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# ANALYSIS REPORT

**(St-Laurent /Eco-Campus Hubert-Reeves Project)**

December 16, 2016

Green Coalition

Attention : Gareth Richardson, President

## 1. Mandate

I have received a mandate from the Green Coalition to review and comment on the environmental assessments conducted by the MDDELCC, the City of Montreal and Technoparc Montreal for the construction and development of the Eco-Campus Hubert Reeves and related infrastructure work and have been mandated to review and comment the potential impacts of the Eco-Campus Hubert Reeves on the wildlife and habitat of avian fauna in the proposed area of development.

## 2. Documentation

In the preparation of the present report, I have taken notice and reviewed the following documents:

### a) Procedural documents

- "*Demande introductive d'instance en injonction provisoire, sauvegarde et pour injonction permanente"* and attached affidavits dated September 20th 2016;
- Exhibits P-1 to P-31;
- Letters to Ministers McKenna and David Heurtel;
- « *Déclarations solennelles* » by Véronique Doucet and David Courchesne dated September 22nd 2016;
- General arguments contained in the parties' « Plans d'argumentation» submitted before Judge Guylaine Beaugé;
- Judgement rendered by Judge Beaugé dated September 27th 2016;

### b) Certificates of authorisation (CA)

- MDDEP, 2012. Les milieux humides et l'autorisation environnementale. Direction des politiques de l'eau et Pôle d'expertise hydrique et natural, Gouvernement du Quebec. 41 pp + annexes
- Aubin, M.C. 26 Mars, 2012. Demande de certificat d'autorisation. Remblai et travaux en milieux humides et intervention en rive. Projet Technoparc Montreal Dossier No 11571
- Aubin, M.C. 26 juillet, 2012. Réponses aux questions et commentaries du MDDEP sur la Demande de certificat d'autorisation (Art.22) pour des interventions en milieux humides et en rive dans le cadre du projet de developpement du Technoparc Montreal (Do. No. 11571)
- CA dated February 6th 2013
- CA modification dated March 21st 2014;
- CA dated March 23rd 2015
- CA (32) dated April 15th 2016
- CA modification dated September 6th, 2016
- CA modification dated September 9th, 2016
- <u>All supporting documents provided under exhibits PGQ-1 to PGQ-4, DC-1 to DC-3 (.1 to .13) and DT-1 to DT-12</u>

**c) Environmental Studies**

Special consideration has been given to the following reports :

- CJB Evironnement Inc., Dec. 2008. Caractérisation sommaire des habitats, Lots 1 336 731 à 1336 736 et 2 455 252 à 2455 255, Arrondisssement, St. Laurent pour Technoparc Montreal
- Inspec-Sol. 22 Octobre, 2008. Caractérisation sommaire de l'habitat; lots 1 336 731 à 1336 736 et 2 455 252 à 2455 255 Rue Alexander-Fleming, Arrondisssement, St. Laurent pour Technoparc Montreal Ref M023712-E2
- Groupe IBI/DAA, 9 sept. 2010. Caractérisation des arbres et des espèce floristiques à statut précaire, TechnoParc Phase III Dossier No. 10662, 22 pp. + annexes
- Bernier, P-A. et S. Rouleau. Octobre 2010. Inventaire des espèces de couleuvres présentes dans la partie sud du Technoparc Montreal. Société d'histoire naturelle de la vallée du St. Laurent, 10 pp.
- «*Caractérisation biologique*» Dated October 7th 2011 by IBI/DAA (PGQ-4a and DC-3.1 and annexes)
- «*Rapport d'analyse*» dated March 23rd 2015 (PGQ-3)
- Environment Canada. 2014. Recovery Strategy for the Least Bittern (*Ixobrychus exilis*) in Canada Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa vi + 41 pp.
- GroupeHemispheres . 15 September 2016 « *Inventaire des oiseaux aquatiques et terrestres présents sur le territoire sud du campus St-Laurent et le territoire situé au nord-est de la rue Alexandre-Fleming et évaluation de l'impact de certains travaux sur ces espèces* »
- Gagnon, S. et B. Drolet. 2 August, 2016. Rapport d'inspection; Nidification des oiseaux migrateurs dans le secteur de l'Eco-campus Hubert Reeves, Dorval, Montreal, Quebec. SCF d'Environnement Canada et Changement Climatique Canada

- Gagnon, S. et B. Drolet. 2 August, 2016. Rapport d'inspection; Nidification des oiseaux migrateurs dans le secteur du Parc des Sources/Train CDPQ, Dorval, Montreal, Quebec. SCF d'Environnement Canada et Changement Climatique Canada
- BAPE 2016. GENIVAR. Critères d'evaluation de la valeur écologique. http://www.bape.gouv.qc.ca/sections/mandats.eole-saint-damase/documents/PR8.1-annexeC.pdf visited 28 October, 2016
- http;//en.wikipedia.org/wiki/No_net_loss_wetlands_policy site visited 2015-11-13.
- Eyre,M., S. Kerkhof, Z. Pfeiffer, and S. Titman. 2016. Cumulative effects, Woodland caribou and NEB regulated pipelines – a regulatory perspective. Environmental Concerns in Rights-of-Way Management 11th International Symposium. Jean Doucet (editor), pp. 267-. 2016 Utility Arborist Association.

**d) Environmental registries**

- E-bird website http;//www.ebird.org
- MDDELCC wetlands map
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC) website http://www.cosewic.gc.ca/eng/sct5/index_e.cfm
- C.W.S. 4 Nov., 2016 Workshop on « The Species at Risk Act and other aspects relating to migratory bird protection » held at Edifice Dominique Ducharme 105 McGill, Montreal

**e) Eco-campus Hubert-Reeves Development project**

- Site plans (VD-1 and VD-5)
- Technoparc promotional document
- REM project promotional document

## 3. Site visits

The prolongation of Alexandre-Fleming Boulevard and Eco-campus site were visited on November 19th, 2016. I had visited the site and submitted E-Bird checklists on August 10, 2016 and June 13, 2016. In the more distant past I have participated in at least two Christmas Bird Counts, which have included the site.

Projected conservation sites identified in Exhibit VD-5

## 4. Preliminary remarks

Upon reviewing the documents listed above I believe that Technoparc Montreal began their Eco-Campus development with objectives to promote conservation and public awareness in good faith. Stated objectives of the Technoparc development in Sector E, L'Eco-campus Hubert Reeves, as excerpted from p.9 of their "*demande de certification*" dated 26 March, 2012 include the following:

"*Le projet vise aussi à maintenir et favoriser la croissance d'une biodiversité examplaire par l'intégration de stratégies minimisant l'impact de développement sur les milieux sensibles.*" ……

*"L'approche privilégiée par le projet est d'empêcher le morcellement et la fragmentation des habitats pour la faune et la flore. Afin d'éviter toute rupture de la continuité écologique, le développement propose s'implante en périphérie de cette trame naturelle."*……..

These public statements, however, were not applied when they fragmented a vibrant wetland complex by putting a road through it and failing to leave an adequate buffer around the critical wetland habitats. Less destructive alternatives were identified since 2008,but there is no indication that any consideration was given to these development alternatives.

It is laudable to try to make this rich habitat more accessible to the public by creating an easy walking path/trail but it is also intrusive. A large road with an impenetrable base (Even with drains & aquaducts) and lighting is overkill when modest efforts can accomplish this more effectively. The wide road already built creates a barrier to water and animal movement. Lights at night are disruptive to animal activity and plant growth.

Even though early reports indicated a high ecological value for the site, no structured approach was applied by Technoparc, the city or the MDDELCC to understand the basic ecological processes of success and habitat use by animal inhabitants of the wetlands they wanted to promote. One must also know the breeding biology of the species involved by studying the residents during their breeding season (for most of the birds - from April/May to July/August).

None of the studies reviewed so far, applied this basic reasoning nor did they properly monitor and evaluate the site's bird population and habitats.

The main wetland of the Eco-campus has been subjected to human modification including the dumping of construction debris but has developed into a rich biodiversity site. It is human nature to want to clean things up and indeed it is of value to remove toxic materials and invasive exotic plants such as Phragmites and Buckthorn. However, care must be taken not to consider dead trees as unsightly, but as important homes for local animal inhabitants and their foods.

One of the faults to be found in the evaluation and authorisation process followed for the issuance of the Certificates of Authorisation lies in part with regulators who did not request full study of the fauna and its interaction with elements they did examine, including the soil and flora. Many clues and much data reasonably indicated the existence of rich avian habitat with a high biodiversity rating.

A request should have been made for an impact assessment of the development upon the wildlife present all year round, but particularly during the breeding season when vulnerable migratory species can be most affected. Wetland habitats are well known to accommodate significantly high levels of biodiversity (see MDDEP 2012 guidelines, U.S. government "no-net loss of wetland" policy website). There is strong evidence of biodiversity at the site. Among birds the occurrence of 168 species has been recorded (e-Bird registry), ranking the Technoparc site among the top dozen "hot-spots" around Montreal.

Even previous studies commissioned by Technoparc Montreal (outside the breeding season) note this as well and comment that further study during breeding is required (Inspec-Sol, 2008, GroupeHemispheres 2016). The MDDELCC should have intervened and commissioned a proper study.

All of the previous faunal studies supplied by Technoparc were conducted at periods of the year, after avian breeding activity had concluded. CAs were issued even though it is readily noticeable to a conscientious bystander that there is a serious lack of information about which species breed and how they use the habitat. Altogether 13 bird species listed by COSEWIC have been recorded at/or near the site with some potential to breed there, and there is speculation about whether they do actually breed within the wetland complex or not, based on data from elsewhere.

As things currently stand, the MDDELCC, without a proper study, has allowed Technoparc Montreal and City of Montreal to go ahead with the extension to boulevard Alfred Nobel bisecting the wetland complex with a new road, removing trees and wildlife habitat.

This barrier has negatively affected the connectivity between wetlands and destroyed the former living space of occupants, significantly affecting migrant birds which fly south for the winter. Individuals which resided in the destroyed habitat are forcibly displaced when they return in the spring, likely causing direct mortality to many individuals . This occurs by forcing them to move to areas where they have to compete with former residents and thus impacts their survival, reproductive success and biological fitness. In future the road allowed for by the MDDELCC will act as an easy and open pathway for predators such as raccoons and domestic cats impacting reptiles and birds which may attempt to nest near where a road has now been built.

During our site visit of 19 November, 2016 I became convinced that this development was not considering environmental impacts seriously. The road extension with its wide edge adjacent to two wetlands and its deep bed/foundation not only destroyed much cover and breeding sites for animals but it constituted a significant barrier as indicated above. Furthermore there was complete disregard for the properties suggested as compensation for other wetland destruction in that they were either dump sites or being used as a depository for soil, gravel or waste material for other ongoing road construction. Ironically the MDDEP document of 2012 outlining procedures for applying for a CA indicates that a full biological assessment be done for equivalent compensation sites designated for conservation purposes. No such document is joined to the present file.

Facts or acknowledged positions:

- 8.3 ha of the 20.8 ha Technoparc site are recognized as wetlands (“milieux humides”) (Inspec-Sol , 22 Oct 2008; Aubin 2012)
- Wetlands are highly valued, ecologically, by MDDEP (2012) and indeed by federal governments in Canada and the US where they accept a policy of “no net loss - web citation)
- MDDEP (2012) in its guidelines to obtain environmental authorization to develop in or around wetlands promotes minimizing impact by limiting the amount of impermeable surface (e.g. a road) near a wetland, keeping biological corridors and hydrological links intact, and keeping buffer zones around the water. It notes that buffer zones for birds can extend up to 1500 m and 180m for mammals; and for reptiles and amphibians up to 288 m. (annexe II p. 45)
- Aubin 2011 characterizes the Eco-campus Hubert Reeves swamp and marsh as Situation 3 wetlands. MDDEP 2012 states that for authorization of development in Situation 3 wetlands the application should receive a “global evaluation”.
- The latest CA does not take the GroupeHemispheres September 2016 report into consideration.

- The project proposal foresees a future link with the adjacent Parc des Sources wherein a wetland accommodated a breeding pair of the endangered Least Bittern in 2016. The nest site was within a few hundred meters of the road constructed in September 2016
- The Migratory Birds Convention Act (1994) prohibits the disturbance of nesting migratory birds during their breeding season on all lands and water bodies in Canada regardless of ownership.
- The major factor causing the decline of the Least Bittern in Canada is considered to be wetland destruction (Environment Canada, 2014) and no proper comprehensive evaluation was conducted before the start of construction work at the site
- Confirmed pictures and breeding records of birds by Joel Coutu (affidavit) and Gagnon & Drolet (2016) attest to habitat occupancy of fauna at the Eco-Campus Hubert Reeves site as well as high biodiversity.
- The Eco-Campus Hubert Reeves site was occupied by a colony of Green Herons in August 2016
- Surveys of fauna, during the summer breeding period were not conducted. Animal use data from field surveys was collected on the following dates: CJB Env. 2008 – visits 30-31 Oct 2008; IBI/DAA 2011 – visit 1 Sept, 2011; GroupeHemispheres 2016 – visits 16, 19, 23 Aug., 2016; Gagnon & Drolet, 2016 – visit 28 July 2016.
- Groupe Hemispheres identified 6 COSEWIC listed (Threatened or Endangered) species that were recorded on the development site (other than the Least Bittern) and pronounced that they would not breed there, without adequately describing the habitats available nor searching for breeding activity in the normal reproductive season.
- There is extensive area on the Eco-campus Hubert Reeves site occupied by exotic invasive plant species: *Phragmites communis, Rhamnus cathartica, Lythrum salicaria* .

## 5. Conclusions

(1) In my opinion the MDDELCC failed to fulfill its mandate to the people of Quebec to protect ecologically valuable areas by not requesting a full assessment of biodiversity associated with sensitive wetland habitats at the Technoparc site before issuing a CA (Certificat d'autorisation) allowing development of the site.

(2) Had the MDDELCC conducted a minimal yet proper evaluation of the material it was supplied, there was sufficient evidence for it to identify a highly biodiverse complex of wetlands and presence of fragile avian habitat, including habitat for listed species.

(3) With the information supplied it is evident that the MDDELCC acted as complacent party to a promoter led process and did not exercise an independent and objective intellectual effort to evaluate and consider the project's impacts on the environment, neither did it evaluate or consider the possibility of alternative development options.

(4) In my opinion, Technoparc Montreal, when proposing development of the site, failed to consider the environmental impact beyond contamination of soils, of filling the wetlands and drastically altering the biologically rich vegetative communities surrounding these wetlands. Only late in time, when attention was drawn to the significant bird presence and activity, did they request a limited scope assessment of this impact.

(5) In my opinion, the environmental impact assessment commissioned by Technoparc Montreal in application for a CA to develop the St. Laurent site is totally inadequate.

(6) For animals in general and for birds in particular, it covers a very limited period during autumn, when what is needed is an assessment of faunal utilization of different habitats over several full years in recent time. Key to understanding the impact of filling the wetlands is to assess breeding population densities and measure breeding activity of spring/summer resident fauna.

(7) The brief GroupeHemispheres report is flawed in that it cites data which were not designed to measure breeding parameters of avian species or other fauna (insects, fish, amphibians, reptiles, mammals). The E-Bird data, which they cite, describes bird occurrence and distribution without considering how the environment is used. The rich biodiversity which they acknowledge involves a complex interaction of physical and biological factors which include water, soil, plants and animals that should be inventoried. When impact studies are done for development associated with mining, oil exploration, construction of transportation corridors, etc this type of basic evaluation is conducted – why was it not done or requested for this development.

(8) In consideration of the Migratory Birds Convention Act, work surrounding the wetlands of the Eco-Campus Hubert Reeves should not proceed during the breeding period of migratory birds using the area. Acknowledging species located within this area in 2016, this period extends from mid- April until mid-September. It is recognized that in the Montreal area species arriving by April 15 include Belted Kingfisher, Pied-billed Grebe, Yellow-bellied Sapsucker, Virginia Rail, Sora and several others and late nesting species still active until mid-September include Rose-breasted Grosbeak, Eastern Wood Pewee, House Wren and at least 6 species of wood warblers (e-Bird). More significantly is evidence that in 2016, Least Bittern , an endangered species recognized by the Species at Risk Act, had a successful nest within 500 m of the road which was built last fall.

(9) I would recommend that before any work is continued at the Hubert Reeves Eco-Campus, a thorough environmental impact assessment be conducted examining the flora and particularly the fauna at the site throughout at least one full annual cycle, with a special emphasis placed upon animal species that breed there.