

Environmental Impact Study (EIS)

4386 Rideau Valley Drive – AG3

Part of Lot 2, Concession 2

City of Ottawa

May 14, 2026

Prepared By:



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Introduction

As requested by Uniform Developments an Environmental Impact Statement (EIS) has been prepared for a proposed Official Plan Designation amendment from Agricultural Resource Area to Rural Countryside within portions of 4386 Rideau Valley Drive, City of Ottawa.

As noted throughout this study, there is no proposed development of the site. The application is only to amend the Official Plan Designation from Agricultural Resource Area to Rural Countryside to appropriately reflect the City of Ottawa's Land Evaluation and Area Review for Agriculture (LEAR 2016) score for the lands as well as acknowledge that the lands are not part of a larger area used for agriculture, and isolated due to the location surrounded by existing roads, Mud Creek corridors, and the City of Ottawa Rideau Valley Depot (works garage).

The City of Ottawa's EIS Guidelines are specifically intended to identify the potential environmental impacts of a proposed development or site alteration project and plan to avoid or minimize them before they occur, and to address compensation. An amendment to change the land use designation from Agricultural Resource Area to Rural Countryside has no negative impacts. Appendix 2 of the Guidelines contemplates that an EIS is not required when the risk of negative impacts is extremely low to non-existent. Regardless, the City asked that an EIS be completed. The Guidelines for EIS require the establishment of a setback and buffer and limit of development from the natural features through the review of the EIS. It is anticipated that the City would establish a setback and buffer through the review of this EIS. Accordingly, the applicant is looking to establish a reasonable setback and buffer at this stage to provide guidance.

1.1. Site Context

The entire property parcel (4386 Rideau Valley Drive, City of Ottawa) is approximately 20 ha in size and is situated northwest of the intersection of Rideau Valley Drive and Bankfield Road. This parcel is split into two by Mud Creek. The portion to the north and northeast of Mud Creek is subject to an application for Official Plan Amendment to change the designation from Agricultural Resource Area to Rural Countryside this portion will be referred to as the subject lands for the remainder of the report. Wilson Cowan Drain is also present within the southwestern adjacent lands. The subject lands are approximately 6.77 ha in size and the legal land description is Part Lot 2, Concession 2, City of Ottawa.

Within the city's Zoning By-law No. 2008-250 the subject lands were zoned as Agricultural Zone (AG3), Floodplain. Within the cities' official plan (2022) the subject lands are designated as the Agricultural Resource Area, are identified as Natural Heritage Feature overlay on Schedule C15 (Watercourse and Unevaluated Wetland as shown on GeoOttawa) and Unstable Slope overlay on Schedule C11-B. Additionally, the proposed redesignation is located within Ecoregion 6E.

The Mud Creek Subwatershed Study (2015) was referenced for the identification of natural heritage features, within the subject lands, the only features identified in this plan as being present within the subject lands was Significant Valley Lands and Surface Water Features. The plan also asks for the identification of potential restoration.

Through a background review, potential environmental constraints have been identified as: Wildland Fire Hazard, Natural Heritage Features (Significant Woodland, Unevaluated Wetland, Watercourse (Fish Habitat) and Significant Wildlife Habitat) and Species at Risk.

The subject lands are located within the Rideau Valley Conservation Authority jurisdiction. Regulated areas are present within the subject lands.

The 2024 Provincial Planning Statement (PPS) states that site development and alteration shall not be permitted in provincially significant wetlands in Ecoregion 6E. In addition, site development and alteration shall not be permitted in provincially significant woodlands, significant valleylands and significant wildlife habitat in Ecoregion 6E unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. Additionally, development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.

2.0. Methodology

This report is prepared in accordance with the City of Ottawa Environmental Impact Statement Guidelines (City of Ottawa 2025), the City of Ottawa Significant Woodlands - Guidelines for Identification, Evaluation, and Impact Assessment (City of Ottawa 2022), the City of Ottawa Official Plan (2022) and with guidance from the Natural Heritage Reference Manual (OMNR, 2010). This EIS includes an assessment of the identified environmental constraints and the potential for Species at Risk.

Potential Species at Risk in the general area were identified from Ministry of Natural Resources and Forestry databases, the Department of Fisheries and Ocean databases, the Ontario Breeding Bird Atlas, Ontario Reptile and Amphibian Atlas, iNaturalist and the Global Biodiversity Information Facility.

Colour aerial photography was used to assess the natural environment features in the general vicinity of the proposed building.

A field survey of the subject and adjacent lands was completed by BCH Environmental on September 9, 2025 from 0930h to 1400h (air temperature was 14°C, clear skies, and light air). Staff qualifications are available in Appendix B.

Upland vegetation communities were described utilising the Ecological Land Classification Southern Manual (Lee et al. 1998), while wetland communities if present were described utilising the Ontario Wetland Evaluation System Southern Manual (MNR 2022).

Bat maternity roost surveys (snags, cavity, hollows, peeling bark, abandoned buildings/mines, rock crevices/outcrops, bedrock fissures, forest and foliage) were completed by extensively walking the subject lands and adjacent lands.

Observed plants were recorded for each individual community, the plants utilized in the descriptions are the most abundant specimens observed. A complete observed species list is provided in Appendix A. Plants that could not be identified in the field were collected for a more detailed examination.

Nomenclature used in this report follows the Southern Ontario Vascular Plant List (Bradley, 2013) which aligns with the Integrated Taxonomic Information System (ITIS).

3.0. Field Surveys

A butternut/black ash survey was conducted along with a search for bat maternity habitat and raptor nest by systematically moving through the subject lands and adjacent lands (discussed in section 3.2, 4.3 and 4.4). Vegetation communities are described in section 3.1.

3.1. Existing Conditions

The subject lands consisted of a meadow, forest and watercourses. Within the northern adjacent lands, a City Garage was present. The western adjacent lands contained residential development, the eastern adjacent lands had the Rideau River, and the southern adjacent lands contained meadows. The soil present within subject lands is within the Castor soils series which generally consists of very fine sandy loam (MAFRA 2025). Within the proximity of the watercourses the soils are classified as Eroded Channel these are areas where the soil has undergone significant water erosion forming channels, such as rills or gullies (MAFRA 2025).

FIGURE 1: SUBJECT LANDS



FIGURE 2: SUBJECT LANDS



3.1.1. Mixed Meadow (MEM)

This community is present within the northern and southern subject lands. This community consisted of a mixed meadow (common ragweed, timothy and common sow-thistle). These meadows appear to be agricultural fields; the clear lack of woody vegetation seems to indicate this along with satellite imagery.



Photo 1: Mixed Meadow (September 9, 2025)

3.1.2. Forbes Meadow (MEF)

There are 3 Forbes Meadows present within the subject lands and adjacent lands. The first is present within the southeastern subject lands. This community consisted of goldenrods, Virginia creeper and the occasional grasses. There was also the occasional American elm and green ash present.

The second is present within the southeastern adjacent lands. This community consisted of goldenrods, common milkweed and the occasional grasses. There is an oxbow within this community. The oxbow had a maximum depth of 30cm during the site visit. The Paterson Group report (2022) notes that surveyors identified maximum depths for the normal water level mark of 0.7-0.9 m. The oxbow was well-shaded by trees and shrubs on its banks (American elm, and green ash). Within the oxbow, giant bur-reed was dominant along with the occasional purple loosestrife and spotted joe-pye weed. This community was bordered by a band of deciduous trees (3m wide; green ash and American basswood).

The third is present within the eastern adjacent lands east of Rideau Valley Drive. This community consisted of goldenrods, wild carrot and the occasional grasses. Within this community there was the occasional coniferous plantings (tamarack, white pine and white spruce).



Photo 2: Forbes Meadow – Community 1 (September 9, 2025)



Photo 3: Forbes Meadow – Community 2 (September 9, 2025)



Photo 4: Forbes Meadow – Community 3 (September 9, 2025)

3.1.3. Fresh – Moist Sugar Maple – Black Maple Deciduous Forest (FODM6-2)

This community was present centrally within the subject lands. This community consisted of deciduous trees. The average tree diameter was highly variable and ranged from 20-60cm. The canopy was the dominant layer. The canopy (10-12m tall; 100% cover) was dominated by sugar maple/black maple which were much much more than American basswood which much more than American beech. The sub-canopy (8m tall; 10-20% cover) was dominated by sugar maple/black maple which were much much more than American basswood which much more than American beech which was much more than white ash. The understory (0.5-3m tall; 40-60% cover) included sugar maple, black maple, white ash, Tartarian honeysuckle and bitternut hickory. The ground cover (5% cover) consisted of ostrich fern, northern lady fern and bittersweet nightshade.



Photo 4: Fresh – Moist Sugar Maple – Black Maple Deciduous Forest (September 9, 2025)

3.1.4. Fresh – Moist Lowland Deciduous Forest (FODM7)

This community was present within the southeastern portion of the subject lands. This community consisted of deciduous trees and the average tree diameter was 20cm. The canopy was the dominant layer. The canopy (10-12m tall; 70-80% cover) was dominated by green ash which was more than sugar maple which was more than black cherry which was more than butternut. The sub-canopy (7-8m tall; 5-10% cover) was dominated by green ash which was more than sugar maple which was more than black cherry which was more than butternut which was more than American elm. The understory (1-3m tall; 20-30% cover) consisted of green ash, Manitoba maple, sugar maple, Tartarian honeysuckle and American basswood. The ground cover was 70-80% and consisted of avens species, garlic mustard, ostrich fern and grasses.



Photo 5: Fresh – Moist Lowland Deciduous Forest (September 9, 2025)

3.1.5. Fresh – Moist Green Ash - Hardwood Lowland Deciduous Forest (FODM7-2)

This community was present within the western portion of the subject lands and extends into the adjacent lands. This community consisted of deciduous trees. The average tree diameter was 25-30cm. The sub-canopy was the dominant layer. The canopy (10-12m tall; 20% cover) was dominated by American basswood which was equal to black cherry which was much more than sugar maple. The sub-canopy (3-4m tall; 60-80% cover) was dominated by green ash which was much more than black cherry which was more than bur oak which was more than sugar maple. The understory (0.5-1m tall; 60-80% cover) included green ash, sugar maple and alternate-leaved dogwood. The ground cover ranged from 10-30% cover and consisted of ostrich fern, northern lady fern and ground-ivy. Many dead fallen ash trees were noted within this community. There was evidence of logging within this community (remnant stumps).



Photo 6: Fresh – Moist Green Ash - Hardwood Lowland Deciduous Forest (September 9, 2025)

3.1.6. Fresh - Moist Manitoba Maple Lowland Deciduous Forest (FODM7-7)

This community was present within the southern adjacent lands. This community consisted of deciduous trees and was highly disturbed. The average tree diameter was 20-30cm. The canopy was the dominant layer. The canopy (6-8m tall; 60-80% cover) was dominated by Manitoba maple which was more than gray birch which was more than bur oak. There was no sub-canopy. The understory (1-3m tall; 10% cover) included Manitoba maple, nannyberry and wild red raspberry. The ground cover (70% cover) consisted of Canada enchanters nightshade, white snakeroot and beggar ticks. Within this community there were small wild red raspberry thicket inclusions and goldenrod meadow inclusions.



Photo 7: Fresh - Moist Manitoba Maple Lowland Deciduous Forest (September 9, 2025)

3.1.7. Rideau River

The Rideau River is present within the eastern adjacent lands east of Rideau Valley Drive. Bank vegetation consisted of deciduous trees (bur oak, Manitoba maple, American basswood and white ash) within the northern portion of the adjacent lands and Forbes meadow (community 3) along the southern portion of the adjacent lands. This reach of the Rideau River is identified as the Long Island Catchment and contains a warm to cool water recreational and baitfish fishery. LIO and RVCA have identified 42 common warm to cool water fish species for this section of the Rideau River.

Within the subject lands there is one tributary to the Rideau River (Mud Creek).



Photo 8: Rideau River (September 9, 2025)

3.1.7.1. Mud Creek

Mud Creek borders the southern subject lands. Bank vegetation was consistent with the surrounding vegetation communities with an increase in Manitoba maple along the creek. The Mud Creek Subwatershed Study describes it as a cool water system (City of Ottawa 2015). LIO and RCVA have identified 32 common warm to cold water fish species as occurring within Mud Creek in the vicinity of the subject lands. During the site visit on average the channel width was 7m, the wetted width was 4m and the depth ranged from 20cm to 50cm. Banks were steep, with evidence of erosion throughout. The oxbow is connected to this creek.

Within the subject lands there is one tributary to Mud Creek (Wilson Cowan Drain).



Photo 9: Mud Creek (September 9, 2025)

3.1.7.1.1. Wilson Cowan Drain

Wilson Cowan Drain is present within the south western adjacent lands. Bank vegetation was consistent with the surrounding vegetation communities. The Mud Creek Subwatershed Study has indicated that this is a warm water system (City of Ottawa 2015). LIO and the Subwatershed Study have identified 4 fish species as occurring within the drain in the vicinity of the subject lands. During the site visit on average the channel width was 2.5m, the wetted width was 0.5m and the average depth was 10cm.

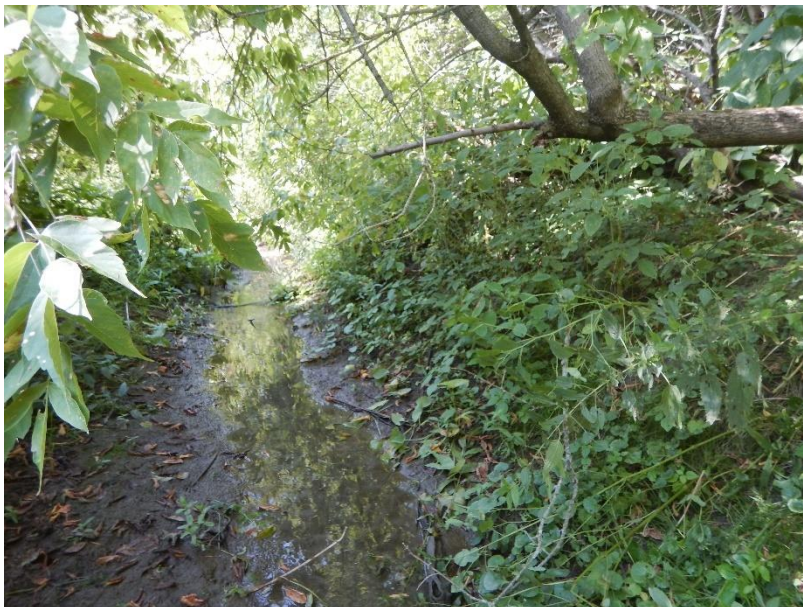


Photo 10: Wilson Cowan Drain (September 9, 2025)

3.2. Bird Surveys

A raptor nest survey was completed on September 15, 2025 by systematically traveling through the subject lands. No nesting sites were identified. Additionally, no pileated woodpecker nesting cavities were identified.

4.0 Potential Species at Risk

As of April 2026, the 2008 Endangered Species Act has been revoked and replaced by the Species Conservation Act. The new act no longer protects migratory birds or fish species. Species at risk migratory birds and fish are currently only protected by federal laws. As such the federal status is utilised for protected migratory birds and fish. Provincial status is utilised for all others.

The Make a Map: Natural Heritage online database (OMNRF) was reviewed on September 5, 2025. This database provides sightings of provincially tracked species including Threatened and Endangered species covered by the Species Conservation Act (SCA) in 1 km squares across most of Ontario. A search was conducted on the site and adjacent lands (18VR4409, 18VR4408, 18VR4509 and 18VR4508) identified the following results:

- Least Bittern (Threatened Federally)
- Eastern Wood-Pewee (Special Concern Federally)
- Bobolink (Threatened Federally)
- Eastern Meadowlark (Threatened Federally)
- Butternut (Endangered)

The Ontario Breeding Bird Atlas provides a searchable database in the form of a 10km square grid. A query revealed the following Species at Risk were identified within the 10km square that encompasses the site and adjacent lands (18VR40):

- Least Bittern (Threatened Federally)
- Eastern Wood-Pewee (Special Concern Federally)
- Barn Swallow (Threatened Federally)
- Bank Swallow (Threatened Federally)
- Wood Thrush (Threatened Federally)
- Grasshopper Sparrow (Special Concern Federally)
- Bobolink (Threatened Federally)
- Eastern Meadowlark (Threatened Federally)

Similar to the Ontario Breeding Bird Atlas, the Ontario Reptile and Amphibian Atlas provides a searchable database in the form of a 10km square grid. A query revealed the following Species at Risk were identified within the 10km square that encompasses the subject lands and adjacent lands (18VR40):

- Blanding's Turtle (Threatened)

iNaturalist and the Global Biodiversity Information Facility provides a searchable database. A query revealed the following Species at Risk and species of special concern:

- Blanding's Turtle (Threatened)

The Department of Fisheries and Oceans provide species at risk sightings via their online map tool. A query found no results in the vicinity of the site.

In addition to the above potential Species at Risk, many other endangered and threatened species may potentially occur in the general area:

- Little Brown Myotis (Endangered)
- Northern Myotis (Endangered)
- Eastern Small-footed Myotis (Endangered)
- Tri-coloured Bat (Endangered)
- Eastern Red Bat (Endangered)
- Hoary Bat (Endangered)
- Silver-haired Bat (Endangered)
- Black Ash (Endangered)

4.1. Turtles and Reptiles

Blanding's turtles have been designated as threatened and their habitat is provincially regulated.

Blanding's turtles are often observed within clear water eutrophic wetlands and have a strong site fidelity but may use several connected water bodies during the active season (COSEWIC 2016a).

Blanding's turtles were identified as occurring within the 10km search area (Ontario Reptile and Amphibian Atlas). This EIS recognizes the Rideau River, the Creek and the Drain as potential turtle habitat.

Due to Bill 5 the definition of habitat for SAR has changed, through communication with MECP (August 13, 2025) they have indicated that the new definition as it pertains to turtles is as follows*:

- The occupied or habitually occupied aquatic feature (e.g., wetland, stream reach) or, in the case of larger aquatic features, the occupied or habitually occupied portion of the aquatic feature
- For wetland-dwelling species (Blanding's), this is the occupied or habitually occupied wetland, pond, or other aquatic habitat up to a maximum size that is no larger than the average home range size of an individual of the species (approximately 30 ha for Blanding's Turtle)
- For river or lake-dwelling species (Wood Turtle, Spiny Softshell), this is the occupied stretch of river or shoreline within a distance equal to the average home range length of the species (approximately 2 km for Wood Turtle and 10 km for Spiny Softshell)
- The nest sites
- The area immediately around the dwelling place that is essential to support its function includes:
 - o The area within 30 m of the high-water mark of the occupied aquatic feature or portion of the aquatic feature
 - o The area within 30 m of the nest site

***Please note the information provided above is general in nature and is based on MECP best available interpretation of the technical guidance to date.**

Although not classified as wetland the Rideau River, Creek and Drain may constitute a dwelling place that is essential to support turtle movement. In line with MECP recommendations a 30m setback will be in place along these watercourses to protect turtle species.

As this report is being produce in support of an amendment (no development is being proposed) no impacts to turtles are possible.

4.2. Birds

Eastern wood-pewee, and grasshopper sparrow are designated special concern (SARA). The habitat of species of special concern is not regulated under the SARA. The eastern wood-pewee is mostly associated with the mid-canopy layer of forest clearings and edges of deciduous and mixed forests (COSEWIC 2012a). Wood-pewee may be present in the forested portions of the subject lands. As no development is being proposed within the subject lands no impacts to this species are anticipated. Grasshopper Sparrow typically breeds in large human created grasslands (≥ 5 ha), such as pastures and hayfields, and natural prairies, such as alvars, characterized by well-drained, often poor soil dominated by relatively low, sparse perennial herbaceous vegetation (COSEWIC 2013a). This habitat was not present.

Barn swallow, wood thrush, least bittern, bank swallow, bobolink, and eastern meadowlark are designated as threatened (SARA). Barn swallow nest sites are commonly found along the interior or exterior of building structures, under bridges and wharves, and in road culverts (Heagy et al. 2014.). No barn swallow, or barn swallow nests were observed, nor was their habitat present. The wood thrush nests mainly in second-growth and mature deciduous and mixed forests, with saplings and well-developed understory layers (COSEWIC 2012b). Wood thrush may be present in the forested portions of the subject lands. As no development is being proposed within the subject lands no impacts to this species are anticipated. Least bittern require emergent marshes (usually cattail) with stable water levels and interspersed areas of open water for breeding (COSEWIC 2009a). This habitat wasn't present within the subject lands. Bank swallows are generally associated with sand-silt vertical banks (COSWIC 2013b). This habitat was not present. Bobolink and eastern meadowlark are associated with native and non-native larger grassland habitats such as hayfields (COSEWIC 2010, and COSEWIC 2011). This habitat was not present.

Further to this, nesting migratory birds are protected under the Migratory Birds Convention Act (MBCA). No work is permitted that would result in the destruction of active nests (nests with eggs or young birds) or the wounding or killing of bird species protected under the MBCA and/or associated regulations.

4.3. Mammals

Little brown Myotis, northern Myotis, eastern small-footed Myotis, eastern red bat, hoary bat, silver-haired bat and tri-coloured bat are designated endangered under the SCA. The Atlas of Mammals of Ontario (Dobbyn, 1994) suggests that the tri-colored bat is not present within this part of Ontario however, the NatureServe mapping in the COSSARO (2015) includes all of southeastern Ontario. Based on this information, this species is considered to have a very low potential of occurring.

Habitat for the little brown Myotis, northern Myotis, eastern small-footed Myotis and tri-coloured bat is composed of hibernacula for overwinter survival and summering areas with suitable foraging areas within

commuting range to structures used for roosting or maternity colonies. None of the four species typically overwinters in buildings they instead utilize caves. In spring, females of each of these four species leave winter hibernacula and give birth and raise pups in maternity colonies. Maternity colonies are established by females in the summer, often in buildings, or large-diameter trees with suitable maternity roost (snags, cavity, hollows and peeling bark; COSEWIC 2013c). The only exception is the eastern small-footed myotis which established maternity colonies on abandoned buildings/mines (voids and crevices), large rock outcrops, rock crevices, and bedrock fissures (Humphrey 2017). No caves, bedrock fissures, mining shafts, abandoned buildings, or other features which may function as bat hibernacula habitat were noted within the subject lands. Suitable maternity roost surveys (snags, cavity, hollows, peeling bark, abandoned buildings/mines, rock crevices/outcrops and bedrock fissures) were completed. During this survey 8 suitable trees for bat maternity were identified. Formal acoustic monitoring would be required to determine the presence of SAR bats potentially utilizing suitable trees.

Eastern red bat, hoary bat, silver-haired bat migrates from summer (Canada) to winter area and then hibernate (Outside of Canada). Trees used as maternity roosts (maternity roost are solo or occasionally in small colonies) by Hoary Bats and Eastern Red Bats tend to be in forest, have a large diameter and tall, reaching or exceeding the height of the surrounding forest canopy, these species roost in the foliage (COSEWIC 2023). No suitable forested habitat was present within the subject lands. Hoary Bats and Eastern Red Bats are not considered to be utilizing the subject lands as maternity roosts. Silver-haired bats generally roost in small groups within tree cavities or under bark. Suitable maternity roost surveys (snags, cavity, hollows, peeling bark,) were completed. During this survey 8 suitable trees for bat maternity were identified. Formal acoustic monitoring would be required to determine the presence of SAR bats potentially utilizing suitable trees.

All bats utilise buildings and larger trees for day roots during the summer months.

As no development is being proposed no negative impacts to bats are anticipated.

4.4. Vegetation

Butternut (designated as endangered by the SCA) tends to reach greatest abundance in rich well-drained mesic loams in floodplains, streambanks, terraces and ravine slopes, but can occur in a wide range of other situations (COSEWIC 2017). 13 butternut trees were observed during the surveys (Figure 3). As no development has been proposed no formal assessment was completed as no negative impacts are anticipated.

Black ash (designated as endangered by the SCA) occurs most frequently in floodplain forests, basin, seepage and lacustrine swamp forests, shoreline forest margins, and fens (COSEWIC 2018a). 20 black ash of varying sizes were observed during the surveys (Figure 3). As no development has been proposed no formal assessment was completed as no negative impacts are anticipated.

4.5. Species at Risk Summary

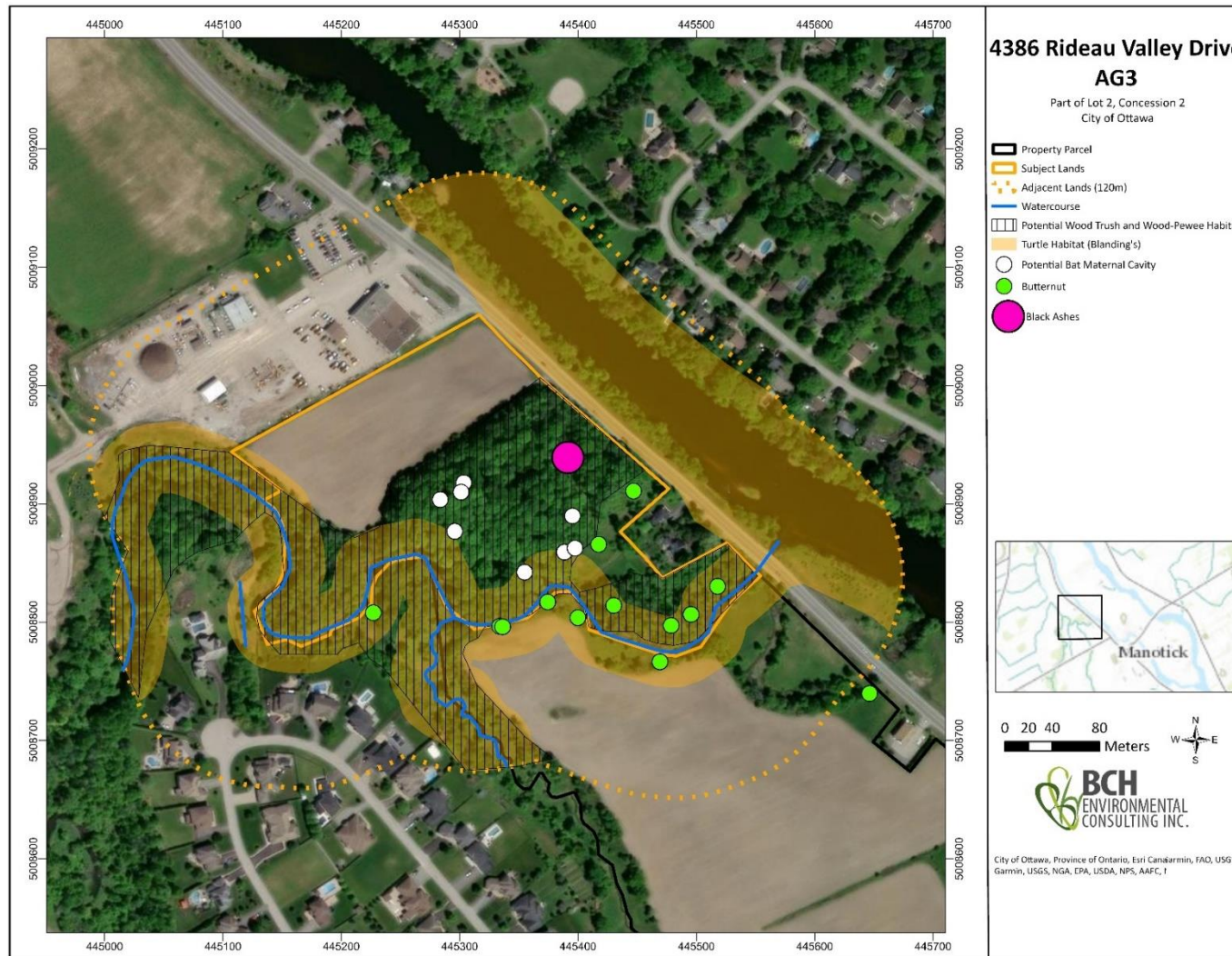
In summary, based on the habitat present within the subject lands and the field visit, butternut, black ash, SAR bats, wood thrush and eastern wood-pewee and turtles are the only Species at Risk anticipated to be present.



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As no development has been proposed no formal assessment was completed as no negative impacts are anticipated.

FIGURE 3: POTENTIAL SAR AND SAR HABITAT



5.0. Natural Heritage Features

A Natural Heritage Features have been identified in accordance with the direction of the Provincial Policy Statement. Its intent is to reinforce the conservation, restoration, and enhancement of identified natural heritage features and areas and promote the overall diversity and interconnectivity of natural heritage features and areas.

A refined search identified the following Natural Heritage Features (discussion below): Significant Woodland, Significant Valleylands, Significant Wildlife Habitat and watercourse (fish habitat).

5.1. Significant Woodland

The significance of the woodland was evaluated using the criteria in the Natural Heritage Reference Manual (OMNR, 2010) and the Significant Woodlands: Guidelines for Identification, Evaluation, and Impact Assessment provided by the city. The PPS does not permit development in significant woodlands south and east of the Canadian Shield unless it has been demonstrated that there will be no negative impacts on the natural features or the ecological functions. Woodlands are significant if they meet the criteria presented by the city: size, ecological function, uncommon characteristics, and economical and social functional values. If the woodland meets any one of these criteria, then it could be deemed to be significant.

The woodland within the subject lands is part of a larger woodland that totals approximately 17.72 ha in size. Analysis of the woodland was completed to determine what would be a reasonable line of constraint while protecting the ecological function and the significance of the woodland.

TABLE 1: WOODLAND ANALYSIS

CRITERIA	CRITERIA FOR SIGNIFICANCE PRE AND POST LINE OF DEVELOPEMENT	DISCUSSION
WOODLAND SIZE	DOES NOT MEET THE CRITERIA	The woodland is located within the Lower Rideau River Planning Area where the percent forest cover is 38.0%. For woodlands cover that is about 30–60% of the land cover, woodlands 50 ha in size or larger should be considered significant. Therefore, this woodland of 17.72 ha and 15.88 ha after a reasonable line of constraint is established
ECOLOGICAL FUNCTION CRITERIA Woodland Interior	DOES NOT MEET THE CRITERIA	No interior Forest is present.

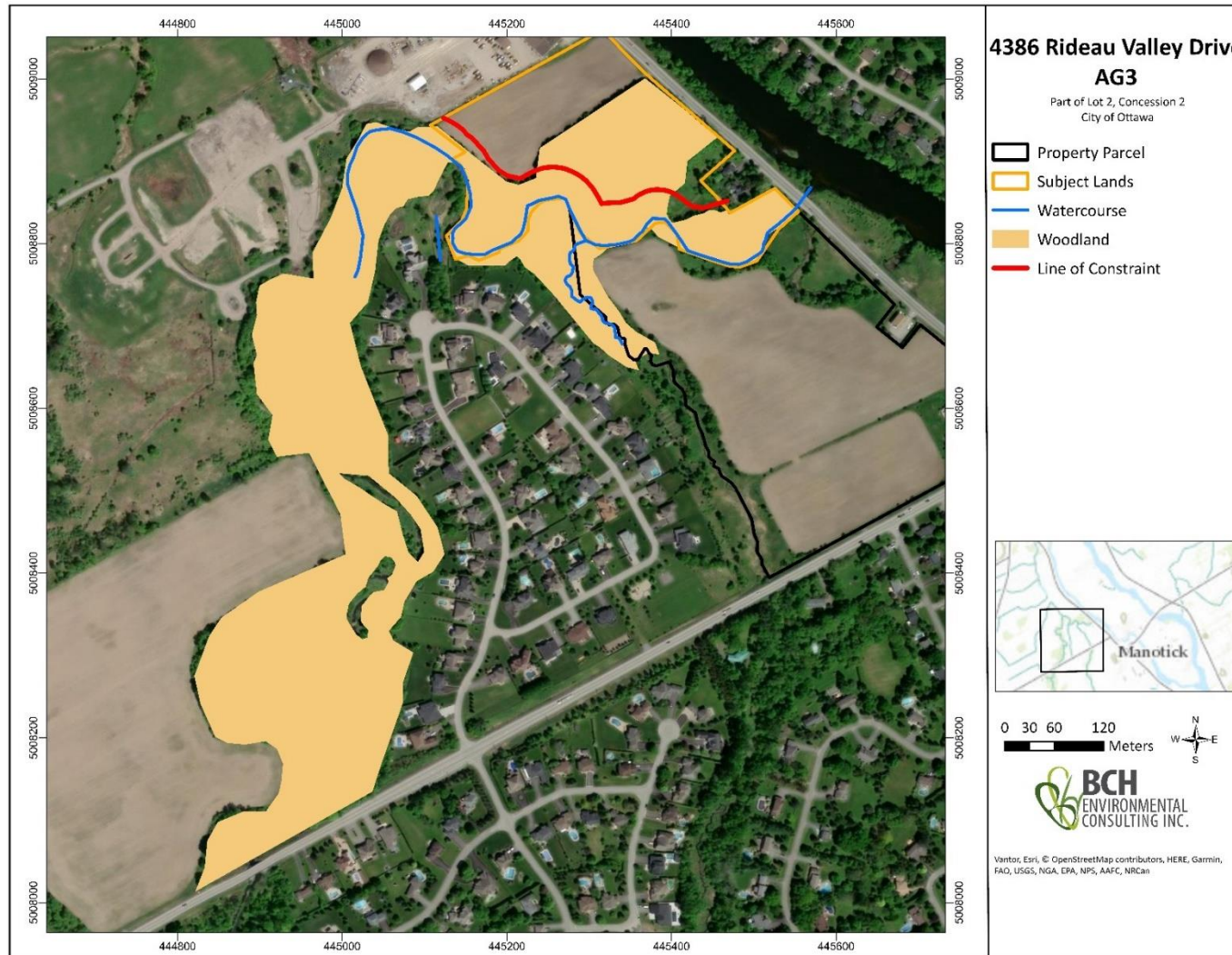
CRITERIA	CRITERIA FOR SIGNIFICANCE PRE AND POST LINE OF DEVELOPEMENT	DISCUSSION
Proximity to other woodlands or other habitats	MEETS THE CRITERIA	Both inside and outside of the subject lands this woodland connects with watercourse habitat and it's likely receiving ecological benefit from the woodland. This benefit remains protected by the proposed line of constraint
Linkages	MEETS THE CRITERIA	Woodland provides a connecting link between significant valley lands and the Rideau River. This benefit remains protected by the proposed line of constraint
Water protection	MEETS THE CRITERIA	Woodland is located within watercourse or fish habitat (both outside of the subject lands). This benefit remains protected by the proposed line of constraint
Woodland diversity	DOES NOT MEET THE CRITERIA	Within the subject lands this forest did not contain any declining natural communities or a high variety of native diversity through composition or terrain.
UNCOMMON CHARACTERISTICS CRITERIA	DOES NOT MEET THE CRITERIA	Within the subject lands there are no uncommon species composition, cover type, age, or structure.
ECONOMIC AND SOCIAL FUNCTIONAL VALUES CRITERIA	DOES NOT MEET THE CRITERIA	Within the subject lands the woodlands did not have high economic or social values through particular site characteristics or deliberate management.

As per the criteria set out in the NHRM and the City the woodland should be considered significant. Significance was established from the following criteria: proximity to other habitats, linkage, and water protection. After the line of constraint, the woodland still meets the criteria for significance and its ecological function is preserved.

The NHRM and the city defined the ecological function of the woodland as Proximity to other woodlands or other habitats, Linkages and Water protection. As demonstrated in Table 1 the ecological function of the significant is preserved. There is no negative impact to the significance or ecological function of this woodland.

As no development is currently being proposed no further action or assessment regarding the woodland is necessary.

FIGURE 4 WOODLAND ANALYSIS



5.2. Significant Valleylands

The City of Ottawa EIS guidelines define significant valleylands as valleylands with slopes greater than 15 per cent and a length of more than 50 metres, with water present for some period of the year, excluding man-made features such as pits and quarries. The Mud Creek Subwatershed Study has identified Mud Creek and the Wilson Cowan Drain as significant valleylands. As no development is being proposed, no impacts to the significant valleylands are anticipated. To assist with producing a line of constraint all potential future development will be setback more than 30m from this feature.

5.3. Watercourses/Fish Habitat/Wetland

The Rideau River, Mud Creek and the Wilson Cowan Drain are permanent watercourses representing fish habitat. As no development is being proposed, no impacts to the watercourses or fish habitat is anticipated. To assist with producing a line of constraint all potential future development will be setback more than 30m from these features.

No wetlands were identified within the subject lands or adjacent lands.

5.4. Significant Wildlife Habitat

The potential for significant wildlife habitat was assessed using the guidance in OMNR (2010) and MNRF (2015). Potential components which may lead to a designation of significant wildlife habitat include seasonal concentration areas of animals, rare vegetation communities or specialized habitat for wildlife, habitat for species of conservation concern, and animal movement corridors. No rare vegetative communities, raptor overwintering sites, old growth forest, caves were located within the subject or adjacent lands.

Within the subject lands and in the vicinity of the subject lands there is potential for significant wildlife habitat. Within the Rideau River there is the potential for Seasonal Concentration Areas of Animals (Waterfowl Stopover and Staging Areas and Turtle Wintering Areas) and Habitats of Species of Conservation Concern (Special Concern and Rare Wildlife Species – Turtles). Within the wooded portions of the subject lands there is potential for Habitats of Species of Conservation Concern (Special Concern and Rare Wildlife Species – Wood Thrush and Wood-pewee).

As no development is being proposed, no impacts to the significant wildlife habitat is anticipated. The line of constraint determines that all potential future development will be setback 30m from the Rideau River, and Watercourses. Breeding Bird Surveys should be conducted to determine the presence of wood thrush and wood-pewee within the forested habitats and if this meets the criteria for significant wildlife habitat.

6.0. Wildland Fire Risk Assessment

The wildland fire policy was introduced in the 2014 Provincial Policy Statement to ensure communities consider and plan for avoiding and mitigating losses to their communities due to wildland fire. As outlined in the Provincial Policy Statement, "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”.

To assist planning city of Ottawa has identified potential hazardous forest types for wildland fire. The subject lands have been identified as being a Low risk for wildland fire.

6.1. Level 1 Site Assessment

Following review of the available information provided by the city, the subject lands have been identified as having a low risk of wildland fires. Following the guidelines as outlined in the MNRF Wildland Fire Risk Assessment and Mitigation Guidebook no further mitigation measures are required for the proposed development.

7.0. Tree Conservation Report

As no development is being proposed, no tree conservation report or assessment has been completed (no trees are being removed or cleared associated with the amendments).

8.0. Constraints and Cumulative Impacts

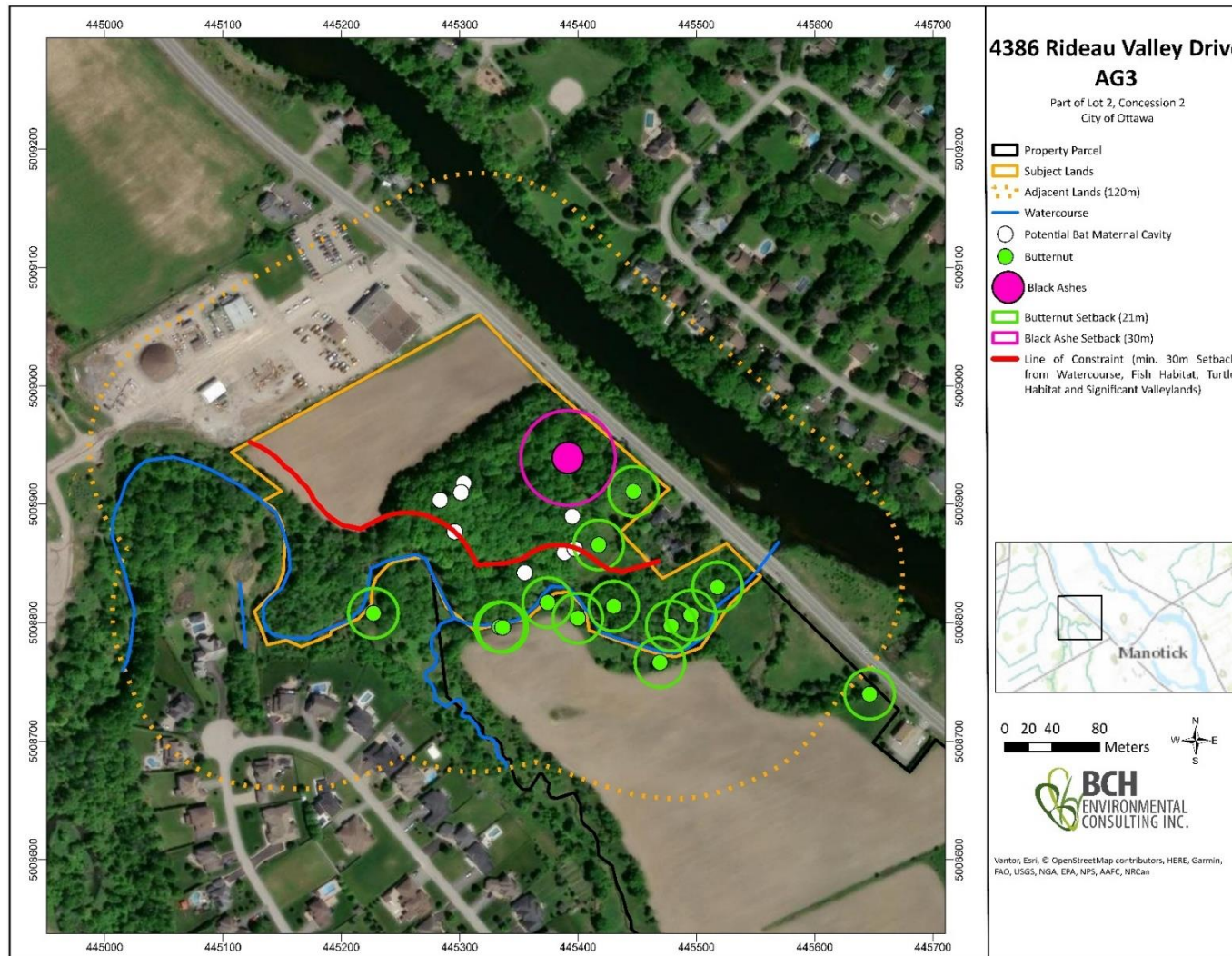
A constraint limit/line has been established for the protection of watercourse, fish habitat, significant woodland and significant valleylands.

A 21m setback from all butternuts is required, if removal of the butternut or encroachment is proposed then MECP authorization would be required (this would also require a formal health assessment). A 30m setback from all black ash is required, if removal of the black ash or encroachment is proposed then MECP authorization would be required (this would also require a formal health assessment). A breeding bird survey is also required to determine the presence of wood thrush and wood-pewee within the forested portions of the site. Bat acoustic monitoring should be conducted around the suitable maternal trees to determine the presence of SAR bats.

The Canadian Environmental Assessment Agency (CEAA) defines cumulative effects as...“the effects on the environment caused by an action in combination with other past, present, and future human actions...” They occur when two or more project-related environmental effects, or two or more independent projects, combine to produce an augmented effect. These cumulative effects may be positive or negative.

As no development is being proposed there is no increase the potential for cumulative effects in the general landscape.

FIGURE 5 CONSTRAINTS



9.0. Conclusion

As this study is only in support of the Official Plan amendments and no associated development is associated with these amendments, no negative impact to natural heritage features or species at risk is anticipated. As requested by the proponent a line of constraint has been established for the protection of watercourse, fish habitat, significant woodland and significant valleylands.

Thank you for the opportunity to work with you. If you have any questions or comments, please do not hesitate to contact our office.



Shaun St.Pierre, B.Sc. Biology



Cody Fontaine, Wildlife Technologist

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APPENDIX A: OBSERVED SPECIES LIST

COMMON NAME	SCIENTIFIC NAME	SRANK	SARA STATUS	SCA STATUS	BRUNTON
Field Horsetail	<i>Equisetum arvense</i>	S5			Common
Bracken Fern	<i>Pteridium aquilinum</i>	S5			Common
New England Aster	<i>Symphyotrichum novae-angliae</i>	S5			Common
Common Lady Fern	<i>Athyrium filix-femina</i>	S5			Common
Ostrich Fern	<i>Matteuccia struthiopteris</i>	S5			Common
Tamarack	<i>Larix laricina</i>	S5			Common
White Spruce	<i>Picea glauca</i>	S5			Common
Eastern White Pine	<i>Pinus strobus</i>	S5			Common
Eastern Hemlock	<i>Tsuga canadensis</i>	S5			Common
Narrowleaf Cattail	<i>Typha angustifolia</i>	SNA			Common
Smooth Brome	<i>Bromus inermis</i>	SNA			Common
Common Timothy	<i>Phleum pratense</i>	SNA			Common
Common Reed	<i>Phragmites australis</i>	S4?			Uncommon
Trembling Aspen	<i>Populus tremuloides</i>	S5			Common
Pussy Willow	<i>Salix discolor</i>	S5			Common
Bitternut Hickory	<i>Carya cordiformis</i>	S5			Common
Butternut	<i>Juglans cinerea</i>	S2?	END	END	Provincial Conservation Concern
Black Walnut	<i>Juglans nigra</i>	S4?			Rare
White Birch	<i>Betula papyrifera</i>	S5			Common
Gray Birch	<i>Betula populifolia</i>	S4			Common
American Beech	<i>Fagus grandifolia</i>	S4			Common
Bur Oak	<i>Quercus macrocarpa</i>	S5			Common
American Elm	<i>Ulmus americana</i>	S5			Common
Wood Nettle	<i>Laportea canadensis</i>	S5			Common
European Stinging Nettle	<i>Urtica dioica</i>	SNA			Common
Pale Smartweed	<i>Persicaria lapathifolia</i>	S5			Common
Curly Dock	<i>Rumex crispus</i>	SNA			Common
Canada Anemone	<i>Anemonastrum canadense</i>	S5			Common
Virginia Virgin's-bower	<i>Clematis virginiana</i>	S5			Common
Garlic Mustard	<i>Alliaria petiolata</i>	SNA			Common
Tall Meadow-rue	<i>Thalictrum pubescens</i>	S5			Common
Field Mustard	<i>Brassica rapa</i>	SNA			Rare
Field Penny-cress	<i>Thlaspi arvense</i>	SNA			Common
Common Strawberry	<i>Fragaria virginiana</i>	S5			Common
Black Cherry	<i>Prunus serotina</i>	S5			Common

COMMON NAME	SCIENTIFIC NAME	SRANK	SARA STATUS	SCA STATUS	BRUNTON
Common Blackberry	<i>Rubus allegheniensis</i>	S5			Common
Black Raspberry	<i>Rubus occidentalis</i>	S5			Uncommon
Goldenrods	<i>Solidago sp.</i>				
Wild Red Raspberry	<i>Rubus idaeus ssp. strigosus</i>	S5			Common
Black Medic	<i>Medicago lupulina</i>	SNA			Common
Red Clover	<i>Trifolium pratense</i>	SNA			Common
White Clover	<i>Trifolium repens</i>	SNA			Common
Cow Vetch	<i>Vicia cracca</i>	SNA			Common
Western Poison Ivy	<i>Toxicodendron radicans var. rydbergii</i>	S5			Common
Staghorn Sumac	<i>Rhus hirta</i>	S5			Common
Manitoba Maple	<i>Acer negundo</i>	S5			Common
Red Maple	<i>Acer rubrum</i>	S5			Common
Silver Maple	<i>Acer saccharinum</i>	S5			Common
Sugar Maple	<i>Acer saccharum</i>	S5			Common
Black Maple	<i>Acer nigrum</i>	S4?			Uncommon
Spotted Jewelweed	<i>Impatiens capensis</i>	S5			Common
Common Buckthorn	<i>Rhamnus cathartica</i>	SNA			Common
Glossy Buckthorn	<i>Frangula alnus</i>	SNA			Common
Virginia Creeper	<i>Parthenocissus quinquefolia</i>	S4?			Uncommon
Riverbank Grape	<i>Vitis riparia</i>	S5			Common
American Basswood	<i>Tilia americana var. americana</i>	S5			Common
Purple Loosestrife	<i>Lythrum salicaria</i>	SNA			Common
Common Evening Primrose	<i>Oenothera biennis</i>	S5			Common
Wild Carrot	<i>Daucus carota</i>	SNA			Common
Wild Parsnip	<i>Pastinaca sativa</i>	SNA			Common
Alternate-leaved Dogwood	<i>Cornus alternifolia</i>	S5			Common
White Ash	<i>Fraxinus americana</i>	S4			Common
Black Ash	<i>Fraxinus nigra</i>	S4	END	END	Common
Green Ash	<i>Fraxinus pennsylvanica</i>	S4			Common
Common Milkweed	<i>Asclepias syriaca</i>	S5			Common
Field Bindweed	<i>Convolvulus arvensis</i>	SNA			Common
Ground Ivy	<i>Glechoma hederacea</i>	SNA			Common
Catnip	<i>Nepeta cataria</i>	SNA			Common
Common Plantain	<i>Plantago major</i>	SNA			Common
Tatarian Honeysuckle	<i>Lonicera tatarica</i>	SNA			Common
Nannyberry	<i>Viburnum lentago</i>	S5			Common
Common Ragweed	<i>Ambrosia artemisiifolia</i>	S5			Common

COMMON NAME	SCIENTIFIC NAME	SRANK	SARA STATUS	SCA STATUS	BRUNTON
Common Burdock	<i>Arctium minus</i>	SNA			Common
Nodding Beggarticks	<i>Bidens cernua</i>	S5			Common
Chicory	<i>Cichorium intybus</i>	SNA			Common
Canada Thistle	<i>Cirsium arvense</i>	SNA			Common
Bull Thistle	<i>Cirsium vulgare</i>	SNA			Common
Daisy Fleabane	<i>Erigeron annuus</i>	S5			Common
Spotted Joe Pye Weed	<i>Eutrochium maculatum</i>	S5			Common
Common White Snakeroot	<i>Ageratina altissima</i> var. <i>altissima</i>	S5			Common
Oxeye Daisy	<i>Leucanthemum vulgare</i>	SNA			Common
Common Sow-thistle	<i>Sonchus oleraceus</i>	SNA			Uncommon
Canada Goldenrod	<i>Solidago canadensis</i> var. <i>canadensis</i>	S5			Common
Hawthorns	<i>Crataegus</i> sp.				
Fescue	<i>Festuca</i>				
Sedges					
Canada Enchanter's Nightshade	<i>Circaea canadensis</i> ssp. <i>canadensis</i>	S5			Common
Wild Lily-of-the-valley	<i>Maianthemum canadense</i> ssp. <i>canadense</i>	S5			Common
Common Mullein	<i>Verbascum thapsus</i> ssp. <i>thapsus</i>	SNA			Common
Reed Canary Grass	<i>Phalaris arundinacea</i> var. <i>arundinacea</i>	S5			Common
Grasses					

APPENDIX B: QUALIFICATIONS**SHAUN M. ST.PIERRE, B.Sc. Biology****EDUCATION**

B.Sc. Biology, Trent University 2007

Fisheries and Wildlife Technology, Frost Campus, Sir Sandford Fleming College, 2005

Fisheries and Wildlife Technician, Frost Campus, Sir Sandford Fleming College, 2004

LANGUAGES

Fluent in French and English

POSITIONS HELD

2018 - : BCH Environmental Consulting Inc., Biologist / Owner
2006-2017: Bowfin Environmental Consulting Inc., Biologist / GIS Specialist / Environmental Site Inspector
2005: St. Lawrence River Institute of Environmental Sciences, Field Research Assistant
2004: MNR Kawartha Lakes, Field Research Assistant
2003: DFO- Experimental Lake Area, Field Research Assistant
2001: Resource Stewardship S, D &G, Stewardship Ranger

CERTIFICATIONS / PROFESSIONAL AFFILIATIONS

MTO/DFO/OMNR Fisheries Protocol, Ecological Land Classification, Certified in Inventory and Identification Methods for Ontario's Reptiles and Amphibians, North American Benthological Society (NABS) Certified Family Level Taxonomist, Ontario Benthos Biomonitoring Network (OBBN), Ontario Stream Assessment Protocol (OSAP), Certified Ontario Wetland Evaluator (OWES), Butternut Health Assessor (BHA), first aid, CPR, Pleasure Craft Operator Card, Marine Radio Operator, WHMIS, WHSA, Hazard Identification, Assessment and Control, All Terrain Vehicle Riders Course (issued by the Manitoba Safety Council), Water Safety Training (Bronze Cross), Possession / Acquisition Firearms Licence, Ontario Hunter Education Course Certificate, Ontario Trapper Education Course Certificate, Wildlife Chemical Immobilization, Vaccination, and Euthanasia- Certificate of Knowledge, South Lancaster Fish and Game Club (SLFGC; president 2012 and 2013; executive member 2014-2018), Ontario class G driver's license, and Snowmobile License.

EXPERIENCE

Experience in environmental impact assessments, environmental monitoring, environmental assessments, terrestrial habitat assessment, species at risk surveys, amphibian surveys, avian surveys, freshwater habitat assessment, collection and identification of plants, collection and identification of aquatic invertebrate, collection and identification of fish, fish salvage, fish behavioral studies, winter bat hibernaculum inventories and fisheries inventories including habitat mapping, electroshocking, FWIN and RIN. Other experience include GIS mapping.

Environmental and Fisheries Inspections

- Provided environmental and fisheries inspections for the construction of the Cataraqui Crossing HWY 401- MTO (Kingston, ON).
- Provided environmental and fisheries inspections for the construction of the Three Nations Bridge including surveys for nesting species at risk (Cornwall, ON).
- Provided environmental and fisheries inspections for construction (Ottawa, ON).
- Conducted nest surveys (Kemptonville, ON.; Stittsville, ON.; Cornwall, ON.)
- Conducted environmental inspections for the construction of the Clarkson WWTP outfall, Lake Ontario.
- Conducted environmental inspections for the construction of a new bridge crossing Bearbrook Creek along the 417.

- Provided environmental and fisheries inspections for the blasting and drilling operation for the Burloak Water Purification Tunnel project (Burlington, ON).
- Provided environmental and fisheries inspections for the construction of the Poole Creek Re-alignment/Huntmar Drive Crossing.

Species at Risk Inventories / Monitoring

- Butternut survey and assessment for proposed developments (Brockville, Carleton Place, Carp, Clarence-Rockland, Cornwall, Munster, Hawkesbury, Kemptville, Ottawa, South Lancaster, Smith Falls, Stittsville, Prospect, Vars, Moose Creek, Prescott, Westminster, Renfrew, Battersea, Jones Falls, and Millbrook).
- American Eel surveys using the boat electrofisher on the Mississippi River (Almonte, ON), South Nation River (Casselman, ON) and Ottawa River (Renfrew, ON; Ottawa, ON: Shawville, QC)
- American Eel collection on the St. Lawrence River for the St. Lawrence River Institute (Cornwall, ON)
- American Ginseng survey for proposed development (Kanata, South Lancaster and Renfrew).
- Whip-poor-will survey for proposed development (Navan, ON; Kemptville, ON; Stittsville, ON; Prescott, ON; Alexandria, ON) and quarries (Avonmore, Moosecreek, Prospect, Stittsville, Kanata, Ottawa)
- Assisted in a Least Bittern survey (Avonmore, ON)
- Conducted turtle surveys: Blanding's turtle, Eastern musk turtle (Carleton Place, ON; Ottawa, ON; Stittsville, ON; Kanata, ON, Prospect, ON)
- Conducted rapid clubtail surveys (Almonte, ON)
- Bat maternal nesting site surveys (Prescott, ON; Battersea, ON; Prescott, ON; Hawkesbury, ON; Russell, ON)

Aquatic Inventories

- Boat electrofishing along the shoreline of the Ottawa River (Chat Falls, ON) along the shoreline of the Cataraqui River (Kingston, ON), downstream of the Carillon Dam (Pointe-Fortune, QC), Lake St. Francis (South Lancaster, ON), South Nation River (Casselman, ON), Raisin River (Lancaster, ON), and the St. Lawrence River (Cornwall, ON)
- Collecting and data entry for benthic macroinvertebrate community surveys on several watercourses within Ontario including: Bonnechere River (Renfrew, ON), Montreal River (Latchford, ON), Jock River (Ottawa, ON), tributaries of the Bonnechere River (Renfrew, ON), tributaries to Feedmill Creek (Ottawa, ON), tributary to Chippewa Creek (North Bay, ON) and tributary to the Beaudette River (Alexandria, ON).
- Collecting and data entry for several fish community surveys including: Black Creek (Westminster, ON), Bonnechere River (Renfrew and Douglas, ON), Butler's Creek (Brockville, ON), East Branch of Little Cataraqui Creek (Kingston, ON), Kehoe Ditch (Greely, ON), Lac Opemisca (Ouje-Bougoumou, QC), Marshall Seguin Municipal Drain (Vars, ON), Montreal River (Latchford, ON), tributaries of Laval Creek (Carleton Place), tributaries to Feedmill Creek (Ottawa, ON), tributaries to Lafontaine Creek (Clarence-Rockland), tributaries to Shirley's Brook (Kanata, ON), tributaries to the Beaudette River (Alexandria, ON), tributaries to the Bonnechere River (Renfrew, ON), tributaries to the Ottawa River (Carp, ON; Ottawa, ON; Wendover, ON; Clarence-Rockland, ON), tributaries to the South Nation River (Casselman, ON), tributaries to the South Nation River (Jessup Falls, ON), tributary to Hawkesbury Creek (Hawkesbury, ON), Hawkesbury Creek (Hawkesbury, ON), tributary to the St. Lawrence River (Prescott, ON) and tributary to the North Castor River (Greely, ON).
- Mapped fish habitat in many watercourses including: Black Creek (Westminster, ON), Bonnechere River (Renfrew and Douglas, ON), Butler's Creek (Brockville, ON), Kehoe Ditch (Greely, ON), Lac Opemisca/Lac Barlow Bypass channel (Ouje-Bougoumou, QC), Marshall Seguin Municipal Drain (Vars, ON), McKinnons Creek (Navan, ON), Montreal River (Latchford, ON), tributaries of Laval Creek (Carleton Place), tributaries of the Bonnechere River (Renfrew, ON), tributaries to Lafontaine Creek (Clarence-Rockland), tributaries to McKinnons Creek (Navan, ON), tributaries to Shirley's Brook (Kanata, ON), tributaries to the North Castor River (Greely, ON), tributaries to the Ottawa River (Ottawa, ON; Wendover, ON), tributaries to the South Nation River (Casselman, ON), tributaries to the South Nation River (Jessup Falls, ON), tributary to the St. Lawrence River (Prescott, ON) and tributary to Hawkesbury Creek (Hawkesbury, ON).

- Assisted in YOY sampling on the Raisin River (Lancaster, ON).
- Conducted riverine index netting on the Bonnechere River (Renfrew, ON).
- Assisted in gill netting on Bonnechere River (Renfrew, ON), Lac Barlow (Ouje-Bougoumou, QC), Lac Opemisca (Ouje-Bougoumou, QC), Montreal River (Latchford, ON), and Raisin River (Lancaster, ON).
- Assisted in conducting larvae surveys on Bonnechere River, Hoople Creek, Montreal River and Raisin River,
- Collected walleye eggs from the spawning grounds on the Bonnechere River, Montreal River, Raisin River and Hoople Creek.
- Assisted in the monitoring of a new wetland channel created in the Little Cataraqui River.
- Marsh monitoring program breeding amphibian survey at Stittsville, ON; Cornwall, ON; Kanata, ON; Hoople Creek and the Bonnechere River.
- Assisted in conducting fall walleye index netting for the MNR in Kawartha Lakes
- Conducted turtle surveys (Carleton Place, ON; Ottawa, ON)
- Conducted headwater waters assessment (Kanata, ON; Navan, ON, Ottawa, ON)

Terrestrial Inventories

- Multiple Environmental Impact Assessments across Ontario
- Tree Inventory for construction of the light rail (LRT; Ottawa, ON)
- Winter white-tailed deer survey (Edwardsburgh, ON)
- Plant community inventories for proposed developments, quarries, sand pits and road extensions (Brockville, Carleton Place, Carp, Casselman, Elgin, Griffith, Hamilton, Jessup Falls, Navan, Ottawa, Stittsville, Rockland, Simcoe, Cornwall, Kemptville, Hawkesbury, Smith Falls, Wendover, Moosecreek, Westminster, Prescott, Renfrew, Jones Falls, Michipicoten Island and in Ouje-Bougoumou in QC)

Aquatic Habitat Mapping for Municipal, City Roads and Provincial Highways

- Conducted MTO habitat assessments at Galetta Side Road, Torbolton Road, Kinburn Side Road (Ottawa, ON)
- Conducted MTO habitat assessments at Prince of Wales, Fernbank Road, Fallowfield Road, HWY 115, Arbuckle drain, the Carp river, tributaries to the Carp river and tributaries to Mud creek (Ottawa, ON)
- Conducted MTO habitat assessments at Innes Road, Ottawa, ON.
- Conducted MTO habitat assessments at MacLaren Side Road, Ottawa, ON.

Other

- Fish salvage: Mississippi River (Almonte, ON), Monaghan Drain (Ottawa, ON), tributary to the Rideau Canal (Kemptville, ON), and tributary to Feedmill Creek (Ottawa ON), Bonnechere River (Renfrew, ON)
- Assisted in conducting a winter bat hibernaculum inventory (Plantagenet, ON)
- Field research assistant for the Metaliculus study and EDC study (Experimental Lakes Area, ON)
- Captured, pit tagged, telemetry tagged and tracked Northern Pike (Experimental Lakes Area, ON)
- Construction and maintenance of nature trail (the Cornwall Outdoor Recreational Area, ON)
- Conducted frog deformities surveys (Glengarry, ON)
- Organized youth fishing derbies through SLFGC (2011-2013; South Lancaster)
- Organized the St. Francis Walleye Tournament through SLFGC (2012-2013; South Lancaster)

CODY J.C FONTAINE, Fisheries and Wildlife Technologist**EDUCATION**

Fisheries and Wildlife Technology, Frost Campus, Sir Sandford Fleming College, 2012
Fisheries and Wildlife Technician, Frost Campus, Sir Sandford Fleming College, 2011

LANGUAGES

Fluent in English

POSITIONS HELD

2022: BCH Environmental Consulting Inc., Fisheries and Wildlife Technologist
2014: Bowfin Environmental Consulting Inc., Fisheries and Wildlife Technologist
2009: Raisin Region Conservation Authority, Field Research Assistant

CERTIFICATIONS / PROFESSIONAL AFFILIATIONS

MTO/DFO/OMNR Fisheries Protocol, Environmental Monitoring For Construction Projects Practitioner (EMCPP), Ontario Stream Assessment Protocol (OSAP), Class 2 Electroshocking, first aid, CPR, Pleasure Craft Operator Card, WHMIS, WSHA, Hazard Identification, Assessment and Control, Ice Safety Training, Possession / Acquisition Firearms License, Fish Identification Certificate, Radio Telemetry Certificate, Fish Hatchery Operations Certificate, Ontario Hunter Education Course Certificate, Ontario trapper Education Course Certificate, Ontario class G driver's license.

EXPERIENCE

Experience in environmental monitoring, environmental assessments, terrestrial habitat assessment, species at risk surveys, amphibian surveys, freshwater habitat assessment, collection and identification of plants, collection and identification of fish, fish salvage, bat hibernaculum inventories and fisheries inventories including netting and electroshocking. Other experiences include GIS mapping.

Aquatic Inventories

- Assisted with boat electrofishing along the shoreline of the Ottawa River (Chat Falls and Ottawa, ON), Lake St. Francis (South Lancaster, ON), Bonnechere (Renfrew, ON), Raisin River (Lancaster, ON), Buckhorn Lake (Peterborough, ON) and the St. Lawrence River (Cornwall, ON)
- Assisted in collecting and data entry for several fish community surveys including: Bonnechere River (Renfrew, ON), tributaries to Feedmill Creek (Ottawa, ON), tributaries to Shirley's Brook (Kanata, ON), tributaries to the Ottawa River (Ottawa, ON), tributaries to the Rideau River (Manotick, ON), tributaries to the Castor River (Vars, ON), tributaries to the Otonabee River (Lakefield, ON), tributary to the Madawaska River (Arnprior, ON), tributaries to Kemptville Creek (Kemptville, ON), tributary to Blairs Creek (Clarence Creek, ON), tributaries to South Indian Creek River (Russell, ON) tributaries to the South Nation River (Casselman, ON), tributaries to Fraser Clarke Drain (Nepean, ON), tributaries to the Raisin River (Long Sault, ON), Oliver-Magee drain (South Glengarry, ON) and tributary to Hawkesbury Creek (Hawkesbury, ON).
- Assisted in collecting walleye eggs from the spawning grounds on the Raisin River.
- Marsh monitoring program breeding amphibian surveys (Stittsville, Lakefield, Cornwall, Long Sault, South Glengarry, Bourget, Manotick and Kanata, ON).
- Conducted turtle surveys (Carleton Place, Ottawa, Cornwall and Lancaster, ON)
- Conducted Headwater Assessments (Ottawa, Stittsville and Manotick, ON)
- Invasive Species Survey (Ottawa, ON)

Species at Risk Inventories / Monitoring

- Assisted in butternut surveys, inventories and assessments for proposed developments (Carleton Place, Casselman, Cornwall, South Glengarry, Long Sault, Kemptville, Smiths Falls, Ottawa, Stittsville, Peterborough, Lakefield, Brockville, Alfred, Orleans, Kanata and Prescott, ON).
- American Eel surveys using the boat electrofisher on the Ottawa River (Ottawa, ON)
- American Eel collection on the St. Lawrence River for the St. Lawrence River Institute (Cornwall, ON)
- Conducted tailrace surveys for hydro facilities regarding American eel and lake sturgeon fatalities (Almonte, Renfrew, Ottawa and Fitzroy Harbour, ON)
- Whip-poor-will survey for proposed development (Ottawa, Kemptville, Bourget, Stittsville, Alfred, South Glengarry and Alexandria, ON) and quarries (Ottawa and Cornwall, ON)
- Surveyor for Little Brown bat, Eastern Small Footed Bat and Northern Long Eared Bat surveys at Ernestown Windpark (Ernestown, ON)
- Gray Ratsnake Survey (Smiths Falls and Lakefield, ON)
- Bat Cavity Survey (Lakefield, Smiths Falls, Bourget, Clarence Creek, Casselman, Orleans, Kanata, South Glengarry and Embrun, ON)
- Conducted Least Bittern surveys (Prospect, Alexandria, and Lancaster, ON)
- Conducted Black Tern nest surveys (Alexandria, and Cornwall, ON)
- Conducted turtle surveys: Blanding's turtle, Musk turtle and Northern Map turtle, Painted turtle and Snapping turtle (Carleton Place, Ottawa, Stittsville, Kanata, Rockland, Cornwall, Lakefield, Alfred, Clarence Creek and Lancaster, ON)
- Conducted American Ginseng Survey (Alfred, ON)
- Conducted rapid clubtail surveys (Almonte, ON)
- Conducted Osprey nest surveys (Cornwall, ON)

Terrestrial Inventories

- Assisted plant community inventories for proposed developments (Ottawa, Cornwall and Prescott, ON)
- Assisted in ELC inventories (Ottawa, Lakefield, Alfred, Kanata, Long Sault, South Glengarry and Peterborough ON)
- Nesting Bird Survey (Stittsville and Brockville ON)
- Large Tree Survey (Carp, Kanata and Orleans, ON)
- Deer and Moose Overwintering Survey (Alfred, ON)

Environmental and Fisheries Inspections

- Assisted in providing environmental and fisheries inspections for construction (Ottawa, ON)
- Assisted in turtle salvage during construction at the Cavanagh Snow Dump (Kanata, ON)

Fish Salvage

- Highway 401 Fish Salvage – Brockville, ON and Prescott, ON (Cruikshank, MTO Contract)
- Other fish salvages: Cardinal Creek (Ottawa, ON), Monaghan Drain (Ottawa, ON), tributary to the Rideau Canal (Kemptville, ON), tributary to Feedmill Creek (Ottawa ON), Bonnechere River (Renfrew, ON), Mississippi River (Almonte, ON), Ottawa River (Ottawa, ON), Tributary to Fraser Clarke Drain (Nepean, ON), tributary to St. Lawrence River (Newington, ON), Davidson Pond (Ottawa, ON), Hazeldean tributary (Ottawa, ON), tributary to Jock River (Richmond, ON), culvert on Thunder Road (Gloucester, ON), culvert on Dunning Road (Cumberland, ON)

Other

- Organized fishing derby through RRCA (2008-2012; Cornwall, ON)
- Conducted environmental education presentations to many school groups (Cornwall, and Lancaster, ON)
- Tree Planting (2008-2012; Cornwall, ON)

APPENDIX C: On-site Reference Handout

General Provisions:

- Watch out for wildlife while driving, and avoid hitting them, provided that it is safe to do so.
- Ensure sediment and erosion control measures (i.e., silt fencing) and other protective measures are in place prior to beginning work. Inspect them regularly, and particularly after storm events, to ensure their continued effectiveness.
- Prior to beginning work each day, check for wildlife by conducting a thorough visual inspection of the work space and immediate surroundings.
- Restrict all activities, vehicles and materials to the designated work space. Do not disturb areas identified for retention.
- Secure stockpiled materials, vehicles and structures against wildlife entry.
- Litter and other waste materials must be appropriately contained and promptly disposed of.
- Do not feed any wildlife or leave food out where it could attract them.

For health and safety reasons, and for protection of animals, removal and relocation of mammals must only be done by qualified and properly equipped personnel. Call the wildlife service provider [BCH ENVIRONMENTAL CONSULTING INC.] at (613) 571-8883 for assistance.

Scratches and bites from animals, whether domestic or wild, can result in serious infections and/or transmit diseases. Seek medical treatment immediately for any person injured by an animal.

Wildlife Encounters:

- **Do not harm any wildlife.** Many species are protected under provincial and/or federal legislation. Legal protection of egg-laying species applies to their eggs as well. Penalties for contravening these Acts can be severe.
- **Stand back** and allow the animal to leave the site. Wildlife may be encouraged to move away from the work area by shouting, waving of arms, clapping of hands or gentle redirection using a push broom. Contact project biologist / wildlife service provider for assistance if needed (e.g., if young animals are found). Do not unnecessarily harass any wildlife.
- **Turtles** may need to be helped to safety. Our most common species, Painted and Snapping Turtles, are protected under the Fish and Wildlife Conservation Act, 1997. If one of these turtles is found in the work area, it can be gently removed to a safe location nearby. Wear gloves, or use a broom to steer the turtle into a bucket or other container. Handle with care to avoid injury to the turtle or yourself, particularly when dealing with Snapping Turtles, which may bite or scratch. Turtles may also wet themselves when handled.
- Most of Ottawa's **snakes** are protected under the Fish and Wildlife Conservation Act, 1997. None of them are venomous, but bites may cause infections. Some produce a foul-smelling musk when handled, instead of biting. Snakes will usually try to escape or hide when disturbed, and only defend themselves when trapped. If a snake is found in the work area, it should be gently herded out to a safe location.
- **Stop work immediately** if any species protected under the Endangered Species Act, 2007 are seen in or near the work site (see attached sheet for tips on identifying some commonly encountered species). Take a photograph if possible, to confirm the sighting, and contact the project biologist at (613) 571-8883 and the Ministry of Environment, Conservation and Parks at SAROntario@ontario.ca. Additional measures to avoid impacts may be required by the Ministry before work can restart.

APPENDIX D: Commonly Encountered Species Protected under the Endangered Species Act, 2007

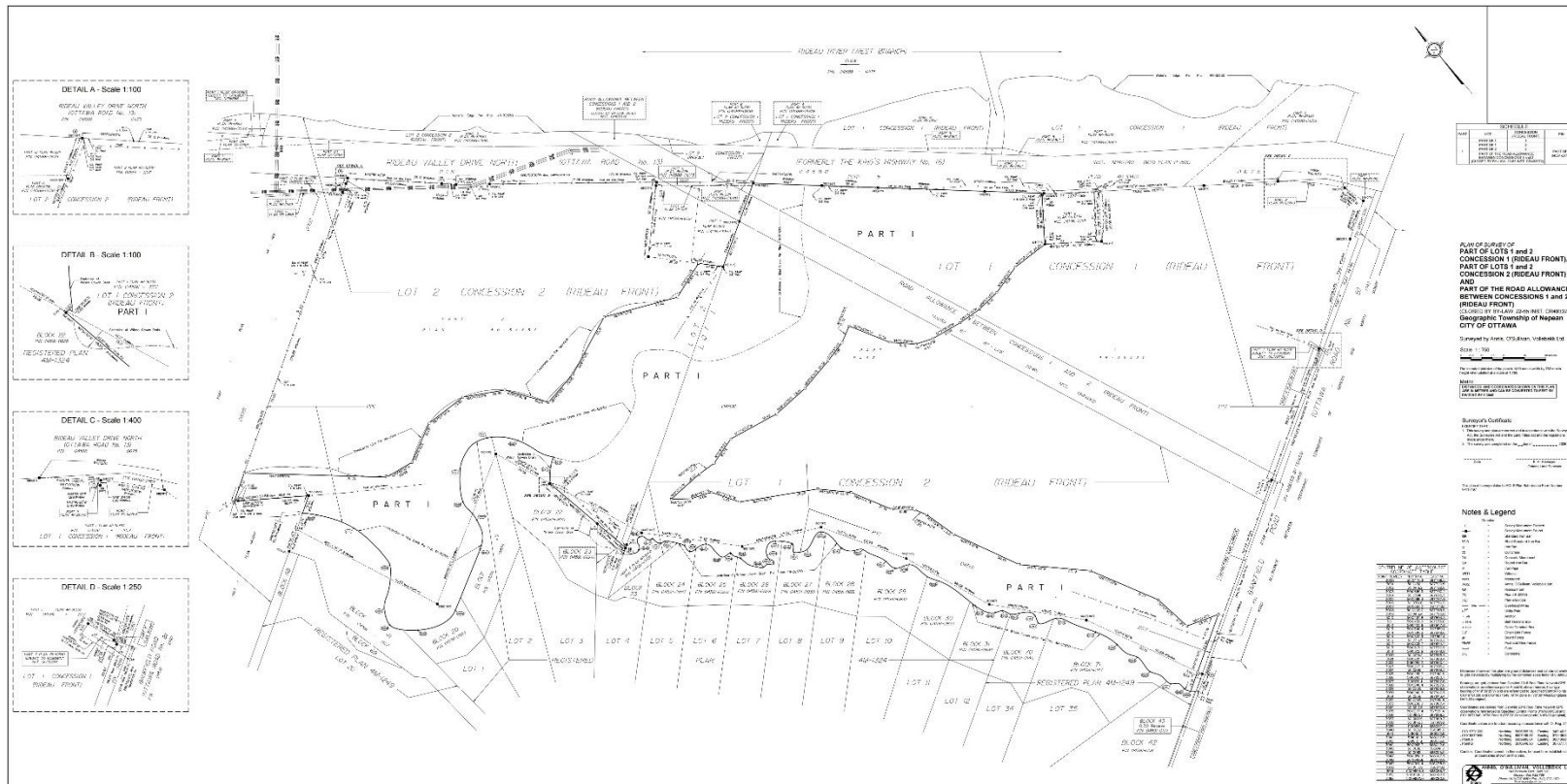
Blanding's Turtle Bright yellow chin and throat. Highly domed, speckled shell up to 28 cm (11 in) in length. Eggs small, oval and white. Usually less than 12 eggs per nest.	 Photo courtesy of R. van de Lande
Bobolink Males black with white back and cream hood during spring and summer breeding season. Females and non-breeding males streaky brown. Nests on the ground in open grasslands and hayfields.	 Photo courtesy of A. MacPherson
Eastern Meadowlark Streaky grayish-brown bird with bright yellow front marked by black "V." Short tail has white edges on each side. Nests on the ground in open grassy areas; often seen perching on fence posts or shrubs.	 Photo courtesy of A. MacPherson
Butternut Each leaf has several pairs of leaflets on either side of the main stalk, and one leaflet at the tip. Leaves and twigs grow in an alternating pattern along the branches. The nuts resemble limes or lemons in shape, and have greenish-yellow fuzzy rinds covering a hard, brown, ridged shell. The closely related Black Walnut. Its leaves are very similar to Butternut's leaves, but the terminal leaflet at the tip of each leaf is often much smaller than the other leaflets, or missing entirely.	

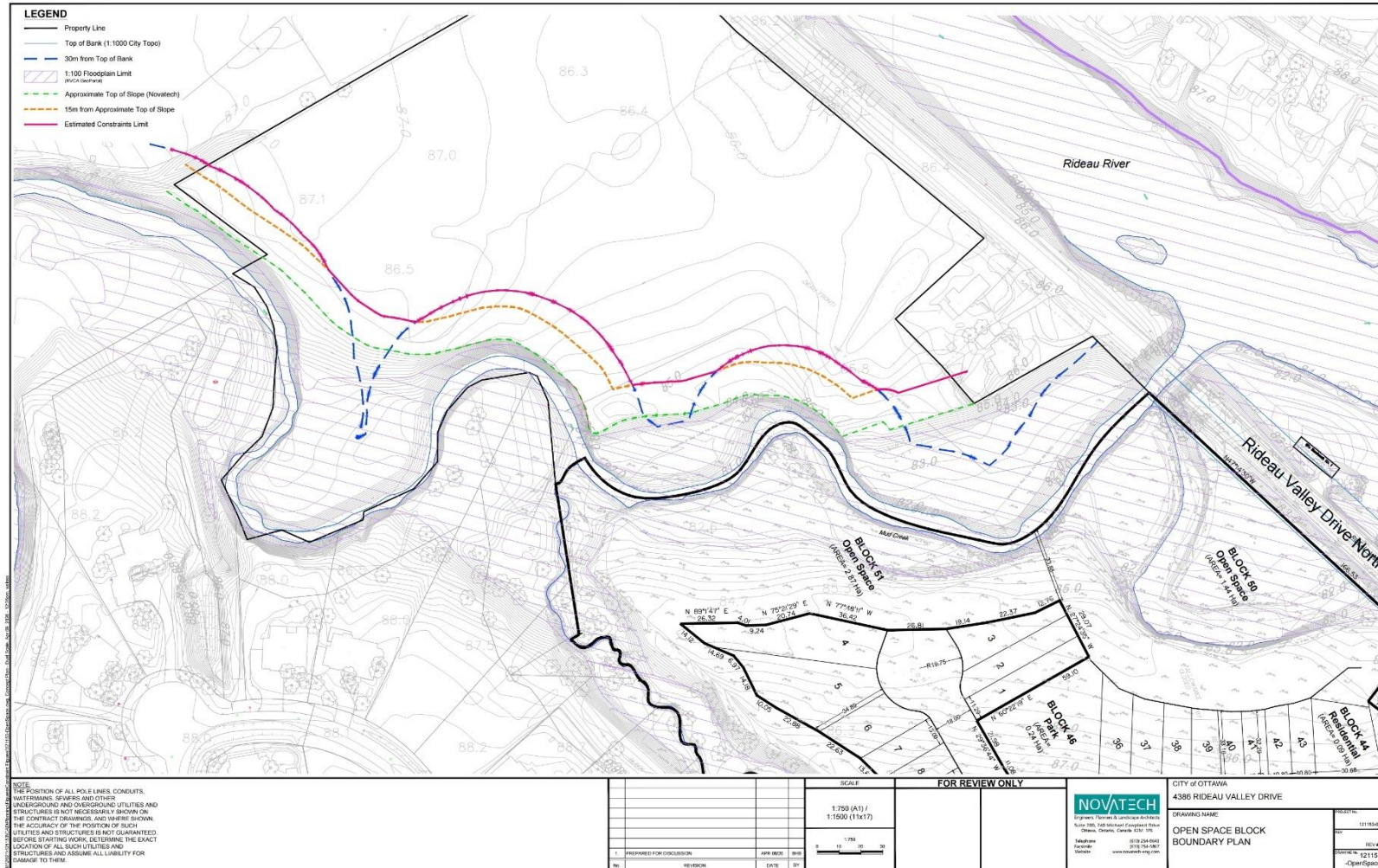
Photo courtesy of A. MacPherson

APPENDIX E: Agency Contact

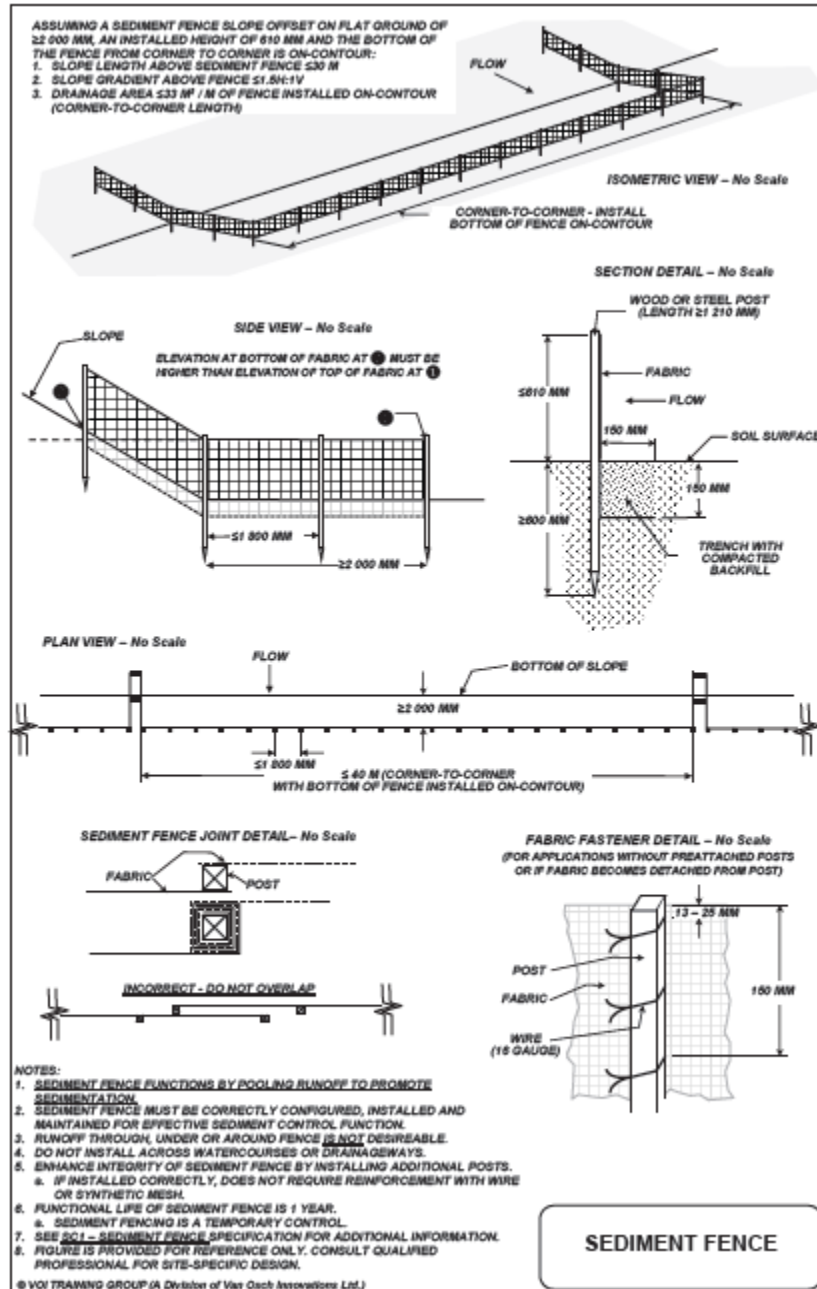
Agency	Staff Contact(s)	Telephone	Information/Authority on:
City of Ottawa	Planner	(613) 580-2424	Development application review process
	Environmental Planner	(613) 580-2424	EIS and other municipal environmental policies
	Forester-Planning	(613) 580-2424	Tree Conservation Report and urban tree removal
Conservation Authority – usually only one will be involved in any given application	Mississippi Valley Rideau Valley South Nation	(613) 253-0006 (613) 692-3571 (613) 984-2948	Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation
Fisheries and Oceans Canada	Fish and Fish Habitat Protection Program (Ontario)	1-855-852-8320 FisheriesProtection@dfo-mpo.gc.ca	Fish and fish habitat issues
Ministry of Environment, Conservation and Parks	Management Biologist	SAROntario@ontario.ca	Provincially protected species at risk (occurrence data, habitat information, advice and applications for permits under the <i>Endangered Species Act, 2007</i>).
Ministry of Natural Resources and Forestry (Kemptville District office)	Management Biologist	(613) 258-8204 (main office)	Wetlands; Areas of Natural and Scientific Interest; significant wildlife habitat.

APPENDIX F: PLANS

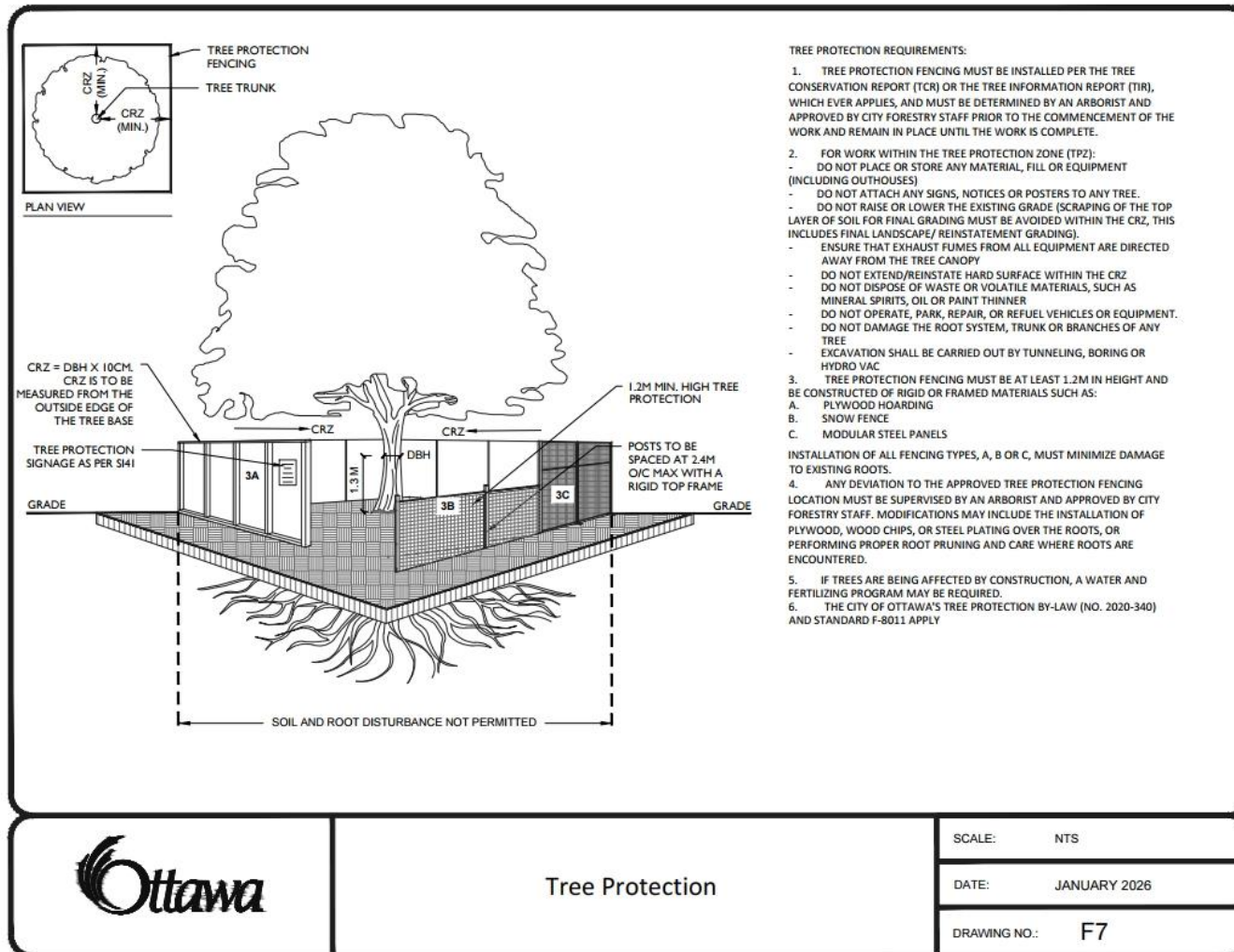




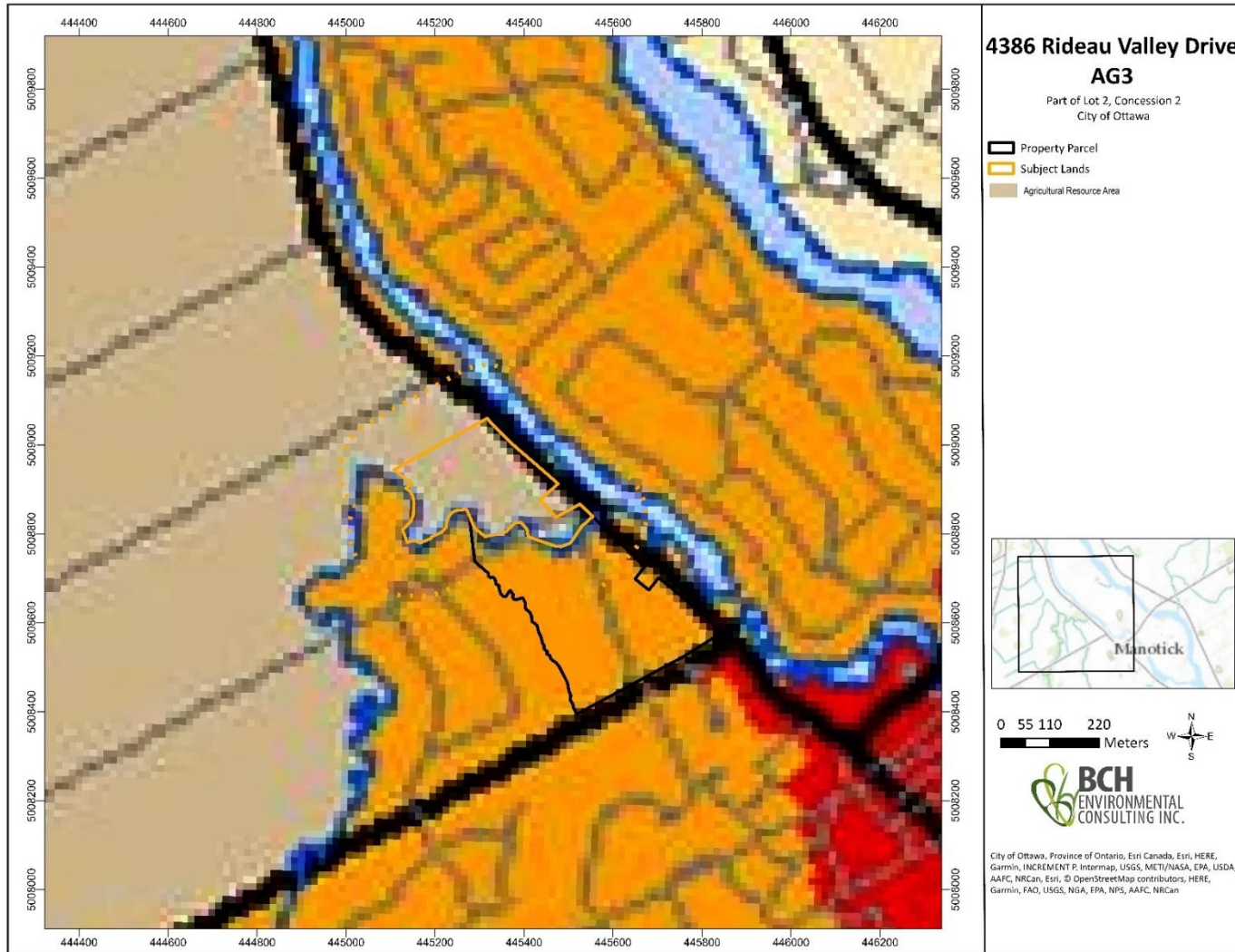
APPENDIX G: EXCLUSION FENCING INSTALLATION



APPENDIX H: TREE PROTECTION



APPENDIX I: SCHEDULE B9 - RURAL TRANSECT



APPENDIX J: SCHEDULE C11-B - NATURAL HERITAGE SYSTEM (SOUTH)

