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26 April 2017

Brief on the Future of Pierrefonds West

Presented to the Office de la consultation publique de Montréal

on behalf of the Green Coalition/Coalition Verte

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Introduction

The Green Coalition/Coalition Verte (GCV) is a non-profit association of grassroots volunteers. Group 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 protecting Montreal's last natural areas, 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.

The Green Coalition and its member-groups have been actively campaigning against the development of the Pierrefonds West area even before it was excluded from the permanent agricultural zone in 1991. Our vision is to maintain all of it as a natural habitat forming a key part of a much larger protected area to be managed as a regional or national park for the benefit all citizens of Montreal.

In the long run this will be far more valuable to both Pierrefonds-Roxboro and the whole Montreal region than the proposed 5500 unit housing development which will truly benefit only its promoters. The owners of the land have rights but they do not override our collective right to a healthy and sustainable environment.

The following paragraphs summarise our arguments for conservation of this important part of our natural heritage.

Sustainability

The definition of sustainable development adopted by the Brundtland Commission in 1987 [1] is 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. Preserving sufficient natural areas to support biodiversity, provide ecosystem services and promote human health and well being is a vital element to a sustainable future which must not be sacrificed to provide short term financial gain.

Both Montreal and the borough of Pierrefonds-Roxboro have shown that they accept the need for sustainability by producing Sustainable Development plans. Also Montreal is a member of ICLEI Local Governments for Sustainability and will host the ICLEI World Congress in 2018.

Even if the development of Pierrefonds West is carried out following sustainable design principles as promised, the impact on wildlife habitat means that it would not meet the test of true sustainability.

Pierrefonds West provides Montreal with an opportunity to demonstrate real commitment to the concept of sustainability by passing the area on unspoilt to future generations.

Biodiversity

Biodiversity is vital to maintaining the web of interconnected organisms that sustains all life on earth and maintenance of biodiversity is a key element of a sustainable future. 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 United Nations Convention on Biological Diversity and Montreal 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 study 'Évaluation écologique de l'ouest du territoire de Pierrefonds' [5] commissioned by the David Suzuki Foundation catalogues a wealth of plant and animal species including 11 animal and 9 plant species designated as threatened, vulnerable or susceptible to being designated.

Montreal has recognised the importance of maintaining and enhancing urban biodiversity through its membership in the ICLEI and in particular its sponsorship of the ICLEI publication 'biodiverCities - A primer on Nature in Cities'.

Again Pierrefonds-West provides an excellent opportunity to put theory in to practice.

Natural Infrastructure/Capital, Ecosystem Services and Climate Change

As recognised in the Québec Climate Change Action Plan [6] 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. 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 infrastructure or capital in the form of 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 Agglomeration's 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.

The important role of Natural Infrastructure was acknowledged by the City of Montreal in June 2016 when Mayor Denis Coderre gave the opening address to the 'Sommet sur les infrastructures naturelles du grand Montréal' but so far it has done very little to preserve or enhance it.

A 2013 study commissioned by the David Suzuki Foundation and Nature-Action Québec [7] estimated the value of ecosystem services provide by natural infrastructure 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.

The 2015 study 'Ecosystem services and natural capital Pierrefonds-West development' project [8] commissioned by the Green Coalition, estimates the annual value of ecosystem services provided by area targeted for development at \$285,0000. Some of these services could be replaced by artificial means for example drains and retention basins to prevent flooding, air conditioning to reduce temperatures, water treatment plants to purify water all at considerable ongoing expense and some for example air purification which could not be replaced. Air quality is already a major concern on the island of Montreal.

The value of these ecosystem services will only grow as the effects of climate change become more severe.

Access to Natural Environments and 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 [9].

In his book Planet Heart [10] Montréal cardiologist Dr. François Reeves convincingly documents the various benefits both direct and indirect of access to natural spaces.

Coupled with adequate provision for public transport the park concept described below offers all Montrealers the possibility of access to a significant natural area without leaving the island.

Protection Targets

The current protection target 10% of the land area of the Agglomeration set in the SAD but falls far short of the 17% objective of Aichi Biodiversity Target 11 which was adopted as the target for the Communauté

métropolitaine de Montréal (CMM) in objective 3.1 of the 'Plan métropolitain d'aménagement et développement' (PMAD) [11].

The proposed 10% would provide 2.6 ha per 1000 residents which would still be low compared to other cities. {A 2007 CBC News report [12] 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.}

A glance at a satellite view of Montreal shows how little green space is left and that achieving the 10% target will be a challenge. Sacrificing 185 ha (0.4%) will make it even more difficult.

The claim to the project being an example of sustainable development because 180 ha or nearly half of the 365 ha under consideration have been protected is disingenuous since the 60 ha triangular area to the west of chemin l'Anse-à-l'Orme is both in the permanent agricultural zone and mostly in a floodplain rendering it unsuitable for development. A more realistic comparison would thus be 120 ha protected versus 185 ha to be developed and even then it must be noted that only half of the 120 ha has been protected to date.

Connectivity

The Quebec Centre for Biodiversity Science study entitled 'The Impacts of the Cap Nature real estate project (Pierrefonds West) on ecological connectivity' [13] concludes that 'development in the study area will significantly impact terrestrial biodiversity through a loss of habitat, and increase in landscape fragmentation and a decrease in functional habitat connectivity.' The overall loss in connectivity was estimated to be about 27%. This clearly demonstrates how important the area is to the ecological viability of the region.

Urban Sprawl

The study 'Accelerated urban sprawl in Montreal, Quebec City and Zurich 1951-2011' [14] clearly shows that urban sprawl in the Montreal region is out of control and increasing at an exponential rate. This is mainly due to a relatively stable population appropriating more and more space for housing. Development in Pierrefonds-West can only make this situation worse.

Impact on the rest of Pierrefonds-Roxboro

The consensus among participants at the 2011 consultation on a sustainable development plan for Pierrefonds-Roxboro was that the borough is already excessively stretched out from East to West making it difficult to provide adequate services from a central location. The proposed development would exacerbate the problem by creating a substantial population even further west. The study 'Analyse du potentiel de développement résidentiel dans l'arrondissement de Pierrefonds-Roxboro' [15] from the Conseil régional environnement Montréal' shows that the same number of dwellings can be accommodated in already built areas of the borough in the vicinity of commuter rail stations that are already designated for densification in the borough urban plan.

The study 'Analyse des contraintes, coûts et impacts d'un Éventuel projet immobilier dans la secteur Pierrefonds-Ouest / l'Anse à l'Orme' [16] commissioned by Sauvons l'Anse-à-l'Orme, indicates an investment of around \$100M will be required to provide infrastructure and services to the development a substantial portion of which will fall on the taxpayers of the borough more than offsetting any gains from increased tax revenue.

As a resident in Pierrefonds for the last 37 years I find it very hard to think of any benefit that has accrued to me personally from the very substantial westerly development that has taken place over that time.

National Park, Regional Park or Biodiversity Reserve

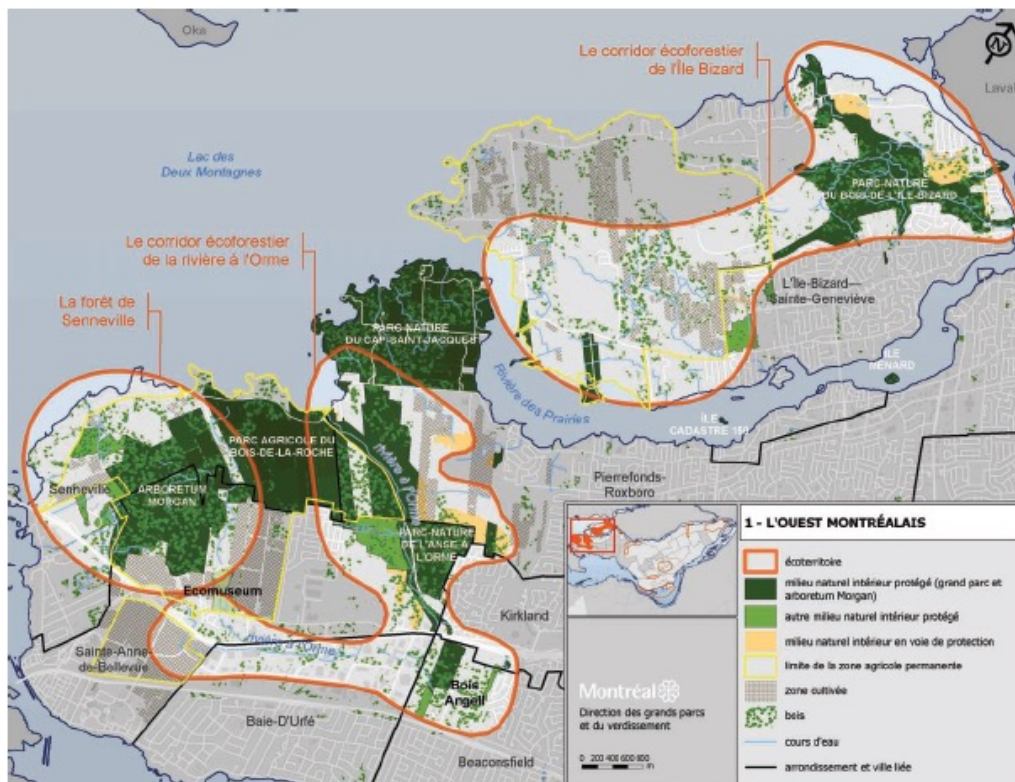
In 2005 The Green coalition suggested the creation of a Quebec National Park around the shoreline of the Lake of Two Mountains. The idea was enthusiastically received by then Quebec Minister of

Environment Thomas Mulcair and later expanded in scope to cover the whole Montreal region. This concept was further developed by the Green Coalition and others into the Parc Écologique de l'Archipel du Montréal (PEAM) which was endorsed by 100 partners including the city of Montreal and inspired the concept of a 'Trame Verte et Bleue' [17] for the Montreal region included in the PMAD.

On pages 28 of the 'Bilan 2009-2013 for the Politique de protection et de mise en valeur des milieux naturels' [18], the city of Montreal shows a similar concept for a 'vast regional park'.

On June 6 2016 the borough council of Île-Bizard–Sainte-Geneviève passed a resolution calling for an OCPM consultation on the creation of a Quebec biodiversity reserve covering the same area.

As shown below the proposed park would encompass the Senneville Woods, Boise-de-la-Roche Agricultural Park and the Rivière à l'Orme and Île Bizard Ecoforest Corridors covering an area of over 20000 ha.



The concept is also consistent with the Montreal Island 'Trame verte et bleue' introduced in the 'Schéma d'aménagement et de développement de l'agglomération de Montréal' (SAD) [19].

The diversity of habitat and the connectivity provided by the Pierrefonds West area would clearly make a vital contribution to such a park.

Conclusions

The Green Coalition believes that the benefits of preserving the whole Pierrefonds West area as a natural habitat far outweigh the claimed benefits of development and strongly urge the borough of Pierrefonds-Roxboro, the City of Montreal and the Montreal Agglomeration to take steps to protect it in perpetuity.

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