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Brief on the Montréal Urban Agglomeration Land Use and Development Plan (Draft September 2014)

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Introduction

The Green Coalition/Coalition Verte (GCV) is a non-profit association of grassroots volunteers. Its member-groups and individual members are dedicated to the conservation, protection and restoration of the natural environment. For the last 26 years members have been actively involved in many issues such as saving Montreal's last natural green spaces, preventing road building through established Nature-Parks and other green spaces, boosting public transit strategies; promoting alternatives to pesticides, pressing for the clean-up of waste-water runoff and polluted creeks, and for responsible waste reduction and management. In short, the GCV works to shape Montreal as a sustainable city.

This brief focusses on the elements of the draft Land Use and Development plan directed towards the protection and enhancement of the natural environment within the Agglomeration bearing in mind the objectives set in the 'Plan métropolitain d'aménagement et de développement' (PMAD) [1] of the 'Communauté métropolitaine de Montréal' (CMM) which were arrived following the overwhelming demand for greater protection expressed during the consultation process for that document.

The Rationale for the Protection of the Natural Environment.

Biodiversity Conservation

Biodiversity is vital to maintaining the web of interconnected organisms that sustains all life on earth. Every species extinction removes a link in the web and we have no idea how many links can be broken before the system collapses. We do not even accurately know the total number of species in existence. Estimates for the rate of extinction vary widely but some [2] put the current rate of extinction worldwide higher than at any time in the past including the "great dying" 250 million years ago at the end of the Permian era that resulted in the loss of 90% of all species [3].

The Maple Hickory bioclimatic domain in southern Quebec is the hotspot for species extinctions in Québec due to loss and fragmentation of habitat.

Both Canada and Québec adhere to the Convention on Biological Diversity and Montréal is home to the secretariat. At the 10th Conference of the Parties at Nagoya, Japan, in October 2010, in the presence of delegates from Quebec, the signatories adopted the Aichi Biodiversity Targets [4] which include "Strategic Goal C: Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity. The Montréal Agglomeration must play its part in achieving these targets.

Climate Change Mitigation

As recognised in the Québec Climate Change Action Plan, the impact of climate change is already being felt in Québec. Between 1960 and 2003 the average temperature in southern Québec increased by between 0.75 and 1.25 degrees Celsius [5]. The greenhouse gases already in the atmosphere and additional heat already absorbed by the oceans is enough to continue the changes for centuries even if all emissions were to cease today.

Maintenance of natural vegetation cover and viable wetlands are essential to mitigate the impacts of climate change, including: higher average and peak temperatures; increased average and peak precipitation; and more frequent, more intense weather events. Already much of the Agglomerations infrastructure cannot cope with peak rainfall

leading to the overloading of sewers and the flooding of highway interchanges and basements.

Forests and wetlands help to prevent flooding by absorbing excess precipitation and releasing it slowly and provide this buffering action at far less cost than man-made flood prevention measures such as dams and retention basins. Vegetation also reduces both erosion and the heat island effect created by the absorption of heat by concrete and asphalt.

Ecosystem Services and Natural Capital

A 2013 study commissioned by the David Suzuki Foundation and Nature-Action Québec [6] estimated the value of ecosystem services to the greater Montréal region at more the \$4 billion a year. These services include cleaning the air, regulating the climate, supplying us with water and forming soil, but are not valued by conventional economics. Natural areas are key to providing these services and should be regarded as natural capital which we must husband and use sparingly and wisely.

Human Health

An increasing number of studies have demonstrated that access to natural areas creates positive physical and psychological health benefits. A healthier, happier, population provides significant economic benefits including reduced health care costs, reduced absenteeism and improved productivity.

According to the ‘biophilia’ hypothesis proposed by E. O Wilson of Harvard University, evolution has hard-wired our brains to respond positively to the natural environment so that man-made urban environments, to which we are not attuned, create stress. Studies indicate that even relatively short exposures to a natural environment such as a walk in a park at lunchtime can significantly reduce this stress and make us more productive [7].

In his book Planet Heart [8], Montréal cardiologist Dr. François Reeves convincingly documents the various benefits both direct and indirect of access to natural spaces.

Current Protection Status within the Montréal Agglomeration

The Natural Habitat Policy

Introduced in 2004, the Montréal Policy on the Protection and Enhancement of Natural Habitats [9] set an objective of protecting 6% of the land area of what is now the Montréal Agglomeration. According to latest ‘Bilan’ for the policy, published in August 2013 [10], starting from a base of 1,569 ha (3.1%) a further 1,024 ha (2%) had been protected with an additional 292 ha (0.6%) in process for a total of 2885 ha (5.75%). The total cost since the inception of the policy had been \$34,732,220.

Since then the only addition announced has been 4.5 ha in Sainte-Anne-de-Bellevue at a cost of \$1.9M. The cost to date has thus been \$36,632,219 or 35,615\$/ha suggesting that a further sum of the order of \$14.5M will be required to reach the 6% target.

In March 2014, however, the Triennial Budget allocation for protection, acquisition, management and maintenance of natural habitats was cut from \$12M a year to \$7M in 2014 and \$0 in 2015. This and the very slow pace of acquisition over recent years, suggest that the policy objective will not soon be achieved.

The Protection Register

In December 2009 the Agglomeration Council voted to establish a register of protected natural habitats which met the criteria for protected areas defined by the ‘Union

Internationale de Conservation de la Nature' (UICN). To date only one site has been entered.

Access to Natural Environments

A 2007 CBC News report [11] ranked Montréal last major Canadian cities for per capita green space with 1.2 ha per 1000 residents compared to Toronto with 3.2 and Ottawa with 8. The current figure stands at 1.4 ha/1000 which would improve slightly to 1.6 if the Natural Habitat policy target is achieved.

Protection Proposed by the draft Plan

The Protection Target

The GCV welcomes the increase in the target for protection of natural areas from 6% to 8% of the land area of the Agglomeration but notes that this falls far short of the 17% objective set by Aichi Biodiversity Target 11 [4] which was adopted as the target for the CCM in objective 3.1 of the PMAD. The proposed 8% would provide 2.1 ha per 1000 residents which would still be low compared to other cities.

Identification of Areas to be Protected

It is not clear from the draft plan exactly what will constitute the 8% protected area. Many of the 'Natural Environments' identified on map 14 are excluded from the 'Territories of Ecological Interest' shown on map 15, particularly those designated 'friche naturelle', mainly former agricultural land in process of natural regeneration. Even in their current state such areas provide valuable habitat for wildlife including some endangered bird species such as the Bobolink and given time will revert to a fully wild state.

The situation becomes even more confusing when these maps are compared to the 'Major Land Use Planning' of map 20. Here some of the protected areas from map 15 are marked for 'Conservation' whilst others shown on map 15 and included in the current Natural Habitat policy protection total, such as Parc Angrignon, the St. Michel Environmental Complex and the Notre Dame de Neige cemetery on Mount Royal are designated 'Grand espace vert ou récreation'. This latter designation is also applied to several golf courses and large parks such as Parc Maisonneuve and Parc Jean-Drapeau which have not so far been considered natural habitats.

Not covered by either the 'Conservation' or 'Grand espace vert ou récreation' designations are the 'Mosaique de milieux naturels' and the 'Parc local comprenant des milieux naturels d'intéret' from map 15.

It is thus unclear what is intended to be protected and what levels of protection are to be provided to specific sites.

The Agglomeration Green and Blue Network

Although the proposed Agglomeration 'Trame verte et bleue' is an interesting idea it is quite distinct from the CMM 'Trame verte et bleue' [12], the Ceinture Verte concept of the Mouvement Ceinture Verte [13] or the original Parc écologique de l'archipel de Montréal proposed by the GCV which are at the regional level. The proposed inner belt, however, could make a valuable contribution to conservation efforts as long as it is not merely a paper exercise and is truly managed as an ensemble with a clear overall vision by an entity with the power to override local policy when necessary.

Proposed Revisions to the Plan

An increased protection target with a clear implementation plan.

The protection target should be increased to match the full 17% objective of the PMAD with and provide statement of how the objective is to be achieved. Some mechanisms for increasing the protected area are indicated below.

Inclusion of Restoration and Re-naturalisation

The GCV notes that the SAD makes no mention of re-naturalisation in accordance with Aichi Target 15 [4] which calls for the restoration of 15% of degraded ecosystems.

Recent news reports [14] suggest that the popularity of golf is in decline in Canada in general and Montreal in particular and that several courses in the Agglomeration are threatened with closure. Since many are designated 'Grand espace vert ou récréation' on map 20 and thus presumably protected from development, this could afford some excellent re-naturalisation opportunities. This would include the Meadowbrook course in Côte St. Luc which the GCV member group 'Les Amis du parc Meadowbrook' have been advocating as a Nature Park for many years.

Proposed green field developments on former agricultural land such as that in Western Pierrefonds should include significant provision for re-naturalisation.

In 2003 brown field sites constituted around 4,880 ha [15] or 9.6% of the territory and the figure is probably still similar today. Re-development of sites such as the former Blue Bonnets afford opportunities for environmental restoration as do decontaminated former industrial sites which could also be held in a land bank to be exchanged for more ecologically valuable land when the opportunity arises.

Integration of Green Corridors

The plan should include specific proposals to link protected natural areas via green corridors. By facilitating movement of wildlife such corridors have good potential to increase biodiversity. Two such concepts are described in the latest Natural Habitat policy 'Bilan' namely:

- A Link between the Saint-Pierre river basin, the St-Jacques escarpment and the Lachine rapids. [10 p33].
- Connect of the Promenade Bellerive the Bois d'Anjou Nature Park and the ruisseau De Montigny ecoterritory. [10 p35].

Other linking opportunities are afforded by the networks of Railway and Hydro Québec servitudes that cover the island as shown in maps 24 and 29 respectively which could be managed ecologically without disruption of their primary vocation.

Improved Access to Natural Areas

To overcome the lack of natural spaces in the most densely populated parts of the Agglomeration attention should be paid to the development of smaller local green spaces outside the ecoterritories and major parks. The former 'Parc Oxygène' and the 'ruelles vertes' are examples of what can be achieved in small spaces.

Such spaces can be linked to form Urban Promenades as set out the document 'Promenade urbain la vision' [16] to provide at least some contact with the natural world and reduce the heat island effect.

Revitalise the Policy on the Protection and Enhancement of Natural Habitats

As noted above all though significant progress has been made since 2004 the momentum seems to have been lost in recent years. The policy should be thoroughly revised, the mechanisms for its implementation, particularly the acquisition of land, made more efficient and effective and a budget sufficient to support not just the acquisition but the management and enhancement objectives provided.

So far under the policy conceptual plans have been developed for three of the ecoterritories (Trame verte de l'est, Coulée verte du ruisseau De Montigny, Corridor écoforestier de île Bizard) and a draft plan for the Coulée verte du ruisseau Bertrand is in process. These plans should be referenced and their content acknowledged in the Land Use and Development Plan.

Conclusions

Although the draft Montréal Urban Agglomeration Land Use and Development Plan 2014 recognises the need to protect our natural heritage and represents an improvement in this respect over the existing version of the plan, it does not go far enough in its objectives and lacks a clear indication of how they are to be achieved. If the Agglomeration is to be a truly sustainable entity providing strong leadership to the CMM, these deficiencies need to be addressed in the final version of the plan.

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