuil	Pincourt/Terrasse-Vaudreuil	Existing train station	Vaudreuil-Hudson	40
Vaudreuil-Soulanges	Vaudreuil-Dorion	Dorion	Existing train station	Vaudreuil-Hudson	40
Vaudreuil-Soulanges	Vaudreuil-Dorion	Vaudreuil	Existing train station	Vaudreuil-Hudson	40
Vaudreuil-Soulanges	Hudson	Hudson	Existing train station	Vaudreuil-Hudson	40

1. When TOD zones overlap, the highest minimum residential density threshold applies.

## ANNEX 3 — FLOOD-RISK MAPS OF FLOOD PLAINS COMMON TO TWO OR MORE RCMS AND AGGLOMERATIONS



Larger copies of the PMAD maps are available at the following website: [www.pmad.ca](http://www.pmad.ca)



## LAKE OF TWO MOUNTAINS

This area is covered by a recent study from the Centre d'expertise hydrique du Québec (CEHQ) and a recent and detailed mapping exercise (2008) carried out by the CMM, in collaboration with municipalities and the provincial government.

The index of map sheets to be integrated is illustrated below. The reference levels for this area are noted on the maps and are a result of the August 2006 CEHQ 15-001 technical report signed by Simon Dubé, Eng.

## LAKE ST. LOUIS AND THE ST. LAWRENCE RIVER

This area is covered by two studies produced during the joint federal/provincial mapping program of the early 1980s and has not been the subject of more recent study.

For the area between Lake St. Louis and Varennes, refer to the joint federal/provincial mapping program (1979). The map sheets to integrate are 31H05-100-0201, 31H05-100-0202, 31H05-100-0302 and 31H05-100-030. The reference levels to integrate are those of report MH-85-03, the St. Lawrence River's Lake St. Louis-Varennes segment of January 1985, signed by Denis Lapointe, Geog.

There are no maps available for the area between Varennes and the northeastern end of the CMM. The reference levels to integrate are those of report MH-90-05, the St. Lawrence River's Varennes-Grondines segment.

For the upstream segment between Lake St. Louis and Lake of Two Mountains (northern and southern arms, around Île-Perrot), the CMM is waiting for new levels to be published by the CEHQ.

## RICHELIEU RIVER

Part of the Richelieu River (upstream) forms the boundary of the Rouville and Vallée-du-Richelieu RCMs. This area is covered by a study produced during the joint federal/provincial mapping program of the early 1980s and some areas have been the subject of more recent revisions. Here is the list of maps and levels to integrate, in chronological order:

- Map sheet 31H06-100-5106 as well as reference levels from report ES-79-01, the Richelieu River's Chambly basin segment at the border, signed by Jacques Déziel, Eng. and Jean-Paul Boucher, Eng.
- Map sheets 31H06-020-1609, 31H06-020-1610, 31H06-020-1709, 31H06-020-1710, 31H06-020-1809, 31H06-020-1810, 31H06-020-1909, 31H06-020-1910, 31H06-020-2010, 31H11-020-0110, 31H11-020-0111, 31H11-020-0211 and 31H11-020-0311 as well as reference levels from report ES-81-01, the Richelieu River's Sorel-Chambly segment, signed by Jacques Déziel, Eng. and Jean-Paul Boucher, Eng.
- Centre d'expertise hydrique du Québec (2008), map sheets 31H06-020-1110, 31H06-020-1111 and 31H06-020-1210-S. Reference levels from technical report number CEHQ 16-001, from June 2003.

## ST. JACQUES RIVER

Part of the St. Jacques River (downstream) forms the boundary for the Longueuil agglomeration and the Roussillon RCM. This part of the river was recently the subject of a flood-risk review by the CEHQ as part of the PDCC program. The latter also produced two detailed map sheets at a scale of 1: 2000 in collaboration with the MRNF.

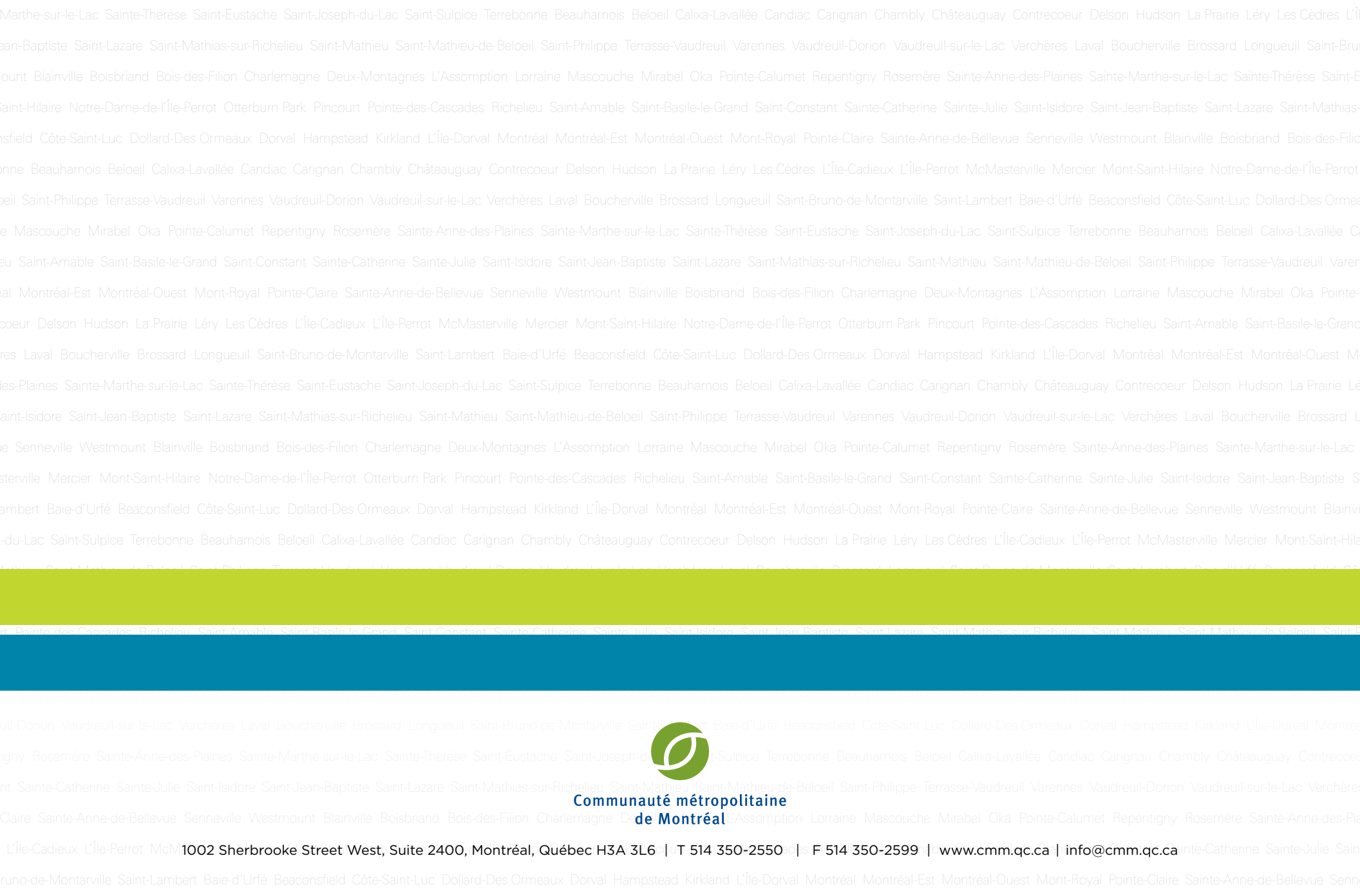
Map sheets 31H06-020-1402-S and 31H06-020-1501-S, dated the 2nd quarter of 2006, need to be integrated. The reference levels are from report PDCC 16-017, May 2003, signed par Simon Dubé, Eng.











**Communauté métropolitaine  
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