Michalski Nielsen
ASSOCIATES LIMITED

January 6, 2014

Mr. Mike Dror
Fotenn Consultants Inc.
223 McLeod Street
Ottawa, Ontario
K2P 0Z8

Re: Scoped Environmental Impact Study in Support of Zoning Bylaw Amendment and Site Plan Application, Commercial Development of Property with Municipal Addresses of 5640 Bank Street, 7107 Marco Street and 7041 Mitch Owens Road, Greely, City of Ottawa; Our File 4912

Dear Mr. Tremblay:

Michalski Nielsen Associates Limited is pleased to provide you with our Scoped Environmental Impact Study (EIS) prepared in relation to the above-noted property. This approximately 13 ha (32 acre) site is located at the corner of Mitch Owens Road and Bank Street, just north of the village of Greely, now within the southern limits of the City of Ottawa (formerly part of the Township of Osgoode). It is bordered by Mitch Owens Road to the north, Marco Street to the south, Old Prescott Road to the west and Bank Street to the east. Surrounding the site is a mix of residential development, aggregate extraction, rural development and open space (**Figure 1**). The site was historically used as an aggregate extraction pit, and now consists of cultural meadows, thickets, and fragmented forest.

1.0 INTRODUCTION

This scoped EIS was required by the City of Ottawa specifically to address potential concerns regarding the use of this property by bobolink and meadowlark, two bird species which receive protection under the *Endangered Species Act* (*ESA* 2007). The field investigations and research completed focused on this issue, but were broadened to include other potential concerns relating to the natural environment, such as:

- site vegetation characteristics, including the sensitivity and significance of vegetation communities and individual plant species;
- general wildlife observations, including some targeted survey work for amphibians and birds;

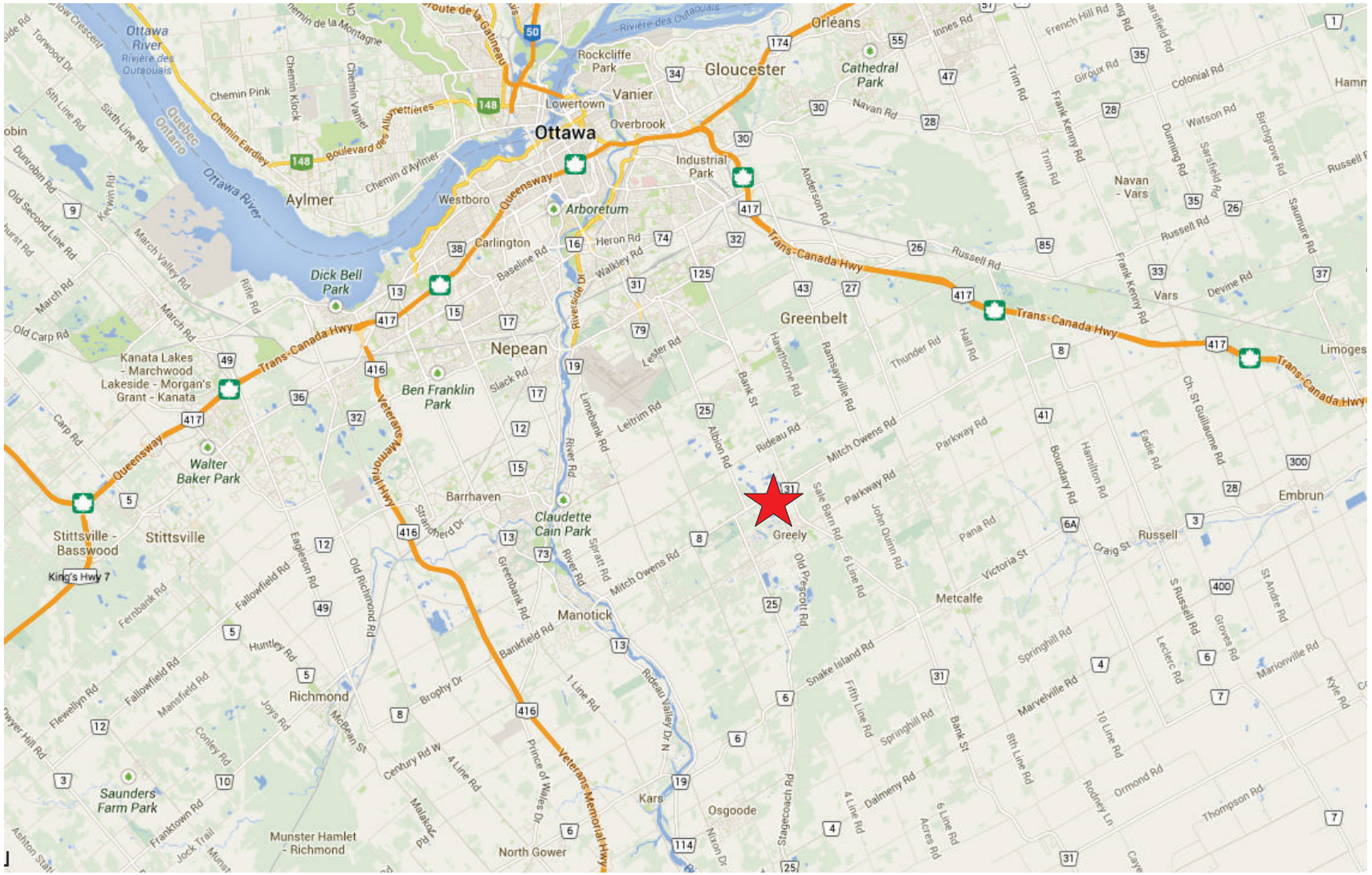

Figure 1. Site Location

Mitch Owens Rd and Bank Street. Greely, Ottawa Ontario.

Map Source: *Google Maps https://maps.google.ca/maps?ct=reset&tab=ll*

Project Name:	Mitch Owens Road _Otis Group
Project Number:	4912
Date:	13.12.2012
Created By:	KLF
Scale:	Not to Scale

Michalski Nielsen Associates Limited

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- wildlife habitat opportunities, including that for Species of Conservation Concern in addition to bobolink and meadowlark; and

- an assessment of aquatic resources.

In the sections which follow, we describe our study methodology, site characteristics, our evaluation of these resources and our comments and recommendations regarding the proposed development of this site.

It is noted that this report forms part of a submission package in support of the Zoning Bylaw Amendment and Site Plan application. Details relating to the Site Plan, including tree retention and landscaping measures, are provided under separate cover by other members of the project team.

2.0 APPROACH

2.1 Collection and Review of Background Information

Background information was collected and reviewed prior to the initiation of site investigations. This included the following published literature pertaining to the natural features of the subject property and surrounding lands:

- Life Science Areas of Natural and Scientific Interest (ANSI) in Site District 6E12;

- the Natural Heritage Information Centre (NHIC) database for information applicable to the study area (NHIC 2013);

- the Ontario Breeding Bird Atlas (OBBA) web site for information on typical breeding birds in the area (Bird Studies Canada 2005);

- Ontario Herpetofauna Atlas & Eastern Ontario Model Forest (2013) concerning reptile and Amphibian range maps (Ontario Nature 2013);

- South Nation Conservation Authority web site (2013); and

- the City of Ottawa Official Plan, including associated schedules (Office Consolidation 2003);

Contact was also made with Erin Thompson, Ministry of Natural Resources (MNR), Kempville District office, regarding natural features information and Species at Risk (SAR).

2.2 Review of Existing Mapping and Aerial Photography

Aerial Photography for the project site was obtained from the City of Ottawa GIS-On line (geoOttawa) website. This also included a review of past aerial photographs available for this site. The photography used was captured between 2002 and 2011.

2.3 Site Investigations and Methodologies

The review of the reports and background information sources listed above provided a context from which to assess the natural features within the study area.

A preliminary site assessment was completed on October 7, 2012, with more detailed field surveys conducted on June 13 and 14, 2013. The inventories were based on qualitative survey techniques. There were two focal areas to this assessment, namely vegetation and wildlife, as the preliminary site assessment confirmed that there are no significant aquatic resource features on or in close proximity to the property. The approach taken for each of the targeted areas is summarized below and expanded upon, as appropriate, in **Section 3**.

Terrestrial Vegetation

Field investigations involved:

- identifying the boundaries of plant communities on the subject property and classifying vegetation communities using the Ecological Land Classification (ELC) System for Southern Ontario (Lee *et al*. 1998), with revised codes provided by the ELC working group (2010);
- evaluating the sensitivity and significance of vegetation communities, based on **A Natural Heritage Resources of Ontario: Vegetation Communities of Southern Ontario** (Bakowsky 1996; Natural Heritage Information Centre [NHIC] website 2013);
- evaluating the significance and sensitivity of flora recorded during field surveys, using Newmaster *et al*. (1998), NHIC (2013) and Oldham *et al*. (2009), and evaluating specific preferences for potential SAR;
- preparing a vascular plant species list (**Appendix A**);
- evaluating existing disturbances patterns and their impacts on the natural features within the study area; and
- taking representative site photographs.

Wildlife

Field investigations involved:

- observations for wildlife, made during the course of both field visits (**Appendix B**). Species were recorded on the basis of direct presence, signs (tracks, scats, cavities, etc.), and vocalizations, observed or heard during the field surveys. Wildlife habitat potential was also evaluated during field surveys;

- a scoped bobolink and meadowlark survey, following MNR guidelines for Eastern Meadowlark and Bobolink (December 2011), as provided by Erin Thompson (Kemptville MNR, Species at Risk Biologist). This was combined with a breeding bird survey (single survey period only) within the breeding bird window (May 1st to July 31st), to assess both resident and migrant bird presence. Supplementary breeding bird information was also obtained through the Ontario Breeding Bird Atlas (OBBA);

- a scoped evening amphibian calling survey and an additional nocturnal breeding bird survey, conducted on June 13, 2013;

- assessing wildlife habitat characteristics and overall habitat quality, based on qualitative observations. This included the potential of the property to support significant wildlife habitat and Species of Conservation Concern known to this locale; and

- taking representative site photographs.

Aquatic Resources

Initial field investigations on October 7, 2012, concluded that there are no watercourses within or in proximity to the subject property. Historically, the property was used as an aggregate extraction pit, and a large constructed pond once occurred (**Appendix C**). This is no longer the case as the pond has been filled in. However a small (25 m x 12 m) cattail pond remains as part of an internal stormwater collection system: this is located within the southcentral portion of the property. This feature was assessed during the wildlife and vegetation inventories. A review of adjacent lands to the north identified several off-line ponds occurring as part of the adjacent pit operations; it was determined that these features are not connected to the subject property (i.e., via ditches, drains, or surface runoff).

2.4 Resource Evaluation

The federal, provincial or regional rarity of the vegetation communities and plant species were determined from standard status lists and published literature. Sources included Bakowsky (1997),

Committee on the Status of Endangered Wildlife in Canada (COSEWIC) (2013), Committee on the Status of Species at Risk in Ontario (COSSARO) (2013) and Oldham (2009).

In addition to the identification of any federally, provincially or regionally rare vegetation communities, features of more local natural interest were identified, on the basis of field investigations.

The significance or rarity of wildlife species and habitats was determined from standard status lists and published literature. Sources included Species at Risk in Ontario List (SARO 2013), NHIC (2013), Cadman *et al*. (1987), COSEWIC (2013), Committee on the Status of Species at Risk in Ontario (COSSARO) (2013). Wildlife habitat and nesting information from MNR's Significant Wildlife Technical Guide, including draft Ecoregion updates (2000, 2010), and the Natural Heritage Reference Manual for natural heritage policies, were also reviewed in determining the potential for significant wildlife habitat, as defined in the Provincial Policy Statement (2005). It is noted that determining the potential for significant habitat of endangered and threatened wildlife species was updated to reflect the requirements of the *Endangered Species Act* (*2007*).

3.0 SITE CHARACTERISTICS

3.1 Physical Setting

The subject property is located within the Physiographic Region known as the North Gower Drumlin Field (Chapman and Putnam 1984). This small physiographic region lies predominately in North Gower and former Osgoode Townships and is characterised by low drumlinoid ridges separated by areas of level, poorly drained clay land.

Soils or landform types within the subject property are not identified within detailed soils mapping for this area, and are instead given a classification of urban, undifferentiated residential (Schut and Wilson 1987). However, the adjacent soils which likely best represent previous conditions within this site are identified as part of a Kars series, with drainage ranging from excessive to good to imperfect/poor. This soil type is represented by gravely sandy loam or coarse sandy loams, which are stony to moderately stony, and which are neutral to alkaline in composition (Schut and Wilson 1987); remnants of these soils are still present on site.

The subject property has quite level topography. As a result of previous extraction activities, and despite the subsequent importation of considerable amounts of waste aggregate material from adjacent lands, the property still "bowls" to the centre, sloping up quite steeply towards adjacent Mitch Owens Road (north limits) and the adjacent residential development (south limits).

3.2 Designated Natural Environmental Features

A background review was undertaken to determine if there are any designated natural environmental features within or adjacent to the study area. There are none. More specifically:

- no Provincially Significant Wetlands (PSWs) are present within or adjacent to the study area;
- no Areas of Natural and Scientific Interest (ANSIs) are present within or adjacent to the study area; and
- no Environmentally Significant Areas (ESAs) are present within or adjacent to the study area.

3.3 Vegetation Communities

Four ELC units were delineated within the study area; these communities are shown on **Figure 2** and represent a best fit classification. Because the property has undergone considerable land use changes over the past many years, vegetation communities are not natural, making vegetation classification more challenging. Each of the documented vegetation communities are described below.

Pondweed Mixed Shallow Aquatic Type (AM_1-4). This man-made pond is small, representing 0.5% of the site. It contained clear, shallow water during all three site visits. The pond's riparian zone is lined with reed canary grass (*Phalaris arundinacea*). The dominant emergent aquatic plant was broad-leaved water-plantain (*Alisma plantago-aquatica*), which was observed in standing water around the margin of the pond. This pond also contained submergent plant species, in particular slender pondweed (*Potamogeton pusillus*), and most likely remains wet throughout the year (**Photographs 1** and **2**). There was an abundance of American toad (*Bufo americanus*) tadpoles (**Photograph 3**). No fish species, turtles, or other amphibians were observed.

Reed Canary Grass Graminoid Meadow Type (MEGM3-8). This unit covers the majority (approximately 60%) of the property and is characterized by fresh to moist soils. Overall the plant composition is very weedy, consisting of numerous exotics and 'old field species' (**Photographs 4, 5** and **6**). The site has been recently disturbed with topsoil having been removed; this exposes the subsoil and restricts vegetation growth in areas. The unit varies from patchy to densely vegetated. The dominant species, in order of abundance, are reed canary grass, Kentucky bluegrass (*Poa pratensis ssp. pratensis*), smooth brome (*Bromus inermis ssp. inermis*) and common tansy (*Tanecetum vulgare*). This community did not contain any rare flora and fauna and there were very few species of native plants. The predominant vegetation are perennial grass species, with staghorn sumac (*Rhus typhina*) and black locust (*Robinia pseudoacacia*) invading. Roughly 1% of this community contained common milkweed, which is a larval host plant for the monarch butterfly (*Danaus plexippus*).

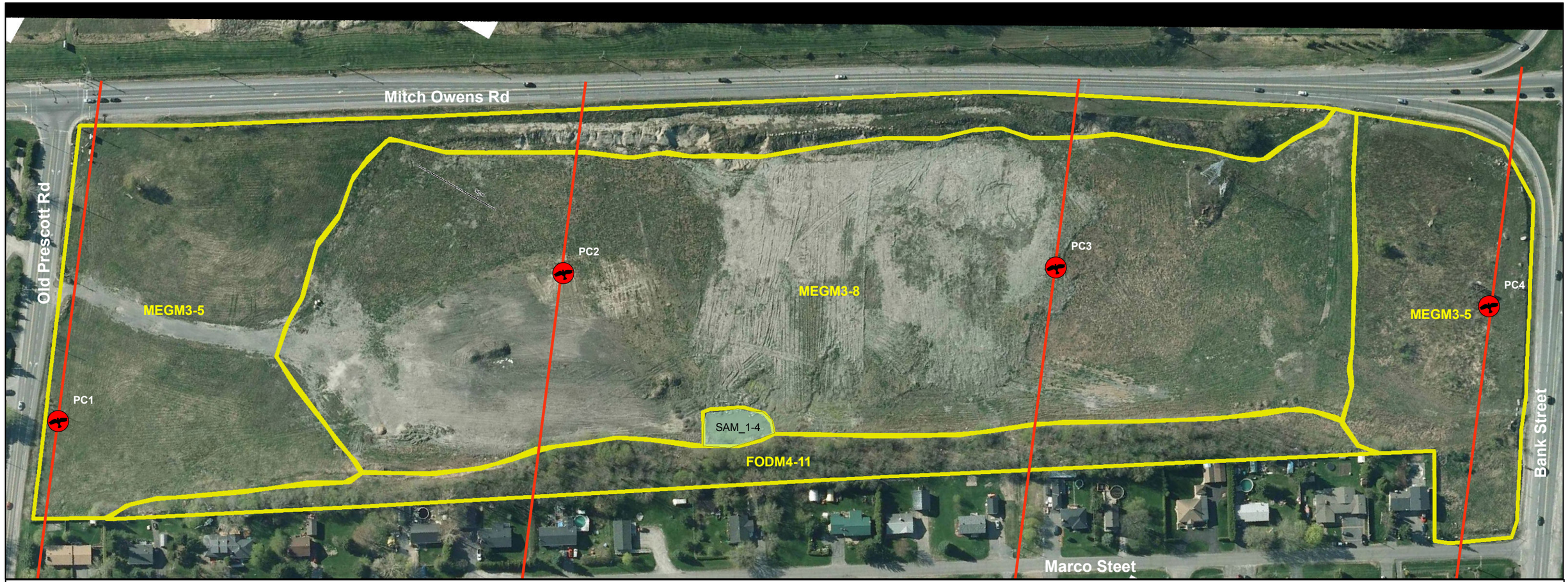

Figure 2. Natural Heritage Features

Legend

PC Stations

Small Pond Feature

Vegetation Communities

MEGM3-8 Reed Canary Grass Graminoid Meadow Type
SAM1-4 Pondweed Mixed Shallow Aquatic Type
FODM4-11 Dry - Fresh Black Locust Deciduous Forest Type
MEGM3-5 Smooth Brome Graminoid Meadow Type

Map Source: City of Ottawa GIS On-line (GeoOttawa) 2011 Aerial Photographs http://maps.ottawa.ca/geoOttawa/

Prj. Name	Mitch Owens Rd- Ottis Group
Prj. No.	4912
Created By	KLF
Date Created	22/01/2014
Scale	1:1,950

NO.	DATE	REVISIONS	BY

Michalski Nielsen Associates Limited

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Smooth Brome Graminoid Meadow Type (MEGM3-5). This vegetation community comprises 25% of the site. Characteristics of this unit are similar to the reed canary grass meadow type, however this vegetation community has drier soils. The area has also been recently disturbed and the topsoil removed, exposing the subsoil. The dominant species, in order of abundance, are smooth brome, Kentucky bluegrass, common tansy, staghorn sumac and tall goldenrod (*Solidago altissima*). The latter two species are native whereas the former are introduced. The site is slowly succeeding into a shrub thicket, with 12% of the shrubby layer comprised of staghorn sumac (**Photographs 7** and **8**).

Dry – Fresh Black Locust Deciduous Forest Type (FODM4-11). This vegetation community is on a fairly steep slope at the south limits of the property, directly behind the residential subdivision. The site has greater than 60% tree cover. The majority of the species are introduced, with black locust dominating. Manitoba maple (*Acer negundo*), garlic mustard (*Alliaria petiolata*), common buckthorn (*Rhamnus cathartica*) and dame's rocket (*Hesperis matronalis*) are also very common (**Photographs 9** and **10**). Some garden plants that escaped cultivation are scattered throughout the community, examples of which are day lily (*Hemerocallis fulva*), sweet ox-eye (*Heliopsis helianthoides*) and strawberry ground-cherry (*Physalis alkekengi*). Yard waste, mowing and other types of disturbance were observed on the upper slope, behind the homes. There were some larger patches of native woodland understory perennials, including Virginia waterleaf (*Hydrophyllum virginianum*), common blue violet (*Viola sororia*) and downy yellow violet (*Viola pubescens*). No rare species were observed within this community.

A vascular plant list is provided in **Appendix A**. In total, 152 vascular plant species were recorded during the Michalski Nielsen Associates Limited field surveys. Of the 152 species recorded, 81 are considered introduced species, typical of disturbed sites and early regenerating areas

No globally, nationally, or provincially significant plant species were recorded during the field surveys. This includes COSEWIC or COSSARO designated and *ESA* or *SARA*-listed species, as well as G1-G3 and S1-S3-ranked species. All species recorded are ranked provincially by the NHIC as either "secure, common and widespread" in Ontario (ranked S5 or SE5) or "apparently secure, uncommon but not provincially rare" in Ontario (S4, SE4).

3.4 Wildlife Resources

Wildlife inventory results are provided in **Appendix B**. The wildlife observed are as expected for the habitat characteristics on site. A summary and assessment of wildlife resources is provided in the following paragraphs; this includes the results of the bobolink and meadowlark survey.

Mammals

The general landscape setting is dominated by meadow, including inclusions of treed regeneration and a fringe of fragmented deciduous forest along the steep sloping, south property limits. These habitat areas provide conditions suitable for a variety of mammals, including eastern cottontail (*Sylvilagus floridanus*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*) and woodchuck (*Marmota monax*), as well as small mammals such as deer mouse (*Peromyscus maniculatus*). During field surveys, raccoon and red fox (*Vulpes vulpes*) tracks were observed throughout the site. White-tailed deer (*Odocoileus virginianus*) were observed, together with scat and tracks of this species. During the evening field survey, three bats were observed circling over the property. Several mole burrows and five dens (unknown species) were observed; three of these dens were seen along the steep sandy slopes at Mitch Owens Road, with the other two seen along the forested fringe at the south property limits. These dens are possibly woodchuck, as they were small, contained several entrances and included throw mounds. There was no evidence of scat, hairs or signs of feeding (all typical of fox, coyote or skunk dens).

Amphibians and Reptiles

One targeted amphibian survey was conducted. This occurred on the evening of June 13, 2013 (21:00 to 22:00 hrs), and focused on the small cattail pond located near the southern limits of the property. Although weather conditions were not ideal for this type of survey (lack of light rain or high humidity before or during the survey), calling evidence was still present. Hundreds of American toad (*Bufos americanus*) tadpoles were observed within the small pond, with only gray tree frogs (*Hyla versicolor*) calling (level 1 – 3 individuals) from the trees adjacent to the pond.

Michalski Nielsen Associates Limited observed two species of snakes, Dekay's brownsnake (*Storeria dekayi*) and eastern gartersnake (*Thamnophis sirtalis sirtalis*), within the meadow and culturally modified areas. These are widely distributed species often found near human habitation in urban or suburban areas. The study area has potential to support other common reptiles, as well as a Species of Conservation Concern (milksnake, which is discussed further below).

Avifauna

Targeted Survey for Bobolink and Meadowlark and other Species of Conservation Concern

The site was surveyed for bobolink and meadowlark and included a review for other avian Species of Conservation Concern (i.e., barn swallow, common nighthawk), following general guidelines provided by the Kemptville District MNR. Survey methodologies were scoped to the site, and were undertaken as follows:

- four transects were completed at approximately 250 m intervals, with one point count centrally located on each transect. UTM coordinates (18 T , NAD 83; PC1-454656 5013706, PC2-454816

5013847, PC3-455022 5013945, PC4-455289 5014065). Locations of these transects and point count locations are provided on **Figure 2**;

- the scope of the survey was reduced to one survey period within the breeding bird season (June), with the survey conducted once each morning on June 13 and 14, instead of three repeat visits separated by one week intervals;

- surveys started no later than 30 minutes after dawn and continued until 9 am. The borders of the property were first walked along Bank Street, Mitch Owens Road and Old Prescott Road. Transects were then walked, with a ten minute observation period completed at each point count location;

- habitat notes on the general condition of the fields, estimated vegetation height, and percentage of grass and thatch were also recorded; and

- other breeding birds were also recorded throughout the survey on both dates. A targeted evening and nocturnal survey was also conducted

Targeted surveys were conducted early in the morning from 4:30 a.m. to 9:00 a.m. on June 13 and 14, 2013. An evening and nocturnal survey was also completed on June 13 (16: 00 to 18:30 and 21:30 to 22:30) for other Species of Conservation Concern (i.e., barn swallow and common nighthawk). The completion of multiple surveys took into account the limitations of auditory surveys due to vehicular noise along Mitch Owens Road and Bank Street. Weather conditions at the time of both the early morning and evening surveys on both days were clear, cool (13° to 14°C), with a wind scale of 1 to 2 on the Beauford scale. Searches concentrated on the subject lands, including areas of meadow and the forested fringe. They also included a cursory review of the property to the north, where similar habitat conditions occur. It should be noted that general breeding bird evidence was recorded throughout the day, in conjunction with the vegetation and wildlife habitat surveys.

No bobolinks, meadowlarks, barn swallows or other Species of Conservation Concern were recorded within the subject property during the surveys. A cursory review of the adjacent habitat to north also did not record any of the above. Habitat throughout most of the property is uniform and is classified as reed canary grass meadow (**MEGM3-8**). The dominant bird species observed was red-winged black bird, which is strongly territorial. Their presence, coupled with less than ideal habitat conditions, may restrict the presence of both bobolink and meadowlark on site. The vegetation height ranges from sparse and patchy at point count 1, to 0.5 m to 1.5 m in height at point count 2 and point count 3. Hummocky topography created by imperfect grading has created large dirt mounds, and poor

drainage conditions contribute to uneven vegetation cover. The site is expected to exhibit wetter conditions in early spring and fall, but was dry to moist at the time of survey (based on soil analysis). Quack grass, smooth brome, vetch, reed canary grass, and Canada bluegrass are intermixed across the landscape at all stations. Thatch (leaf litter) is moderate in the densely covered reed canary grass meadow. **Photographs 7** and **8** show typical habitat conditions at the point count stations, with **Photographs 11** and **12** providing an overview of the habitat conditions to the north.

Breeding Birds (General)

The subject property supports a variety of bird species that utilize forest edges, successional habitat, and meadows. Typical bird species observed within the subject property itself include red-winged black bird (*Agelaius phoeniceus*), American goldfinch (*Carduelis tristis*), American robin (*Turdus migratorius*), blue jay (*Cyanocitta cristata*), European starling (*Sturnus vulgaris*), field sparrow (*Spizella pusilla*), hairy woodpecker (*Picodies villo*sus), northern cardinal (*Cardinalis cardinalis*), song sparrow (*Melospiza melodia*), vesper sparrow (*Pooecetes gramineus*), black-capped chickadee (*Poecile atricapillus*) and tree swallow (*Tachycineta bicolor*). A great blue heron (*Ardea herodias*), several Canada geese (*Branta canadensis*) and herring gulls (*Larus argentatus*) were observed flying overhead, utilizing the ponds and features on the adjacent property to the north. Bank swallow nests were also observed on the adjacent site in a large sand stockpile (but not on the sandy slopes of the subject property). Cavity nesting evidence was observed by Michalski Nielsen Associates Limited within the forested fringe at the rear of the residential back yards. Survey results are provided in **Appendix B**.

A total of 24 avifauna species have been recorded within the general study area, with either "confirmed" "probable" or "possible" breeding evidence on site. All 24 are ranked as very common or demonstrably secure in Ontario (S5, S5B SZN), or common and apparently secure in Ontario (S4, S4B SZN). Of the species identified, five are ranked under the Conservation Priorities for Southern Ontario (CPSO) municipal priority list for Ottawa-Carleton, with these rankings included in **Appendix B**. This ranking system ranges from Level 1 (highest) through Level 4 (lowest). CPSO is a tool for municipalities to assist them in assessing the importance of bird species in land use planning. Ranks have been developed using standard criteria relating to a species' habitat-area requirements, breeding range and biological characteristics. The ranks provide a tool that municipalities might use when identifying significant natural heritage features. *Note: Caution should be used when interpreting this information since it is not a legal designation nor afforded any policy protection.*

3.5 Potential for Species of Conservation Concern

During the initial background and consultation phase of the project the City of Ottawa requested that an EIS be completed to address bobolink and meadowlark habitat. This scope was expanded to include other potential species of conservation concern. There are numerous Species of Conservation Concern in the

South Nation watershed and Ottawa-Carlton region, although many of these are not relevant to the habitat attributes of the site or site environs.

As part of our initial review, Michalski Nielsen Associates Limited prepared a discussion brief for preliminary consultation (November 2012, addressing SAR, with a focus on those regulated under the *Endangered Species Act*. This brief, which is included with agency consultation is **Appendix D**, was submitted to the Kemptville MNR to scope the relevance of species at risk to the project site. Upon further communications with Erin Thompson (SAR Biologist at Kemptville MNR), the following SAR were identified as being of potential relevance to the subject property.

- butternut. Designated as Endangered both federally and provincially. This species is regulated under Section 9 (species) and Section 10 (habitat) of the *Endangered Species Act*;

- bobolink, meadowlark, and barn swallow. All are designated as threatened both federally and provincially. These species are regulated under Section 9 (species) and Section 10 (habitat) of the *Endangered Species Act*; and

- common nighthawk, milksnake, monarch and snapping turtle. All are designated as Special Concern both federally and provincially. These species are not regulated, but their presence on site may constitute Significant Wildlife Habitat as identified under the Provincial Policy Statement.

Since our initial consultation with agencies, two bat species (Little Brown Myotis and Northern Myotis) have been listed as Endangered under the ESA. Bats were recorded during the field investigations, therefore they have been added to SAR review for this property.

- Little Brown Myotis and Northern Myotis. Both are designated as Endangered federally and provincially and are regulated under Section 9 (species) and Section 10 (habitat) of the *Endangered Species Act*.

Relevant correspondence and our discussion brief are provided in **Appendix D**. Species of relevance are discussed in the paragraphs following.

Butternut

Butternut has been designated as an Endangered species in Ontario and Canada and added to Schedule 1 of the *SARA*. This species was not observed by Michalski Nielsen Associates Limited within the study area during the vegetation community surveys. The endangered designation is a result of severe decline caused by a fatal disease, Butternut Canker (*Sirococcus clavigignenti-juglandacearum*), rather than a loss of habitat. The surveyors conducting the vegetation assessment were qualified butternut health assessors with experience in identifying butternut. Although habitat for this species is present on site, this species

would likely have been identified were it present. There are policies and procedures in place for the identification and management of butternut, and provisions for removal of specimens which have been identified by a butternut health assessor as non-retainable. For retainable trees, there are a variety of possible options, which can include the removal of a limited number of specimens.

Little Brown Myotis and Northern Myotis

Habitat protection of summer roosting and maternity colonies has recently been recognized as a requirement by MNR for the little brown myotis (little brown bat) and northern myotis (northern long-eared bat), both of which were recently listed as Endangered in Ontario by MNR, and which now receive habitat protection under the *ESA 2007*. Recent and rapid declines of both species are attributed to a fungal disease, white-nose syndrome, which has accounted for at least 90% mortality rates. Little brown bats are particularly susceptible to this fungus. In both species, males are generally solitary after hibernation, while females form maternity colonies to which they have strong site fidelity. Winter hibernation habitats do not occur on site, however summer roost sites can be found under the loose bark of dead trees, the hollows of trees or man-made structures. The northern myotis primarily prefers forested/natural cavities, as opposed to man-made structures, and often utilizes tree cavities of silver maples as roost sites. Importantly, they do use forested habitats beneath the canopy and will forage on the forest floor (Kurta 1995). Activity may also be high in the vicinity of artificial light sources such as streetlights and yard lights in association with the increased availability of night-flying insects. Bats were recorded on site, however the species is unknown. Species identification is extremely difficult without the use of specialty equipment and identifying significant habitat for these species is also difficult, with current policy direction regarding these species still unclear. The presence of adjacent urban development, together with open meadow habitats, adjacent (off-site) forested communities, and a largely rural setting, collectively provide broad habitat affinities for this species. In the context of the subject property, the meadow provides a source of insects, increasing the foraging habitat potential for these species in this area. The treed areas on site are largely comprised of black locust, successional to mid-mature trees which do not have the loose bark that would be suitable for roosting. There were, however, some cavities observed in trees along the forested fringe. These were reviewed on site and although they could support some roosting, the ones observed were being utilized by raccoons (evidence of scat and hair). Presence on site is expected to be limited to foraging.

Bobolink, Meadowlark, and Barn Swallow

Neither of these species was observed by Michalski Nielsen Associates Limited within the study area during the targeted surveys. The surveyor conducting the assessment has extensive experience in identifying the targeted species by sight and sound, and experience in identifying suitable habitat preferences. Although habitat for these species is marginally present on site (foraging only for barn swallow), these species would likely have been identified were they present. The adjacent lands to the north of Mitch Owens Road, which do have suitable habitat attributes, were briefly examined, with none

of these species found on them either. Importantly, if habitat conditions change on site (i.e., territorial issues with red-winged blackbird, changes in vegetation composition) these species could occur as vagrants.

Eastern Milksnake Snake

The milksnake is a species of Special Concern. This snake is known to utilize a variety of habitats. Milksnakes are habitat generalists and will utilize woody debris, human structures, disturbed clearings, open woods, brushland, fields, forest edges, and disturbed areas in proximity to water and for hibernation, gestation and/or travel corridors. Because the habitat preferences of the milksnake are highly variable, its potential presence cannot be discounted. Habitat is suitable on site throughout the meadow and along the forested edge.

Snapping Turtle

The snapping turtle is a habitat generalist. Individuals will use a variety of aquatic habitats, including small isolated wetlands, ponds, slow moving streams, and even ditches. Like most turtles, the species requires the organic bottom of wetlands and aquatic environments. Hibernation areas do not occur on, or in proximity of, the property. The potential for this species is extremely limited and would be restricted to the small pond, in which it was not observed. Natural nesting and basking sites (i.e., perching on a log, rock sites) do not occur and sandy areas (which could be used for nesting) are also limited and occur only along the slopes of Mitch Owens Road (**Photograph 13**). It is possible, although unlikely because of the adjacent roads, that this species could travel from the adjacent habitats to nest on the steep sandy banks. No predated nests were observed along this slope (a good indication of potential nesting in an area).

Monarch Butterfly

The open meadow habitats and cultural areas within the subject property provide potential monarch habitat. Furthermore, monarchs are likely present wherever the host plant (milkweed) is present. The host plant was observed within the subject property, and breeding opportunities do exist. With the proposed development there will be some loss of habitat for this species. However there is an opportunity to replace lost habitat. Mitigation strategies should include provisions for adding milkweed to the seed mix and timing vegetation removal to avoid critical larval stages.

Common Nighthawk

Common nighthawks are generally associated with open disturbed areas and were flagged as a potential species to occur on site due to the adjacent aggregate operations. Although the site was previously open and disturbed, it is now largely densely vegetated with reed canary grass and smooth brome grass. When habitat attributes were evaluated during the 2013 field surveys, areas of exposed ground were limited and determined not to be suitable for this species. Presence was not recorded during the evening survey on

either the subject property or adjacent lands north of Mitch Owens Road. It is possible (as with many bird species) it could occur on site as a vagrant, if present in the broader area.

3.6 Potential for Significant Wildlife Habitat

Significant wildlife habitat is defined by MNR using the Significant Wildlife Habitat Technical Guide (SWHTG) (MNR 2000). It is broadly categorized into seasonal concentration areas, rare vegetation communities, habitat of Species of Conservation Concern and movement corridors. This technical guide was developed to support the PPS and the NHRM. First produced in 2000 (approved 2001), this document was found to contain gaps related to significance criteria, particularly relating to "what may be significant in one area may not be in another" (MNR 2000). In 2012, in response to such concerns, MNR created the "Draft- Eco-regional Criteria Schedules" to support the SWHTG. These are specific to the geographic area of each eco-region. It should be noted these schedules do not replace the SWHTG but complement it to better assist in identifying candidate significant habitat.

The PPS provides municipalities and other designated planning authorities, such as SNCA, the opportunity to identify Significant Wildlife Habitat based on their own criteria. For significant wildlife habitat, the definition of significance under the PPS includes "ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system". A common means for municipalities to address the protection of significant wildlife habitat is through the development of a Greenlands Strategy, or otherwise through the "greening" of an Official Plan, whereby large tracts of more environmentally sensitive lands (for instance, areas identified on Schedule K and L1 of the Ottawa Official Plan) are identified as higher constraint areas and/or as part of a Greenlands designation. In the case of the present property, given the nature of the resource features and surrounding urbanization, it is unlikely that any wildlife habitat that is present could contribute to the value of a broader geographic area. Nevertheless, it is important that a review such as this identify potential habitat uses, and whether any areas could qualify as "candidate" Significant Wildlife Habitat, for further review by the City of Ottawa or SNCA, as part of a broader natural heritage system. The habitat of Species of Concern can be designated Significant Wildlife Habitat; the relevance of such species to the property have already been discussed in **Section 3.5**. Using the criteria for evaluation Significant Wildlife Habitat in Eco-region 6E, the following features have also been considered within the subject lands.

- open country bird breeding habitat;
- Special Concern and rare wildlife species.

Note: The small pond was considered due to the abundance of tadpoles present and potential for breeding amphibians (not recorded but may occur). However, it does not meet the recommended minimum size guideline of 25 m diameter. This feature is, in Michalski Nielsen Associates Limited's opinion,

fragmented from other natural areas. Although it provides breeding opportunities for some amphibian species, it does not significantly contribute to habitat opportunities in a broader landscape context.

Portions of the site (particularly the open meadows) meet the criteria for open country bird breeding habitat (significant wildlife habitat) due to breeding evidence reported for vesper sparrow and savannah sparrow, both of which are listed as indicator species under the SWHTG. That being said, open meadows also occur in the broader area, including to the north where these species were also recorded during the cursory review of adjacent lands. Habitat within the subject property is not considered important to the protection of these species' habitat within a broader landscape context.

Candidate habitat for Special Concern and rare wildlife species has the potential to occur within the forb meadow. This strictly relates to the potential presence of monarch butterfly and milksnake. Neither of these species were confirmed to be present, however habitat attributes are present. As part of the landscape design and stormwater management pond design, consideration for creating or enhancing habitat for these species should be considered to offset habitat removed.

4.0 BIOLOGICAL SIGNIFICANCE

4.1 Vegetation Communities and Floristics

The analysis for vascular plant species rarity consisted of a straightforward comparison of the subject property's plant species with those listed in the previously-mentioned status lists. None of the flora found within the study area has been designated as rare on a federal or provincial level. Butternut were not identified on site, although habitat conditions are appropriate for this species. As there is a potential for butternut saplings to establish, a survey by a qualified butternut health assessor just prior to any vegetation removal should be completed.

The study area does not contain any life or earth science ANSIs or PSWs.

4.2 Species at Risk

During targeted surveys for bobolink, meadowlark, barn swallow, and other avian Species of Conservation Concern, none were identified within the open meadow habitats, or fragmented forested areas located on site. No other significant wildlife or Species of Conservation Concern were observed during Michalski Nielsen Associates Limited surveys. Bats were recorded (species unknown). Portions of the study area may also provide habitat for milksnake and monarch butterfly; although not observed on site, these species have somewhat generalist habitat preferences and are known to occupy a wide variety of habitats.

Habitat for other SAR known to the broader locale do not generally occur on the subject property or in its immediate vicinity. Snapping turtle and common nighthawk could utilize the property, but conditions are far from ideal and are generally not preferred by these species.

4.3 Other Wildlife and Wildlife Habitat

It is clear from a review of aerial photography that there has been a long history of site disturbance and land use change; from an extraction pit to a large retention pond and now, successional meadow. Within the subject property, the successional vegetation communities which occur today, including all forested fringe communities, are a direct consequence of more recent changes in the pattern of land use, both internal and external to this property. The vegetation communities and wildlife species found on site are not uncommon to this locale, and are all indicative of a very altered landscape. In the opinion of Michalski Nielsen Associates Limited, there are no wildlife habitat attributes of the site which are critical, and therefore important to protect, within a broader landscape perspective.

5.0 IMPACT ASSESSMENT

The subject property is to be used for commercial development, consisting of retail stores, parking, stormwater management facilities, and landscape elements. It is our understanding that the present Site Plan is focused on the eastern portion of the property only, with the western portion to be part of a future Site Plan application.

Our work is pertinent to the entire property, including the eastern portion to be developed in the near term, and the western portion to be developed later. In both cases, our work demonstrates that there are no concerns with this land use conversion, including any relating to the protection of habitat for bobolink, eastern meadowlark, and other species having protection under the *Endangered Species Act*.

As part of the finalization of plans for the development of the eastern portion of this property, and any subsequent development within the western portion, Michalski Nielsen Associates Limited recommends that:

- **although no butternut, bobolink, meadowlark or barn swallow were observed on site, final confirmation should be received from MNR that there interests under the *ESA* have been fully addressed prior to any site works. It is noted that separate confirmation should be obtained for those lands to be developed in the very near term (i.e., the eastern portion of the property), and those to be developed later (the western portion). If there is a substantial delay prior to the western portion being developed, some level of follow-up survey may be requested by MNR;**

- **tree cutting and vegetation removal be undertaken outside the breeding period for birds, which typically occurs from May 1st ro July 31st to avoid mortality of nesting birds, in accordance with provisions of the *Migratory Bird Act*. It is the owners responsibly to ensure that any nest or eggs of breeding birds found before or after this date are also protected in accordance with the *Act*.**

* * * * * *

I trust this report is complete. Please do not hesitate to call either of the undersigned should you have any questions or comments.

Yours truly,

MICHALSKI NIELSEN ASSOCIATES LIMITED
Per:

Gord Nielsen, M.Sc.
Ecologist
President

Kimberly Laframboise, Terrestrial Ecologist
Species at Risk Biologist

GN/be

Enc.

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Photographs 1 and 2. Small pond located near southern edge of property. Pondweeds and emergent vegetation are abundant in this small feature Note the poorly defined banks and brush dumping from adjacent residencies at the top of slope (June 13, 2013).

Photograph 3. **American Toad tadpoles abundant in the pond (June 13, 2013).**

Photograph 4. **Overview of meadow habitats which encompass the property. View is to the southwest from Bank Street (June 13, 2013).**

Photograph 5. **View to southeast, from top of embankment at Mitch Owens Road (June 13, 2013).**

Photograph 6. **View to east from location PC 2, across property. Note the hummocky topography created by past filling and imperfect grading (June 13, 2013).**

Photograph 7. **Example of low weedy vegetation at location PC 3. Forbs are intermixed with smooth brome and reed canary grass (June 13, 2013).**

Photograph 8. **View of successional treed area at east end of site (Hydro Corridor). Note the hummocky topography (June 13, 2013).**

Photograph 9. **Deciduous fragmented forest unit located along the south boundary of the property, to the rear of the adjacent residential subdivision (June 13, 2013).**

Photograph 10. **View of internal forest composition, from the top of bank abutting existing residencies. Black Locust and garlic mustard dominate the canopy and understorey (June 13, 2013).**

Photograph 11. Representative vegetation communities of the adjacent property north of Mitch Owens Road (June 13, 2013).

Photograph 12. Meadow, successional and forested communities of the adjacent property north of Mitch Owens Road (June 13, 2013).

Photograph 13. **Exposed sand and steep slopes adjacent to Mitch Owens Road. Dens and several animal tracks were observed in the sand (June 13, 2013).**

APPENDIX A – VASCULAR PLANT LIST

Appendix A. Vascular plant list - Mitch Owens Rd and Bank Street, Ottawa. Compiled from site visit observations on June 13 and 14, 2013.

Common Name	Scientific Name	Family	Grank	Srank	COSSARO COSEWIC ESA Regulated	Native Status
Trees						
Norway Maple	*Acer platanoides*	ACERACEAE	*GNR*	*SNA*		I
Manitobe Maple	*Acer negundo*	ACERACEAE	G5	S5		I
Silver Maple	*Acer saccharinum*	ACERACEAE	*G5*	*S5*		N
Sugar Maple	*Acer saccharum* ssp. *saccharum*	ACERACEAE	G5	S5		N
European Weeping Birch	*Betula pendula*	BETULACEAE	G?	se4		I
Bitternut Hickory	*Carya cordiformis*	JUGLANDACEAE	G5	S5		N
White Ash	*Fraxinus americana*	OLEACEAE	G5	S5		N
Green Ash	*Fraxinus pennsylvanica*	OLEACEAE	G5	S5		N
White Spruce	*Picea glauca*	PINACEAE	G5	S5		N
Scotch Pine	*Pinus sylvestris*	PINACEAE	G?	SNA		I
Balsam Poplar	*Populus balsamifera ssp balsamifera*	SALICACEAE	G5T?	S5		N
Eastern Cottonwood	*Populus deltoides ssp. deltoides*	SALICACEAE	G5T?	SU		N
Black Cherry	*Prunus serotina*	ROSACEAE	G5	S5		N
Black Locust	*Robinia pseudo-acacia*	FABACEAE	G5	SNA		I
Crack Willow	*Salix fragilis*	SALICACEAE	G?	SNA		I
Basswood	*Tilia americana*	TILACEAE	G5	S5		N
American Elm	*Ulmus americana*	ULMACEAE	G5	S5		N
Siberian Elm	*Ulmus pumila*	ULMACEAE	G?	se3		I
Shrubs and vines						
Red-osier Dogwood	*Cornus stolonifera*	CORNACEAE	G5	S5		N
Smoke-tree	*Cotinus coggygria*	ANACARDIACEAE	G?	SNA		I
Tartarian Honeysuckle	*Lonicera tatarica*	CAPRIFOLIACEAE	GNR	SNA		N
Bell's Honeysuckle	*Lonicera x bella*	CAPRIFOLIACEAE	HYB	se2		I
Thicket Creeper	*Parthenocissus inserta*	VITACEAE	G5	S5		N
Canada Plum	*Prunus nigra*	ROSACEAE	G4G5	S4		N
Choke Cherry	*Prunus virginiana ssp. virginiana*	ROSACEAE	G5T?	S5		N
Glossy Buckthorn	*Rhamnus frangula*	RHAMNACEAE	G?	SNA		I
Western Poison Ivy	*Rhus radicans ssp. rydbergii*	ANACARDIACEAE	G5T	S5		N
Staghorn Sumac	*Rhus typhina*	ANACARDIACEAE	G5	S5		N
Northern Red Currant	*Ribes rubrum*	GROSSULARIACEAE	G4G5	SNA		I
Rugosa Rose	*Rosa rugosa*	ROSACEAE	G?	SNA		I

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Common Name	Scientific Name	Family	Grank	Srank	COSSARO COSEWIC ESA Regulated	Native Status
Wild Red Raspberry	*Rubus idaeus* ssp. *melanolasius*	ROSACEAE	G5T	S5		N
Black Raspberry	*Rubus occidentalis*	ROSACEAE	G5	S5		N
Pussy Willow	*Salix discolour*	SAILCACEAE	G5	S5		N
Heart-leaved Willow	*Salix eriocephala*	SALICACEAE	G5	S5		N
Sandbar Willow	*Salix exigua*	SALICACEAE	G5	S5		N
Slender Willow	*Salix petiolaris*	SAILCACEAE	G5	S5		N
Red-berried Elder	*Sambucus racemosa ssp pubens*	CAPRIFOLIACEAE	G5T4T5	S5		N
Hybrid Spiraea	*Spiraea x vanhouttei*	ROSACEAE	HYB	SNA		I
Common Lilac	*Syringa vulgaris*	OLEACEAE	G?	SNA		I
Riverbank Grape	*Vitis riparia*	VITACEAE	G5	S5		N
Herbacous Plants						
Common Yarrow	*Achillea millefolium* ssp. *lanulosa*	ASTERACEAE	G5	S5		N
Broad-leaved Water-plantain	*Alisma plantago-aquatica*	ALISMATACEAE	G5	S5		N
Garlic Mustard	*Alliaria petiolata*	BRASSICACEAE	*GNR*	*SNA*		I
Ragweed	*Ambrosia artemisiifolia*	ASTERACEAE	G5	S5		N
Greater Burdock	*Arctium lappa*	ASTERACEAE	*GNR*	*SNA*		I
Common Milkweed	*Asclepias syriaca*	ASCLEPIADACEAE	G5	S5		N
Hoary False-alyssum	*Berteroa incana*	BRASSICACEAE	G?	SNA		I
False Nettle	*Boehmeria cylindrica*	URTICACEAE	G5	S5		N
Smooth Brome	*Bromus inermis* ssp. *inermis*	POACEAE	G4G5T?	SE5		I
Common Shepherd's Purse	*Capsella bursa-pastoris*	BRASSICACEAE	G?	SNA		I
Porcupine Sedge	*Carex hystericina*	CYPERACEAE	G5	S5		N
Fox Sedge	*Carex vulpinoidea*	CYPERACEAE	G5	S5		I
Greater Celadine	*Chelidonium majus*	PAPAVERACEAE	G?	SNA		I
White Goosefoot	*Chenopodium album* var. *album*	CHENOPODIACEAE	G5T5	SNA		I
Ox-eye Daisy	*Chrysanthemum leucanthemum*	ASTERACEAE	G?	SE5		I
Canada Thistle	*Cirsium arvense*	ASTERACEAE	G?	SNA		I
Field Thistle	*Cirsium discolor*	ASTERACEAE	G5	S4		N
Bull Thistle	*Cirsium vulgare*	ASTERACEAE	SNA	SE5		I
Field Bindweed	*Convolvulus arvensis*	CONVOLVULACEAE	G?	SNA		I

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Common Name	Scientific Name	Family	Grank	Srank	COSSARO COSEWIC ESA Regulated	Native Status
Fleabane	*Conyza canadensis*	ASTERACEAE	G5	S5		N
Crown-vetch	*Coronilla varia*	FABACEAE	G?	SNA		I
European Swallow-wort	*Cynanchum rossicum*	ASCLEPIADACEAE	G?	SNA		I
Orchard Grass	*Dactylis glomerata*	POACEAE	G?	SNA		I
Queen Anne's Lace	*Daucus carota*	APIACEAE	G?	SNA		N
Wild Mock-cucumber	*Echinocystis lobata*	CUCURBITACEAE	G5	S5		N
Common Viper's-bugloss	*Echium vulgare*	BORAGINACEAE	G?	SNA		I
Field Horsetail	*Equisetum arvensis*	EQUISETACEAE	G5	S5		N
White-top Fleabane	*Erigeron annuus*	ASTERACEAE	G5	S5		N
Philadelphia Fleabane	*Erigeron philadelphicus* ssp. *philadelphicus*	ASTERACEAE	G5T?	S5		N
Daisy Fleabane	*Erigeron strigosus*	ASTERACEAE	G5	S5		N
Wormseed Mustard	*Erysimum cheiranthoides ssp cheiranthoides*	BRASSICACEAE	G5	SNA		I
White sekeroot	*Eupatorium rugosum*	ASTERACEAE	G5	S5		N
Grass-leaved Goldenrod	*Euthamia graminifolia*	ASTERACEAE	G5	S5		N
Virginia strawberry	*Fragaria virginiana* ssp. *virginiana*	ROSACEAE	G5T?	SU		N
White Bedstraw	*Galium mollugo*	RUBIACEAE	G?	SNA		I
Yellow Avens	*Geum aleppicum*	ROSACEAE	G5	S5		N
White Avens	*Geum canadense*	ROSACEAE	G5	S5		N
Ground Ivy	*Glechoma hederacea*	LAMIACEAE	G?	SNA		I
Jerusalem Artichoke	*Helianthus tuberosus*	ASTERACEAE	G5	SNA		N
Ox-eye	*Heliopsis helianthoides*	ASTERACEAE	G5	S5		I
Orange Daylily	*Hemerocallis fulva*	LILIACEAE	G?	SNA		I
Dame's Rocket	*Hesperis matronalis*	BRASSICACEAE	G4G5	SNA		I
Field Hawkweed	*Hieracium caespitosum* ssp. *caespitosum*	ASTERACEAE	G?	SNA		I
Fox-tail Barley	*Hordeum jubatum ssp jubatum*	POACEAE	G5T?	SNA		I
Virginia Waterleaf	*Hydrophyllum virginianum*	HYDROPHYLLACEAE	G5	S5		N
Common St. John's-wort	*Hypericum perforatum*	CLUSIACEAE	G?	SE5		I
Spotted Jewel-weed	*Impatiens capensis*	BALSAMINACEAE	G5	S5		N
Dudley's Rush	*Juncus dudleyi*	JUNCACEAE	G5	S5		N
Slender Rush	*Juncus tenuis*	JUNCACEAE	G5	S5		N
Canada Lettuce	*Lactuca canadensis*	ASTERACEAE	G5	S5		N
Prickly Lettuce	*Lactuca serriola*	ASTERACEAE	G?	SNA		I

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Common Name	Scientific Name	Family	Grank	Srank	COSSARO COSEWIC ESA Regulated	Native Status
Common Motherwort	*Leonurus cardiaca ssp cardiaca*	LAMIACEAE	G?T?	SNA		I
Butter-and-eggs	*Linaria vulgaris*	SCROPHULARIACEAE	G?	SNA		I
European Gromwell	*Lithospermum officinale*	BORAGINACEAE	G?	SNA		I
Bird's-foot Trefoil	*Lotus corniculatus*	FABACEAE	G?	SNA		I
Garden Loosestrife	*Lysimachia vulgaris*	PRIMULACEAE	G?	se3		I
Purple Loosestrife	*Lythrum salicaria*	LYTHRACEAE	G5	SNA		I
Cheeses	*Malva neglecta*	MALVACEAE	G?	SNA		I
Pineapple-weed	*Matricaria matricarioides*	ASTERACEAE	G5	SNA		I
Black Medic	*Medicago lupulina*	FABACEAE	G?	SNA		I
Alfalfa	*Medicago sativa ssp sativa*	FABACEAE	G?T?	SNA		I
White Sweet Clover	*Melilotus alba*	FABACEAE	G5	SNA		I
Yellow Sweet Clover	*Melilotus officinalis*	FABACEAE	G?	SNA		I
Mexican Satin Grass	*Muhlenbergia mexicana* var. *mexicana*	POACEAE	G5T?	S5		N
Catnip	*Nepeta cataria*	LAMIACEAE	G?	SNA		I
Evening Primrose	*Oenothera biennis*	ONAGRACEAE	G5	S5		N
Reed Canary Grass	*Phalaris arundinacea*	POACEAE	G5	S5		N
Strawberry Ground-cherry	*Physalis alkekengi*	SOLANACEAE	G?	se2		I
Nipple-seed Plantain	*Plantago major*	PLANTAGINACEAE	G5	SE5		I
Black-seed Plantain	*Plantago rugelii*	PLANTAGINACEAE	G5	S5		N
Canada Bluegrass	*Poa compressa*	POACEAE	G?	S5		I
Kentucky Bluegrass	*Poa pratensis* ssp. *pratensis*	POACEAE	G5T	S5		I
Multi-flowered Soloman's seal	*Polygonatum multiflorum*	LILIACEAE	G?	SNA		I
Carey's Smartweed	*Polygonum careyi*	POLYGONACEAE	G4	S4		N
Japanese Knotweed	*Polygonum cuspidatum*	POLYGONACEAE	G?	se4		I
Lady's Thumb	*Polygonum persicaria*	POLYGONACEAE	G?	SE5		I
Slender Pondweed	*Potamogeton pusillus*	POTAMOGETONACEAE	G5	S4S5		N
Silvery Cinquefoil	*Potentilla argentea*	ROSACEAE	G?	SNA		I
Norwegian Cinquefoil	*Potentilla norvegica* ssp. *monspeliensis*	ROSACEAE	G5T?	S5		N
Sulphur Cinquefoil	*Potentilla recta*	ROSACEAE	G?	SNA		I
Sheep Sorrel	*Rumex acetosella* ssp. *acetosella*	POLYGONACEAE	G5T	SNA		I

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Common Name	Scientific Name	Family	Grank	Srank	COSSARO COSEWIC ESA Regulated	Native Status
Curly Dock	*Rumex crispus*	POLYGONACEAE	G?	SNA		I
Bouncing-bet	*Saponaria officinalis*	CARYOPHYLLACEAE	G?	SNA		I
Cottongrass Bulrush	*Scirpus cyperinus*	CYPERACEAE	G5	S5		N
Mossy Stonecrop	*Sedum acre*	CRASSULACEAE	G?	SNA		I
Wild Live-forever Stonecrop	*sedum telephioides*	CRASSULACEAE	G4	SNA		I
Giant Foxtail	*setaria faberi*	POACEAE	G?	se4		I
Green Bristle Grass	*Setaria viridis*	POACEAE	G?	SNA		I
Maiden's Tears	*Silene vulgaris*	CARYOPHYLLACEAE	G?	SNA		I
Climbing Nightshade	*Solanum dulcamara*	SOLANACEAE	G?	SE5		I
Tall Goldenrod	*Solidago altissima*	ASTERACEAE	G?	S5		N
Canada Goldenrod	*Solidago canadensis*	ASTERACEAE	G5	S5		N
Field Goldenrod	*Solidago nemoralis ssp nemoralis*	ASTERACEAE	G5T?	S5		N
Rough-stemmed Goldenrod	*Solidago rugosa* ssp. *rugosa*	ASTERACEAE	G5T?	S5		N
Field Sowthistle	*Sonchus arvensis ssp arvensis*	ASTERACEAE	G?T?	SNA		I
Little Starwort	*Stellaria graminea*	CARYOPHYLLACEAE	G?	SNA		I
Heart-leaved Aster	*Symphyotrichum cordifolium*	ASTERACEAE	G5	S5		N
Panicled Aster	*Symphyotrichum lanceolatus* ssp. *lanceolatus*	ASTERACEAE	G5T?	S5		N
New England aster	*Symphyotrichum novae-angliae*	ASTERACEAE	G5	S5		N
Common Tansy	*Tanacetum vulgare*	ASTERACEAE	G?	SNA		I
Common Dandelion	*Taraxacum officinale*	ASTERACEAE	G5	SNA		I
Field Penny-cress	*Thlaspi arvense*	BRASSICACEAE	G?	SNA		I
Meadow Goat's-beard	*Tragopogon pratensis* ssp. *pratensis*	ASTERACEAE	G?T?	SNA		I
Alsike Clover	*Trifolium hybridum* ssp. *elegans*	FABACEAE	G?	SNA		I
Red Clover	*Trifolium pratense*	FABACEAE	G?	SNA		I
Colt's Foot	*Tussilago farfara*	ASTERACEAE	G?	SNA		I
Common Mullein	*Verbascum thapsus*	SCROPHULARIACEAE	G?	SNA		I
Blue Vervain	*Verbena hastata*	VERBENACEAE	G5	S5		N
Tufted Vetch	*Vicia cracca*	FABACEAE	G?	SNA		I
Downy Yellow Violet	*Viola pubescens*	VIOLACEAE	G5	S5		N
Woolly Blue Violet	*Viola sororia*	VIOLACEAE	G5	S5		N

Appendix A. Vascular plant list - Mitch Owens Rd and Bank Street, Ottawa. Compiled from site visit observations on June 13 and 14, 2013.

Common Name	Scientific Name	Family	Grank	Srank	COSSARO COSEWIC ESA Regulated	Native Status
Rough Cockle-bur	*Xanthium strumarium*	ASTERACEAE	G?	S5		N

LEGEND

[1]G-Rank (global)

Global ranks are assigned by a consensus of the network of Conservation Data Centres (CDCs), scientific experts, and the Nature Conservancy to designate a rarity rank based on the range-wide status of a species, subspecies, or variety.

G1 Extremely rare - usually 5 or fewer occurrences in the overall range or very few remaining individuals; or because of some factor(s) making it especially vulnerable to extinction.
G2 Very rare - usually between 5 and 20 occurrences in the overall range or with many individuals in fewer occurrences; or because of some factor(s) making it vulnerable to extinction.
G3 Rare to uncommon - usually between 20 and 100 occurrences; may have fewer occurrences, but with a large number of individuals in some populations; may be susceptible to large-scale disturbances.
G4 Common - usually more than 100 occurrences; usually not susceptible to immediate threats.
G5 Very common - demonstrably secure under present conditions.

[2]S-Ranks (provincial)

Provincial (or Subnational) ranks are used by the Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. These ranks are not legal designations. Provincial ranks are assigned in a manner similar to that described for global ranks, but consider only those factors within the political boundaries of Ontario.

S1 Critically Imperiled - Critically imperiled in the nation or state/province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.
S2 Imperiled - Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.

S3 Vulnerable - Vulnerable in the nation or state/province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
S4 Apparently Secure - Uncommon but not rare; some cause for long-term concern due to declines or other factors.
S5 Secure - Common, widespread, and abundant in the nation or state/province.

[3]COSEWIC (Committee on the Status of Endangered Wildlife in Canada)
OMNR (Ontario Ministry of Natural Resources and Endangred Species Act 2007)

(Provincial Status from MNR 2013) The provincial review process is implemented by the MNR's Committee on the Status of Species at Risk in Ontario (COSSARO).

EXT Extinct - A species that no longer exists anywhere.
EXP Extirpated - A species that no longer exists in the wild in Ontario but still occurs elsewhere.
END Endangered - A species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under Ontario's Endangered Species Act (ESA).
THR Threatened - A species that is at risk of becoming endangered in Ontario if limiting factors are not reversed.
SC Special Concern (formerly Vulnerable) - A species with characteristics that make it sensitive to human activities or natural events.
NAR Not at Risk - A species that has been evaluated and found to be not at risk.
DD Data Deficient (formerly Indeterminate) - A species for which there is insufficient information for a provincial status recommendation.
* - Species on Schedule 1/2/3 of Endangered Species Act (ESA), Endangered Species Act, 2007 S.O. 2007, CHAPTER 6. Consolidation Period: From June 30, 2008 to October, 2013.

APPENDIX B – WILDLIFE OBSERVATIONS

Appendix B. Wildlife - Mitch Owens and Bank Street, Ottawa. Compiled from site visit observations on June 13 and 14 2013.

Common Name	Scientific Name	Family	GRANK [1]	SRANK[2]	Federal[3] / Provinical[4] Status / ESA 2007[5]	MNR Area Sensitive[6]	Conservation Piorities[7]	Breeding level ** *highest level recored* [8]	On Site	Adjacnet lands
Red-winged Black bird	*Agelaius phoeniceus*	ICTERIDAE	G5	S4				NU	x	x
Mallard	*Anas platyrhynchos*	ANATIDAE	G5	S5				(x) Over head	x	
Great Blue Heron	*Ardea herodias*	ARDEIDAE	G5	S4				(x) Over head	x	
Canada Goose	*Branta canadensis*	ANATIDAE	G5	S5				(x) Over head	x	x
Northern Cadinal	*Cardinalis cardinalis*	CARDINALIDAE	G5	S5				H	x	
American Goldfinch	*Carduelis tristis*	FRINGILLIDAE	G5	S5B,SZN			L3	AE	x	x
Killdeer	*Charadrius vociferus*	CHARADRIIDAE	G5	S5B,SZN				DD	x	x
American Crow	*Corvus brachyrhynchos*	CORVIDAE	G5	S5B,SZN				H	x	
Blue Jay**	*Cyanocitta cristata*	CORVIDAE	G5	S5				CF	x	x
Willow Flycatcher	*Empidonax traillii*	TYRANNIDAE	G5	S5B				A		x
Common yellow throat	*Geothlypis trichas*	PARULIDAE	G5	S5B				S	x	
Song Sparrow	*Melospiza melodia*	EMBERIZIDAE	G5	S5B				S	x	
Savannah Sparrow	*Passerculus sandwichensis*	EMBERIZIDAE	G5	S4B			L1	CF	x	x
Hairy Woodpecker	*PicodiesVillosus*	PICIDAE	G5	S5		X		H	x	
Black-capped Chicadee	*Poecile atricapillus*	PARIDAE	G5	S5B,SZN			L4	H	x	x
Vesper Sparrow	*Pooecetes gramineus*	EMBERIZIDAE	G5	S4B			L3	CF	x	x
bank swallow	*Riparia riparia*	HIRUNDINIDAE	G5	S4B			L2	AE		x
Field Sparrow	*Spizella pusilla*	EMBERIZIDAE	G5	S5B,SZN			L3	CF	x	x
European Starling	*Sturnus vulgaris*	STURNIDAE	G5	SE				H	x	x
Tree Swallow	*Tachycineta bicolor*	HIRUNDINIDAE	G5	S5B,SZN				H	x	x
American Robin	*Turdus migratorius*	TURDIDAE	G5	S5B,SZN				NE	x	x
Eastern Kingbird	*Tyrannus tyrannus*	TYRANNIDAE	G5	S4B				S	x	x
Mourning Dove	*Zenaida macroura*	COLUMBIDAE	G5	S5B,SZN				X	x	x
White-throated Sparrow	*Zonotrichia albicollis*	EMBERIZIDAE	G5	S5B				CF	x	x

Common Name	Scientific Name	Family	GRANK[1]	SRANK[2]	Federal[3] / Provinical[4] Status / ESA 2007[5]	MNR Area Sensitive[6]	NHIC Tracked	Comments
Raccoon	*Procyon lotor*	PROCYONIDAE	G5	S5			N	FWCA (F) ***
Bat (species unkown)	*Talpidae*	CHIROPTERA	-	-	-	-	-	FWCA (SP) ***
White-tailed Deer	*Odocoileus virginianus*	CERVIDAE	G5	S5			N	FWCA (G) ***
Red Fox	*Vulpes vulpes*	CANIDAE	G5	S5			N	FWCA (F) ***
Woodchuck	*Marmota monax*	SCIURIDAE	G5	S5			N	
Mole (species unknown)	*likley hairy tail*	TALPIDAE	G5	S4/S5			N	
Gray tree frog	*Hyla versicolor*	HYLIDAE	G5	S5			N	FWCA (SP) ***
American toad	Anaxyrus americanus	BUFONIDAE	G5	S5			N	
Eastern Gartersnake	*Thamnophis sirtalis sirtalis*	COLUBRIDAE	G5T?	S5			N	
Dekay's Brownsnake	*Storeria dekayi*	COLUBRIDAE	G5	S5	NAR		Y	

Appendix B. Wildlife - Mitch Owens and Bank Street, Ottawa. Compiled from site visit observations on June 13 and 14 2013.

Legend

[1]G-Rank (global)
Global ranks are assigned by a consensus of the network of Conservation Data Centres (CDCs), scientific experts, and the Nature Conservancy to designate a rarity rank based on the range-wide status of a species, subspecies, or variety.
G1 Extremely rare - usually 5 or fewer occurrences in the overall range or very few remaining individuals; or because of some factor(s) making it especially vulnerable to extinction.
G2 Very rare - usually between 5 and 20 occurrences in the overall range or with many individuals in fewer occurrences; or because of some factor(s) making it vulnerable to extinction.
G3 Rare to uncommon - usually between 20 and 100 occurrences; may have fewer occurrences, but with a large number of individuals in some populations; may be susceptible to large-scale disturbances.
G4 Common - usually more than 100 occurrences; usually not susceptible to immediate threats.
G5 Very common - demonstrably secure under present conditions.

[2]S-Ranks (provincial)
Provincial (or Subnational) ranks are used by the Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. These ranks are not legal designations. Provincial ranks are assigned in a manner similar to that described for global ranks, but consider only those factors within the political boundaries of Ontario.
S1 Critically Imperiled - Critically imperiled in the nation or state/province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.

S2 Imperiled - Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.
S3 Vulnerable - Vulnerable in the nation or state/province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
S4 Apparently Secure - Uncommon but not rare; some cause for long-term concern due to declines or other factors.
S5 Secure - Common, widespread, and abundant in the nation or state/province.
S#S# Range Rank - A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).
SAN Non-breeding accidental.
SE Exotic - not believed to be a native component of Ontario's fauna.
SZN Non-breeding migrants/vagrants.
SZB Breeding migrants/vagrants.

[3]COSEWIC (Committee on the Status of Endangered Wildlife in Canada)
(Federal Status from COSEWIC 2013)
EXT Extinct - A species that no longer exists.
EXP Extirpated - A species no longer existing in the wild in Canada, but occurring elsewhere.
END Endangered - A species facing imminent extirpation or extinction.
THR Threatened - A species likely to become endangered if limiting factors are not reversed.
SC Special Concern (formerly vulnerable) - A species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.
NAR Not At Risk - A species that has been evaluated and found to be not at risk of extinction given the current circumstances.
DD Data Deficient (formerly Indeterminate) - Available information is insufficient to resolve a species' eligibility for assessment or to permit an assessment of the species' risk of extinction.

* - Species on Schedule 1 of Species At Risk Act (SARA)
COSEWIC- anticipated assessments for 2012 thu 2013 . Candidate list of wildlife species that it considers at risk of extinction or extirpation nationally. Species on the candidate lists are ranked into three priority groups and each wildlife species should receive a COSEWIC assessment. Group 1 (High) contains wildlife species of highest priority for assessment by COSEWIC, and includes wildlife species suspected to be extirpated from Canada. Groups 2 (Med) and 3 (Low) contain wildlife species that are of intermediate and lower priority for COSEWIC assessment, respectively.

[4, 5] OMNR (Ontario Ministry of Natural Resources and Endangred Species Act 2007)
(Provincial Status from MNR 2013)
The provincial review process is implemented by the MNR's Committee on the Status of Species at Risk in Ontario (COSSARO).
EXT Extinct - A species that no longer exists anywhere.
EXP Extirpated - A species that no longer exists in the wild in Ontario but still occurs elsewhere.
END Endangered - A species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under Ontario's Endangered Species Act (ESA).
THR Threatened - A species that is at risk of becoming endangered in Ontario if limiting factors are not reversed.
SC Special Concern (formerly Vulnerable) - A species with characteristics that make it sensitive to human activities or natural events.
NAR Not at Risk - A species that has been evaluated and found to be not at risk.
DD Data Deficient (formerly Indeterminate) - A species for which there is insufficient information for a provincial status recommendation.
* - Species on Schedule 1/2/3 of Endangered Species Act (ESA), Endangered Species Act, 2007 S.O. 2007, CHAPTER 6. Consolidation Period: From June 30, 2008 to October, 2013.

[5] MNR Significant Wildlife Habitat Technical Guide Area Sensitive Species
Area Sensitivity is defined as species requiring large areas of suitable habitat in order to sustain population numbers
From: Ministry of Natural Resources. 2000. Significant Wildlife Habitat Technical Guide. Fish and Wildlife Branch, 151pp. + appendices.

[6]Conservation Priorities for the Birds of Southern Ontario
http://www.bsc-eoc.org/conservation/conservmain.html

[7] Ontario Breeding Bird Evidence Codes
Observed
X Species observed in its breeding season (no breeding evidence).
Possible
H Species observed in its breeding season in suitable nesting habitat.
S Singing male(s) present, or breeding calls heard, in suitable nesting habitat in breeding season.
Probable
P Pair observed in suitable nesting habitat in nesting season.
T Permanent territory presumed through registration of territorial behavior (song, etc.) on at least two days, a week or more apart, at the same place.
D Courtship or display, including interaction between a male and a female or two males, including courtship feeding or copulation.
V Visiting probable nest site
A Agitated behavior or anxiety calls of an adult.
B Brood Patch on adult female or cloacal protuberance on adult male.
N Nest-building or excavation of nest hole.
Confirmed
DD Distraction display or injury feigning.
NU Used nest or egg shells found (occupied or laid within the period of the survey).
FY Recently fledged young (nidicolous species) or downy young (nidifugous species), including incapable of sustained flight.
AE Adult leaving or entering nest sites in circumstances indicating occupied nest.
FS Adult carrying fecal sac.
CF Adult carrying food for young.
NE Nest containing eggs.
NY Nest with young seen or heard.

Those marked with ** include species regulated under the Fish and Wildlife Conservation Act (FWCA) Specially Protected - FWCA(SP) Game Bird or Mammal - FWCA(G) Furbearer - FWCA(F)
Species are reguated under the Federal Migratory Birds Convention Act (1994) - (MBCA) excludes raptor species and Rock Dove, American Crow, Brown-headed Cowbird, Common Grackle, House Sparrow, Red-winged Blackbird and European Starling

APPENDIX C – AIR PHOTO REVIEW OF SITE CONDITIONS BETWEEN 2002 AND 2011

Aerial Photo Review 2002- 2011 *Map source: City of Ottawa emaps (http://apps104.ottawa.ca/emap/*

2002. Note the large constructed pond, and cleared lands which covers most of property.

2005. Constructed pond still present. Cleared land regenerating.

2008. Pond feature no longer present with most of the property striped and cleared. (appears to have received fill from adjacent aggregate operations)

2011. Present Day. Fallow land, early regeneration.

APPENDIX D – AGENCY CORRESPONDENCE

Kimberly Laframboise

From: Thompson, Erin (MNR) <Erin.L.Thompson@ontario.ca>
Sent: November-26-12 3:16 PM
To: Kimberly Laframboise
Subject: RE: additional Info.

Hi Kim,

I went out to look at the site this afternoon. It will certainly require breeding bird surveys next spring for Bobolink, Meadowlark, and Barn Swallow. Each of these species is documented nearby and the area looks pretty suitable- some of it's not ideal, but still suitable. The only other species that needs to be searched for is butternut. There is a chance for Common Nighthawk (given the proximity to the aggregate site), milksnake and Monarch. As discussed on the phone, I will check with SAR Branch re: authorization letters and look into Bobolink confirmation of habitat requirements and get back to you shortly.

Erin

Species at Risk Biologist
Ministry of Natural Resources Kemptville District
Postal Bag 2002, 10 Campus Drive
Kemptville, Ontario K0g 1J0
P: 613-258-8366
E: Erin.L.Thompson@Ontario.ca

From: Kimberly Laframboise [mailto:kimberly@mnal.ca]
Sent: November 26, 2012 12:20 PM
To: Thompson, Erin (MNR)
Subject: RE: additional Info.

Thanks Erin for the chat today, Also please do not forget to include any SAR not ESA related i.e. possibility for species like short eared owl. So we can effectively work towards an appropriate and realistic work plan for next year.

Kim

From: Thompson, Erin (MNR) [mailto:Erin.L.Thompson@ontario.ca]
Sent: November-20-12 9:00 AM
To: Kimberly Laframboise
Subject:

Hi Kimberly,
Marie-Ange has passed this file onto me to get a response out to you quicker. I had a question about the potential habitat on the site and attached your report with a couple polygons drawn on the most recent air photo. There is a questions inserted there as well. You'll see I've outlined what looks to be pretty contiguous habitat on the air photo- you'll see it as an extension of the fallow fields. I'm wondering what those areas look like now. Would you be able to describe them to me?

Thank you,
Erin Thompson

Species at Risk Biologist
Ministry of Natural Resources Kemptville District
Postal Bag 2002, 10 Campus Drive

Ontario

Ministry of Natural Resources

Kemptville District
P.O. Box2002
10 Campus Drive
Kemptville, ONK0G 1J0

Tel.: (613) 258-8204
Fax.: (613) 258-3920

Ministère des Richesses naturelles

District de Kemptville
CP 2002
10 Campus Drive
Kemptville, ONK0G 1J0

Tél.: (613) 258-8204
Téléc.: (613) 258-3920

Mon. Apr 8, 2013

Attention: Kimberley Laframbroise

Subject: Information Request - Developments
Project Name: Zoning amendment application 5640 Bank Street, 7107 Marco Road, 7041 Mitch Owens Road
Our File No. 2013_OSG-2239

Natural Heritage Values
The Ministry of Natural Resources (MNR) Kemptville District has carried out a preliminary review of the area in order to identify any potential natural resource and natural heritage values.

The MNR works closely with partner agencies and local municipalities in order to establish concurrent approval process and to achieve streamlined and efficient service delivery. The MNR strongly encourages all proponents to contact partner agencies (e.g. MOE, Conservation Authority, etc.) and appropriate municipalities early on in the planning process. This provides the proponent with early knowledge regarding agency requirements and approval timelines.

Natural heritage features and values contribute to the province's rich biodiversity and provide habitat for a variety of species. The following Natural Heritage values were identified:

- Pit, 4072
- Unevaluated Wetland (Not evaluated per OWES)

Municipal Official Plans contain additional information related to natural heritage features. Please see the local municipal Official Plan for more information such as specific policies and direction pertaining to activities which may impact natural heritage features. For planning advice or Official Plan interpretation, please contact the local municipality.

Where natural values and natural hazards exist (e.g., floodplains), there may be additional approvals and permitting required from the local Conservation Authority. The MNR strongly recommends contacting the local Conservation Authority for further information and approvals. Please see the MNR Kemptville Information Guide (2012) for contact information pertaining to Conservation Authorities located within the Kemptville District area.

The Natural Heritage Information Centre (NHIC) can provide additional information and mapping as it pertains to natural heritage features and species at risk. The NHIC website (including mapping

tools) is available to all members of the public, for more information please see the attached NHIC Information Sheet.

As per the Natural Heritage Reference Manual (Section 13; OMNR 2010) the MNR strongly recommends that an Ecological Site Assessment be carried out to more thoroughly determine the presence of natural heritage features, and Species at Risk and their habitat located on site. The MNR can provide survey methodology for particular species at risk and their habitats. In addition, the local planning authority may have more details pertaining to the requirements of the assessment process, which will result in allow for the municipality to make planning decisions which are consistent with the Provincial Policy Statement (2005).

Aggregates

The area in which this project is proposed has several aggregate operations operating other than Pit 4072. These operations and there location in relation to the site should be considered when re-zoning this property. Regular operation in regards to aggregates can have disruptive effects on the surrounding land use. MNR would suggest that the aggregate operators be contacted in regards to this zoning amendment for their input and concerns with changes to the surrounding area.

Species at Risk

With the new Endangered Species Act (ESA, 2007) in effect, it is important to understand which species and habitats exist in the area and the implications of the legislation. A review of the Natural Heritage Information Centre (NHIC) and internal records indicate that there is a potential for the following Threatened (THR) and/or Endangered (END) species on the site or in proximity to it:

- Bobolink (THR)
- Butternut (END)
- Eastern Meadowlark (THR)

All Endangered and Threatened species receive individual protection under Section 9 of the Endangered Species Act, 2007 (ESA). Species listed below receive both species and general habitat protection under Section 10 of the ESA, 2007. Thus any potential works should consider disturbance of possible important habitat (e.g. nesting sites).
Species receiving General Habitat protection:

- Bobolink (THR)
- Eastern Meadowlark (THR)

If the proposed activity is known to have an impact on the species mentioned above or any other SAR, a permit under the Endangered Species Act, 2007 (ESA) may be required. It is recommended that MNR Kemptville be contacted prior to any activities being carried out to discuss potential survey and mitigation measures to avoid contravention of the ESA.

In Addition, one or more Special Concern species has been documented to occur either on the site or nearby. Species listed as Special Concern are not protected under the ESA, 2007. However, please note that some of these species may be protected under the Fish and Wildlife Conservation Act. Species of Special Concern for consideration:

- Snapping Turtle (SC)

If any of these or any other species at risk are discovered throughout the course of the work, and/or should any species at risk or their habitat be potentially impacted by on site activities, MNR should be contacted immediately and operations be modified to avoid any negative impacts to species at risk or their habitat until further direction is provided by MNR.

Please note that information regarding species at risk is based on documented occurrences only and does not include an interpretation of potential habitat within or in proximity to the site in question. Although this data represents the MNR's best current available information, it is important to note that a lack of information for a site does not mean that additional features and values are not present. i.e.: Species at Risk (SAR) or their habitat could still be present at the location or in the immediate area. It is the responsibility of the proponent to ensure that species at risk are not killed, harmed, or harassed; or their habitat is not damaged or destroyed through the activities carried out on the site. The MNR continues to strongly encourage ecological site assessments to determine the potential for SAR habitat and occurrences. When a SAR or potential habitat for a SAR does occur on a site, it is recommended that the proponent contact the MNR for technical advice and to discuss what activities can occur without contravention of the Act. If an activity is proposed that will contravene the Act (such as Section 9 or 10), the proponent must contact the MNR to discuss the potential for a permit (Section 17). For specific questions regarding the Endangered Species Act (2007) or SAR, please contact a district Species at Risk Biologist at sar.kemptville@ontario.ca. For more information regarding the ESA (2007), please see attached ESA Information Sheet.

Please note: The advice in this letter may become invalid if:

- The Committee on the Status of Species at Risk in Ontario (COSSARO) re-assesses the status of the above-named species OR adds a species to the SARO List such that the section 9 and/or 10 protection provisions apply to those species.
- Additional occurrences of species are discovered.
- Habitat protection comes into force for one of the above-mentioned species through the creation of a habitat regulation.

This letter is valid until: Tue. Apr 8, 2014

The MNR would like to advise, by way of this letter, that we continue to be circulated on information with regards to this project. If you have any questions or require clarification please do not hesitate to contact me.

Sincerely,

Eric Dopson
District Planner
eric.dopson@ontario.ca

Encl.\
-ESA Infosheet

Michalski Nielsen
ASSOCIATES LIMITED

November 13, 2012

Marie-Ange Gravel
Species at Risk Biologist
Kempville District
Provincial Government Bldg
10 Campus Dr. PO Bag 2002
Kemptville, ON K0G1J0

Re: Discussion Brief for Preliminary Consultation - Proposed development in Ottawa, Village of Greely, Ottawa; Our File 4912

Dear Mrs. Gravel:

As per our telephone conversation, the following is a summary of our preliminary SAR screening for discussion regarding species regulated under the *Endangered Species Act 2007.* I have also attached relevant site photographs, recent correspondence with the City of Ottawa and a general site location map to assist in your review. Accompanying this letter is our request form for additional natural heritage information as we discussed.

The subject property is located at 5640 Bank St, 7107 Marco St and 7041 Mitch Owens Rd.
Latitude 45.2772.95, Longitude-75.574159 - Part Lot 1 Concession 5, Township of Greely.

The property is planned to be redeveloped for commercial purposes

BACKGROUND SCREENING

Prior to completing a preliminary on site review, Michalski Nielsen conduced a background screening of the property. Screening involves the collecting of information from a number of data sources to provide a basis for the onsite assessment. The screening process is for the most part driven by the Endangered Species Act (ESA), 2007 and the Provincial Policy Statement (PPS) 2005 (as interpreted through the Natural Heritage Reference Manual Second Edition (2010) and the Significant Wildlife Habitat Technical Report, 2003). Information sources used by Michalski Nielsen include, but are not limited to the following:

- SAR range maps (http://www.mnr.gov.on.calenfBusiness/Species/2ColumnSubPage/

246809.html) Online databases of the Natural Heritage Information Centre (NHIC) regarding information on occurrences of species of conservation interest on or adjacent to the subject property, as well as significant natural areas (accessed October 2012) (https ://www.biodiversityexplorer.mnr.gov.on.ca/nhicWEB/mainSubmit.do)

- Online databases of the Ontario Breeding Bird Atlas (OBBA) project and the Atlas of the Breeding Birds of Ontario, 2001—2005 (Cadman et al. 2007) regarding birds that were documented to be breeding in the vicinity of the subject lands during the 2001—2005 period (atlas square numbers:18VR51) http://www.birdsontario.org/atlas/squareinfo.jsp
- Colour aerial photography of the property (2011 digital and historical orthophotos) City of Ottawa emaps (*http://apps104.ottawa.ca/emap/)*

FIELD REVIEW

Staff from Michalski Nielsen Associates limited completed a preliminary site review on October 7, 2012. This involved reviewing the property and examining adjacent lands. It also included a cursory assessment of habitat opportunities for relevant SAR. It did not include targeted surveys for individual species.

SPECIES AT RISK ASSESSMENT

Habitat on site is presently disturbed with evidence of earthworks and fill. Earlier aerial photos (2005, 2002) illustrate that a large open water pond was present on-site, corresponding to areas of past quarrying. This feature was estimated to cover 50% of the property in 2005. 2008 aerial photos confirmed that this feature was removed through fill placement, with over 90% of the site cleared and striped to bare subsoil. The property's previous land use appears to be open pit, which has only recently started to regenerate. Fallow fields and a small artificial wetland pocket remain on site in 2012 (**Photographs 1, 2, 3, 4**). The field component having small shrubs, forbs, treed pockets and is intermixed with bare soils, fill piles with areas still devoid of vegetation (**Photographs 5,6,7,8, 9**). A linear treed hedgerow occurs along the southern edge of the property near the residential subdivision (**Photograph 10, 11**)

Through the screening process and habitat review, Michalski identified that the fallow fields and regenerating nature of the site may provide limited opportunities for species of conservation interest which can occur in disturbed, regenerating "old field" habitat types. Generally, this includes grassland species, aerial insectivores and some snake species. The small wetland feature is determined to be too small to support significant habitats or habitat functions which provide opportunities for turtles or marshland birds, and only limited opportunities for breeding amphibians. Michalski Nielsen identified

the potential for the following species of conservation interest which may occur within the property or immediate vicinity.

- Butternut (Endangered)
- Bobolink (Threatened);
- Eastern Meadow Lark (Threatened);
- Golden-winged warbler (Special Concern);
- Short eared owl (Special Concern);
- Milksnake (Special Concern);
- Monarch butterfly (Special Concern); and
- Chimney Crayfish

Four additional species identified in our desktop review are not anticipated to be nesting on site or using the property for critical functions of their life cycles. These are:

- Whip-poor-will (Threatened)
- Chimney Swift (Threatened)
- Barn swallow (Threatened)
- Common Nighthawk (Special Concern)

There may be limited opportunities for chimney swift and barn swallow; however no nesting sites were identified on site. Occurrences (if present) are likely to be as foraging vagrants only. Whip-poor-will and common nighthawk, were not recorded during the last 2001-2005 breeding bird atlas for square 18VR51. Both species are not expected to be located in such an urban area near heavy traffic and noise as suitable nesting habitat is limited on site. The sites recent history of land uses (quarrying, then active use fill area), make it unlikely that these species would have used it over the past decade or longer.

In closing, I trust the above information is sufficient for the purposes of your review. I look forward to discussing this issue further; please contact me at your earliest convenience so that we can schedule a conference call. In the meantime, please do not hesitate to contact me if you require further clarification regarding the above.

Sincerely,

MICHALSKI NIELSEN ASSOCIATES LIMITED
Per:

Kim Laframboise F.M.T, E.M
Ecologist & Species at Risk Specialist

KL/be

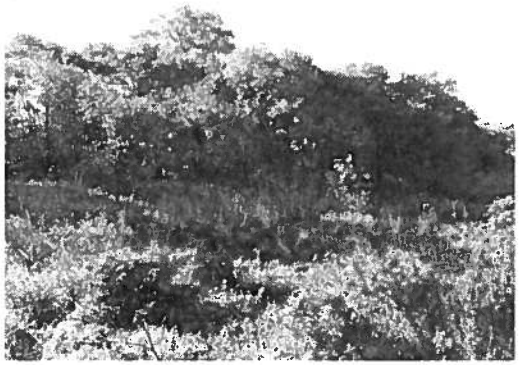
4912- Mitch Owens and Bank Street - October 7, 2012. Site Visit Representative Photographs

Photograph 1. Fallow fields represented by " old field" species covering portions of the property. Looking towards Old Prescott Rd.

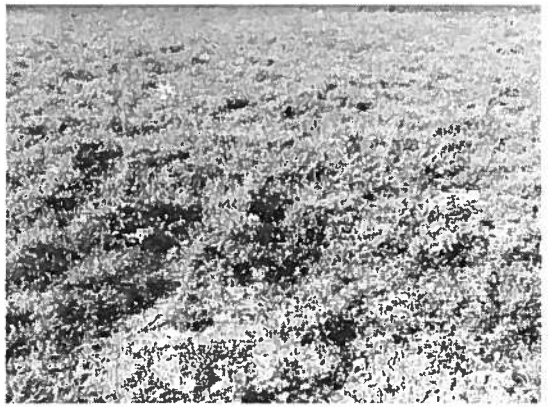
Photograph 2: Fallow field at north end of property. Looking towards Old Prescott Rd.

Photograph 3. Laneway and short grassed area. Not typical of meadowlark or bobolink habitat.

Photograph 4. Small artificial wetland feature. looking west along the south property line.



Photograph 5. Shrubby fringe and treed area along south property limit.



Photograph 6. " Weedy" vegetation - short, no leaf litter. Not suitable bobolink meadowlark habitat.

Cont't - 4912- Mitch Owens and Bank Street - October 7, 2012. Site Visit Representative Photographs

Photograph 7.Fill areas which occur sporadicly across the site

Photograph 8: Looking across the north west corner of the property. Note the lack of grass land species, trees and shrubs.

Photograph 9. Looking North towards Mitch Owens road. Note the extent of forb cover and fill piles along the north property boundary.

Photograph 10. Hedgerow, note the steep slope upwards towards residential subdivision along Marco St.

Photograph 11. Treed hedgerow. South east end of property near Bank Street.

File Number D02-02-12-0082

September 20th 2012

Julie Carrara
FoTenn Consultants Inc.
223 McLeod Street
Ottawa, ON
K2P 0Z8

By email: carrara@fotenn.com

Dear Mrs. Carrara,

Re: Zoning Amendment Application – 5640 Bank St, 7107 Marco St and 7041 Mitch Owens Rd

The technical circulation concerning the above noted Zoning Amendment application came to a close on September 12th 2012. Here is a compilation of all the comments received and the comments that need to be addressed prior to moving forward with your application.

A. General Comments:
   1) The septic system must be in the same zoning as the development it will service. Location and/or orientation of the septic systems should be modified as to not sterilize the balance of the land.
   2) How will the vertical drop along Mitch Owens Rd and at the back of the residential properties along Marco St be worked through?
   3) Has the license from the previous mineral extraction been surrendered?
   4) What are the plans for the balance of the property? Please demonstrate how future residential development would work.
   5) It is understood that a market study cannot be requested. Please explain in the planning rationale why it is appropriate to expand the commercial area in this location and how it will or will not impact the village core.

B. Site Plan comments for future reference:
   1) The mapping from the Official Plan – Schedule K, the Natural Heritage System Overlay, the Shield's Creek Subwatershed Study and existing mapping layers show the centre of the site as a water ponding area. The application indicates that the site has received fill, but this issue needs to be addressed to avoid implementation of Section 69 – Setback from Watercourses.
   2) A Geotechnical Study will have to be prepared to address the geotechnical limit of slope hazard.

3) Will need an EIS to address bobolink and eastern meadow lark habitat at the time of Site Plan.

Design comments:

4) Use a lateral format for the front buildings as much as possible so that at least one interesting elevation will be visible from the public street
5) Could CRU 10 be relocated to avoid having such a large rear wall facing Bank Street?
6) The pond has been engineered however it has not been designed. It should be rounded with greenspace and with pathways around it, making it a public feature, not just a piece of infrastructure. To accomplish this, the vehicular passageway along Bank Street should be shifted further north to provide more space for a properly designed pond.
7) If CRU10 is to remain where it is, shift it north and concentrate on building upgrades at the northeast corner.
8) Create an evergreen forest on the large open space at the corner of Mitch Owens and Bank Street. It would be most interesting to provide lighting within the forest.

Be advised that I am still waiting for comments concerning the hydrogeological study and from other internal city staff. These will be forwarded to your attention as soon as I receive them.

If you have questions on any of the above, please do not hesitate to contact me.

You can reach me at 613-580-2424, extension 24025 or by email at Melanie.Gervais@ottawa.ca.

Sincerely,

Mélanie Gervais
Planner
Development Review Rural Services Branch
Planning and Growth Management Department