

A tool box for better understanding and promoting
the suggested guidelines regarding natural and naturalisable areas

Montreal Metropolitan land use and development plan

and the revision and updating of the
Montreal Master Urban Plan and the local city and borough urban plans
for the greater Montreal region.

check title to see if **Schéma d'aménagement** is the right term

Why a tool box?

This toolbox gives an overview of basic information needed to understand the proposals in the document entitled **Suggested guidelines regarding natural and naturalisable areas**. For the organisations promotion the fore mentioned document, this toolbox will also equip you in order to better tackle discussions.

If you still have questions regarding either the guidelines, please do not hesitate to contact Héritage Laurentien. Héritage Laurentien can also offer conferences regarding many of the following points.

Tool 1: A brief overview of the importance of natural areas and ecosystem services

When promoting the need to protect natural areas, it is important to be well equipped for explaining the basic benefits of natural areas known as **ecosystems services**. The benefits of having natural areas in and around cities are undeniable. Many of the commonly noted impacts, while very important to society as a whole, can be considered somewhat indirect to a city surviving primarily on housing and commercial tax revenue. For example:

- **Better air quality**
Through the reduction of air pollutants in the atmosphere
- **Reduction of the heat island effect**
The presence of trees has been known to reduce the temperature by up to 12°C
- **Increased active transportation**
Through the creation of greenway networks linked to natural areas
- **Increased physical activity**
Through the popularity of natural areas for recreational activity
- **Increased biodiversity**
Though the simple presence of more natural areas as well as by linking various natural areas through a greenway network that allow plant and wildlife populations to circulate through the greenways
- **Reduced loss of biodiversity due to disease and extremes in climate**
By having large interlinked natural areas that can allow for wildlife to leave an area when the climate is extreme and go to another area

Some of the other benefits, often forgotten, on the other hand have a huge direct economic impact on cities. A few examples:

- **Increased interest for nature related recreational activities**
 - 3.4 million Quebecers do nature related activities every year (QC Gov. 2000)
 - 1.9B\$ is spent by residents of the MMC annually (2009, from QC Gov. 2000 updated for inflation and population)
 - 27.9% of 25 to 34 year old Quebecers do wildlife watching every year (QC Gov. 2000)



- **Increased interest for tourism**
 - The fastest expanding form of tourism in Quebec (Aventure Écotourisme Québec)
 - 10% of the tourism industry in Quebec (Aventure Écotourisme Québec)
 - 2 million visitors/year in Québec (QC Gov. 2000)
 - 66.1 million Americans spend 95B\$US/year wildlife watching (US Gov. 2001)
- **Reduced maintenance costs**
 - Most studies indicate that maintenance cost are 80 to 90% lower for nature parks compared to urban parks
- **Reduced need for infrastructure**
 - By increasing development densities and protecting natural areas, the quantity of infrastructures are reduced significantly (roads, sewage, electricity, etc.)
- **Better housing sales and housing value**
 - 70% of realtors near the Bruce »trail in Ontario promote the trail as part of their sales pitch
 - Various studies have demonstrated that housing values near natural areas are increased by up to 32%
- **Reduced loss of vegetation due to disease and climate extremes**
 - Many cities have in the past limited the greening efforts to a few species. For example, close to 2/3 of the trees in Montreal are either ashes or maples. This makes them very susceptible to diseases, parasites and other factors including weather extremes.

Because of the huge economic benefits of natural areas within the urban context, many cities have decided to put nature front and center in their marketing plans. Toronto actively promotes its greenway developed in 2005 and expanded in 2010. New York City, which is part of a massive greenway creation plan, has invested \$50M in 2010 to create a greenway network in the South Bronx. As a result, when dealing with urban issues, though it is important to present the better known impacts, it is absolutely essential to present as well the benefits that will have a massive economic impact on our communities.

Tool 2: Why also include naturalisable areas?

In many sectors of the MMC, there are no areas that are entirely natural. There are however many sites which can easily be naturalized with a little effort. These degraded ecosystems can then be almost as interesting for wildlife and for recreational activities as natural areas. If we do not include such areas, many communities will not have access to any areas at all. Because of this, it will be as important to promote the protection of naturalisable areas in more urban sectors as it is to protect natural areas. The need to restore degraded ecosystems was in fact recognized in October 2010 in Nagoya when **the Convention on Biological Diversity** set 20 targets including the following:

Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Tool 3: What is a 'mega' greenway network?

Most cities in North-America and many throughout the World have created either a greenway network, a greenbelt network or both. For Montreal, the best option is a combination which integrates recreation and ecological benefits and considers the unique characteristics of Montreal such as the presence of a naturally occurring blue belt and a need for the strategy to be adaptable from mostly rural sectors to very urban high population density sectors.

A greenway

A greenway is like a spider web of green corridors aimed at either:

- Allowing biodiversity to travel from one area of ecological interest to the next. This implies that the corridor will be managed for biodiversity.
- Allowing active transportation (cycling, walking, etc.) throughout the region.
- Allowing a combination of both to a different extend from corridor to corridor.

The MMC could allow for the creation of a series of interconnected greenways. Greenways are flexible enough in to be built in various urban environments throughout the MMC. For example, one could negotiate railway right of ways along the extensive rail infrastructure of Montreal, as done in Vancouver. Their importance worldwide? you can for example go from the southern tip to the northern tip of USA's Atlantic coast just by using their greenway networks.

A greenbelt

A greenbelt is a much larger sized green corridor. It is generally built around the urban core of a metropolitan region, almost like a donut. This means that it most of the time does not go near the urban core of a metropolitan region. It typically emphasizes biodiversity but will often also emphasize agricultural, recreational, cultural and tourism activities in a manner that is compatible with maintaining biodiversity. For Montreal, since 57% of the MMC is agricultural land, its inclusion is essential. Also, cultural, recreational and tourism would bring important benefits to the region as well.

Toronto is an example of a recently created greenway which now incorporates strict rules; namely that agricultural land and natural areas are protected in perpetuity.

A blue belt

Around Montreal, our natural features would also allow for a blue belt as well. The presence of the Saint-Lawrence and other major rivers, occupying 12% of the Montreal regions surface area have been at the heart of our culture and history. They also have a huge impact on our biodiversity.

A century ago, life for the communities of the MMC was greatly centered around the rivers. This changed following the polio epidemics of the 1930's to the 1950's. Now the water has gotten much cleaner and, with continued efforts to reduce pollution from both urban and agricultural sources recreational activities are once again becoming a possibility. Efforts to revive the recreational aspect linked to our blue network are presently ongoing through various projects including *la route bleu du Québec*.

A well planned 'mega' greenway network which encompasses greenways as well as green and blue belts as well would be the ideal solution for Montreal which could have major economic and social impacts ranging from increased tourism and local spending the promotion of local agricultural products. This concept also allows for the integration of all site proposed by the Parc écologique de l'Archipel project, supported more than 80 organisations, cities and boroughs.



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Tool 4: Universal access, a basic principle of environmental justice

Environmental justice is a sub-category of social justice. It bases itself on the principle that no community should bear the brunt of environmental problems and not be able to enjoy some of the environmental benefits. For example while some MMC communities are quiet and residential with access to parks forests and waterways, others are cut by highways and rail lines, or are neighbouring rail yards, old garbage dumps, industries or brown fields and have no access to natural areas where they can reap the various benefits of nature. In these neighbourhoods we generally find lower income, less educated visible minorities. The principle of universal access to natural areas is a solution for reducing this injustice as is the concept of creating green jobs.

Two clear examples of such areas are the South Bronx of New York City as well as the South-western boroughs of Montreal. Both have had industries, garbage dumps, highways, rail tracks and rail yards cut through and cause very large amounts of pollution. For these reasons, New York has planned to spend 50M\$ creating a greenway network in the South Bronx in 2010.

Tool 5: Dealing with competing views of social priorities

One problem here is that some proponents of other social needs view what is important as very different from groups who see the importance of natural areas. For example, proponents of transport oriented design (TOD) believe that the priority should be to create TOD green developments at all costs in order to reduce the production of greenhouse gases. In their minds, protecting green spaces and natural areas is not important as long as the development on them is green and produces fewer greenhouse gases than average. Another example; in some low income neighbourhoods, groups promote the need for low cost housing at all cost, regardless of the quality of life of the residents living in these neighbourhoods.

While being respectful of other values, we need demonstrate that our values are as important, if not more. For example, in response to the proponents who say that the need for green developments thwarts the need to keep natural areas, we will have to remind them that there are many areas having less ecological importance that could be developed instead. 9.6% of the surface area of the island of Montreal is brown fields much more suitable for development than natural areas. To those that promote low cost housing at all cost, we need to remind them that these communities have the right to environmental justice and should not be treated as second class citizens who must bear the brunt of societies environmental burdens.



Tool 6: the 20 targets for 2020

- Please note that this is an 'advanced unedited version' available on the Convention on Biodiversity Web site.
- Veuillez aussi noter qu'ils n'ont pas encore publié de version française de ce document
- Extracted from: the CONVENTION ON BIOLOGICAL DIVERSITY (Nov. 2 2010), pages 8 to 10, CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY, Tenth meeting, Nagoya, Japan, 18-29 October 2010 Agenda item 4.2

UPDATING AND REVISION OF THE STRATEGIC PLAN FOR THE POST-2010 PERIOD

*Decision as adopted (Advance unedited version)**

IV. STRATEGIC GOALS AND THE 2020 HEADLINE TARGETS

1. The Strategic Plan includes 20 headline targets for 2020, organized under five strategic goals. The goals and targets comprise both: (i) aspirations for achievement at the global level; and (ii) a flexible framework for the establishment of national or regional targets. Parties are invited to set their own targets within this flexible framework, taking into account national needs and priorities, while also bearing in mind national contributions to the achievement of the global targets. Not all countries necessarily need to develop a national target for each and every global target. For some countries, the global threshold set through certain targets may already have been achieved. Others targets may not be relevant in the country context.

Strategic goal A. Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

Target 1: By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

Target 2: By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.

Target 3: By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio-economic conditions.

Target 4: By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.

Strategic goal B. Reduce the direct pressures on biodiversity and promote sustainable use

Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Target 6: By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.

Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.

Target 10: By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

Strategic goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascapes.

Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.

Strategic goal D: Enhance the benefits to all from biodiversity and ecosystem services.

Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.

Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Target 16: By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.

Strategic goal E. Enhance implementation through participatory planning, knowledge management and capacity building

Target 17: By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.

Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels

Target 19: By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred,¹ and applied.

Target 20: By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan 2011-2020 from all sources and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from the current levels. This target will be subject to changes contingent to resources needs assessments to be developed and reported by Parties.