

Preliminary Environmental Constraints Report

Expansion Lands, Clarence Rockland, Ontario



City of Clarence Rockland

Preliminary Environmental Constraints Report

Clarence Rockland Expansion Lands

Project # C10-A000817

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Table of Contents

Executive Summary	i
1. Introduction	1
1.1 Existing and Past Land Use.....	2
2. Background Review.....	2
3. Site Visit.....	2
4. Site Description	3
4.1 Ecoregion	3
4.2 Surficial Geology	3
4.3 Provincial Designations	4
4.4 Vegetation Cover	6
4.5 Wildlife 8	
4.5.1 Reptiles and Amphibians.....	8
4.5.2 Birds	9
4.5.3 Mammals.....	10
4.5.4 Fish and Fish Habitat	10
4.6 Habitat for Species at Risk.....	10
5. Description of Proposed Project	13
6. Environmental Constraints	14
6.1 Federal Legislation	14
6.1.1 Fisheries Act.....	14
6.1.1 Migratory Birds Convention Act.....	14
6.2 Provincial Legislation.....	14
6.2.1 Endangered Species Act.....	14
6.2.1 Provincial Policy Statement.....	15
6.2.1 Conservation Authorities Act	15
6.3 Municipal Policy.....	15
6.3.1 Official Plan of the Urban Area of the City of Clarence Rockland	15
6.3.2 Official Plan – United Counties of Prescott and Russell.....	16

7. Recommended Mitigation Measures	18
8. Conclusion	20
8.1 Study Limitations and Constraints	21
8.2 Signatures	21
9. References	22

List of Tables

Table 1: Amphibian and Reptile Species	8
Table 2: Bird Species	9
Table 3: Potential Species at Risk	11

Appendices

Appendix A	Correspondence
Appendix B	Species Lists
Appendix C	Preferred Concept Plan

Executive Summary

CIMA+ was retained by FOTENN Planning + Design, on behalf of the City of Clarence-Rockland, to undertake an Environmental Impact Statement (EIS) on the proposed expansion lands to the southeast of the existing Urban Area Boundary of the City of Rockland.

The study area is irregularly shaped, consisting of 137 ha on the south side of David Street and bounded by Clarence Creek to the east. It is situated primarily to the east of Caron street except for an approximately 23 ha area to the southwest of the study area.

The proposed project consists of an expansion of the City of Clarence Rockland's urban boundary. The area currently consists of lands which are undeveloped or are used for agricultural purposes. The preferred zoning for these expansion lands would be a mix of low, medium, and high-density residential areas as well as limited commercial and institutional areas. The plan also includes provisions for site servicing, roadways, drainage, parklands and an environmental protection zone setback along the unnamed tributary at the center of the site.

The preliminary assessment of environmental constraints was completed through a combination of background documentation review and field surveys. General development best practices have been recommended to avoid or mitigate potential environmental impacts to identified valued ecosystem components. A review of applicable legislation has also been completed to inform requirements for future development of the site.

1. Introduction

CIMA+ was retained by FOTENN Planning + Design, on behalf of the City of Clarence-Rockland, to undertake an Environmental Impact Statement (EIS) on the proposed expansion lands to the southeast of the existing Urban Area Boundary of the City of Rockland. The study area is irregularly shaped, consisting of 137 ha on the south side of David Street and bounded by Clarence Creek to the east. It is situated primarily to the east of Caron street except for an approximately 23 ha area to the southwest of the study area.

Figure 1 presents the location of the site with its surroundings.



Figure 1: Site Location Map

This study was undertaken to identify the site's general ecological features and constraints and to assist in future development option analyses. The mandate objectives are to:

- ◆ Describe the existing natural conditions of the study site based on consultations, available documentation and field surveys; and
- ◆ Identify any potentially significant environmental features and functions present at the site.

Following the completion of field assessments, recommendations for environmental impact avoidance and mitigation measures will be developed for inclusion in the site development plans.

1.1 Existing and Past Land Use

The study area is quite large and currently supports several land uses. Most of the lands are agricultural fields, which at the time of the study are planted with corn and soy. A conifer plantation is also centrally located on the north side of the study area. Remaining lands are undeveloped lands, primarily woodlands and meadows, with a small amount of residential development along David Road to the north and Caron Street to the west.

2. Background Review

The following public sources were consulted as part of our desktop research:

- ◆ Google Earth Aerial imagery (current and historic);
- ◆ Geographic information from Land Information Ontario;
- ◆ Crown Land Use Policy Atlas;
- ◆ The Ecosystems of Ontario, Part 1 Ecozones and Ecoregions, Ministry of Natural Resources, 2009;
- ◆ Atlas of Breeding Birds of Ontario (ABBO);
- ◆ eBird online database;
- ◆ Ontario Nature Reptile and Amphibian Atlas; and
- ◆ Ontario Geological Survey (OGS Earth – Surficial and Bedrock mapping).

The desktop study also included the consultation of various other sources to identify potential Species at Risk (SAR) that could be encountered on the site.

Information requests were submitted to the Natural Heritage Information Center (NHIC) and the Ministry of Natural Resources and Forestry - Kemptville District (MNRK) to obtain relevant information concerning the property. Correspondence is included in Appendix A.

3. Site Visit

Two site visits were conducted by CIMA+ staff on July 8th, 2018 and on August 8th, 2018. The first site visit was attended by Nicholas Bertrand, B.Sc. and Kai Markvorsen, B.Sc. The second site visit was attended by Claudia Fortin, B.Sc. and Stéphane Boisvenue, senior technician.

Activities undertaken during the July 8th site visit included:

- ◆ Vegetation survey;
- ◆ Bird survey;
- ◆ Incidental observations of wildlife species.

Activities undertaken during the August 8th site visit included:

- ◆ Delineation of vegetation communities;

- ◆ Assessment of habitats for potential Species at Risk; and
- ◆ Incidental observations of wildlife species.

4. Site Description

4.1 Ecoregion

The Study Area is located within Ecoregion 6E (Lake Simcoe-Rideau), the second most densely populated ecoregion in Ontario. This ecoregion is part of the Mixedwood Plains Ecozone of Southern Ontario, characterized by a relatively diverse vegetation.

4.2 Surficial Geology

Surficial geology mapping from the Ontario Geological Survey indicates that the Study Area is underlain by a combination of till, fine-textured glaciomarine, organic and alluvial deposits as well overlying Paleozoic bedrock. Typical soils in this units are comprised of clay, sand and silt. Surficial geology of the Study Area is shown in Figure 2.



Figure 2. Surficial Geology

4.3 Provincial Designations

There are no Areas of Natural and Scientific Interest (ANSI) within, or in proximity to, the Study Area.

Rockland Marsh is a Provincially Significant Wetland (PSW) that is located downstream of the project site along Clarence Creek.

Key Site Features and designated areas are identified on Figure 3.

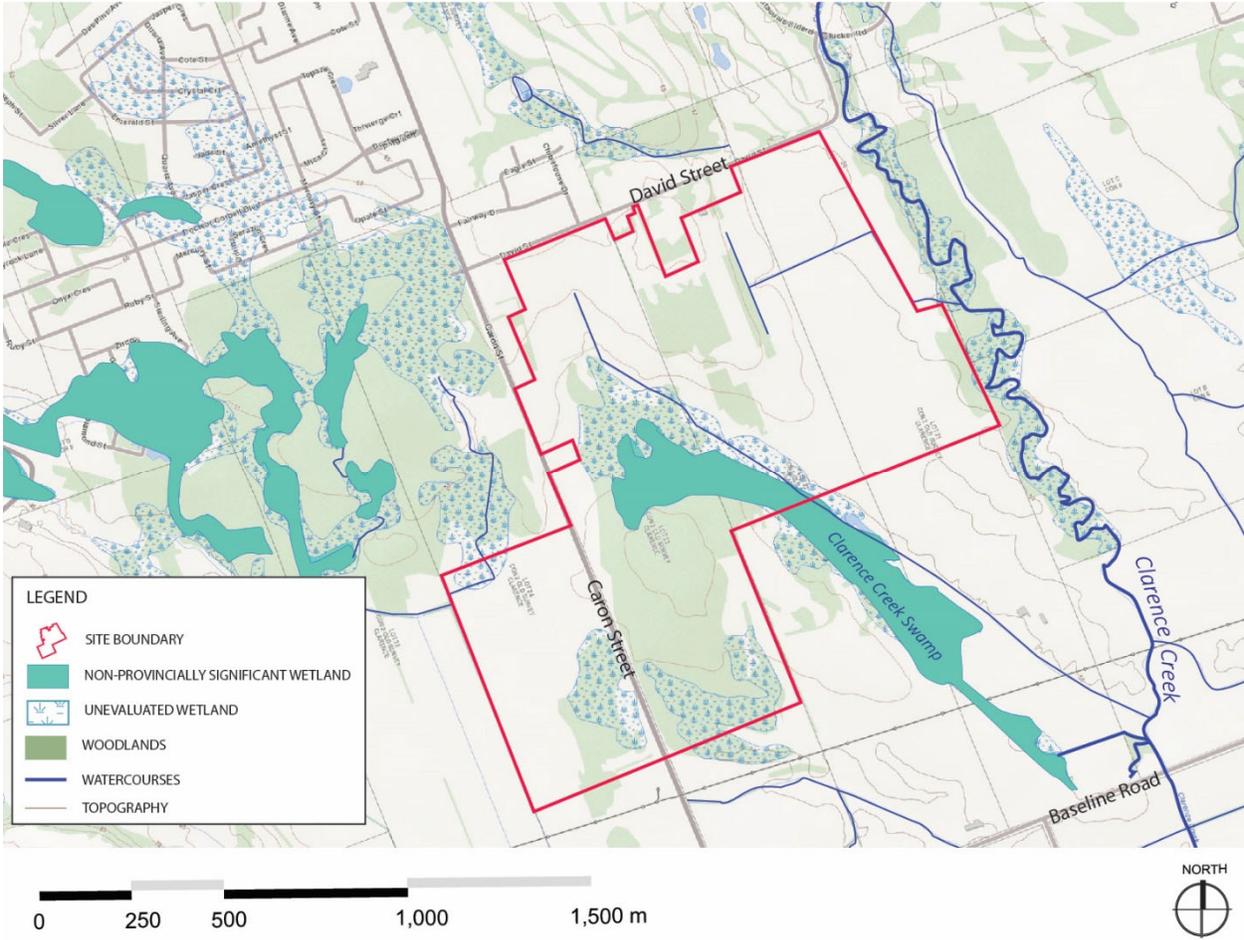


Figure 3. Existing Landscape Features and Designations

4.4 Vegetation Cover

Vegetation cover was examined as part of the site visit and classified according to the Ecological Lands Classification (ELC) for Southern Ontario. Vegetation communities were determined by assessing type and percent vegetative cover, soil type and moisture content, presence of surface water, etc.. Based on this assessment, the vegetation cover on the site consisted of the following vegetation community types:

- Organic Thicket Swamp (SWT3)
- Red Pine Cultural Coniferous Plantation (CUP3)
- Mineral Cultural Meadow (CUM1)
- Coniferous Swamp (SWC)
- Dry-Fresh Pine Coniferous Forest (FOC1)
- Mixed Forest (FOM)
- Sugar Maple Cultural Deciduous Plantation (CUP1-1)
- Cattail Mineral Shallow Marsh (MAS2-1)
- Mineral Thicket Swamp (SWT2)
- Mineral Cultural Meadow (CUM1)
- Dry Fresh Oak Deciduous Forest (FOD-1)
- White Spruce – European Larch Coniferous Plantation (CUP3-8)
- Mineral Cultural Thicket (CUT1)

In addition to these identified vegetation communities, there is a large area of recent clear-cut which covers most of the southern portion of the site along the east side of Carron St. No significant woodlands or valley lands were identified within the study area.

The location and size of the vegetation community types is shown in Figure 4.

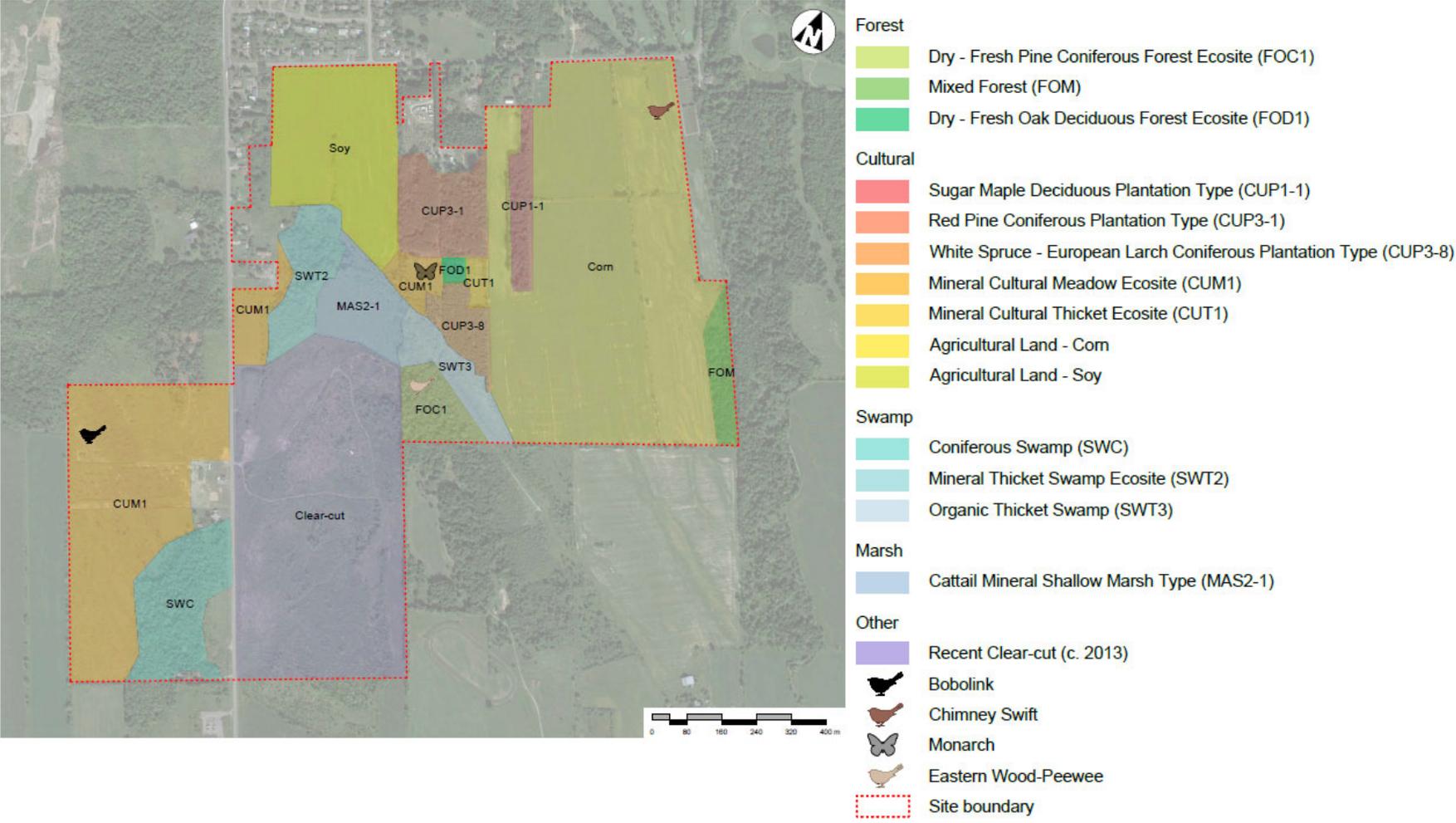


Figure 4: Expansion Lands ELC Mapping

4.5 Wildlife

Characterization of the biological community in the Study Area was completed by compiling data from published resources and local agencies as well as by conducting a visual assessment of natural heritage features, with focus on vegetation composition and the presence of Species at Risk (SAR).

4.5.1 Reptiles and Amphibians

The Ontario Nature Reptile and Amphibian Atlas (Atlas Squares 18VR74 and 18VR84) was consulted to determine which amphibian and reptile species are likely to occur in the general vicinity of the Study Area. The species observed in these two atlas squares are presented in Table 1 below.

Table 1: Amphibian and Reptile Species

Common Name	Scientific Name
American Bullfrog	(<i>Lithobates catesbeianus</i>)
American Toad	(<i>Anaxyrus americanus</i>)
Eastern Newt	(<i>Notophthalmus viridescens</i>)
Eastern Gartersnake	(<i>Thamnophis sirtalis</i>)
Eastern Red-backed Salamander	(<i>Plethodon cinereus</i>)
Four-toed Salamander	(<i>Hemidactylium scutatum</i>)
Green Frog	(<i>Rana clamitans</i>)
Jefferson/Blue-spotted Salamander Complex	(<i>Ambystoma jeffersonianum</i>)
Midland Painted Turtle	(<i>Chrysemys picta</i>)
Mudpuppy	(<i>Necturus maculosus</i>)
Northern Leopard Frog	(<i>Lithobates pipiens</i>)
Red-bellied Snake	(<i>Storeria occipitomaculata</i>)
Snapping Turtle	(<i>Chelydra serpentina</i>)
Spotted Salamander	(<i>Ambystoma maculatum</i>)
Spring Peeper	(<i>Pseudacris crucifer</i>)
Wood Frog	(<i>Lithobates sylvaticus</i>)

No reptile or amphibian species were observed during CIMA+ site visits.

4.5.2 Birds

The Atlas of Breeding Birds of Ontario (square 18VQ49) and eBird identified 218 bird species as potentially occurring within the study area. A complete list of these species is presented in **Appendix B**. During the site visit, 33 bird species were identified by sight and/or sound over the course of both field visits and are presented in Table 2.

Table 2: Bird Species

Common Name	Scientific Name
Chimney swift	<i>Chaetura pelagica</i>
Bobolink	<i>Dolichonyx oryzivorus</i>
Alder flycatcher	<i>Empidonax alnorum</i>
Great Crested Flycatcher	<i>Myiarchus crinitus</i>
American Crow	<i>Corvus brachyrhynchos</i>
Blue Jay	<i>Cyanocitta cristata</i>
Red-breasted Nuthatch	<i>Sitta canadensis</i>
White-breasted Nuthatch	<i>Sitta carolinensis</i>
House Wren	<i>Troglodytes aedon</i>
American Robin	<i>Turdus migratorius</i>
Great Catbird	<i>Dumetella carolinensis</i>
Cedar Waxwing	<i>Bombycilla cedrorum</i>
Black and White Warbler	<i>Mniotilta varia</i>
Mourning Warbler	<i>Geothlypis philadelphia</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Yellow Warbler	<i>Setophaga petechia</i>
White throated Sparrow	<i>Zonotrichia albicollis</i>
Song Sparrow	<i>Melospiza melodia</i>
Chipping Sparrow	<i>Spizella passerina</i>
Swamp Sparrow	<i>Melospiza georgiana</i>
Scarlet Tanager	<i>Piranga olivacea</i>
Red-breasted Grosbeak	<i>Pheucticus ludovicianus</i>
Indigo Bunting	<i>Passerina cyanea</i>

Common Name	Scientific Name
Redwinged Blackbird	<i>Agelaius phoeniceus</i>
Brownheaded Cowbird	<i>Molothrus ater</i>
Common Grackle	<i>Quiscalus quiscula</i>
American Goldfinch	<i>Spinus tristis</i>
Mourning Dove	<i>Zenaida macroura</i>
Tree Swallow	<i>Tachycineta bicolor</i>
Puna Yellow Finch	<i>Sicalis lutea</i>
Eastern Wood-Peewee	<i>Contopus virens</i>

4.5.3 Mammals

Specific mammal surveys were not conducted as part of CIMA+ site visits. However incidental observations were made. Species include Eastern Chipmunk (*Tamias striatus*) and red squirrel (*Tamiasciurus hudsonicus*). All species observed are common species in the province of Ontario.

4.5.4 Fish and Fish Habitat

Specific critical habitat for aquatic species at risk was not noted as part of the background review and a complete assessment of aquatic habitat was beyond the scope of this assessment. However, aquatic habitat is present within the study area and does constitute potential fish habitat.

4.6 Habitat for Species at Risk

The study area is situated on private lands. As such, the protected Endangered and Threatened Species at Risk (SAR) are those covered by the provincial *Endangered Species Act* (ESA). The federal Species at Risk Act would only be applicable to migratory birds protected under the *Migratory Birds Convention Act* and fish protected under the *Fisheries Act*. Distribution ranges for SAR were determined using a variety of sources including: COSEWIC reports, ABBO and the species at risk Ontario website. In addition, the MNRF identified potential SAR as part of their response to the information request. The list of potential SAR, their status and preferred habitat and whether that habitat is present within the study area is presented in Table 3. SAR observed during site visits are noted and the locations of observation are identified in Figure 4.

Table 3: Potential Species at Risk

Common Name Scientific Name Rarity Rankings	Comments	Habitat Present	Observed
American Eel <i>Anguilla rostrata</i> Federal - Threatened (TH) Provincial - Endangered (EN)	In Ontario, American Eels can be found as far inland as Algonquin Park. Once the eels mature (10-25 years) they return to the Sargasso Sea to spawn.	No	No
Northern Brook Lamprey <i>Ichthyomyzon fossor</i> Federal - Special Concern (SC) Provincial - Special Concern (SC)	The Northern brook lamprey is a small, elongate fish that grows 16 cm. It has an eel-like appearance and a round, jawless mouth with teeth arranged in a circle and seven gill openings and no pectoral or pelvic fins. Adults are dark greyish-brown on the back and sides, with pale grey or silvery white on the belly. It lives in clear, cool water streams.	No	No
Barn Swallow <i>Hirundo rustica</i> Federal - Not Listed Provincial - Threatened (TH)	Barn Swallows forage in open areas throughout most of the continent, including suburban parks and ball fields, agricultural fields, beaches, and over open water such as lakes, ponds and coastal waters. Breeding habitat must include open areas for foraging, structures or cliffs to build nests on, and a source of mud such as a riverbank to provide the material for building nests.	Yes	No
Eastern Meadowlark <i>Sturnella magna</i> Federal - Threatened (TH) Provincial - Threatened (TH)	Eastern Meadowlarks are most common in native grasslands and prairies, but they also occur in pastures, hayfields, agricultural fields, airports, and other grassy areas.	Yes	No
Butternut <i>Juglans cinerea</i> Federal - Endangered (EN) Provincial - Endangered (EN)	Butternut usually grows alone or in small groups in deciduous forests. It prefers moist, well-drained soil and is often found along streams	Yes	No
Little Brown Bat <i>Myotis lucifugus</i> Federal - Endangered (EN) Provincial - Endangered (EN)	During the day they roosts in trees and buildings. They often select attics, abandoned buildings and barns for summer colonies where they can raise their young. They hibernate most often in caves or abandoned mines that are humid and remain above freezing.	Yes	No

Common Name Scientific Name Rarity Rankings	Comments	Habitat Present	Observed
Tri-colored Bat <i>Perimyotis subflavus</i> Federal - Endangered (EN) Provincial - Endangered (EN)	During the summer, the Tri-colored Bat is found in a variety of forested habitats. It forms day roosts and maternity colonies in older forest and occasionally in barns or other structures. They forage over water and along streams in the forest. Tri-colored Bats eat flying insects and spiders gleaned from webs. At the end of the summer they travel to a location where they swarm; it is generally near the cave or underground location where they will overwinter. They overwinter in caves where they typically roost by themselves rather than part of a group.	Yes	No
Northern Long-eared Bat <i>Myotis septentrionalis</i> Federal - Endangered (EN) Provincial - Endangered (EN)	Northern long-eared bats are associated with boreal forests, choosing to roost under loose bark and in the cavities of trees.	Yes	No
Chimney Swift <i>Chaetura pelagica</i> Federal – Threatened (TH) Provincial – Threatened (TH)	The Chimney Swift spends most of its time flying and even forages in the air, catching its prey (flying insects) in flight. Primarily found in and around urban settlements where they nest and roost (rest or sleep) in chimneys and other manmade structures. They also tend to stay close to water as this is where the flying insects that they eat congregate.	No	Yes - foraging over agricultural (corn) field
Monarch <i>Danaus plexippus</i> Federal – Endangered (EN) Provincial – Special Concern (SC)	Milkweeds (numerous species) are the sole food plant for Monarch caterpillars. These plants grow predominantly in open and periodically disturbed habitats such as roadsides, fields, wetlands, prairies, and open forests. Milkweeds are often planted outside their native range, and sometimes wayward Monarchs are observed at these patches.	Yes	Yes – CUM1
Bobolink <i>Dolichonyx oryzivorus</i> Federal - Threatened (TH) Provincial - Threatened (TH)	The Bobolink is a medium sized songbird found in grasslands and hayfields. Bobolinks often build their small nests on the ground in dense grasses. Bobolinks spend much of their time out of sight on the ground feeding on insects and seeds.	Yes	Yes – foraging/perching over CUM1

Common Name Scientific Name Rarity Rankings	Comments	Habitat Present	Observed
Eastern Wood- Peewee <i>Contopus virens</i> Federal - Special Concern (SC) Provincial - Special Concern (SC)	The eastern wood-pewee is a small forest bird that grows to about 15 cm long. It lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests and feeds on flying insects.	Yes	Yes – calling in FOC1
Jefferson/Blue-spotted Salamander Complex <i>Ambystoma jeffersonianum</i> Federal - Endangered (EN) Provincial - Endangered (EN)	Jefferson salamanders are 12-20 cm long and have a grey or brown-coloured back, with lighter under- parts they may also have blue flecks on the sides and limbs. Adults live in moist, loose soil, under logs or in leaf litter but migrate to woodland ponds to breed in the spring. They lay their eggs in clumps attached to underwater vegetation.	Yes	No
Snapping Turtle <i>Chelydra serpentina</i> Federal - Special Concern (SC) Provincial - Special Concern (SC)	Canada’s largest freshwater turtle, Snapping Turtles have large black, olive or brown shells. They typically inhabit shallow waters and hide under the soft mud and leaf litter. From early to mid-summer, females travel overland in search of a suitable nesting site, usually gravelly or sandy areas along streams but they will also nest in man-made structures including the gravel shoulders of roads, dams and aggregate pits.	Yes	No

All endangered and threatened species receive individual protection under Section 9 of the *Endangered Species Act* (ESA) and receive general habitat protection under Section 10 of the ESA.

Species listed as special concern are not protected under the ESA; however, these species may receive protection under other legislation (e.g. the *Fish and Wildlife Conservation Act*). The habitat of special concern species may also be considered significant wildlife habitat.

5. Description of Proposed Project

The proposed project consists of an expansion of the City of Clarence Rockland’s urban boundary. The lands are comprised of 137 ha of lands which are undeveloped or are used for agricultural purposes. The preferred zoning for these expansion lands would be a mix of low, medium, and high-density residential areas as well as limited commercial and institutional areas. The plan also includes provisions for site servicing, roadways, drainage, parklands and an environmental protection zone setback along the unnamed tributary at the center of the site. The final preferred concept plan is shown in **Appendix C**.

6. Environmental Constraints

6.1 Federal Legislation

6.1.1 Fisheries Act

The Fisheries Act is administered by the Department of Fisheries and Oceans Canada (DFO) and is intended to manage threats to the sustainability and ongoing productivity of Canada's fisheries. Section 35 of the Act prohibits the carrying on of a work, undertaking or activity that results in serious harm to fish that are part of or support a commercial, recreational or Aboriginal fishery. Serious harm to fish is defined as the death of fish or the permanent alteration to, or destruction of, fish habitat.

Fish habitat is defined as spawning grounds and any other areas, including nursery, rearing, food supply and migration areas, on which fish depend directly or indirectly to carry out their life processes.

If, as part of development, work is proposed within 30 m of Clarence Creek, its tributaries or a hydraulically connected wetland, an environmental professional would have to conduct a fisheries self-assessment to assess if a *Fisheries Act* request for review needs to be submitted to DFO.

6.1.1 Migratory Birds Convention Act

The *Migratory Birds Convention Act* regulates the protection and conservation of migratory birds as populations and individuals and protects their nests. The Act applies to any areas that provide potential for nesting habitat of migratory birds.

Section 6 of the Migratory Bird Regulations made under the Act states that no person shall disturb, destroy or take a nest, egg, nest shelter, eider duck shelter or duck box of a migratory bird except under authority of a permit.

As the Study Area provide nesting opportunities for migratory birds, the provisions of this Act apply to any development activities proposed on these expansion lands.

6.2 Provincial Legislation

6.2.1 Endangered Species Act

The *Endangered Species Act* prohibits any person from killing or damaging the habitat of species that are listed on the Species at Risk in Ontario list. Some exemptions exist under O.Reg. 242/08 of the Act, related to particular species and activities, for example the Eastern Meadowlark and the Bobolink. If a proposed undertaking is covered under one of the exemptions, a streamlined notification process applies. If none of the exemptions apply, a permit under section 17(1) of the Act is required.

The SAR screening conducted for this project indicates potential for multiple species at risk and their habitat is present within the study area. Field assessments also identified several SAR. Further assessments will be required to support future development within the boundary expansion area in order to avoid impacts to these species.

6.2.1 Provincial Policy Statement

The Provincial Policy Statement (PPS) was issued under Section 3 of the Planning Act and is applicable province-wide to all planning decisions. The Study Area is in Ecoregion 6E, and there are natural heritage features in the Study Area that are protected by the PPS.

Development and site alteration are not permitted in significant woodlands, significant valleylands, significant wildlife habitat, or fish habitat unless it has been demonstrated that there will be no negative impacts on the natural features or on the ecological functions. It is expected that this assessment will be carried out through a development specific EIS.

6.2.1 Conservation Authorities Act

The Conservation Authorities Act was enacted to provide for the organization and delivery of programs and services that further the conservation, restoration, development and management of natural resources in watersheds in Ontario. Under Section 21 of the Act, Conservation Authorities have the power to study and investigate the watersheds of their jurisdictions and to determine programs whereby the natural resources of the watershed may be conserved, restored, developed and managed.

The project is not located within the jurisdiction of the South Nation Conservation Authority (SNCA). However, the SNCA provide comment and review of projects in this area through a memorandum of understanding with the municipality.

6.3 Municipal Policy

6.3.1 Official Plan of the Urban Area of the City of Clarence Rockland

While the study area is not within the urban area boundary at this time, it is expected that the requirements of the Official Plan will apply once the boundary is expanded. The Official Plan identifies several environmental requirements intended to avoid or mitigate impacts to species and their habitats. These requirements are summarized below:

Habitat of Endangered and Threatened Species (Section 4.13.2)

An Environmental Impact Study (EIS) is required when development and/or site alterations are proposed within 50 metres of significant portions of the habitat of threatened and endangered species. As mentioned above habitat for several SAR was identified within the study area.

Vegetation Cover (Section 4.13.4)

Future development must consider the following criteria for the purposes of the reasonable protection of trees and shrubs:

- The maintenance of as much of the natural vegetation between the development and any existing public roads as possible.
- The protection of significant trees or shrubs.
- For developments which require site plan approval, a tree inventory may be required, and the grading plan and landscaping plan should consider measures for the protection of trees.

- For developments that are proposed by plan of subdivision, a tree preservation plan with recommended measures to protect trees will be required as a condition of the subdivision approval.

Fish Habitat (Section 4.13.5)

The Official Plan establishes a minimum setback from waterbodies at 30 metres. If any development or site alteration is proposed that would reduce that distance or that has the potential to negatively impact fish or fish habitat, an Environmental Impact Study must be submitted to support the development.

Setbacks from Water (Section 4.21)

All buildings and structures, except for electric power transmission lines and other public utilities, marinas and marine facilities, will be set back a minimum of 30 m from the high-water mark of any waterbody or watercourse. Development and site alteration within the setback may be permitted where an EIS has demonstrated there will be no impact on the watercourse. Existing vegetation between buildings or structures and the high-water mark should remain undisturbed where possible.

Wetlands (Section 5.7)

The Official plan designates all identified provincially significant wetlands (PSW as identified by the Ministry of Natural Resources (MNR) using the Ontario Wetland Evaluation System) as wetlands. While there is a PSW located downstream of the Study Area along Clarence Creek there are no PSW located within the study area.

6.3.2 Official Plan – United Counties of Prescott and Russell

The official plan of the United Counties of Prescott and Russell also identify several environmental requirements relevant to development within the expansion lands area.

Surface Water Management Plans (Section 3.4.4)

In order to control flooding, ponding, erosion and sedimentation and to protect, as much as possible, water quality and aquatic habitat or other natural habitat, storm water management plans shall be required for any new development consisting of more than four lots or for commercial or industrial developments with large amounts of impervious area. Stormwater management will be undertaken in accordance with the Ministry of Environment and Climate Change Guideline entitled “Stormwater Management Planning and Design Manual, 2003”. Stormwater management may not be required for small scale developments such as lots created through the consent process or minor developments subject to site plan control where there is no impact on the watershed.

Wetlands Policy Areas (Section 5.5.1)

The Official plan designates all identified provincially significant wetlands (PSW as identified by the Ministry of Natural Resources (MNR) using the Ontario Wetland Evaluation System) as significant wetlands. While the official plan does not identify wetlands within the expansion lands area as significant it requires that:

- a) Any development or site alteration proposed on or adjacent to a locally significant wetland shall not be permitted unless it has been demonstrated that there will be no negative impacts through an Environmental Impact Study (EIS).
- b) Any development or site alteration proposed on or adjacent to an evaluated, non-provincially significant wetland (i.e. not identified to be important or significant at a provincial, local or municipal level), shall avoid negative impacts to the wetland (e.g. relocate the development); and, where avoidance is not possible, minimize the impacts to the fullest extent possible (as determined through an EIS).
- c) Any development or site alteration proposed on or adjacent to an unevaluated wetland not evaluated according to the Ontario Wetland Evaluation System), shall require a scoped Environmental Impact Study.

Endangered or Threatened Species Habitat Species at Risk (Section 5.5.2)

Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.

Where a screening identifies the potential habitat of endangered and threatened species, an ecological site assessment (EcoSA) shall be required in support of a planning application. The EcoSA shall assess the potential for significant habitat and delineate the extent of significant habitat of endangered and/or threatened species within or adjacent to an area proposed for development or site alteration. In cases where an environmental impact study (EIS) is triggered by the Official Plan, the above requirements may be addressed as part of the environmental impact study, provided it is undertaken by a qualified individual.

On all sites proposed for development or site alteration, a site inventory for butternut, an endangered tree species, will be required prior to the disturbance or removal of trees. When harm to (cutting of branches, root disturbances, etc.) or removal of butternut is proposed, prior assessment of the health of the species by a qualified Butternut Health Assessor is required.

Fish Habitat (Section 5.5.7)

Rivers, municipal drains and all other watercourses in the United Counties are either direct or indirect fish habitat.

Development and site alterations shall not be permitted in fish habitat except in accordance with provincial and federal requirements. Where development is proposed within 120 metres of an area of fish habitat as identified on Schedule B or adjacent to an area of fish habitat identified through consultation with the South Nation Conservation or the federal Department of Fisheries and Oceans it must be demonstrated through an environmental impact study carried out in accordance with Section 5.6 that there will be no negative impacts on the natural feature or on the ecological functions for which the feature is identified.

7. Recommended Mitigation Measures

As described above, there are no detailed plans to develop properties within the study area as part of the expansion of the urban boundary. As such, the recommendation of site specific mitigative measures is not possible at this time. However, the following work and general recommendation measures are recommended to inform future development:

- The unevaluated part of the centrally located wetland identified through field assessments should be assessed using the Ontario Wetland Evaluation System to determine whether it meets the criteria of being a PSW;
- It is expected that development within the expanded urban area boundary to be planned in accordance with the Official Plan of the Urban Area of the City of Clarence-Rockland will require the preparation of projects specific EIS;
- EIS should consider the potential impacts to SAR and SAR habitat identified in section 4 of this report which may be present within the area to be developed.
- Compliance with the *Endangered Species Act*, *Species at Risk Act* and *Fisheries Act* obligations will need to be confirmed before any modification to a site part of the expansion lands can be carry out.
- Implement Environment and Climate Change Canada *Guidelines to reduce risk to migratory birds*.
- While working within 30 m of a fish habitat, implement DFO *Measures to avoid causing harm to fish and fish habitat*.
- Tree removal and site preparation for construction should occur before April 1st or after September 30th to minimize impacts to habitat of migratory birds during critical life stages and comply with provincial and federal legislation. Following these guidelines will also allow to limit the impacts of the site preparation on bats as most bats should be absent from the site after September 30.
- Minimize the removal of natural vegetation and clearly delineated areas to be removed on the construction drawings.
- Educate workforce on potential wildlife which could occur in the vicinity of the work area and measures to avoid wildlife.
- Ensure that all grassland habitat that needs to be removed is cut prior to April 1 or after August 31. This is important to avoid impacting SAR grassland birds.
- Should any mammal, reptile or amphibian species be encountered during construction, the construction activities will immediately stop until the animal has safely moved out of harm's way. If a non-SAR individual needs to be moved, it can be relocated to its appropriate habitat outside of the work area.
- Should a nest be observed (any species) stop all activity at or near the nest and contact professional biologist for next steps.

- When possible, work should be completed during daylight hours. If nighttime lights are used, they will be installed so as to illuminate the work area only to minimize impacts to nighttime activities of wildlife.
- Vehicles and equipment should have the appropriate mufflers installed.
- Vehicle and equipment engine idling will be minimized
- Construction vehicles will have designated access routes from and to the construction area.
- Temporarily disturbed areas will be revegetated to pre-construction conditions using native trees and shrubs.
- All equipment and vehicles will be equipped with dust collectors and mufflers as appropriate.
- During concrete removal, tarps will be used to contain airborne dust particles.
- Water will be applied, at a minimum, on a daily basis, to all inactive disturbed surface areas. Water will be applied more frequently if required to prevent the visible emissions of fugitive dust.
- Water will be applied to all unpaved roads used for vehicular traffic at a frequency sufficient to prevent the visible emissions of fugitive dust.
- Clean gravel with low fines content will be chosen as material to top unpaved roads. Unpaved roads will be regularly graded and maintained to avoid washboarding and rutting that can increase fugitive dust emissions.
- Speed limits will be posted throughout the project area to control fugitive dust on all unpaved roads.
- All loads on haul trucks will be covered.
- During very windy conditions, material handling/transfer activity that generates fugitive dust will be avoided or reduced. If it is not possible to reschedule the activity, increased application of water for dust suppression may be used.
- Water will be applied to all open stockpiles on a daily basis when there is evidence of wind driven fugitive dust.
- Wetted stockpiles will be surrounded with sediment and erosion control measures (i.e. fencing).
- Materials with the potential to generate dust will be sprayed with water 15 minutes prior to handling and/or at points of transfer.
- Burning of waste materials will be prohibited
- There will be no use of herbicides in clearing of vegetation.
- Refuelling of equipment (e.g., pumps) and maintenance shall be conducted off slopes and away from water bodies on impermeable pads (drip tray) or buried liners to allow full containment of spills.
- The contractor crew will be fully trained on the use of clean-up materials in order to minimize impacts of any accidental spills.

- Ensure that the erosion and sediment control (ESC) measures chosen are appropriate for the site and are functioning as intended.
- Maintain and monitor ESC measures, provide the results of monitoring, and ensure adjustments as needed are made on a continuous basis.
- No work will occur in or within 30 m of the water until the appropriate ESC measures have been properly implemented. These will be designed to prevent the movement of suspended sediments outside of the site preparation and construction work areas.
- Work will stop if sedimentation issues occur outside of work areas until the cause of sedimentation is identified and addressed
- Should dust particles be created during concrete crushing, excavation, stockpiling etc. then they will be suppressed using the appropriate method (i.e. tarps).
- Any removal of riparian vegetation will be minimized and removal will be completed using small machinery.
- Where possible, vehicle traffic will be restricted to access roads
- The sediment fencing will not be removed until the terrestrial vegetation has become re-established.

The measures identified above should be considered in the context of proposed development within the expansion lands and are not necessarily a complete listing.

8. Conclusion

CIMA+ has completed, on behalf of the City of Clarence-Rockland, a preliminary assessment of environmental constraints on the proposed expansion lands to the southeast of the existing Urban Area Boundary of the City of Rockland, Ontario. Based on a combination of background documentation review and field surveys a developable area of the site has been defined and general development best practices have been recommended to avoid or mitigate potential environmental impacts to identified valued ecosystem components. A review of applicable legislation has also been completed to inform requirements for future development of the site

8.1 Study Limitations and Constraints

CIMA+ completed diligent and reasonable research in the conduct of this evaluation, with respect to the recognized laws and standards of practice.

The facts presented in this report are strictly limited to the period of investigation. The conclusions presented in this report are based on the available information and documents, the observations made during the Site visit and also the information obtained from communications with various contacts. The interpretation presented in this report is limited to this data.

CIMA+ is not responsible for erroneous conclusions due to voluntary abstention or the non-availability of pertinent information. Any opinion expressed in relation to legal or regulatory conformity is technical and should not be, in any case, considered as legal advice.

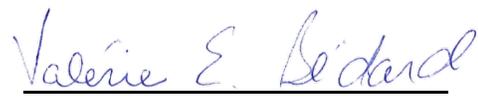
8.2 Signatures

CIMA+



Kai Markvorsen, B.Sc.

Environmental Specialist



Valérie Bédard, B.Sc.

Project Manager - Environment

9. References

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Ontario Basic Mapping (2018). [Online] Available at: <http://www.geographynetwork.ca/website/obm/viewer.htm>

Bird Studies Canada, Atlas of Breeding Birds of Ontario. Available at <https://www.birdsontario.org/atlas/index.jsp?lang=en>

Ontario Reptile and Amphibian Atlas. Available at <https://ontarionature.org/programs/citizen-science/reptile-amphibian-atlas/>

APPENDIX A

Correspondence

C-10-A000817

Kai Markvorsen

From: Kai Markvorsen
Sent: Wednesday, April 11, 2018 1:10 PM
To: 'Inforequest, Kemptville (MNRF)'
Subject: Information Request supporting EIS for Clarence Rockland Urban Boundary Expansion
Attachments: Location Map.pdf; Clarence Rockland MNRF Info Request 2018-04-11.pdf

Hello,

Please find attached an information request, and location map, for available SAR and natural heritage information.

The study area is irregularly shaped, consisting of 133.5 ha on the south side of David Street and bounded by Clarence Creek to the east. It is situated primarily to the east of Caron street with the exception of an approximately 23 ha area to the southwest of the study area.

Please let me know if more information is required to support this request.

Regards,

Kai

Kai Markvorsen
Environment Professional
Environment

CIMA+
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Kai Markvorsen

From: NHIC-Requests (MNRF) <nhicrequests@ontario.ca>
Sent: Wednesday, April 4, 2018 5:16 PM
To: Kai Markvorsen
Subject: RE: Information Request to Support EIS for Clarence Rockland Urban Expansion

Hello Kai,

EO_ID 111923 represents an element occurrence for Eastern Meadowlark. This is an extant element occurrence. The most recent observations are from 2004.

EO_ID 111919 represents an element occurrence for Eastern Meadowlark. This is an extant element occurrence. The most recent observations are from 2004.

I also queried the Provincially Tracked Species Observations layer (Ontario's provincial record for observations for species of conservation concern) and did not find any newer observations for Eastern Meadowlark for your project site. I did find one observation for Least Bittern (made in 2016) that intersects your project site; the location was reported as the "pond" area in Morris Village, Rockland and we mapped it as a circle with a 1 km radius because we don't know where exactly the species was seen. The observer of the Least Bittern was not a naturalist or birder and reported having some trouble identifying the species. The observer did not have photos to share with us, so we could not confirm the identity of the species.

I queried our natural areas data and could not find reports for:

- Clarence Creek Swamp (Area ID 19089)
- Rockland Marsh (Area ID 19053) – this is a provincially significant wetland (wetland evaluation completed on November 18, 1999, total score: 479)
- South Rockland Swamp (Area ID 19057)

You can download spatial data for these wetlands from <https://www.ontario.ca/data/wetlands>.

Since your project area falls completely within the jurisdiction of the [Ministry of Natural Resources and Forestry Kemptville District Office](#), I recommend contacting them to see if they have additional information or can offer you any guidance.

If you have any questions, or if there is anything else the Natural Heritage Information Centre can help you with, please let us know.

Best regards,
Martina



Martina Furrer
Biodiversity Information Biologist
Ontario Natural Heritage Information Centre
Ontario Ministry of Natural Resources and Forestry
300 Water St, Peterborough, ON, K9J 3C7
705.755.2192 | martina.furrer@ontario.ca

<http://www.ontario.ca/environment-and-energy/natural-heritage-information-centre>

From: Kai Markvorsen [mailto:Kai.Markvorsen@cima.ca]
Sent: April 4, 2018 12:31 PM
To: NHIC-Requests (MNRF) <nhicrequests@ontario.ca>
Subject: Information Request to Support EIS for Clarence Rockland Urban Expansion

Hello,

We're looking for data on the following grid squares (with associated area ID references). Information request is supporting Environmental Impact Statement for the Urban Expansion of Clarence Rockland.

Grid Square	ID Reference
18VR7843	areaid=19057
18VR7943	areaid=19053
18VR8043	nhic_eo_id=111923
18VR7842	areaid=19057
18VR7942	areaid=19057
18VR8042	areaid=19089
18VR7941	nhic_eo_id=111919
18VR8041	nhic_eo_id=111919

Please let us know if more information is required.

Regards,

Kai

Kai Markvorsen
Environment Professional
Environment

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Kemptville District

District de Kemptville

10 Campus Drive
Postal Box 2002
Kemptville ON K0G 1J0
Tel.: 613 258-8204
Fax: 613 258-3920

10, promenade Campus
Case postale, 2002
Kemptville ON K0G 1J0
Tél.: 613 258-8204
Télééc.: 613 258-3920

Fri. Apr 13, 2018

Kai Markvorsen
CIMA+
240 Catherine Street, Suite 110
Ottawa, Ontario
K2P 2G8
(613) 860-2462
kai.markvorsen@cima.ca

Attention: Kai Markvorsen

Subject: Information Request - Developments
Project Name: EIS for Clarence Rockland Urban Boundary Expansion
Site Address:
Our File No. 2018_CLA-4511

Natural Heritage Values

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

The following Natural Heritage values were identified for the general subject area:

- Evaluated Wetland, Clarence Creek Swamp (Evaluated-Other)
- Evaluated Wetland, Estates Swamp (Evaluated-Other)
- Evaluated Wetland, South Rockland Swamp (Evaluated-Other)
- River, Clarence Creek

Municipal Official Plans contain 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. Many municipalities require environmental impact studies and other supporting studies be carried out as part of the development application process to allow the municipality to make planning decisions which are consistent with the Provincial Policy Statement (PPS, 2014).

The MNRF strongly encourages all proponents to contact partner agencies and appropriate municipalities early on in the planning process. This provides the proponent with early knowledge regarding agency requirements, authorizations and approval timelines; Ministry of the Environment and Climate Change (MOECC) and the local Conservation Authority may require approvals and permitting where natural values and natural hazards (e.g., floodplains) exist.

As per the Natural Heritage Reference Manual (NHRM, 2010) the MNRF strongly recommends that an ecological site assessment be carried out to determine the presence of natural heritage features and species at risk and their habitat on site. The MNRF can provide survey methodology for particular species at risk and their habitats.

The NHRM also recommends that cumulative effects of development projects on the integrity of natural heritage features and areas be given due consideration. This includes the evaluation of the past, present and possible future impacts of development in the surrounding area that may occur as a result of demand created by the presently proposed project.

Wildland Fire

MNRF woodland data shows that the site contains woodlands. The lands should be assessed for the risk of wildland fire as per PPS 2014, Section 3.1.8 "*Development shall generally be directed to areas outside of lands that are unsafe for development due to the presence of hazardous forest types for wildland fire. Development may however be permitted in lands with hazardous forest types for wildland fire where the risk is mitigated in accordance with wildland fire assessment and mitigation standards*". Further discussion with the local municipality should be carried out to address how the risks associated with wildland fire will be covered for such a development proposal. Please see the Wildland Fire Risk Assessment and Mitigation Guidebook (2016) for more information.

Significant Woodlands

Section 2.1.5 b) of the PPS states: *Development and site alteration shall not be permitted in significant woodlands unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.* The 2014 PPS directs that significant woodlands must be identified following criteria established by the Ontario Ministry of Natural Resources and Forestry, i.e. the Natural Heritage Reference Manual (NHRM), 2010. Where the local or County Official Plan has not yet updated significant woodland mapping to reflect the 2014 PPS, all wooded areas should be reviewed on a site specific basis for significance. The MNRF Kemptville District modelled locations of significant woodlands in 2011 based on NHRM criteria. The presence of significant woodland on site or within 120 metres should trigger an assessment of the impacts to the feature and its function from the proposed development.

Significant Wildlife Habitat

Section 2.1.5 d) of the PPS states: *Development and site alteration shall not be permitted in significant wildlife habitat unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.* It is the responsibility of the approval authority to identify significant wildlife habitat or require its identification. The MNRF has several guiding documents which may be useful in identification of significant wildlife habitat and characterization of impacts and mitigation options:

- Significant Wildlife Habitat Technical Guide, 2000
- The Natural Heritage Reference Manual, 2010
- Significant Wildlife Habitat Mitigation Support Tool, 2014
- Significant Wildlife Habitat Criteria Schedule for Ecoregion 5E and 6E, 2015

The habitat of special concern species (as identified by the Species at Risk in Ontario list) and Natural Heritage Information Centre tracked species with a conservation status rank of S1, S2 and S3 may be significant wildlife habitat and should be assessed accordingly.

Water

The Ministry of Natural Resources and Forestry (MNRF) has established timing window guidelines to restrict in-water work related to an activity during certain periods. These restricted periods are identified in order to protect fish from impacts of works or undertakings in and around water during spawning and other critical life stages. A suite of appropriate measures should be taken for projects involving in-water works to minimize and mitigate impacts to fish, water quality and fish habitat, and include:

- avoiding in-water works during the timing guidelines;
- installation of sediment/erosion control measures;
- avoiding the removal, alteration, or covering of substrates used for fish spawning, feeding, over-wintering or nursery areas; and
- debris control measures to manage falling debris (e.g. spalling).

Timing guidelines are based on species* presence and are therefore subject to change if new information becomes available. Timing guidelines in Kemptville District are:

Waterbody (and applicable geography or Fisheries Management Zone)	Timing Guidelines (no in-water works)
○ St. Lawrence River (FMZ 20)	March 15 – July 15 (Spring spawning species)
○ Ottawa River – Lac Des Chats (FMZ 12)	October 1 to July 15 (Spring and fall spawning species, including Lake Trout and Lake Whitefish)
○ Ottawa River – Lac Deschenes (FMZ 12)	October 15 to July 15 (Spring and fall spawning species, including Cisco)
○ Ottawa River – Lac Dollard des Ormeaux (FMZ 12)	January 1 to July 15 (Winter and spring spawning species, including Burbot)
○ Big Rideau Lake (South Burgess, North Burgess, Bastard and South Elmsley Twps) ○ Charleston Lake (Lansdowne and Escott Twps) ○ Crow Lake (South Crosby Twp)	October 1 to June 30 (Spring and fall spawning species, including Lake Trout)
○ Bass Lake (South Elmsley Twp) ○ Lower Rideau Lake (South Elmsley Twp) ○ Bob’s Lake (South Sherbrooke Twp) ○ Christie Lake (South Sherbrooke Twp) ○ Dalhousie Lake (Dalhousie Twp) ○ Davern Lake (South Sherbrooke Twp) ○ Farren Lake (South Sherbrooke Twp) ○ Grippen Lake (Leeds Twp) ○ Indian Lake (South Crosby Twp) ○ Little Long Lake (Lansdowne Twp) ○ Millpond Lake (South Burgess) ○ Otter Lake (South Elmsley, South Burgess and Bastard Twps) ○ Otty Lake (North Burgess and North Elmsley Twps)	October 15 to June 30 (Spring and Fall spawning species, including Lake Whitefish and Cisco)

<ul style="list-style-type: none"> ○ Pike Lake (North Burgess Twp) ○ Silver Lake (South Sherbrooke Twp) ○ Redhorse Lake (Lansdowne Twp) ○ Tay River (South Sherbrooke, Bathurst, Drummond and North Elmsley Twps) ○ Wolfe Lake (North Crosby Twp) 	
<ul style="list-style-type: none"> ○ Bennett Lake (Bathurst Twp) ○ Crosby Lake (North Crosby Twp) ○ Gananoque River (Leeds Twp) ○ Lac Georges (Plantagenet and Alfred Twps) ○ Gillies Lake (Lanark Twp) ○ Little Crosby Lake (North Crosby Twp) ○ McLaren Lake (North Burgess Twp) ○ Mississippi Lake (Drummond, Beckwith and Ramsay Twps) ○ Mississippi River (Beckwith, Ramsay, Pakenham and Fitzroy Twps) ○ Raisin River below Martintown dam (Charlottenburgh Twp) ○ Rideau River (Wolford, Oxford, Montague, Marlborough, South Gower, North Gower, Osgood, Nepean and Gloucester Twps) ○ South Lake (Leeds Twp) ○ South Nation River below Plantagenet weir (Plantagenet Twp) ○ Upper Rideau Lake (North Crosby Twp) ○ Westport Sand Lake (North Crosby Twp) 	<p>January 1 – June 30 (Winter and spring spawning species, including Burbot)</p>
<ul style="list-style-type: none"> ○ Small rivers and streams (denoted on 1:50,000 National Topographic System maps as being one lined) ○ All other waterbodies in FMZ 18 	<p>March 15 to June 30 (Spring spawning species)</p>

**Please note: Additional timing restrictions may apply as they relate to endangered and threatened species for works in both water and wetland areas. Timing restrictions are subject to change, depending on species found in a given waterbody.*

In addition to adhering to the above timing guidelines, a work permit from the MNRF may be required depending on the nature and scope of work. No encroachment on the bed or banks of a waterbody/watercourse (e.g. abutments, embankments, etc.) is permitted without MNRF approval. Additional information regarding work permits may be found online at <https://www.ontario.ca/page/crown-land-work-permits#section-2>.

The MNRF does not have any water quality or quantity data available. We recommend that the Ministry of the Environment and Climate Change be contacted for such data along with the local Conservation Authority. For further information regarding fish habitat and protocols, please refer to the following interagency, document, *Fish Habitat Referral Protocol for Ontario* at: http://www.web2.mnr.gov.on.ca/mnr/ebr/fish_hab_referral/protocol_en.pdf.

Additional approvals and permits may be required under the Fisheries Act and the Species at Risk Act; please contact Fisheries and Oceans Canada to determine requirements and next steps. There may also be approvals required by the local Conservation Authority or Transport Canada, and these agencies should be contacted directly to determine requirements. As the MNRF is responsible for the management of provincial fish populations, we request ongoing involvement in such discussions in order to ensure population conservation.

Species at Risk

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:

- American Eel (END)
- Barn Swallow (THR)
- Butternut (END)
- Eastern Meadowlark (THR)
- Little Brown Bat (END)
- Northern Long-eared Bat (END)
- Tri-Colored Bat (END)

All endangered and threatened species receive individual protection under section 9 of the ESA and receive general habitat protection under Section 10 of the ESA, 2007. Thus any potential works should consider disturbance to the individuals as well as their habitat (e.g. nesting sites). General habitat protection applies to all threatened and endangered species. Note some species in Kemptville District receive regulated habitat protection. The habitat of these listed species is protected from damage and destruction and certain activities may require authorization(s) under the ESA. For more on how species at risk and their habitat is protected, please see: <https://www.ontario.ca/page/how-species-risk-are-protected>.

If the proposed activity is known to have an impact on any endangered or threatened species at risk (SAR), or their habitat, an authorization under the ESA may be required. It is recommended that MNR/Kemptville be contacted prior to any activities being carried out to discuss potential survey protocols to follow during the early planning stages of a project, as well as mitigation measures to avoid contravention of the ESA. Where there is potential for species at risk or their habitat on the property, an Information Gathering Form should be submitted to Kemptville MNR/Kemptville at sar.kemptville@ontario.ca.

The Information Gathering Form may be found here:

<http://www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/FormDetail?OpenForm&ACT=RDR&TAB=PROFILE&ENV=WWE&NO=018-0180E>

For more information on the ESA authorization process, please see:

<https://www.ontario.ca/page/how-get-endangered-species-act-permit-or-authorization>

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 and/or Migratory Birds Convention Act. Again, the habitat of special concern species may be significant wildlife habitat and should be assessed accordingly. Species of special concern for consideration:

- Northern Brook Lamprey (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/Kemptville should be contacted and operations be modified to avoid any negative impacts to species at risk or their habitat until further direction is provided by MNR/Kemptville.

Please note that information regarding species at risk is based largely on documented occurrences and does not necessarily include an interpretation of potential habitat within or in proximity to the site in question. Although this data represents the MNRF'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. It is the responsibility of the proponent to ensure that species at risk are not killed, harmed, or harassed, and that their habitat is not damaged or destroyed through the activities carried out on the site.

The MNRF 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 MNRF for technical advice and to discuss what activities can occur without contravention of the Act. For specific questions regarding the Endangered Species Act (2007) or SAR, please contact MNRF Kemptville District at sar.kemptville@ontario.ca.

The approvals processes for a number of activities that have the potential to impact SAR or their habitat have recently changed. For information regarding regulatory exemptions and associated online registration of certain activities, please refer to the following website: <https://www.ontario.ca/page/how-get-endangered-species-act-permit-or-authorization>.

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; or
- Additional occurrences of species are discovered on or in proximity to the site.

This letter is valid until: Sat. Apr 13, 2019

The MNRF would like to request 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,

Dom Ferland
Management Biologist
dominique.ferland@ontario.ca

Encl.\
-ESA Infosheet
-NHIC/LIO Infosheet

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Endangered Species Act, 2007 & Species At Risk in Ontario

Background

Endangered Species Act: http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statues-07e06_e.htm

Species at Risk in Ontario List: www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/246809.html

The Endangered Species Act (ESA) 2007 protects both species and habitat. Section 9 of the ESA “prohibits killing, harming, harassing, capturing, possessing, collecting, buying, selling, trading, leasing or transporting species that are listed as threatened, endangered or extirpated”. Section 10 of the ESA, 2007 prohibits damaging or destroying habitat of endangered or threatened species. Protected habitat is either based on general definition in the Act or prescribed through a regulation. The ESA 2007 defines general habitat as an area on which the species depends, directly or indirectly, to carry on its life processes, including reproduction, rearing, hibernation, migration or feeding.

It is important to be aware that changes may occur in both species and habitat protection. The ESA applies to listed species on the Species at Risk in Ontario List (SARO). The Committee on the Status of Species in Ontario (COSSARO) meets regularly to evaluate species for listing and/or re-evaluate species already listed. As a result, species’ designations may change that could in turn change the level of protection they receive under the ESA 2007. Also, habitat protection provisions for a species may change e.g. if a species-specific habitat regulation comes into effect. The regulation would establish the area that is protected as habitat for the species.

Information with respect to SAR can be found in the online database at the Natural Heritage Information Centre (NHIC) - <http://nhic.mnr.gov.on.ca/nhic.cfm> . The NHIC compiles, maintains and distributes information on species at risk and updates its information on a regular basis. We encourage you to routinely check the NHIC database to obtain the most up to date SAR information for proposed work locations. However, while the NHIC database is the best available source of data, even when there are no known occurrences documented at a site, there is a possibility that SAR may occur at a proposed work location.

All data represents the MNR’s best current available information, it is important to note that a lack of occurrence at a site does not mean that there are no Species at Risk (SAR) at the location. The MNR continues to encourage ecological site assessments to determine the potential for other SAR occurrences. When a SAR does occur on a proposed 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 application of certain permits (Section 17) or agreement (Regulation 242/08). For specific questions regarding the Endangered Species Act (2007) or species at risk, please contact a district Species at Risk Biologist at sar.kemptville@ontario.ca.

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Natural Heritage Information Centre

Land Information Ontario

Natural Heritage Information Centre: <http://nhic.mnr.gov.on.ca/>

Biodiversity Explorer (mapping): <https://www.biodiversityexplorer.mnr.gov.on.ca/nhicWEB/main.jsp>

Land Information Ontario: <http://www.mnr.gov.on.ca/en/Business/LIO/index.html>

Ontario Geospatial Data Exchange: http://www.mnr.gov.on.ca/en/Business/LIO/2ColumnSubPage/STEL02_167959.html

LIO Make-a-Map: http://www.mnr.gov.on.ca/en/Business/LIO/2ColumnSubPage/STDPROD_068999.html

Ontario Maps: http://www.mnr.gov.on.ca/en/Business/LIO/2ColumnSubPage/STDPROD_068512.html

The **Natural Heritage Information Centre** (NHIC) compiles, maintains and distributes information on natural species, plant communities and spaces of conservation concern in Ontario. This information is stored in a spatial database used for tracking this information. The Centre also has a library with conservation-related literature, reports, books, and maps, which are accessible for conservation applications, land use planning, and natural resource management. The NHIC website makes much of this information available through the internet.

Natural Heritage Information Centre

300 Water Street, 2nd Floor, North Tower
P.O. Box 7000, Peterborough, ON, K9J 8M5
Tel.:(705) 755-2159 Fax:(705) 755-2168

Land Information Ontario (LIO) manages key provincial datasets. LIO makes these and hundreds of other data sets available to registered users at no charge. LIO also coordinates public and private sector organizations to collect high resolution satellite imagery for Ontario providing significant cost savings for all partners. Technical bulletins, newsletters and more are available online. More details regarding Ontario imagery and data can be searched, ordered and accessed online.

LIO's Ontario Geospatial Data Exchange (OGDE) allows more than 400 public sector organizations to easily share and use digital geographic information under a single legal agreement. Membership is available to eligible public organizations at no costs.

Through the website, Maps & Map Tools are made available, including online mapping software: LIO Make-a-Map.

Land Information Ontario

lio@ontario.ca

LIO Support Team: (705) 755-1878

Or for specifics, see online at:

http://www.mnr.gov.on.ca/en/Business/LIO/2ColumnSubPage/STDPROD_068510.html

Additional Information pertaining to NHIC, LIO and other Natural Heritage and Data and Information tools is available in the **MNR Kemptville Information Request Guide (2012)**.

APPENDIX B

Species Lists

C-10-A000817

Species	Scientific Name
Canada Goose	<i>Branta canadensis</i>
Wood Duck	<i>Aix sponsa</i>
Gadwall	<i>Mareca strepera</i>
American Wigeon	<i>Anas americana</i>
American Black Duck	<i>Anas rubripes</i>
Mallard	<i>Anas platyrhynchos</i>
Blue-winged Teal	<i>Anas discors</i>
Northern Shoveler	<i>Anas clypeata</i>
Northern Pintail	<i>Anas acuta</i>
Green-winged Teal	<i>Anas carolinensis</i>
Ring-necked Duck	<i>Aythya collaris</i>
Lesser Scaup	<i>Aythya affinis</i>
Hooded Merganser	<i>Lophodytes cucullatus</i>
Common Merganser	<i>Mergus merganser</i>
Red-breasted Merganser	<i>Mergus serrator</i>
Ruddy Duck	<i>Oxyura jamaicensis</i>
Gray Partridge	<i>Perdix perdix</i>
Ring-necked Pheasant	<i>Phasianus colchicus</i>
Ruffed Grouse	<i>Bonasa umbellus</i>
Wild Turkey	<i>Meleagris gallopavo</i>
Common Loon	<i>Gavia immer</i>
Pied-billed Grebe	<i>Podilymbus podiceps</i>
American Bittern	<i>Botaurus lentiginosus</i>
Least Bittern	<i>Ixobrychus exilis</i>
Great Blue Heron	<i>Ardea herodias</i>
Green Heron	<i>Butorides virescens</i>
Black-crown N.-Heron	<i>Nycticorax nycticorax</i>
Turkey Vulture	<i>Cathartes aura</i>
Osprey	<i>Pandion haliaetus</i>
Bald Eagle	<i>Haliaeetus leucocephalus</i>
Northern Harrier	<i>Circus cyaneus</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Cooper's Hawk	<i>Accipiter cooperii</i>
Northern Goshawk	<i>Accipiter gentilis</i>
Red-should Hawk	<i>Buteo lineatus</i>
Broad-winged Hawk	<i>Buteo platypterus</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
American Kestrel	<i>Falco sparverius</i>
Merlin	<i>Falco columbarius</i>

Species	Scientific Name
Peregrine Falcon	<i>Falco peregrinus</i>
Virginia Rail	<i>Rallus limicola</i>
Sora	<i>Porzana carolina</i>
Common Moorhen	<i>Gallinula chloropus</i>
American Coot	<i>Fulica americana</i>
Coot/Moorhen	<i>Fulica americana</i>
Killdeer	<i>Charadrius vociferus</i>
Rock Dove	<i>Columba livia</i>
Spotted Sandpiper	<i>Actitis macularius</i>
Upland Sandpiper	<i>Bartramia longicauda</i>
Common Snipe	<i>Gallinago gallinago</i>
American Woodcock	<i>Scolopax minor</i>
Wilson's Phalarope	<i>Phalaropus tricolor</i>
Ring-billed Gull	<i>Larus delawarensis</i>
Herring Gull	<i>Larus argentatus</i>
Black Tern	<i>Chlidonias niger</i>
Common Tern	<i>Sterna hirundo</i>
Mourning Dove	<i>Zenaida macroura</i>
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>
Eastern Screech-Owl	<i>Megascops asio</i>
Great Horned Owl	<i>Bubo virginianus</i>
Barred Owl	<i>Strix varia</i>
Long-eared Owl	<i>Asio otus</i>
Short-eared Owl	<i>Asio flammeus</i>
North Saw-whet Owl	<i>Aegolius acadicus</i>
Common Nighthawk	<i>Chordeiles minor</i>
Whip-poor-will	<i>Caprimulgus vociferus</i>
Chimney Swift	<i>Chaetura pelagica</i>
Ruby-thr Hummingbird	<i>Archilochus colubris</i>
Belted Kingfisher	<i>Megaceryle alcyon</i>
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>
Downy Woodpecker	<i>Picoides pubescens</i>
Hairy Woodpecker	<i>Leuconotopicus villosus</i>
Black-backed Woodpecker	<i>Picoides arcticus</i>
Northern Flicker	<i>Colaptes auratus</i>
Pileated Woodpecker	<i>Hylatomus pileatus</i>

Species	Scientific Name
Olive-sided Flycatcher	<i>Contopus cooperi</i>
Eastern Wood-Pewee	<i>Contopus virens</i>
Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>
Alder Flycatcher	<i>Empidonax alnorum</i>
Willow Flycatcher	<i>Empidonax traillii</i>
Least Flycatcher	<i>Empidonax minimus</i>
Eastern Phoebe	<i>Sayornis phoebe</i>
Gr Crested Flycatcher	<i>Myiarchus crinitus</i>
Eastern Kingbird	<i>Tyrannus tyrannus</i>
Loggerhead Shrike	<i>Lanius ludovicianus</i>
Yellow-throated Vireo	<i>Vireo flavifrons</i>
Blue-headed Vireo	<i>Vireo solitarius</i>
Warbling Vireo	<i>Vireo gilvus</i>
Philadelphia Vireo	<i>Vireo philadelphicus</i>
Red-eyed Vireo	<i>Vireo olivaceus</i>
Gray Jay	<i>Perisoreus canadensis</i>
Blue Jay	<i>Cyanocitta cristata</i>
American Crow	<i>Corvus brachyrhynchos</i>
Common Raven	<i>Corvus corax</i>
Horned Lark	<i>Eremophila alpestris</i>
Purple Martin	<i>Progne subis</i>
Tree Swallow	<i>Tachycineta bicolor</i>
North Rgh-wing Swallow	<i>Stelgidopteryx serripennis</i>
Bank Swallow	<i>Riparia riparia</i>
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>
Barn Swallow	<i>Hirundo rustica</i>
Black-capped Chickadee	<i>Poecile atricapillus</i>
Red-breast Nuthatch	<i>Sitta canadensis</i>
White-breast Nuthatch	<i>Sitta carolinensis</i>
Brown Creeper	<i>Certhia americana</i>
House Wren	<i>Troglodytes aedon</i>
Winter Wren	<i>Troglodytes hiemalis</i>
Sedge Wren	<i>Cistothorus platensis</i>
Marsh Wren	<i>Cistothorus palustris</i>
Golden-crown Kinglet	<i>Regulus satrapa</i>
Ruby-crown Kinglet	<i>Regulus calendula</i>
Blue-gr Gnatcatcher	<i>Polioptila caerulea</i>
Eastern Bluebird	<i>Sialia sialis</i>
Veery	<i>Catharus fuscescens</i>

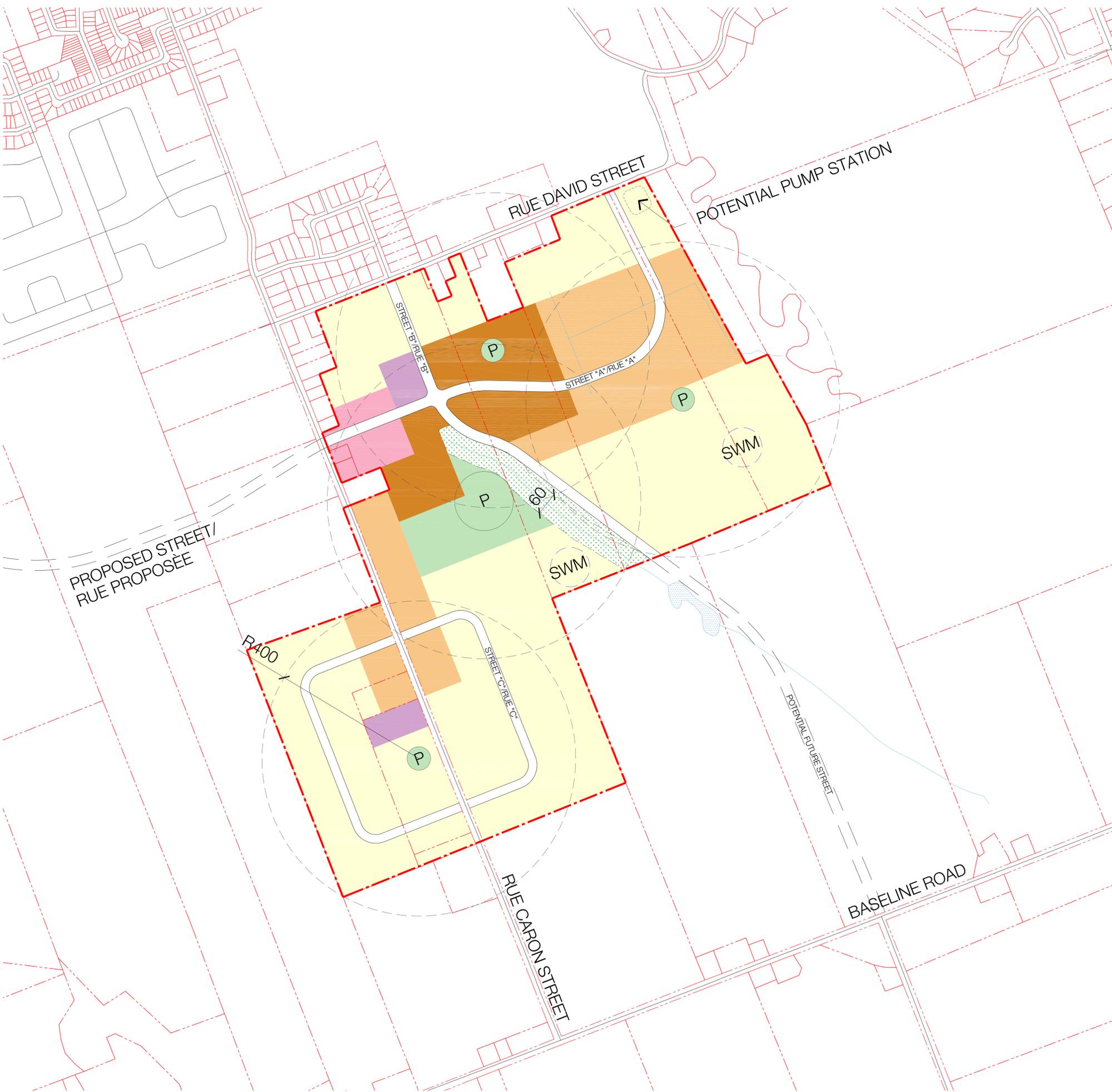
Species	Scientific Name
Swainson's Thrush	<i>Catharus ustulatus</i>
Hermit Thrush	<i>Catharus guttatus</i>
Wood Thrush	<i>Hylocichla mustelina</i>
American Robin	<i>Turdus migratorius</i>
Gray Catbird	<i>Dumetella carolinensis</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
Brown Thrasher	<i>Toxostoma rufum</i>
European Starling	<i>Sturnus vulgaris</i>
Cedar Waxwing	<i>Bombycilla cedrorum</i>
Golden-winged Warbler	<i>Vermivora chrysoptera</i>
Blue/Gold-wing Warbler	<i>Vermivora chrysoptera</i>
Tennessee Warbler	<i>Leiothlypis peregrina</i>
Nashville Warbler	<i>Leiothlypis ruficapilla</i>
Northern Parula	<i>Setophaga americana</i>
Yellow Warbler	<i>Setophaga petechia</i>
Chestn-sided Warbler	<i>Setophaga pensylvanica</i>
Magnolia Warbler	<i>Setophaga magnolia</i>
Cape May Warbler	<i>Setophaga tigrina</i>
Black-thr Blue Warbler	<i>Setophaga caerulescens</i>
Yellow-rumped Warbler	<i>Setophaga coronata</i>
Black-thr Green Warbler	<i>Setophaga virens</i>
Blackburnian Warbler	<i>Setophaga fusca</i>
Pine Warbler	<i>Setophaga pinus</i>
Palm Warbler	<i>Setophaga palmarum</i>
Bay-breasted Warbler	<i>Setophaga castanea</i>
Cerulean Warbler	<i>Setophaga cerulea</i>
Black-white Warbler	<i>Mniotilta varia</i>
American Redstart	<i>Setophaga ruticilla</i>
Ovenbird	<i>Seiurus aurocapilla</i>
North Waterthrush	<i>Parkesia noveboracensis</i>
Mourning Warbler	<i>Geothlypis philadelphia</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Canada Warbler	<i>Cardellina canadensis</i>
Eastern Towhee	<i>Pipilo erythrophthalmus</i>
Chipping Sparrow	<i>Spizella passerina</i>
Clay-colored Sparrow	<i>Spizella pallida</i>
Field Sparrow	<i>Spizella pusilla</i>
Vesper Sparrow	<i>Poocetes gramineus</i>
Savannah Sparrow	<i>Passerculus sandwichensis</i>

Species	Scientific Name
Grasshopper Sparrow	<i>Ammodramus savannarum</i>
Song Sparrow	<i>Melospiza melodia</i>
Lincoln's Sparrow	<i>Melospiza lincolnii</i>
Swamp Sparrow	<i>Melospiza georgiana</i>
White-throat Sparrow	<i>Zonotrichia albicollis</i>
Dark-eyed Junco	<i>Junco hyemalis</i>
Scarlet Tanager	<i>Piranga olivacea</i>
Northern Cardinal	<i>Cardinalis cardinalis</i>
Rose-breast Grosbeak	<i>Pheucticus ludovicianus</i>
Indigo Bunting	<i>Passerina cyanea</i>
Bobolink	<i>Dolichonyx oryzivorus</i>
Red-wing Blackbird	<i>Agelaius phoeniceus</i>
Eastern Meadowlark	<i>Sturnella magna</i>
Common Grackle	<i>Quiscalus quiscula</i>
Brown-head Cowbird	<i>Molothrus ater</i>
Baltimore Oriole	<i>Icterus galbula</i>
Purple Finch	<i>Haemorhous purpureus</i>
House Finch	<i>Haemorhous mexicanus</i>
Red Crossbill	<i>Loxia curvirostra</i>
White-winged Crossbill	<i>Loxia leucoptera</i>
Pine Siskin	<i>Spinus pinus</i>
American Goldfinch	<i>Spinus tristis</i>
Evening Grosbeak	<i>Coccothraustes vespertinus</i>
House Sparrow	<i>Passer domesticus</i>

APPENDIX C

Preferred Concept Plan

C-10-A000817



LAND USE STATISTICS

SITE AREA		
Total Site Area:	1,372,345m ²	137 hectares
AREA		
Low Density Residential:	764,561m ²	69.41
Medium Density Residential:	225,472m ²	20.47
High Density Residential:	111,433m ²	10.12
Commercial:	29,130m ²	
Open Space/Parkland:	64,023m ²	
Institutional:	22,274m ²	
Environmental Protection Area:	39,719m ²	

NOTES

1. The base plan (lot lines, existing roads and surrounding areas) is based on the City's Open Data and aerial images. The site area is approximate and all dimensions need to be confirmed by a proper survey.
2. Assume 30.0m setback from centreline of stream.
3. Assume road ROW of 26.0m.

**EXPANSION
LANDS
SECONDARY
PLAN**
PREFERRED CONCEPT
LAND USE PLAN



LEGEND/LÉGENDE

- LOW DENSITY RESIDENTIAL/
RÉSIDENCES À FAIBLE DENSITÉ
- MEDIUM DENSITY RESIDENTIAL
RÉSIDENCES À DENSITÉ MOYENNE
- HIGH DENSITY RESIDENTIAL
RÉSIDENCES À HAUTE DENSITÉ
- COMMERCIAL
COMMERCES
- COMMUNITY FACILITIES
INSTALLATIONS COMMUNAUTAIRE
- ENVIRONMENTAL PROTECTION AREA
ZONE DE PROTECTION ENVIRONNEMENTALE
- WATER
EAU
- P OPEN SPACE/PARKLAND
PARCS ET ESPACES OUVERTS
- SWM APPROXIMATE LOCATION OF
STORMWATER MANAGEMENT POND
EMPLACEMENT APPROXIMATIF DU SYSTÈME DE
GESTION DES EAUX PLUVIALES
- PROPERTY LINE
LIMITÉ DE PROPRIÉTÉ
- NEIGHBOURHOOD SIZE (400m RADIUS)
TAILLE DU QUARTIER (RAYON DE 400 MÈTRES)



No.	REVISION	DATE	BY
8	REVISIONS	2019.03.04	BL
7	REVISIONS	2019.02.08	BL
6	PREFERRED CONCEPT	2019.01.17	BL
5	PUBLIC MEETING	2019.01.07	BL
4	DRAWING	2018.12.20	ET
3	DRAWING	2018.12.19	BL
2	CLIENT REVIEW	2018.11.22	BL
1	DRAWING	2018.11.21	BL

CLIENT
**CITY OF
CLARENCE/ROCKLAND**

FOTENN
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DESIGNED	BL
REVIEWED	UMG
DATE	2018.11.20

P1