



Scoped Environmental Impact Statement

2584-2600 Bank Street

Ottawa, Ontario

FINAL

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DST FILE NO.: TSSO-034880

Prepared For:

Upper Hunt Club Centre Inc.

Prepared By:

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INTRODUCTION

DST Consulting Engineers Inc. (DST) was retained by Power Marketing Real State Brokerage to complete a Scoped Environmental Impact Statement (EIS) for the proposed commercial development at 2585 – 2600 Bank Street, Ottawa, Ontario (Figure 1, Appendix A; herein referred to as the “Site”). An EIS is required by the City of Ottawa where development of the Site is in proximity to Sawmill Creek, a designated Urban Natural Feature in the Official Plan, located in the rear of the property. In addition, the project must demonstrate that there will be no negative impacts on the natural features and functions of Sawmill Creek, and ensure there are no negative impacts to endangered and/or threatened species or their habitat, including Butternut trees.

The Site occupies over two hectares of mostly developed land adjacent to Bank Street and surrounded by developed areas. This development project is to be carried out on private land and is subject to provincial environmental regulations, including the Endangered Species Act (2007).

SECTION A: PROJECT IDENTIFICATION

Table 1. Contact Information for the 2584-2600 Bank Street Site

Project Title:	Scoped Environmental Impact Statement, 2584-2600 Bank Street
Project Location:	2584-2600 Bank Street, Ottawa, Ontario
Lead Authority:	Upper Hunt Club Centre Inc.
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SECTION B: PROJECT DESCRIPTION AND DESCRIPTION OF ENVIRONMENT

Project Description:

The Site is located at the municipal addresses of 2584 to 2600 Bank Street, Ottawa, Ontario. The Site properties are located within areas zoned as AM H (30) – Arterial Main Street Zone (2584 and 2600 Bank Street), R3Y (708) Residential (Central portion of 2626 Bank Street) and EP – Environmental Protection Zone (Southern portion of 2626 Bank Street – surrounding Sawmill Creek).

The project involves the proposed development of the three properties to support a commercial plaza with separate owners and multiple tenants. The plaza will consist of 2-storeys, commercial on the ground floor and office space on the 2nd floor, and will be developed in phases.

Description of Environment:

The northern portion of the Site (2584 to 2600 Bank Street) consists of one rectangular (1.035 hectares) and one triangular (0.232 hectares) shaped parcel of land. 2600 Bank Street is developed with a single-story slab on grade commercial building, with two occupants. The primary

occupant is Hertz Car Sales and the secondary occupant is Vic's Automotive Repair. The Site building was reportedly constructed in approximately 1992.

The parcel of land at 2584 Bank Street is devoid of any structures and is utilized as a parking area for 2600 Bank Street. The parking area is covered in gravel. The overall topography of 2584 to 2600 Bank Street appears to be relatively flat with a downward slope towards the south, from approximately 99 to 95 meters above sea level (masl). Both 2584 and 2600 Bank Street are serviced by storm sewer drains located throughout the parking area. Reportedly, the storm sewers are connected to the City of Ottawa stormwater management system. Surface water in the southern portion of 2584 Bank Street is managed through overland, natural drainage.

The southern portion of the Site (2626 Bank Street) consists of two irregular shaped parcels of land that cover an area of approximately 1.9 hectares. This portion of the Site is vacant and undeveloped. The parcel of land is covered with a mix of deciduous and coniferous trees and shrubs, and the topography is varied. The northern portion of 2626 Bank Street has an elevation of approximately 99 masl and, as you proceed south towards Sawmill Creek, the elevation drops to approximately 90 masl. The southernmost portion of 2626 Bank Street is transected by Sawmill Creek.

The Site is surrounded by commercial and residential properties. The northern portion (2584 to 2600 Bank Street), is surrounded by Bank Street and Sieveright Avenue, and residential and commercial developments to the north, a veterinary hospital and Wood's Cemetery to the east, residential developments to the south, and commercial buildings to the west. The central portion (2626 Bank Street), is surrounded by a veterinary hospital to the north, Wood's Cemetery to the east, residential developments to the south, and residential developments and a Buddhist temple to the west. The southern portion (2626 Bank Street) is surrounded mostly by residential developments to the north, south, and west, and by Sawmill Creek Park and Sawmill Creek Community Center to the east.

Soil and Groundwater:

The northern portion of the Site (2584 and 2600 Bank Street) is located within an area where the upper overburden material consists of till material (stone poor, sandy-silty to silty sand textured till on Paleozoic terrain. The southern portion of the Site (2626 Bank Street) consists of glaciofluvial river deposits and delta topset facies.

The nearest surface water feature to the Site is Sawmill Creek which transects the southern portion of the Site. The topography of the Site is highly variable. The northern portion appears to be on a topographic high point of 99 masl. The properties to the north of Bank Street are at a lower elevation of 97 masl. 2626 Bank Street is approximately 2 meters higher in elevation (101 masl) than the northern portion of the Site and the properties to the east of 2616 Bank Street (Wood's Cemetery) are lower, at approximately 96 masl. Properties to the west of the Site are at a lower elevation of approximately 95 masl. The southern portion of the Site has a significant drop in elevation from approximately 99 masl to 90 masl at Sawmill Creek. Based on the topography and the position of the nearest water body, groundwater flow for the Site is inferred to be in a southern direction towards Sawmill Creek.

In April 2018, DST completed a Phase I ESA at the Site. As part of the Phase I ESA investigation DST completed a Site reconnaissance and a historical records review. Based on the environmental records review several potential environmental concerns were identified at the Site (DST 2019a).

Based on the presence of the above noted Areas of Potential Environmental Concern (APECs), DST recommended further investigation in the form of a Phase II ESA (DST 2019b).

The field program of the Phase II ESA consisted of the following activities:

- Obtaining underground utility clearances and locates;
- Conduct a ground penetration survey of the area of the unidentified access ports on the south side of 2600 Bank Street;
- The advancement of four boreholes, three of which were instrumented with groundwater monitoring wells (BHMW18-2 through BHMW18-4), at strategic locations on Site. These locations were determined based on the findings of the Phase I ESA;
- The collection of soil and groundwater samples from each of the four advanced boreholes / monitoring wells on Site;
- Conducting environmental testing on collected samples, as follows:
 - Three soil samples (BH18-1, BHMW18-2 and BHMW18-3) were submitted for laboratory analysis of petroleum hydrocarbon fractions F1 – F4 (PHCs F1 – F4) and Volatile Organic Compounds (VOCs);
 - One soil sample from BHMW18-4 was submitted for nitrites, nitrates, biological oxygen demand (BOD), Volatile Organic Compounds (VOCs), formaldehyde, ammonia, and metals; and
 - Two groundwater samples (one from BHMW18-2 and BHMW18-4) were submitted for laboratory analysis of PHCs F1 – F4, and VOCs.

Soil and groundwater analytical results were compared against applicable provincial standards, as set out in the following document:

- Ontario Ministry of the Environment and Climate Change (MOECC) “Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act”, April 15, 2011. Table 3: Full Depth Generic Site Condition Standards for soil in a Non-Potable Groundwater Condition. Industrial/Commercial/Community Property Use for soil, and All Types of Property Use for groundwater (coarse textured soils).

Based on the laboratory analytical results, all laboratory-submitted samples (soil and groundwater) were in compliance with the applicable MOECC Table 3 standards (for commercial/industrial property use) for the analyzed parameters.

Should suspected impacted media be discovered during construction activities, work should cease and appropriate investigations should be undertaken according to provincial protocols. See mitigation measures in Section E for further details.

Air Quality:

The Site is situated in a commercial setting within the City of Ottawa and air quality is expected to be relatively good with moderate ambient noise. Construction will follow normal practices and intrusive works such as blasting are not anticipated. Given the commercial setting and no nearby residential dwellings, construction induced dust, noise, and vibration is generally expected to be low and in short duration, and within acceptable limits with minimal impacts to local residents. Potential exists for exposure to fugitive dust and exhaust during the operation of the construction equipment. Mitigation measures for air quality are included in Section E.

Archaeological Impacts:

In order to assess the potential for impacts of the project on areas of archaeological significance, the GeoOttawa mapping system was utilized. A review of the area showed that there is no archaeological potential on the Site. In addition, DST biologists conducted several Site surveys during 2019 and did not notice any features of potential archaeological significance. There are no remnants of buildings or structures in the project development area or evidence of previous development that would indicate possible archeological or cultural heritage significance. Given that the Site is largely disturbed and surrounded by developments, it is not expected that the project will have any impacts on areas of archaeological significance.

Wildlife and Species at Risk:

DST performed a desktop review of Species at Risk (SAR) potentially occurring in or near the project area. The review examined the distribution of species at risk under provincial and federal jurisdiction, using data from the Ontario Breeding Bird Survey, the Natural Heritage Information Center, Fisheries and Oceans Canada, and the Sawmill Creek 2014 Summary Report. In addition, the following information sources were consulted:

- The Species at Risk Ontario (SARO) Public Registry (MECP 2019)
- Ontario Natural History Information Centre (NHIC) Database (2019)
- Ontario Reptile and Amphibian Atlas (Ontario Nature 2019)
- Ontario Breeding Bird Atlas (OBBA; Cadman et al. 2007)
- iNaturalist (2019)
- eBird (Sullivan, B.L., C.L. Wood, M.J. Iliff, R.E. Bonney, D. Fink, and S. Kelling, 2009)
- Aquatic Species at Risk Map (Fisheries and Oceans Canada, 2019)

Appendix B provides results of the desktop study for SAR birds and fish and the likelihood of species at risk being present on Site, with results summarized below.

Vegetation:

The central and southern portions of the Site are dominated by deciduous trees and shrubs, as well as the western and southern boundaries of the northern portion. Because of the potential presence of Butternut trees (*Juglans cinerea*), a species provincially listed as endangered (ESA 2007), a Butternut inspection was conducted for the Site on September 27th, 2018.

The Site was surveyed to assess the presence of Butternut trees. All the trees observed in the Site were identified to the species level if they belonged to the same genus as Butternut, otherwise, they were identified to the genus level. Identification relied on the characteristics of leaves, bud scars, nuts, and trunk of the trees, following Farrar (1995) and The Ontario Stewardship Butternut Tree: A Landowner's Resource Guide.

The northern portion of the Site has dense vegetation with a thick understory and a mix of deciduous trees, containing maples (*Acer spp*), and some black walnut (*Juglans nigra*). The survey identified Butternut trees in the northern portion of the site, showing signs of Butternut canker, a fungal infectious disease that results in large mortality of the hosts.

Because of the finding of Butternut trees on the Site, a formal survey and assessment of the health status and retainability of the trees was conducted by a certified Butternut Health Assessor (BHA), as required by the Ontario Ministry of Environment, Conservation and Parks (MECP) guidelines. The BHA assessed 33 trees on the Site and determined that 13 trees were of Category 1 (non-retainable), 1 was Category 2 (retainable but located greater than 70m outside the zone of proposed construction), and 19 corresponded to hybrids determined by genetic testing, and which are not protected under the Endangered Species Act. The full BHA assessment report and locations of Butternut Trees and hybrids is presented in Appendix C. In order to remove the Category 1 Butternut Trees for the proposed development, it is required that the BHA assessment report be submitted to the MECP and allow them 30 days to review and visit the Site if they wish. Given that no Category 2 or 3 trees will be impacted and only Category 1, tree clearing can then proceed after the 30 days if MECP does not object.

As part of the proposed development, a Tree Conservation Report (TCR) is required and is currently being developed for the project and will be submitted as a separate document. The TCR will list all trees on Site by species, diameter, and health condition, and will address all trees with a critical root zone that extends into the proposed development area. If trees are to be removed, the TCR will show where they are located, and document the reason they cannot be retained. All retained trees will be documented and all retained trees within the area impacted by the development process will be protected as per City of Ottawa guidelines. See mitigation measures in Section E for further details.

Fish and Fish Habitat:

The southern portion of the Site is crossed by Sawmill Creek which is approximately 11 kilometers long and empties into the Rideau River, a tributary of the Ottawa River. A report prepared by the Rideau Valley Conservation Authority, the City of Ottawa, and several other organizations, and based on fish community surveys from 2003 to 2014 cites twenty-six fish species as occurring in Sawmill Creek. However, none of these species is of conservation concern at either federal or provincial level. While maps of the distribution of species at risk created by Fisheries and Oceans Canada describes the occurrence of three species at risk in the nearby Ottawa River, channel darter (*Percina copelandi*), northern brook lamprey (*Ichthyomyzon fossor*), and river herring (*Moxostoma carinatum*), none of these are reportedly occurring in Sawmill Creek (Appendix B).

Development for the proposed project will be limited to the northern portion of the Site and will not occur within 30 meters of Sawmill Creek, thereby mitigating any potential impacts to

waterbodies and fish or fish habitat near the Site. Sediment and erosion control measures should be implemented during construction activities to prevent sedimentation and increased runoff into the creek. See mitigation measures in Section E for further details.

Birds:

The review of occurrence data for thirty-eight bird species at risk showed that there is no evidence of breeding in the region for sixteen of them, despite adequate coverage in the Ontario Breeding Bird Atlas. Twenty-one of the remaining species are known to breed in the region but, at the local scale, the habitat present in the Site is unsuitable, making their occurrence unlikely. The remaining species, the red-headed woodpecker (*Melanerpes erythrocephalus*), is classified as endangered at the federal level and as special concern in Ontario, and breeds in a variety of habitats, including deciduous forests, grasslands, and urban areas such as parks, golf courses, and cemeteries. The red-headed woodpecker was known to breed in the Ottawa region at the time of the First Ontario Breeding Bird Atlas (1981 – 1985), but it was not observed during the second one (2001 - 2005).

Although no occurrences have been noted for the birds described above and in Appendix B for the Site and surrounding area, DST conducted a breeding bird survey during the summer of 2019 to confirm the potential presence or absence of species at risk birds. A DST avian biologist conducted three point-count surveys on June 24th, July 9th, and July 15th, 2019, following Environment and Climate Change Canada Breeding Bird Guidelines and the Ontario Ministry of Natural Resources (OMNR) Wildlife Monitoring Programs and Inventory Techniques - Technical Manual (OMNR 1998).

In addition, a Barn Swallow nest survey was completed. Barn Swallows are normally associated with built environments, such as barns, buildings, bridges, and culverts, as well as other human-made structures. Barn Swallows build cup-shaped nests from mud pellets, typically on a beam or against a suitable vertical projection. Breeding habitat for Barn Swallows requires open areas for foraging and a source of mud to provide material for building nests. They often utilize the same nest from the previous year, therefore if an intact nest is identified outside of the breeding period it is likely that Barn Swallows will return the following season. An inspection of all exterior surfaces of the buildings on Site and the surrounding area was conducted for the presence of nests and signs of bird nesting activity such as old nests, feathers, droppings, dead birds, etc.

No SAR birds were noted during the Point Count Surveys. All survey events were conducted early morning, under clear and sunny skies, with limited wind. Conditions were optimal for conducting auditory and visual monitoring. American Crow, Blue Jay, Black-Capped Chickadees, Northern Cardinal, American Robin, Common Raven, and European Starling were noted. No evidence of Barn Swallows, their nests or their habitat were noted on the buildings on or adjacent to the Site.

Migratory bird species that are not considered at risk and that may occur on the Site, are under the protection of federal and provincial legislation, including the Migratory Birds Convention Act (1994) and the Fish and Wildlife Conservation Act of Ontario (1997). Under these acts it is illegal to harm or harass migratory birds, their nests, and eggs. As a result, tree clearing activities should occur outside of the breeding bird window from April 15th to August 31st. See mitigation measures in Section E for further details.

Mammals:

A review of the Natural Heritage Information Center data showed that no species of mammals at risk have been documented on or near the Site. However, four species at risk bats have potential to occur in the Ottawa region, including Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), Tri-colored Bat (*Perimyotis subflavus*), and Eastern small-footed myotis (*Myotis leibii*). As a result, a snag/cavity assessment was undertaken in order to assess the potential presence of roosting habitat for these species. This included a survey following the Candidate Maternity Roost methods outlined by the MNR (2011) *Bats and habitats: Guidelines for Wind Power Projects*. This assessment was conducted in the treed areas of the Site. If the snag/cavity tree density is ≥ 10 snags per hectare of trees ≥ 25 cm diameter at breast height (dbh), then the Site is considered a potential candidate for bat maternity colony roosts (MNR 2011).

Limited snag/cavity trees suitable for bat habitat were discovered on Site, and as such a potential roost density for bats is low (< 10 snags per hectare) and the Site is not considered a good candidate for maternity colony roosts (MNR 2011). The Site is historically disturbed and rejuvenating and composed of relatively immature trees, whereas bats prefer large, mature forests with a greater density of snag/cavity trees that are more suitable for roosting habitat. As such, the clearing of trees on Site is not anticipated to negatively impact bats or their habitat.

No other evidence of wildlife or habitat was noted. As the Site is composed of a relatively small woodlot, it would likely serve as suitable habitat for birds and small mammals, including rodents, but not likely larger mammals. The Sawmill Creek 2014 Summary Report mentioned the observation of beaver, coyote, deer, grey squirrel, groundhog, muskrat, raccoon, red squirrel, skunk, and vole in the Sawmill Creek survey (species that are not listed at risk). However, it is not known whether any of these species occur within the Site. Given that the Sawmill Creek area on Site and a 30-meter buffer to the north will remain undisturbed as part of this proposed project, potential impacts to habitat for the majority of these species will remain low, if present.

Reptiles and Amphibians:

A review of the Natural Heritage Information Center data and the Ontario Reptile and Amphibian Atlas showed that no species of reptiles or amphibians at risk have been documented on the Site. The Sawmill Creek 2014 Summary Report mentioned the occurrence of the bullfrog, green frog, and leopard frog in the Sawmill Creek (species that are not listed at risk), but it is unknown whether any of these species occur within the Site. Given that the Sawmill Creek area on Site and a 30-meter buffer to the north will remain undisturbed as part of this proposed project, potential impacts to habitat for these species will remain low, if present.

SECTION C: RESOURCES

The following reports were made available for DST's review:

- DST Consulting Engineers (2019a). Phase I Environmental Site Assessment, 2584-2600 and 2626 Bank Street, Ottawa, Ontario
- DST Consulting Engineers (2019b). Phase II Environmental Site Assessment, 2584-2600 and 2626 Bank Street, Ottawa, Ontario

- Sawmill Creek 2014 Summary Report, City Stream Watch, Rideau Valley Conservation Authority.

The desktop study of Species at Risk was conducted by reviewing available information found in public sources that include:

- Species at Risk Public Registry. Government of Canada;
- Species at Risk in Ontario database. Government of Ontario;
- Fisheries and Ocean Canada Species at Risk Distribution spatial data;
- Bird Maps from the Atlas of the Breeding Birds of Ontario;
- Make a Map: Natural Heritage Areas tool. Ministry of Natural Resources and Forestry;
- City Stream Watch. 2014. Sawmill Creek 2014 Summary Report;
- Ontario Reptile and Amphibian Atlas (Ontario Nature 2019)
- Ontario Breeding Bird Atlas (OBBA; Cadman et al. 2007)
- iNaturalist (2019)
- eBird (Sullivan, B.L., C.L. Wood, M.J. Iliff, R.E. Bonney, D. Fink, and S. Kelling, 2009)
- A review of aerial photographs and maps.

SECTION D: MITIGATION MEASURES REQUIREMENT

Mitigation measures are required for the Project. See Section E for Established and Effective Mitigation Measures.

SECTION E: IDENTIFY ENVIRONMENTAL EFFECTS AND MITIGATION MEASURES

<u>Environmental Component</u>	<u>Description of Environmental Effect</u>	<u>Biophysical (B.P.) or Socio-economic (S.E.) Effect</u>	<u>Mitigation Measures</u>	<u>Residual or Cumulative Effects</u>	<u>Significance of Effect</u>
Regulatory	Regulatory regimes should be followed during all stages of Site preparation, construction activities, cleanup, and mitigation/monitoring measures.	B.P.	<p>The Client will obtain all applicable permits from the regulatory authorities as applicable. The regulatory regimes that should be followed include:</p> <ol style="list-style-type: none"> 1) Federal Level <ol style="list-style-type: none"> a. Species At Risk Act, 2002 b. Migratory Bird Convention Act, 1994 c. Transportation of Dangerous Goods Act, 1992 d. Fisheries Act, 1985 2) Provincial Level (as applicable) <ol style="list-style-type: none"> a. Occupational Health and Safety Act, R.S.O. 1990, c. O.1 (OHS): <ol style="list-style-type: none"> i. Ontario Regulation 213/91, Construction Projects, and R.R.O. 1990, ii. Ontario Regulation 490/09 "Designated Substances". iii. Guideline: Silica on Construction Projects, September 2004 (Revised April 2011) b. Environmental Protection Act, 1990 <ol style="list-style-type: none"> i. Ontario Regulation 347-General – Waste Management c. Endangered Species Act, 2007 d. Fish and Wildlife Conservation Act of Ontario (1997) 	N/A	N/A
Noise and Vibration	Increasing ambient noise level from construction activity can disturb	S.E.	The Project should adhere to the Ottawa Noise By-law No. 2017-255 (City of Ottawa 2017), whereby operating vehicles or equipment in connection with the construction of any building, structure, highway,		

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	wildlife, adjacent occupants and cause permeant hearing loss/damage to construction workers, or employees who work at the Site who are near the construction work.		<p>or motorcar after 10 p.m. and before 7 a.m. (9 a.m. on Sunday and statutory/public holidays) is prohibited.</p> <p>A Site-specific Health and Safety plan should be prepared and include Personal Protective Equipment (PPE) for hearing protection to prevent injuries to workers/staff.</p> <p>Adhering to the above-mentioned bylaws will also minimize impacts to wildlife.</p>	None	Low
Air Quality	<p>Dust generated from construction activities may adversely affect air quality,</p> <p>Idling excavation equipment may impact air quality.</p>	B.P.	<p>A site-specific air pollutant environmental management plan that identifies the objectives to be achieved (e.g. visual inspection, on-site personnel complaints, quantified maximum concentrations around the site), the methods to be applied, the people responsible for managing and implementing the plan, and the records to be maintained in order to demonstrate adoption of best management practices (and compliance with regulatory requirements) should be developed and implemented.</p> <p>The document <i>Best Practices for the Reduction of Air Emissions from Construction and During Demolition Activities</i> (prepared for Environment and Climate Change Canada by Cheminfo Services, 2005), should be consulted in the development of the plan.</p> <p>Dust levels should be visually monitored and controlled throughout construction works (e.g. by wetting disturbed surfaces, installing covers on excavated soil piles, etc.), as required.</p> <p>Movement of machinery on exposed soil should be minimized. Properly shape and cover transported and/or stockpiled soils with dust suppressing fabric (tarps etc.) to reduce wind erosion and control fugitive dust emissions. If any use of backfill is required, ensure proper scheduling for delivery of backfill materials to minimize storage time on site</p>	None	Low

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			<p>and reduce potential for fugitive dust emissions. Disturbed areas should be rehabilitated as soon as possible in order to reduce the duration of soil exposure.</p> <p>Vehicles and machinery should not be left idling while not in use. Machinery and equipment must be maintained in good condition and equipped with emission controls, as applicable, and operate within regulatory requirements.</p>		
Soil Quality	Should impacted medium be discovered during construction activities, appropriate management activities should be undertaken.	B.P.	<p>Should any impacted medium (odour, staining on soil, sheen on water etc.) be encountered during construction activities, it should be investigated, as per provincial protocols.</p> <p>Should impacted soil be discovered, disposal of soils and non-recyclable waste should occur in an approved landfill.</p> <p>The transport of the waste to an approved landfill will be completed in accordance with the federal Transportation of Dangerous Goods Act (TDGA), 1992.</p> <p>The contractor will be responsible for providing the Client with copies of the Certificate of Authorization for the excavated soil disposal facility and the final transportation manifests.</p>	None	Medium
	Accidental spills from construction equipment can contaminate the soil.	B.P.	A spill prevention and response plan should be implemented into project specifications, anticipating all activities which involve hazardous substances, for all phases of this project. Ensuring that the appropriate inspections and certified inspection personnel are employed through all stages of the project is required by provincial regulations, in preventing potential releases to the environment. Spill reporting requirements are set out in applicable provincial regulations.		

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			<p>A specific environmental emergency response plan will be developed to mitigate any spills associated with construction and AGLS military activities.</p> <p>Machinery must be checked for leakage of lubricants or fuel and must be in good working order.</p> <p>Refueling must be done at least 30 m from any water body and on an impermeable surface.</p> <p>Machinery should not cross or come in close contact with any water bodies</p> <p>Machinery shall not be washed at the site.</p> <p>Spill clean-up equipment must be on-site. All spills or leaks must be promptly contained, cleaned up and reported to the Client and through the persons identified in the environmental emergency response plan. Notify the MOECC Spill Action Centre (1-800-268-6060) if necessary and applicable.</p>	None	Low
Archaeological Resources	Potential to destroy archeological resources	S.E.	<p>If any archaeological resources are discovered during the construction activities, all work at the location concerned must be halted immediately and the project manager must be notified immediately. Work should not be resumed at that location until a qualified archaeologist has been consulted and measures for the protection of those resources have been implemented.</p>	None	Low
Water Quality	The Sawmill Creek crosses the southern portion of the Site and may be minimally impacted	B.P.	<p>A stormwater and drainage plan is required for the development and should include considerations for an increase in impermeable surfaces on Site.</p> <p>Stormwater runoff should be mitigated if equipment or stockpiles of materials are stored on Site since it can lead to</p>		

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	<p>by the proposed construction. The following should be considered:</p> <p>Temporary deterioration in water quality due to the inflow of fine particles into surface waters from earthwork and concrete work.</p> <p>Changes to drainage conditions caused by the addition of structures and impermeable surfaces to the Site and by a temporary storage of equipment, excavated or infill soil.</p>		<p>poor water quality, increased erosion, and stormwater runoff to the aquatic environment. Considerations for increased runoff or direction of flow over dirt and the creek should be assessed prior to placement of equipment and materials.</p> <p>Construction in proximity to waterbodies can lead to poor water quality, increased erosion, and inflow of soil particles to fish and fish habitat, and Erosion and Sediment Control measures should be implemented.</p> <p>Erosion and Sediment Control:</p> <p>Develop and implement an Erosion and Sediment Control Plan to prevent suspended sediment, mud, debris, fill, rock dust, etc. associated with construction of the project from entering runoff and offsite watercourses and any sensitive habitat during all phases of the project. Erosion and sediment control measures should be maintained until all disturbed ground has been permanently stabilized or settling basin and runoff water is clear. The plan should, where applicable, include:</p> <ul style="list-style-type: none"> -Installation of effective erosion and sediment control measures before starting work, including work zone clearing, grubbing, excavation, filling or grading works to prevent sediment from entering runoff. Ensure they are maintained on a regular basis, prior to and after runoff events. -Measures for managing water flowing onto the site, as well as water being pumped/diverted from the site such that sediment is filtered out prior to the water travelling offsite as runoff. For example, pumping/diversion of water to an appropriate vegetated area, construction of a settling basin or other filtration system. -Measures for containing and stabilizing waste material (e.g., excavation spoils, construction waste and materials, uprooted or cut plants, accumulated debris) such that increased runoff 	None	Medium

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			<p>or contaminated runoff/siltation is not produced.</p> <p>-Regular inspection and maintenance of erosion and sediment control measures and structures during the course of construction. Repairs to erosion and sediment control measures and structures if damage occurs.</p> <p>-Any accumulated materials should be cleaned out regularly to maintain performance, and prior to removal of mitigation measures.</p> <p>-A landscaping plan should be developed for the project. ;All disturbed areas of land to be restored to natural conditions should be re-vegetated as soon as conditions allow in order to prevent erosion (and restore habitat functions).</p> <p>-Mitigation measures should not be removed until vegetation has been re-established to a sufficient degree (or surface soils stabilized using other measures) so as to provide adequate erosion protection to disturbed work areas.</p> <p>-Removal of non-biodegradable erosion and sediment control materials once site is stabilized.</p> <p>-Ensure that measures are in place to minimize mud tracking by construction vehicles, and to allow timely cleanup of any tracked mud, dirt, and debris along access routes and areas outside of the immediate work area where the above sediment controls would not be in place.</p>		
	Machinery operated improperly	B.P.	<p>Ensure that machinery arrives on site in a clean condition and is maintained free of fluid leaks.</p> <p>Wash, refuel and service machinery and store fuel and other materials for the machinery in such a way as to prevent any deleterious substances from entering waterways.</p>	None	Low

<u>Environmental Component</u>	<u>Description of Environmental Effect</u>	<u>Biophysical (B.P.) or Socio-economic (S.E.) Effect</u>	<u>Mitigation Measures</u>	<u>Residual or Cumulative Effects</u>	<u>Significance of Effect</u>
	Accidental spills from construction equipment may impact water quality of storm water runoff and via infiltration into the groundwater.	B.P.	<p>Implement a Spill Prevention and Spill Response Plan for the construction activities (see above). Ensure that appropriate inspection personnel and certified inspection personnel are employed through all stages of the project life cycle. A specific environmental emergency response plan will be developed to mitigate any spills associated with construction activities.</p> <p>Do not refuel vehicles or machinery within 30m of a watercourse or wetland.</p> <p>Staging material and equipment at least 30m away from any watercourse or wetland.</p>	None	Low
Vegetation and Trees	Accidental damage to trees and vegetation can lead to decreased wildlife habitat, increased sediment erosion, and increased stormwater runoff.	B.P.	<p>Work areas shall be defined prior to project commencement. Restrict the movement of vehicles and machinery to the work areas and designated access points. Utilize existing access roads when possible.</p> <p>Do not attach any signs, notices or posters to any tree.</p> <p>If work is to be conducted or equipment is to be place within proximity to trees, tree retention mitigation measures should be followed:</p> <ul style="list-style-type: none"> • Erect a fence at the critical root zone (CRZ) of potentially affected trees; • Area where the trees will be potentially affected will be fenced.; • Do not place any material or equipment within the CRZ of trees; • Do not damage the root system, trunk, or branches of trees; and, • Ensure that exhaust fumes from all equipment are not directed towards any tree's canopy. 	None	Low

<u>Environmental Component</u>	<u>Description of Environmental Effect</u>	<u>Biophysical (B.P.) or Socio-economic (S.E.) Effect</u>	<u>Mitigation Measures</u>	<u>Residual or Cumulative Effects</u>	<u>Significance of Effect</u>
			<p>If tree damage occurs, an arborist should review any damage to determine the best course of action to restore the original vegetative functions.</p> <p>Vegetation should be replaced to original conditions following construction activities.</p>		
Terrestrial Habitat	Accidental spills associated with construction activities may have adverse impacts to vegetation and wildlife.	B.P.	Implement a Spill Prevention and Spill Response Plan for the construction activities, as described above.	None	Low
	Introduction of Invasive Species from equipment	B.P.	<p>Introduced invasive species at the site of vegetation cutting activities should be cut manually. Cutting, temporary storage, and disposal should be performed in a manner to prevent the dispersal of seeds and samara into the environment.</p> <p>Invasive species on Site should be removed and disposed off appropriately according to provincial guidelines: https://www.invasivespeciescentre.ca/learn/invasive-plant-species</p> <p>Cleaning of any equipment used to remove the invasive species should occur in a designated area prior to the equipment leaving the site.</p> <p>The equipment should arrive clean to the site.</p> <p>Storage of vegetative debris containing invasive species should occur in a designated area, ensuring that the debris is covered and that vehicle transporting debris off site are tarped.</p>	None	Low

<u>Environmental Component</u>	<u>Description of Environmental Effect</u>	<u>Biophysical (B.P.) or Socio-economic (S.E.) Effect</u>	<u>Mitigation Measures</u>	<u>Residual or Cumulative Effects</u>	<u>Significance of Effect</u>
	Reduction to bird breeding and nesting habitat.	B.P.	<p>No migratory birds, nests or eggs can be disturbed or destroyed per the Migratory Birds Convention Act of 1994. In order to mitigate possible effects of the project on the various species potentially at the Site, clearing of trees should take place outside the bird breeding window of April 15th to August 31st.</p> <p>The workers must be advised of the potential presence of migratory birds during the works and reinstatement of the sites.</p> <p>If one or more nests containing eggs or chicks of migratory birds are spotted or discovered during the work, stop any disruptive activity in the nesting area until the establishment of a buffer zone by an experienced Avian Biologist. This is based on a range of appropriate protection to the species and circumstances and must be maintained until the chicks have naturally left permanently the areas near the nest or that the work is completed.</p>	None	Low
Mammals/Wildlife	Construction work may disturb wildlife during construction.	B.P.	<p>Considering the contained footprint of the proposed development, minimal impacts to wildlife are anticipated. However, wildlife sweeps should be conducted prior to work commencing each day by the contractor.</p> <p>Best Practice Measures (BPMs) include:</p> <ul style="list-style-type: none"> • Development of a project-specific wildlife protocol that informs workers how to proceed should they encounter wildlife and its safe removal • Working around sensitive timing windows, including the avoidance of tree clearing (if required) during the bird-breeding season • Pre-stressing the Site to clear wildlife (i.e. flushing out wildlife in an organized manner) • BPMs for site clearing (i.e. clearing from one direction that allows wildlife to leave the Site) • Wildlife-proofing 	None	Low

<u>Environmental Component</u>	<u>Description of Environmental Effect</u>	<u>Biophysical (B.P.) or Socio-economic (S.E.) Effect</u>	<u>Mitigation Measures</u>	<u>Residual or Cumulative Effects</u>	<u>Significance of Effect</u>
			<p>Wildlife sweeps should be conducted daily by the contractor prior to work commencing to ensure no wildlife is present and potentially impacted by construction activities. Should wildlife be discovered they should be gently coaxed out of the work area or qualified professional contacted on how to proceed.</p> <p>Installation of the fencing around the proposed development will help prevent wildlife, such as turtles, from entering the Site, if present.</p> <p>No Species at Risk are anticipated to present on Site or impacted by the project. However, should a species at risk be discovered during construction, work should cease immediately and a qualified biologist contacted and the MECP consulted on how to proceed.</p>		
Fish and Fish Habitat	Construction near water may impact fish and fish habitat.	B.P.	<p>Design and construct approaches to the construction zone such that a 30-meter buffer around Sawmill Creek is established, not disturbed, and permanent, to minimize loss or disturbance to riparian vegetation and prevent impacts to fish and fish habitat.</p> <p>Avoid placing structures or equipment in any area that is inherently unstable and may result in erosion and sedimentation into the creek. Avoid introducing sediment into the watercourse through development of a project specific Sediment and Erosion control plan that minimizes risk of sedimentation of the waterbody during all phases of the project.</p>	None	Low

<u>Environmental Component</u>	<u>Description of Environmental Effect</u>	<u>Biophysical (B.P.) or Socio-economic (S.E.) Effect</u>	<u>Mitigation Measures</u>	<u>Residual or Cumulative Effects</u>	<u>Significance of Effect</u>
Waste Management	<p>Inappropriate handling and disposal of designated substances or hazardous building materials can pollute the environment.</p> <p>Improper waste management causes the depletion of environmental quality.</p>	B.P.	<p>Recycle and reuse materials onsite as possible. Divert metal materials from landfill to metal recycling facility.</p> <p>All unsalvageable and unrecyclable materials must be disposed of at a licensed facility in accordance with federal standards.</p> <p>All hazardous materials must be labelled in accordance with WHMIS requirements and transported in accordance with federal regulations regarding the transportation of dangerous goods such as the <i>Federal Transportation of Dangerous Goods Act</i> and Regulation.</p> <p>Hazardous waste not being reused or recycled, and used containers of hazardous materials must be disposed of or recycled at an authorized facility or disposal site. Contractor to ensure the separating of material waste, reuse and recycling for maximum amount of material recovery.</p>	None	Low
Human Health	Impacts to workers arising from onsite injuries or mismanagement of designated substances arising from project activities	S.E.	<p>A 'Site specific Health and Safety Plan' will be prepared by the Contractor.</p> <p>Instructions and contact numbers 'In Case of Emergencies' are provided to the Contractor. It includes the directions and the closest hospital emergency.</p> <p>Workers will use the protective devices required by the applicable regulations.</p> <p>Speed limits shall be respected and the speed of vehicles on the work site shall be limited.</p> <p>Contractor shall take all reasonable steps to ensure that working site does not adversely affect the safety and security of the public and/or the workers.</p>	None	Low

<u>Environmental Component</u>	<u>Description of Environmental Effect</u>	<u>Biophysical (B.P.) or Socio-economic (S.E.) Effect</u>	<u>Mitigation Measures</u>	<u>Residual or Cumulative Effects</u>	<u>Significance of Effect</u>
			<p>Existing access roads shall be used to access the site in approved designated routing in coordination with separate projects and base activities. Contractor will install temporary warning signage and access restrictions in order to prevent access by base personnel.</p> <p>Prior to commencement of the work, the location and condition of underground utility lines will be established and confirmed and care shall be taken not to expose and/or come in contact with underground utilities, if applicable.</p> <p>Heavy machinery must have a backup alarm. When not in use, turn off all motorized equipment used at the sites.</p> <p>Handle all designated substances and hazardous building materials in accordance with provincial and federal standards for worker safety.</p> <p>All hazardous materials must be labelled in accordance with WHMIS requirements and transported in accordance with provincial and federal regulations regarding the transportation of dangerous goods such as the Federal Transportation of Dangerous Goods Act and Regulation.</p> <p>Ensure employees are trained on the identification and handling of designated substances. Undertake work on designated substances containing material and other hazardous materials and chemicals according to the Designated Substance and Hazardous Material Survey information and recommendations or the provincial and federal legislation.</p>		

SECTION F: ADDITIONAL COMMENTS

Cumulative and Residual Effects

The proposed development of the Site is restricted to the northern and central portions with a 30-meter buffer established between the development and Sawmill Creek, thus, no negative effects are expected to occur on Sawmill Creek. Potential impacts are expected to be confined to the northern and central portions of the Site and can be mitigated through the established mitigation measures outlined in this report. Based on the mitigation measures outlined in this analysis and the CEAA 2012 “Technical Guidance for Assessing Cumulative Environmental Effects”, significant residual and cumulative effects are not anticipated.

Project Monitoring

Project monitoring is required during and at the end of the project to ensure that the mitigation measures are implemented and effective. Adaptive management should be ongoing throughout the life of the project and all issues analyzed as they present themselves, with additional mitigation measures implemented as required.

The construction supervisor and the project manager are responsible for verifying if the mitigation measures have been implemented by the contractor responsible for the works.

The contractor will be responsible for ensuring the implementation and the effectiveness of the mitigation measures identified in the specifications in Section E and any other mitigation measures and conditions identified throughout the duration of the project. The construction supervisor should have all administrative documents, including the EIS.

SECTION G: DETERMINATION

Taking into account implementation of mitigation measures outlined in the analysis, this project is:

Not likely to cause significant adverse environmental effects

Likely to cause significant adverse environmental effects

SECTION H: SIGN-OFF AND APPROVAL

Completed by:

DST Consulting Engineers Inc.

September 17th 2020

Sebastian Belmar B.Sc.
Senior Biologist

David Vardy, Ph.D., P.Bio.,
Senior Biologist and Project Manager

SECTION I: LIMITATIONS OF NATURAL SCIENCE INVESTIGATIONS

The information, conclusions and recommendations given herein are specifically for this project and this Client only, and for the scope of work described herein. It may not be sufficient for other uses. DST does not accept responsibility for use by third parties.

The data, conclusions and recommendations which are presented in this report, and the quality thereof, are based on a scope of work authorized by the Client. Note, however, that no scope of work, no matter how exhaustive, can identify all ecological and/or environmental conditions. This report, therefore, cannot warranty that all conditions on or off the site are represented by those identified at specific locations.

Any recommendations and conclusions provided that are based on conditions or assumptions reported herein will inherently include any uncertainty associated with those conditions or assumptions. In fact many aspects involving professional judgment contain a degree of uncertainty which cannot be eliminated. This uncertainty should be managed by periodic review and refinement as additional information becomes available.

Note also that standards, guidelines, methodologies and practices related to environmental investigations may change with time. Those which were applied at the time of this investigation may be obsolete or unacceptable at a later date.

Any topographic benchmarks and elevations documented in this report are primarily to establish relative elevation differences between study locations and should not be used for other purposes such as grading, excavation, planning, development, etc.

Any comments given in this report on potential environmental conditions/site ecology are intended only for the guidance of the Client. The scope of work may not be sufficient to determine all of the environmental factors at each site. Contractors bidding on projects based on the information in this report should, therefore, make their own interpretation of the factual information presented and draw their own conclusions as to how the conditions may affect their work.

Any results from federal or provincial government agencies, other subcontractors, or any other third party, reported herein have been carried out by others, and DST Consulting Engineers Inc. cannot warranty their accuracy. Similarly, DST cannot warranty or endorse the accuracy of information supplied by the Client.

SECTION J: REFERENCES

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APPENDIX A
FIGURES




Source:
Google Earth 2018

Note

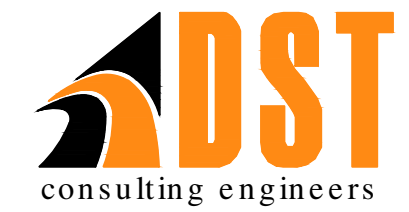
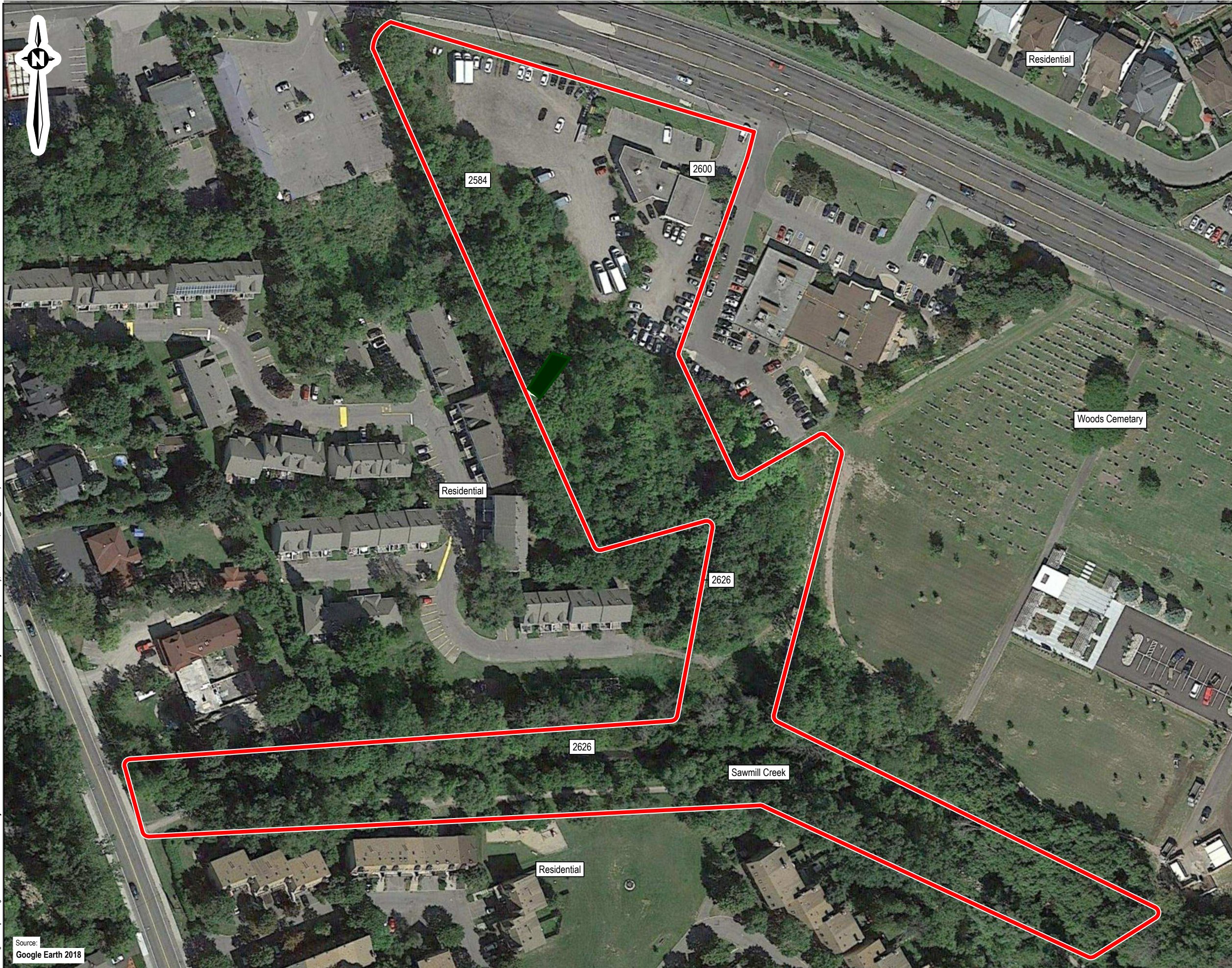
- This drawing shall be read in conjunction with the associated technical report.

A	07/11/18	Preliminary	
Revision	Date	Issue	Approval

Client	Site	2584 to 2600 Bank St., Ottawa, ON	
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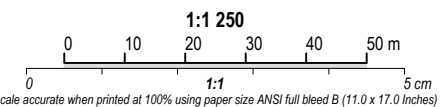
	Report Title	<p align="center">Scoped Environmental Impact Statement</p>		Designed By	Date
	Drawing Title			D.V.	February 2020
			Drawn By	Project No.	
			K.M.	TS-SO-034880	
		Approved By	Figure No.		
			1		
		Scale			
		As shown			

Drawing: 1 site location.dwg Folder: L:\ITS\CAD\Projects\TS-SO-034880 Bank Street\2018 Tree Survey\DWGs Wednesday, November 07, 2018 @ 09:46 by Kris Morin



Note
 1. This drawing shall be read in conjunction with the associated technical report.

Legend
 Site boundary



A	07/11/18	Preliminary	
Revision	Date	Issue	Approval

Client

Site
 2584 to 2600 and 2626 Bank St., Ottawa, ON

Report Title

Scoped Environmental Impact Statement

Drawing Title
Site Plan

Designed By	D.V.	Scale	As shown
Drawn By	K.M.	Date	February 2020
Approved By		Project No.	TS-SO-034880

Figure No. **2**

Drawing: 2 site plan.dwg Folder: L:\TS\CAD\Projects\TS-SO-034880 Bank Street\2018 Tree Survey\DWGs Wednesday, November 07, 2018 @ 10:13 by Kris Morin

Source:
 Google Earth 2018

APPENDIX B
SPECIES AT RISK

Species at Risk Assessment Screening Methodology

DST conducted a desktop study and Species at Risk (SAR) assessment for the Site. The objective of this desktop review was to gather available information on the occurrence or potential occurrence of Natural and Cultural Heritage Features and SAR. This included both a desktop review of documents and databases and consultation with the following information sources:

- Species at Risk Public Registry. Government of Canada;
- Species at Risk in Ontario database. Government of Ontario;
- Fisheries and Ocean Canada Species at Risk Distribution spatial data;
- Bird Maps from the Atlas of the Breeding Birds of Ontario;
- Make a Map: Natural Heritage Areas tool. Ministry of Natural Resources and Forestry;
- City Stream Watch. 2014. Sawmill Creek 2014 Summary Report;
- A review of aerial photographs and maps.

Common Name	Scientific Name	Federal Status (SARA)	Provincial Status (ESA)	Habitat	Potential Presence on Site
Birds					
Acadian flycatcher	<i>Empidonax vireescens</i>	Endangered	Endangered	Large areas of mature undisturbed forest	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas
American white pelican	<i>Pelecanus erythrorhynchos</i>	-	Threatened	Nests in groups on remote islands that are barren or sparsely treed in lakes, reservoirs, or in large rivers	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas
Bald eagle	<i>Haliaeetus leucocephalus</i>	-	Special concern	Occurs in a variety of habitats and forest types, almost always near a major lake or river	Possible breeding in region. At local scale, the habitat is unsuitable
Bank swallow	<i>Riparia riparia</i>	Threatened	Threatened	Breeds in natural and artificial sites with vertical banks	Possible breeding in region. At local scale, the habitat is unsuitable
Barn owl	<i>Tyto alba</i>	Endangered	Endangered	Low-elevation, open country with abundance of small rodents	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas

Common Name	Scientific Name	Federal Status (SARA)	Provincial Status (ESA)	Habitat	Potential Presence on Site
Barn swallow	<i>Hirundo rustica</i>	Threatened	Threatened	Nests in artificial structures, including barns, garages, houses, bridges, and road culverts	Possible breeding in region
Black tern	<i>Chlidonias niger</i>	-	Special concern	Breeds in loose colonies in shallow marshes, especially in cattails	Possible breeding in region. At local scale, the habitat is unsuitable
Bobolink	<i>Dolichonyx oryzivorus</i>	Threatened	Threatened	Nests in forage crops and occurs in grassland habitats including wet prairie, graminoid peatlands and abandoned fields dominated by tall grasses, and others	Possible breeding in region. At local scale, the habitat is unsuitable
Canada warbler	<i>Wilsonia canadensis</i>	Threatened	Special concern	Most abundant in wet, mixed forest with a well-developed shrub layer.	Possible breeding in region. At local scale, the habitat is unsuitable
Cerulean warbler	<i>Dendroica cerulea</i>	Endangered	Threatened	Large tracts of mature deciduous forest with tall trees and an open understory	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas
Chimney swift	<i>Chaetura pelagica</i>	Threatened	Threatened	Urban and rural areas where chimneys can be used as nesting and resting sites	Possible breeding in region. However, the specialized habitat required by the species is not present on the Site
Common nighthawk	<i>Chordeiles minor</i>	Special concern	Special concern	Nests in a wide range of open, vegetation-free habitats, including dunes, beaches, recently disturbed forests, logged areas, and many others. It also occurs in mixed and coniferous forests.	Possible breeding in region. At local scale, the habitat is unsuitable
Eastern meadowlark	<i>Sturnella magna</i>	Threatened	Threatened	Grassland habitats, including native prairies and savannahs, as well as some agricultural lands and airfields	Possible breeding in region. At local scale, the habitat is unsuitable

Common Name	Scientific Name	Federal Status (SARA)	Provincial Status (ESA)	Habitat	Potential Presence on Site
Eastern whip-poor-will	<i>Caprimulgus vociferus</i>	Threatened	Threatened	Nests in semi-open forests or patchy forests with clearings	Possible breeding in region. At local scale, the habitat is unsuitable
Eastern wood-pewee	<i>Contopus virens</i>	Special concern	Special concern	Associated with mid-canopy layer of forest clearings and edges of deciduous and mixed forests.	Possible breeding in region. At local scale, the habitat is unsuitable
Evening grosbeak	<i>Hesperiphona vespertina</i>	Special concern	Special concern	Open, mature mixedwood forests, where fir species and/or white spruce are dominant, and spruce budworm is abundant	Possible breeding in region
Golden eagle	<i>Aquila chrysaetos</i>	-	Endangered	Nests in remote, undisturbed areas. May winter near large deer wintering areas where carcasses might be found	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas
Golden-winged warbler	<i>Vermivora chrysoptera</i>	Threatened	Special concern	Occurs in areas with young shrubs, surrounded by mature forest, and characterized by plant succession of 10 to 30 years	Possible breeding in region. At local scale, the habitat is unsuitable
Grasshopper sparrow	<i>Ammodramus savannarum</i>	Special concern	Special concern	Breeds in large human-created grasslands with well-drained, often poor soil dominated by relatively low, sparse perennial herbaceous vegetation	Possible breeding in region. At local scale, the habitat is unsuitable
Harris's Sparrow	<i>Zonotrichia querula</i>	Special concern	-	Mosaic of upland and tundra, with scattered lakes	At local scale, the habitat is unsuitable
Henslow's sparrow	<i>Ammodramus henslowii</i>	Endangered	Endangered	Open fields with tall grasses interspersed with tall herbaceous plants, or shrubby species	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas

Common Name	Scientific Name	Federal Status (SARA)	Provincial Status (ESA)	Habitat	Potential Presence on Site
Horned grebe	<i>Podiceps auritus</i>	Special concern	Special concern	Breed in freshwater and occasionally in brackish water on small semi-permanent or permanent ponds, but it also uses marshes and shallow bays on lake borders	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas
King rail	<i>Rallus elegans</i>	Endangered	Endangered	Freshwater marshes and marsh-shrub swamp habitats	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas
Kirtland's warbler	<i>Dendroica kirtlandii</i>	Endangered	Endangered	Young jack pine growing in dense stands with small openings	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas
Least bittern	<i>Ixobrychus exilis</i>	Threatened	Threatened	Marshes dominated by emergent vegetation surrounded by areas of open water	Possible breeding in region. At local scale, the habitat is unsuitable
Loggerhead shrike	<i>Lanius ludovicianus</i>	Endangered	Endangered	Open areas dominated by grasses and/or forbs, interspersed with scattered shrubs or trees and bare ground	Possible breeding in region. At local scale, the habitat is unsuitable
Louisiana waterthrush	<i>Seiurus motacilla</i>	Threatened	Threatened	Occupies specialized habitat along relatively pristine headwater streams and wetlands situated in large tracts of mature forest	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas
Northern bobwhite	<i>Colinus virginianus</i>	Endangered	Endangered	Early successional habitat. In Ontario, associated with cultivated lands	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas
Olive-sided flycatcher	<i>Contopus cooperi</i>	Special concern	Special concern	Open areas containing tall live trees or snags for perching	Possible breeding in region. At local scale, the habitat is unsuitable
Peregrine falcon	<i>Falco peregrinus</i>	-	Special concern	Nest on tall, steep cliff ledges close to large bodies of water. Some adapted to urban environments with tall buildings	Possible breeding in region. At local scale, the habitat is unsuitable

Common Name	Scientific Name	Federal Status (SARA)	Provincial Status (ESA)	Habitat	Potential Presence on Site
Piping plover	<i>Charadrius melodus</i>	Endangered	Endangered	Nests just above the normal high-water mark on exposed sandy or gravelly beaches	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas
Prothonotary warbler	<i>Protonotaria citrea</i>	Endangered	Endangered	Deciduous swamp forests or riparian floodplain forests	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas
Red-headed woodpecker	<i>Melanerpes erythrocephalus</i>	Endangered	Special concern	Variety of habitats including oak and beech forests, grasslands, forest edges, orchards, pastures, riparian forests, roadsides, urban parks, golf courses, cemeteries, beaver ponds and burns	Possible breeding in region. Although the species was known to breed in the Ottawa region at the time of the first breeding bird atlas, it was not confirmed during the second atlas. It is, thus, unlikely to occur on the Site
Rusty blackbird	<i>Euphagus carolinus</i>	Special concern	Special concern	Coniferous-dominated forests adjacent to wetlands	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas
Short-eared owl	<i>Asio flammeus</i>	Special concern	Special concern	Variety of habitats including arctic tundra, grasslands, peat bogs, marshes, sand-sage concentrations and old pastures	Possible breeding in region. At local scale, the habitat is unsuitable
Wood thrush	<i>Catharus mustelinus</i>	Threatened	Special concern	Mainly second-growth and mature deciduous and mixed forests, with saplings and well-developed understory layers	Possible breeding in region. At local scale, the habitat is unsuitable
Yellow rail	<i>Coturnicops noveboracensis</i>	Special concern	Special concern	Marshes dominated by sedges, true grasses, and rushes, where there is little or no standing water	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas

Common Name	Scientific Name	Federal Status (SARA)	Provincial Status (ESA)	Habitat	Potential Presence on Site
Yellow-breasted chat	<i>Icteria virens</i>	Endangered	Endangered	Shrub specialist, occurring in early successional shrubs habitat in eastern North America	No evidence of breeding in region despite adequate coverage in Ontario Breeding Bird Atlas
Fish					
Channel Darter	<i>Percina copelandi</i>	Special concern	Special concern	Small to large rivers with moderate current and coarse bed material	Present in Ottawa river, which is part of the same watershed as Sawmill Creek. Not documented among 26 species of fish in Sawmill Creek
Northern Brook Lamprey	<i>Ichthyomyzon fossor</i>	Special Concern	Special concern	Clear water streams of a wide range of sizes. Larvae reside in burrows in silt and sand substrate	Present in Ottawa river, which is part of the same watershed as Sawmill Creek. Not documented among 26 species of fish in Sawmill Creek
River Redhorse	<i>Moxostoma carinatum</i>	Special Concern	Special concern	Moderate to large rivers where current is fast, and the bottom is composed of stones, rubble, and bedrock with very little siltation	Present in Ottawa river, which is part of the same watershed as Sawmill Creek. Not documented among 26 species of fish in Sawmill Creek

APPENDIX C
BUTTERNUT HEALTH ASSESSMENT

DST Consulting Engineers Inc.
2150 Thurston Drive, Suite 203
Ottawa, Ontario
K1G 5T9
877.300.4800
ottawa@dstgroup.com

July 31, 2019

RE: Part of 2584 to 2600 and 2626 Bank Street, City of Ottawa, BHA Report Number: 281011

Attention: DST Consulting Engineers Inc.

As a designated Butternut Health Assessor (BHA), I am providing the following Butternut Health Assessor's Report for the trees located at the above noted property, for which I completed an inventory and assessment during the site visit on July 31, 2019. If there are other Butternut trees at the site that may be affected by the activity and they are not identified in this report, they too must be assessed by a BHA. Shaun St.Pierre and affiliates are not responsible for delays or losses incurred from Butternuts whether they have been identified in this report or not. A valid BHA report must include all items within the below list of enclosures.

Genetic testing was performed on 20 trees all except one came back as a Hybrid.

Note that municipal by-laws and legislation other than the ESA may also be applicable to the removal or harming of trees.

Please retain this letter and a copy of the BHA Report for your records, along with any other documentation you may receive from the MNR should an examination of the trees occur. If you have any questions, please do not hesitate to contact me or your [local MNR district office](#).

Sincerely,



Shaun St.Pierre, B.Sc. Biology (BHA#281)
20373 Bethune Street,
South Lancaster, On
K0C 2C0
613.571.8883
shaunstpierre@hotmail.com

Enclosures:

1. Information from the Ministry of Natural Resources and Forestry about Butternut and the *Endangered Species Act, 2007*
2. Butternut Health Assessor's Report
3. Original data forms
4. Electronic and printed copies of the Excel data spreadsheet (BHA Tree Analysis)

Ministry of Natural
Resources and Forestry

Ministère des Richesses
naturelles et des Forêts

Species At Risk
P.O. Box 7000, 300 Water Street
Peterborough ON K9J 8M5

Espèces en péril
C.P. 7000, 300, rue Water
Peterborough ON K9J 8M5



The enclosed Butternut Health Assessor's Report documents the results of the Butternut health assessment that was conducted by the designated Butternut Health Assessor (BHA) identified in the top section of the report. If there are other Butternut trees (of any size or age) at the site that may be affected by the activity and they are not identified in the enclosed BHA Report, they too must be assessed by a designated BHA.

Butternut is listed as an endangered species on the Species at Risk in Ontario List, and as such, it is protected under the *Endangered Species Act, 2007* (ESA) from being killed, harmed, or removed. If you are planning to undertake an activity that may affect Butternut, you may be eligible to follow the requirements set out in section 23.7 of Ontario Regulation 242/08 under the ESA, or you may need to seek an authorization under the ESA (e.g., a permit).

Please visit e-laws at the link provided below for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled. Information about Butternut is also available at: <http://www.ontario.ca/environment-and-energy/butternut-trees-your-property>.

If you are eligible to kill, harm or take Butternut under section 23.7 of the regulation, your first step is to submit the BHA Report and the original data forms enclosed in this package to the local Ministry of Natural Resources and Forestry (MNR) District Manager. Note that MNR cannot accept photocopies or scanned electronic copies of the data forms.

Note regarding changes:

If the enclosed BHA Report does not identify which Butternut tree(s) are proposed to be killed, harmed, or taken in Table 1 (i.e., if "unknown" is indicated in the second last column of Table 1), or, if the information in the last two columns of Table 1 has changed since the date this BHA Report was produced, **do not make any edits to the BHA Report**. Instead, please attach a cover letter that identifies which Butternut tree(s) are proposed to be killed, harmed, or taken (by referencing the tree identification numbers) when you submit the enclosed BHA Report to the local MNR District Manager.

The BHA Report must be submitted at least 30 days prior to registering an eligible activity to kill, harm, or remove a Butternut tree. During this 30 day period, no Butternut trees (of any category) may be killed, harmed, or removed, and MNR may contact you for an opportunity to examine the trees. If MNR chooses to examine the trees, a representative of MNR will contact you using the information you supplied when you submitted the BHA Report.

If you are eligible to follow the rules in regulation under section 23.7, you may register your activity using the “Notice of Butternut Impact” form on the [MNRF Registry](#) **after the 30 day period has elapsed.**

If you are **not** eligible to follow the rules in regulation under section 23.7, please contact the local MNRF district office to determine whether you will need to seek an authorization (e.g., a permit). A link to the directory of MNRF offices is provided below.

Note that municipal by-laws and legislation other than the ESA may also be applicable to the removal or harming of trees.

Please retain this information and a copy of the BHA Report (including copies of all data forms) for your records, along with any other documentation you may receive from MNRF should an examination of the trees occur. If you have any questions, please contact your local MNRF district office.

Links:

Endangered Species Act, 2007:

http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_07e06_e.htm

Ontario Regulation 242/08 (refer to section 23.7):

http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm

MNRF Office Locations:

<https://www.ontario.ca/government/ministry-natural-resources-and-forestry-regional-and-district-offices>

Butternut Health Assessor's Report Number: 281011

Shaun St.Pierre, BHA #281
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 K0C 2C0
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 shaunstpierre@hotmail.com

DST Consulting Engineers Inc.
 2150 Thurston Drive, Suite 203
 Ottawa, Ontario
 K1G 5T9
 877.300.4800
 ottawa@dstgroup.com

Site location: Part of 2584 to 2600 and 2626 Bank Street, City of Ottawa
 Date(s) of Butternut health assessment: July 31, 2019)
 Date BHA Report prepared: July 31, 2019

Map datum used: X NAD83 WGS84

Total number of trees assessed in this BHA Report: 33

The assessed trees were numbered on site using white paint and/or white flagging tape (trees observed on private property were not marked). The numbers at the site correspond to the tree numbers referenced in this report.

This BHA Report includes the following tables:

- Table 1: Butternut Trees Assessed
- Table 2: Trees Determined by BHA to be Butternut Hybrids
- Table 3: Summary of Assessment Results

Table 1: Butternut Trees Assessed

Tree #	UTM coordinates	Category ¹ (1, 2, or 3 ²)	dbh ³ (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: unknown ⁴ , killed, harmed or taken)	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:
8	18 T 449862 5022410	1	10	N	Unknown	

¹ The extent to which the tree is affected by Butternut Canker is presented in the Excel document titled, "BHA Tree Analysis" that accompanies this BHA Report.

² Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08.

³ dbh: diameter at breast height, rounded to nearest cm (if tree is shorter than breast height, enter zero)

⁴ In this column, "unknown" indicates that at the time of assessment, there are no proposals to kill, harm or take this tree that are known to the BHA.

Tree #	UTM coordinates	Category ¹ (1, 2, or 3 ²)	dbh ³ (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: unknown ⁴ , killed, harmed or taken)	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:
9	18 T 449855 5022401	1	25	N	Unknown	
15	18 T 449874 5022368	1	25	N	Unknown	
16	18 T 449873 5022355	1	31	N	Unknown	
17	18 T 449869 5022362	1	12	N	Unknown	
18	18 T 449880 5022365	1	32	N	Unknown	
21	18 T 449880 5022354	1	33	N	Unknown	
22	18 T 449876 5022341	1	20	N	Unknown	
23	18 T 449883 5022335	1	25	N	Unknown	
24	18 T 449888 5022334	1	32	N	Unknown	
25	18 T 449894 5022340	1	42	N	Unknown	
30	18 T 449918 5022298	1	19	N	Unknown	
31	18 T 449812 5022244	1	9	N	Unknown	
32	18 T 449834 5022238	2	2	N	Unknown	

Table 2: Trees Determined by BHA to be Butternut Hybrids

Tree #	UTM coordinates	Method used (genetic testing or field identification):
1	18 T 449849 5022407	genetic testing
2	18 T 449846 5022406	genetic testing
3	18 T 449851 5022408	genetic testing
4	18 T 449847 5022406	genetic testing
5	18 T 449854 5022408	genetic testing
6	18 T 449856 5022410	genetic testing
7	18 T 449862 5022408	genetic testing
10	18 T 449857 5022399	genetic testing
11	18 T 449869 5022401	genetic testing

Tree #	UTM coordinates	Method used (genetic testing or field identification):
12	18 T 449875 5022399	genetic testing
13	18 T 449859 5022379	genetic testing
14	18 T 449870 5022366	genetic testing
19	18 T 449882 5022364	genetic testing
20	18 T 449887 5022363	genetic testing
26	18 T 449884 5022321	genetic testing
27	18 T 449884 5022327	genetic testing
28	18 T 449895 5022306	genetic testing
29	18 T 449896 5022302	genetic testing
33	18 T 449848 5022240	genetic testing

Table 3: Summary of Assessment Results

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
Category 1	13	<ul style="list-style-type: none"> A Category 1 tree is one that is affected by butternut canker to such an advanced degree that retaining the tree would not support the protection or recovery of butternut in the area in which the tree is located; and is considered “non-retainable”. During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF may contact you for an opportunity to examine the trees. Category 1 trees may be killed, harmed or taken after the 30 day period that follows submission of this BHA Report to the MNRF District Manager, unless the results of an MNRF examination indicate that the assessment has not been conducted in accordance with the document entitled “Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the <i>Endangered Species Act, 2007</i>”.
Category 2	1	<ul style="list-style-type: none"> A Category 2 tree is one that is not affected by Butternut Canker, or is affected by Butternut Canker but the degree to which it is affected is not too advanced and retaining the tree could support the protection or recovery of butternut in the area in which the tree is located, and is considered “retainable”. During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF may contact you for an opportunity to examine the trees. Activities that may kill, harm or take up to a maximum of ten (10) Category 2 trees may be eligible to follow the rules in section 23.7 of Ontario Regulation 242/08, in accordance with the conditions and requirements set out in the regulation. Refer to e-Laws for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled: http://www.e-laws.gov.on.ca/html/reggs/english/elaws_reggs_080242_e.htm Activities that may kill, harm or take more than ten (10) Category 2 trees are not eligible to follow the rules in section 23.7 of Ontario Regulation 242/08. Contact the local MNRF district

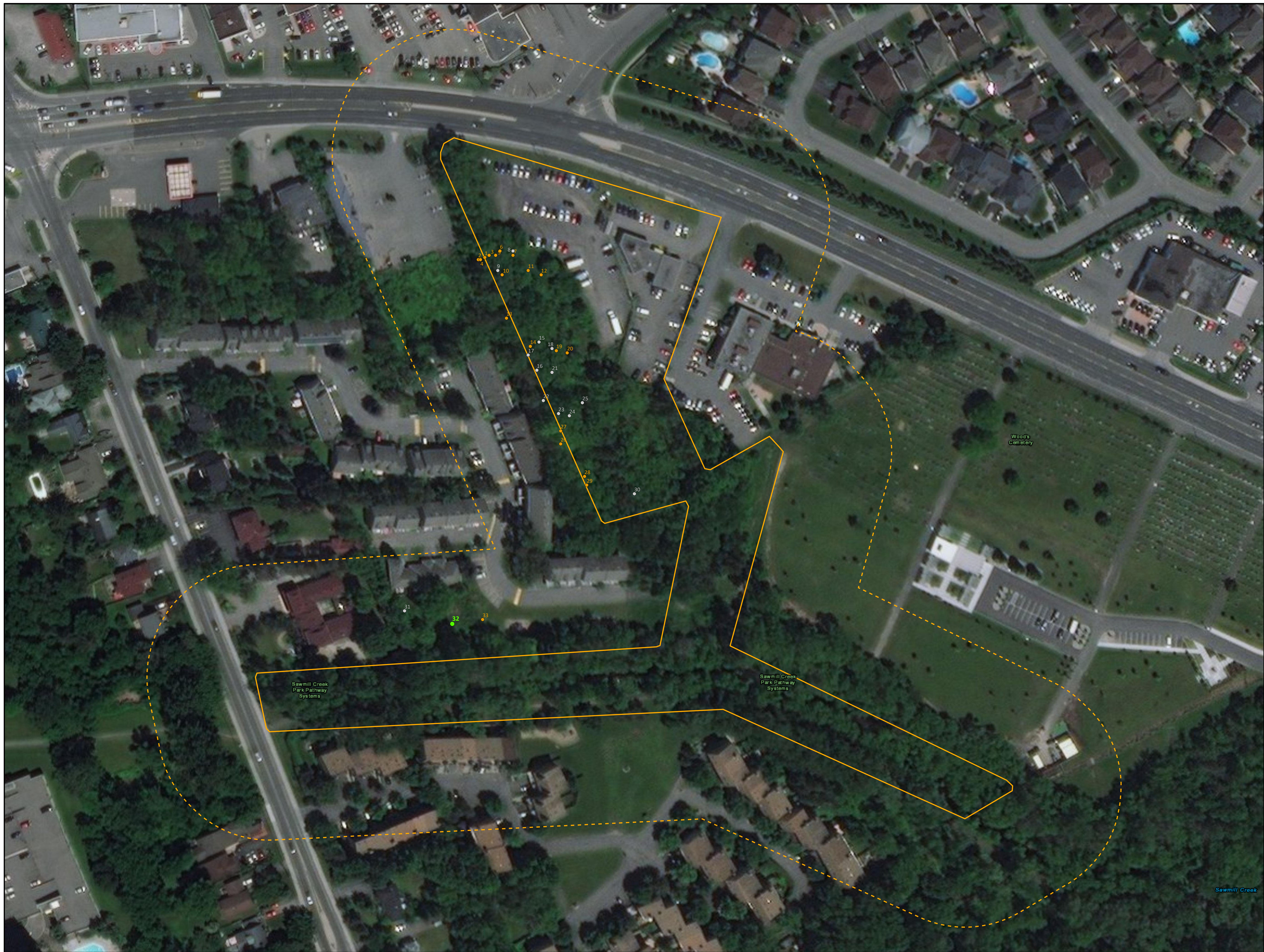
Result:	Total #:	Important information for persons planning activities that may affect Butternut:
		office for information on how to seek an ESA authorization (e.g., a permit) or consider an alternative that would be eligible for the regulation.
Category 3	0	<ul style="list-style-type: none"> • A Category 3 tree is one that may be useful in determining sources of resistance to Butternut Canker, and is considered “archivable”. • Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08. • Contact the local MNRF district office for information on how to seek an ESA authorization, or consider an alternative that will avoid killing, harming or taking any Category 3 trees.
Cultivated	0	<ul style="list-style-type: none"> • An activity that involves killing, harming, or taking a cultivated Butternut tree that was not required to be planted to fulfill a condition of an ESA permit or a condition of a regulation, may be eligible for the exemption provided by subsection 23.7 (11) of O. Reg. 242/08. • Prior to undertaking the activity, the owner or occupier of the land on which the Butternut is located (or person acting on their behalf) will need to determine whether the exemption for cultivated trees is applicable by determining whether or not the tree was cultivated as a result of the requirements for an exemption under O. Reg. 242/08 or a condition of a permit issued under the ESA. This information can be accessed by contacting the local MNRF district office. • The owner or occupier of the land on which the Butternut is located (or person acting on their behalf) is encouraged to append the details regarding whether the tree was planted to satisfy a requirement (e.g., the permit number or registration number) to this BHA Report for their records.
Hybrid	19	<ul style="list-style-type: none"> • Hybrid Butternut trees are not protected under the ESA, but their removal may be subject to municipal by-laws and other legislation.

Butternut Health Assessor’s Comments:

There were many Black Walnuts within the survey site. DNA testing has confirmed the presence of Butternut Hybrids and the testing report is provided with this report.

This concludes the summary of the BHA Report. A complete BHA Report must also include:

1. All original (hard copy) data forms (i.e., all completed sets of Form 1 and Form 2), and
2. Electronic and printed copies of the Excel data analysis spreadsheet.

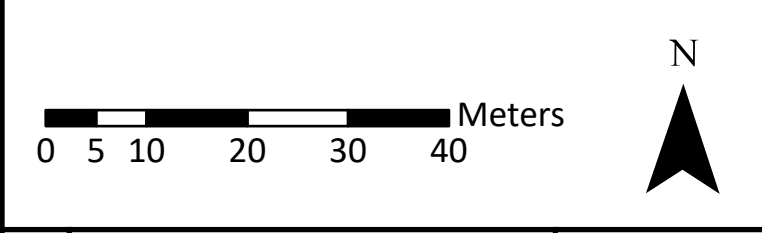


GENERAL NOTES

Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

LEGEND

- Subject Lands
- Adjacent Lands (50m)
- Butternut**
 - Category 1
 - Category 2
 - Hybrid (Genetically Tested)



NO.	REVISION	DATE (W/M/D)

DRAWING: **Butternut Inventory / Assessment**

PROJECT: **2584 to 2600 and 2626 BANK STREET CITY OF OTTAWA**



SCALE: 1:750	DRAWING NO. BANK
DATE: 2019-11-10	BANK
DRAWN BY: SS	
SHEET NO. 1	

LABORATORY TEST REPORT

BUTTERNUT HYBRIDITY TEST

Report Date: 2019-08-22

Report ID: OFRILS-PL- 1958

Client	DST Consulting Engineers Inc.		
Address	2150 Thurston Dr. # 203 Ottawa, Ontario K1G 5T9		
Contact	David Vardy		
Phone:	(613) 698-2049	Fax:	
E-mail:	dvardy@dstgroup.com		

MECP Contact	Species At Risk		
Address			
Phone:		Fax:	
E-mail:	SAROntario.ca		

Sample Received On: 2019-08-13

Method: Molecular tests to detect butternut x Japanese walnut hybrids*

Test Report:

Three standard molecular tests were conducted on nine samples from Bank Street, Ottawa, Ontario. Hybridity was detected in the results of laboratory tests of all samples. Results confirm that none of the nine samples represent pure butternut, *Juglans cinerea*. Sample details may be found on page two of this report.

Please direct any questions to the contact below.

This result and test report relates only to the items tested.

All appropriate laboratory quality controls were applied in producing the result/s. The results and interpretation are reported to the best of the knowledge and expertise of the lab and is based on the reference method adopted.

Laboratory Contact:

Glenna Halicki Hayden
Forest Pathology Lab Supervisor
Ontario Forest Research Institute
1235 Queen Street East
Sault Ste. Marie, ON P6A 2E5
Phone: 705 946 7412 Fax: 705 946 2030
Email: glenna.halickihayden@ontario.ca
Web: <http://ontario.ca/ofri>

Authorized Signature

Name

glenna.halickihayden @ontario.ca	Digitally signed by glenna.halickihayden@ontario.ca DN: cn=glenna.halickihayden@ontario.ca Date: 2019.08.22 13:18:26 -04'00'

* Based on published reference method: Peng Zhao & Keith E. Woeste. 2011. DNA markers identify hybrids between butternut (*Juglans cinerea* L.) and Japanese walnut (*Juglans ailantifolia* Carr.). *Tree Genetics & Genomes* 7:511–533. DOI 10.1007/s11295-010-0352-4.

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All errors and omissions are limited to the cost of the analysis

SAMPLE INFORMATION AND TEST SUMMARY

Report ID: OFRILS-PL- 1958

Lab ID	Sample Type	Tree ID	Collection Site	UTM Coordinates	LAB RESULT Hybridity Detected	
19154	Foliage	Tree # 1	2584 Bank St., Ottawa, Ontario	18T 449849 5022407	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19155	Foliage	Tree # 2	2584 Bank St., Ottawa, Ontario	18T 449846 5022406	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19156	Foliage	Tree # 3	2584 Bank St., Ottawa, Ontario	18T 449851 5022408	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19157	Foliage	Tree # 5	2584 Bank St., Ottawa, Ontario	18T 449854 5022408	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19158	Foliage	Tree # 10	2584 Bank St., Ottawa, Ontario	18T 449857 5022399	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19159	Foliage	Tree # 13	2584 Bank St., Ottawa, Ontario	18T 449859 5022379	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19160	Foliage	Tree # 14	2584 Bank St., Ottawa, Ontario	18T 449870 5022366	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19161	Foliage	Tree # 19	2584 Bank St., Ottawa, Ontario	18T 449882 5022364	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19162	Foliage	Tree # 20	2584 Bank St., Ottawa, Ontario	18T 449887 5022363	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES

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LABORATORY TEST REPORT

BUTTERNUT HYBRIDITY TEST

Report Date: 2019-10-31

Report ID: OFRILS-PL- 1985

Client	DST Consulting Engineers Inc.		
Address	#203 - 2150 Thurston Dr. Ottawa, Ontario K1G 5T9		
Contact	David Vardy		
Phone:	(613) 698-2049	Fax:	
E-mail:	dvardy@dstgroup.com		

MECP Contact	Species At Risk		
Address			
Phone:		Fax:	
E-mail:	SAROntario.ca		

Sample Received On: 2019-09-12

Method: Molecular tests to detect butternut x Japanese walnut hybrids*

Test Report:

Three standard molecular tests were conducted on eleven samples from Bank Street, Ottawa, Ontario. Hybridity was detected in the results of laboratory tests from ten of the samples. To the best of our knowledge one sample, Tree # 32 represents butternut, *Juglans cinerea*. Sample details may be found on page two of this report.

Please direct any questions to the contact below.

This result and test report relates only to the items tested.

All appropriate laboratory quality controls were applied in producing the result/s. The results and interpretation are reported to the best of the knowledge and expertise of the lab and is based on the reference method adopted.

Laboratory Contact:

Glenna Halicki Hayden
Forest Pathology Lab Supervisor
Ontario Forest Research Institute
1235 Queen Street East
Sault Ste. Marie, ON P6A 2E5
Phone: 705 946 7412 Fax: 705 946 2030
Email: glenna.halickihayden@ontario.ca
Web: <http://ontario.ca/ofri>

Authorized Signature

Name

glenna.halickihayden @ontario.ca	Digitally signed by glenna.halickihayden@ontario.ca DN: cn=glenna.halickihayden@ontario.ca Date: 2019.10.31 15:57:40 -04'00'

* Based on published reference method: Peng Zhao & Keith E. Woeste. 2011. DNA markers identify hybrids between butternut (*Juglans cinerea* L.) and Japanese walnut (*Juglans ailantifolia* Carr.). *Tree Genetics & Genomes* 7:511–533. DOI 10.1007/s11295-010-0352-4.

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All errors and omissions are limited to the cost of the analysis

SAMPLE INFORMATION AND TEST SUMMARY

Report ID: OFRILS-PL- 1985

Lab ID	Sample Type	Tree ID	Collection Site	UTM Coordinates	LAB RESULT Hybridity Detected	
19331	Foliage	Tree # 4	2600 and 2584 Bank St., Ottawa, Ontario	18T 449847 5022406	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19332	Foliage	Tree # 6	2600 and 2584 Bank St., Ottawa, Ontario	18T 449856 5022410	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19333	Foliage	Tree # 7	2600 and 2584 Bank St., Ottawa, Ontario	18T 449862 5022408	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19334	Foliage	Tree # 11	2600 and 2584 Bank St., Ottawa, Ontario	18T 449869 5022401	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19335	Foliage	Tree # 12	2600 and 2584 Bank St., Ottawa, Ontario	18T 449875 5022399	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19336	Foliage	Tree # 26	2600 and 2584 Bank St., Ottawa, Ontario	18T 449884 5022321	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19337	Foliage	Tree # 27	2600 and 2584 Bank St., Ottawa, Ontario	18T 449884 5022327	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19338	Foliage	Tree # 28	2600 and 2584 Bank St., Ottawa, Ontario	18T 449895 5022306	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19339	Foliage	Tree # 29	2600 and 2584 Bank St., Ottawa, Ontario	18T 449896 5022302	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
19340	Foliage	Tree # 32	2600 and 2584 Bank St., Ottawa, Ontario	18T 449834 5022238	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
19341	Foliage	Tree # 33	2600 and 2584 Bank St., Ottawa, Ontario	18T 449848 5022240	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES

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