Environmental Impact Study (EIS)
&
Tree Information Report

3670 B River Rd
Part Lot 33 and 34, Broken Front
City of Ottawa

June 20, 2025

Prepared By:

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1.0. Introduction

As requested by Cameron Curtis, an Environmental Impact Study (EIS) was completed to assess the environmental impacts of the proposed setback reduction from the Rideau River for the purpose of construction a proposed principal building, the accessory structure, and the septic system within 3670 B River Rd, Ottawa, ON (Appendix G; Figure 1).

1.1. Site Context

The entire property parcel is approximately 0.23 ha in size and the legal land description is Part Lot 33 and 34, Broken Front, City of Ottawa. The proponent wishes for a setback reduction from 30m to approximately 15m for the main residence/services and approximately 10m for a shed. Other variances relate to the front yard setback of the accessory structure, and development within a floodplain for the principal dwelling will also be required to obtain. The study is limited the property parcel (subject lands).

The property was designated as Rural Countryside, Unstable Slope, Floodplain within the City of Ottawa Official Plan. Within the City of Ottawa Zoning By-law No. 2008-250, the subject lands were designated as Rural Residential Subzone 9 (RR9) and Floodplain. Additionally, the subject lands are located within the Lower Rideau Watershed Strategy area.

Through a background review, potential environmental constraints have been identified as Unstable Slope, Floodplain, Wildland Fire Hazard (Low), Natural Heritage Features (the Rideau River (fish habitat), potential Significant Wildlife Habitat) and Potential Species at Risk and Associated Habitat. Additionally, the proposed development is located in Ecoregion 6E.

The PPS states that site development and alteration shall not be permitted in 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.

The subject lands are within one of the Rideau Valley Conservation Authorities regulated area. Additional authorization may be required.

2.0. Methodology

This report is prepared in accordance with the City of Ottawa Environmental Impact Statement Guidelines (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.

This EIS will provide the methodology to mitigate, as required, negative impacts on natural heritage features and their functions. Potential Species at Risk in the general area were identified from the 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.

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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 (S. St.Pierre and C. Fontaine) on April 29, 2025 from 1030h to 1200h (air temperature was 20°C, 60% clous cover, and gentle to moderate breeze). Staff qualifications are available in Appendix B.

The area was extensively walked and surveyed for natural heritage features, potential species at risk and their associated habitat.

Significant Wildlife Habitat was determined from the Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement (OMNRF 2010).

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 (MNRF 2022).

Bat maternity roost surveys (snags, cavity, hollows, peeling bark, abandoned buildings/mines, rock crevices/outcrops, bedrock fissures, forest and foliage) were completed during the leaf-off season on April 29, 2025 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).

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FIGURE 1: SUBJECT LANDS

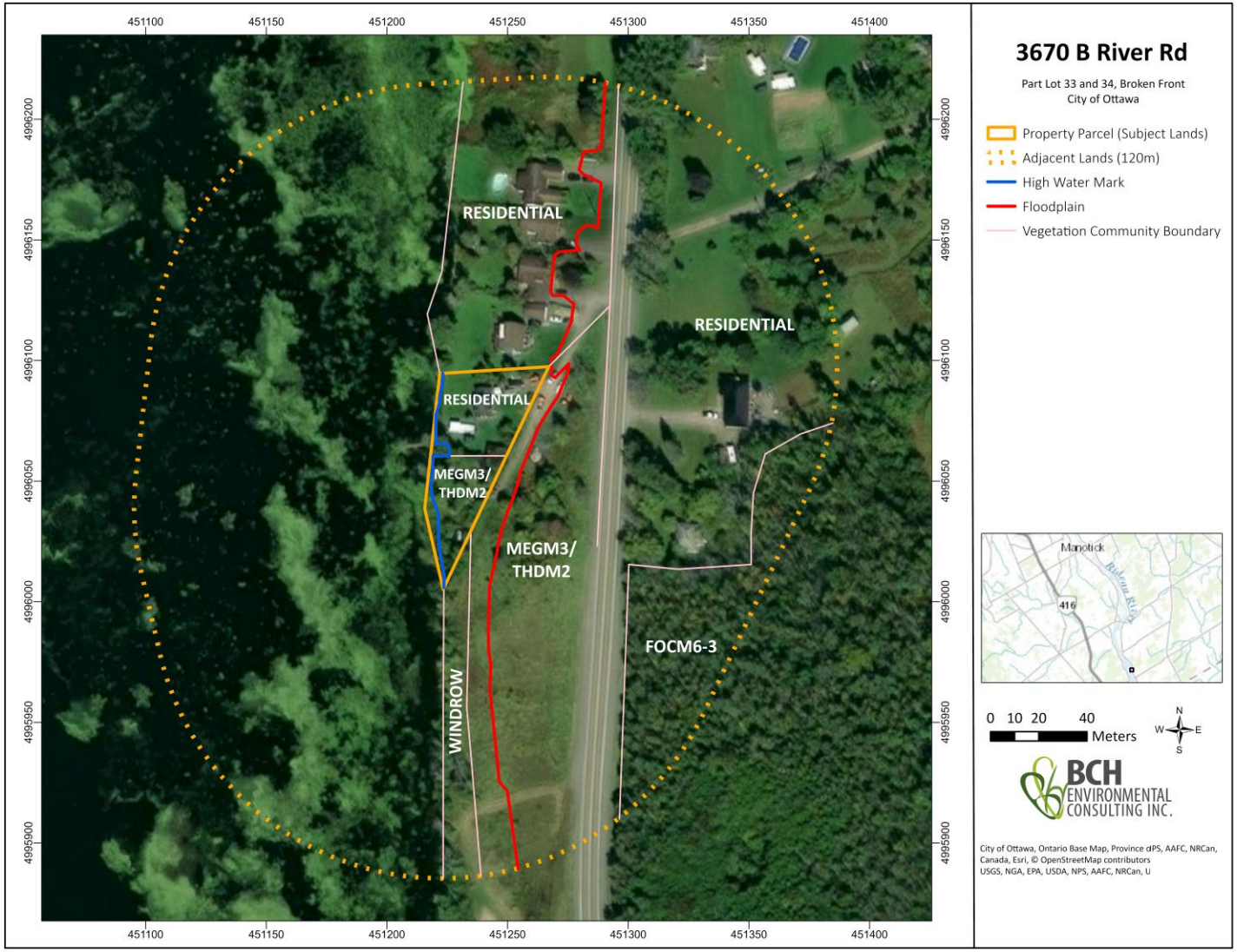

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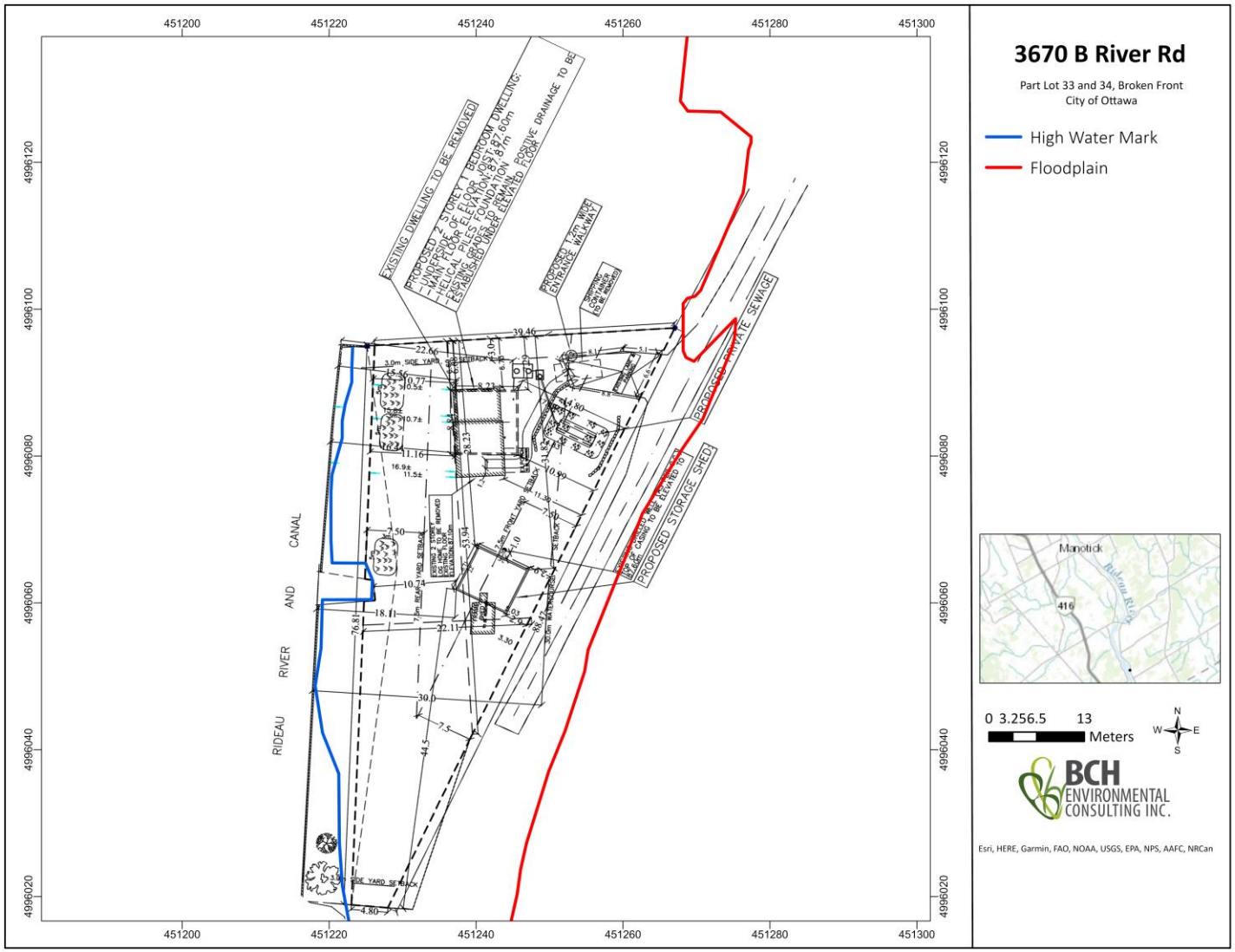
FIGURE 2: PLANS



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3.0. Field Surveys

A butternut/black ash survey was conducted along with surveys for potential SAR Bat usage, pileated woodpecker nest and raptor nest by systematically moving through the subject lands and adjacent lands (discussed in section 3.2, 4.3 and 4.5). Vegetation communities are described in section 3.1.

3.1. Existing Conditions

The subject lands consisted of residential lands/mowed lawn and a mosaic of disturbed meadow and thicket habitat with several small accessory buildings within the meadow/thicket habitat. Residential lands were present in the northern adjacent lands. The east and south adjacent lands were a mosaic of meadow and thicket followed by residential and forest. The Rideau River bordered the west. The subject lands had a gentle slope with all waters draining west into the Rideau River. The soil present is within the Grenville soils series which is characterised by very deep, well drained loam formed in calcareous, dense till (MAFRA 2025).

3.1.1. Residential Lands/Mowed Lawn/Trees

This community makes up the northern half of the subject lands. A residential building, accessory buildings, and mowed lawn were present. Trees present within this community included white cedar, white ash, Manitoba maple, and red pine. Common buckthorn shrubs were also noted.

The private residential adjacent lands were similar to these subject lands, described above.

Photo 1: Residential Lands/Mowed Lawn/Trees (April 29, 2025)

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3.1.2. Dry – Fresh Graminoid Meadow/ Dry – Fresh Deciduous Shrub Thicket (MEGM3/THDM2)

This community was present within the southern half of the subject lands and continues into the adjacent lands. Within this area common buckthorn and Tartarian honeysuckle (0.5-2m tall) had an overall cover of 30%, but were higher in some areas. Occasional trees were noted (ash). The meadow portions consisted of reed canary grass, wild carrot, and common milkweed.

Within the subject lands this meadow/thicket area was heavily disturbed with small accessory building, piles of items (ie. wood, tin, etc), and access trails. The area to the east and southeast, within the adjacent lands, contained trees. Some trees were larger and some were regenerating (scotch pine, white ash, red pine).

Photo 2: Dry – Fresh Graminoid Meadow/ Dry – Fresh Deciduous Shrub Thicket (April 29, 2025)

Photo 3: Dry – Fresh Graminoid Meadow/ Dry – Fresh Deciduous Shrub Thicket (April 29, 2025)

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3.1.3. Dry – Fresh Scots Pine Naturalized Coniferous Plantation (FOCM6-3)

This community is present within the southeast adjacent lands. This was private property and assessed from the road. This community was an old plantation consisting of 90% coniferous trees and 10% deciduous trees. The average DBH was 20cm. The understory was the dominant layer. The canopy (8-9m tall; 80% cover) consisted of Scots pine which was more than red pine which was more than white ash. No sub-canopy was present. The understory (1-3m tall; 100% cover) was dominated by white cedar followed by white ash and common buckthorn. Due to the timing of the visit and being private property, the ground cover was not able to be accurately assessed.

Photo 4: Dry – Fresh Scots Pine Naturalized Coniferous Plantation (April 29, 2025)

3.1.4. Rideau River

The Rideau River is present along the western border of the subject lands and continues into the western adjacent lands. Within the subject lands, the residential portion of the subject lands were mowed lawn along the shoreline. Within the meadow/thicket portion of the subject lands, shrubs (red osier dogwood, common buckthorn) and trees (green ash, white ash, red maple, American elm) were noted along the shoreline, with some meadow portions. The shoreline in the adjacent lands just south of the subject lands was treed (8-10m tall; average DBH 15-20cm) consisted of green ash, white ash, American elm and Manitoba maple. Common buckthorn was also noted.

The shoreline had cobble and boulders along the banks with some areas of softer substrate containing cattails. The water had a gradual drop moving away from the shoreline. No in-water cover was noted during the visit. The Rideau River represents suitable fish habitat. Fish species within the vicinity of the subject lands present within the Rideau River include but are not limited to: rock bass, white sucker, common carp, northern pike, muskellunge, johnny darter/tesselated darter, bluegill, largemouth bass, spottail shiner, yellow perch, logperch, bluntnose minnow, walleye, Moxostoma sp., green sunfish, and northern redbelly dace (LIO, 2025).

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Photo 5: Rideau River Shoreline (April 29, 2025)

Photo 6: Shoreline within the Southern Adjacent Lands (April 29, 2025)

3.2. Bird Survey

A raptor nest survey was completed on April 29, 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

The Make a Map: Natural Heritage online database (OMNRF) was reviewed on April 29, 2025. This database provides sightings of provincially tracked species including Threatened and Endangered species covered by the 2008 Endangered Species Act in 1 km squares across most of Ontario. A search was conducted on the site and adjacent lands (18VQ5196, and 18VQ5195). The following species were identified for these squares:

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- Eastern Wood-Pewee (Special Concern)
- Snapping Turtle (Special Concern)
- Blanding's Turtle (Threatened)
- Bobolink (Threatened)
- Black Ash (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 identified within the 10km square that encompasses the subject lands and adjacent lands (18VQ59):

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

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 identified within the 10km square that encompasses the subject lands and adjacent lands (18VQ59):

- Snapping Turtle (Special Concern)
- Blanding's Turtle (Threatened)

iNaturalist and the Global Biodiversity Information Facility provides a searchable database. A query no Species at Risk in the vicinity of the Subject Lands.

The Department of Fisheries and Oceans provide species at risk sightings via their online map tool. A query found the following results in the vicinity of the subject lands:

- Bridle Shiner (Special Concern)

n addition to the above potential Species at Risk, 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)
- Butternut (Endangered)

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4.1. Turtles

Snapping turtle are designated as special concern under the Ontario Endangered Species Act (ESA). The habitat of species of special concern is not regulated under the Ontario ESA.

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. Blanding's turtles were identified as occurring within the 1 and 10km search area (Make and Map, Ontario Reptile and Amphibian Atlas).

No wetlands were identified as occurring within the subject and adjacent lands, the Rideau River is present along the western edge of the subject lands, the rideau river at this location is fast flowing and very rocky. Not suitable for overwintering, nesting or day usage by turtles. There is a possibility of turtles utilising the river as a movement corridor between suitable habitats. As no in water works are being proposed no negative impacts to turtles or their habitat is anticipated.

4.2. Birds

Eastern wood-pewee, barn swallow, wood thrush, and grasshopper sparrow are designated special concern under the Ontario Endangered Species Act (ESA). The habitat of species of special concern is not regulated under the Ontario ESA. The eastern wood-pewee is mostly associated with the mid-canopy layer of forest clearings and edges of deciduous and mixed forests (COSEWIC 2012a). No forested habitat was present within the subject lands. 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. The wood thrush nests mainly in second-growth and mature deciduous and mixed forests, with saplings and well-developed understory layers (COSEWIC 2012b). No forested habitat was present within the subject lands. 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.

Bank swallow, bobolink, and eastern meadowlark are designated as threatened under the Ontario Endangered Species Act (ESA). Bank swallow are generally associated with sand-silt vertical banks (COSWIC 2013a). Bobolink and eastern meadowlark are associated with native and non-native larger grassland habitats such as hayfields (COSEWIC 2010, and COSEWIC 2011). No suitable grassland or hayfield were present within the subject lands.

No direct impacts on birds are anticipated, indirect impacts on these species as a result of the proposed addition, indirect impacts can be mitigated provided the mitigation measures in this report are properly implemented.

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.

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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 Ontario Endangered Species Act (ESA). 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 2013b). 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 the leaf-off season on April 29, 2025. During this survey no cavity trees suitable for bats were identified.

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 forested habitat was present within the subject lands. Hoary Bats and Eastern Red Bats are not considered to be utilising 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 the leaf-off season on April 29, 2025. During this survey no cavity trees suitable for bats were identified.

All bats utilise buildings and larger trees for day roots during the summer months. To prevent impacts to bats, no clearing of trees greater than 10cm on-site should take place between March 15 and November 30 (inclusive) without a qualified biologist first confirming the absence of bats (i.e., open work timing window from December 1 to March 14). If tree clearing is conducted between December 1 and March 15, no interactions with bats are anticipated, and therefore significant negative impacts to SAR bats would be avoided.

No negative impacts to bats are anticipated, mitigation measures present within section 9.0 will mitigate any indirect impacts.

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4.4. Fish

Bridle Shiner is designated as special concern under the Ontario Endangered Species Act (ESA). The habitat of species of special concern is not regulated under the Ontario ESA.

Bridle Shiner and all aquatic fish species are confined to the Rideau River. No direct impacts to any fish or aquatic species including species at risk are anticipated. No in water works are to be completed and any indirect impacts can be mitigated. All development is to occur at a minimum 15m from the Rideau River, with the exception of approximately 10m for a shed.

4.5. Vegetation

Butternut (designated as endangered by the ESA) 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 2017a). No butternut were observed within the subject lands and surrounding 50m adjacent lands.

Black ash (designated as endangered by the ESA) occurs most frequently in floodplain forests, basin, seepage and lacustrine swamp forests, shoreline forest margins, and fens (COSEWIC 2018a). No Black Ash were found in the subject lands and surrounding 30m adjacent lands.

4.6. Species at Risk Summary

In summary, based on the field surveys and habitat present, SAR Bats would be the only potential species at risk utilising the subject lands (Day Roost). As demonstrated throughout section 4.0 no negative impacts to these species are anticipated. Mitigation measures present in section 11.0 will mitigate any potential negative impacts to species at risk.

5.0. Natural Heritage Features

A Natural Heritage Features have been identified in accordance with the direction of the Provincial Policy Statement and the City of Ottawa's Official Plan. 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 Potential Natural Heritage Features (discussion below): Significant Wildlife Habitat, and the Ottawa River.

5.1. Rideau River/Fish Habitat

The Rideau River is present along the western subject lands border. The Rideau River represents suitable fish habitat and also is a World Heritage Site. The proponent wishes for a setback reduction from 30m to approximately 15m for a residential building/services and approximately 10m for a shed. It was noted that the current residential building footprint was established respecting the 15m setback from the high-water mark. During the site visit on April 29, 2025, the high-water mark was established. Even with this 10 and 15m setback, the small nature of the property parcel will still require a minor variance. It was noted that many of the neighbours have developed up to approximately 15m from the high-water mark of Rideau River. It is the opinion of BCH that this proposed setback reduction should be allowed. By

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reducing the setback from 30m to 10/15m, development will be allowed to occur within lands that are already non-natural (residential, mowed grass, meadow, thicket, and the occasional tree). No construction or placement of accessory buildings shall be permitted within 10m of the Rideau River and its associated fish habitat. Potential impacts to the river include sedimentation and changes in water quality. These impacts can be mitigated. Mitigation measures in Section 11.0 will mitigate any impacts to the Rideau River and its associated fish habitat.

As per Ottawa's OP section 4.9.3 (2b) states that *"minimum setback from surface water features shall be the greater of the following: a) Development limits as established by the conservation authority's hazard limit, which includes the regulatory flood line, geotechnical hazard limit and meander belt; b) Development limits as established by the geotechnical hazard limit in keeping with Council approved Slope Stability Guidelines for Development Applications; c) 30 metres from the top of bank, or the maximum point to which water can rise within the channel before spilling across the adjacent land; and d) 15 metres from the existing stable top of slope, where there is a defined valley slope or ravine*". While OP section 4.9.3 (7) states that " *Exceptions to the setbacks in Policy 2) shall be considered by the City in consultation with the conservation authority in situations where development is proposed on existing lots where, due to the historical development in the area, it is impossible to achieve the minimum setback because of the size or location of the lot, approved or existing use on the lot or other physical constraint, providing the following conditions are met to the City's satisfaction: a) The ecological function of the site is restored and enhanced, to the greatest extent possible, through naturalization with native, non-invasive vegetation and bioengineering techniques to mitigate erosion and stabilize soils; and b) Buildings and structures are located, or relocated, to an area within the existing lot that improves the existing setback, to the greatest extent possible, and does not encroach closer to the surface water feature*".

The lot in question is heavily restricted by its shape making a 30m setback impossible, This EIS supports a 15m setback for the residential building/services and 10m for a shed, for the multiple reasons mentioned at the beginning of section 5.1 of this report. Additional mitigation measures such as allowing lands within the setback to naturalize, and no development encroaching within the proposed setbacks will further protect the River. Through approval from the City, the CA and Parks Canada a dock may be permitted, access to the dock will be limited to a small narrow access (mowed walkway).

No negative impacts to the Rideau River and any associated fish habitat are anticipated and their form and function will remain intact.

5.2. 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, valley, or caves were located within the subject or adjacent lands.

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There is potential for significant wildlife habitat within the Ottawa River. The river may represent Specialized Habitats of Wildlife (Amphibian Breeding), Seasonal Concentration Areas of Animals (Waterfowl Stopover and Staging Areas), and Habitats of Species of Conservation Concern (Special Concern and Rare Wildlife Species). As demonstrated through this EIS there will be no negative impacts to Significant Wildlife Habitat, there will be a 10 and 15m setback from the rivers high water mark and no significant wildlife is present on shore

No significant wildlife is present within the building envelope, all development is outside of any potential SWH. Additionally, it is the responsibility of the municipality to determine what significant wildlife habitat gets protected, it appears that these features are not addressed within the official plans and therefore receive no protection (unless directed by the municipality to do otherwise).

Prescribed mitigation measures in section 11.0 will limit the potential for indirect impacts.

6.0. Floodplain

All development is to be located within the current floodplain. No in-water works are to occur and all development is in line with neighbouring properties who also developed within the existing floodplain line. The current residential dwelling is within the designated floodplain. All works are located at a minimum of 15m from the high-water mark of the Rideau River.

The property falls within the Lower Rideau Watershed Strategy Area. Discussion should occur with the regulatory body regarding appropriate approach to be used.

7.0. Unstable Slope

The city has designated the subject lands as potentially containing unstable slope. A slope stability study should be undertaken to determine if the proposed development can meet the cities standards and that the development is safe to proceed.

8.0. 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 designated as low risk within the official plan.

8.1. Level 1 Site Assessment

Following review of the available information provided in this report and the guidelines as outlined in the MNRF Wildland Fire Risk Assessment and Mitigation Guidebook the subject lands have been deemed a low risk to wildland fires as such no further mitigation measures are required for the

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proposed development. This was determined by multiple factors: (1) Species compositions, very little trees were present onsite (no forest present). There was a mix of deciduous and coniferous trees identified within the subject lands. Coniferous trees within the subject lands consisted mostly of white cedar which represent low risk. (2) The coniferous trees onsite were surrounded by deciduous trees. (3) The lands were bordered to the west by the Rideau River. (4) Little to no needle buildup. (5) Minimal to no understory. Half of the site was mowed, the other was thicket with occasional trees throughout. All these factors indicate that there is a low risk of wildland fires. See section 3.1. for description and pictures of the vegetation communities.

9.0. Tree Protection

Under the Tree Protection By-law, the following protected trees cannot be injured or removed without a tree permit from the City:

- All City-owned trees throughout the urban and rural are
- All trees 10 cm or more in diameter at breast height on private properties within the urban area that are subject to a Planning Act application for Site Plan, Plan of Subdivision, or Plan of Condominium
- All trees 10 cm or more in diameter at breast height on private properties within the urban area that are over 1 hectare in size
- All distinctive trees, which are trees 30 cm or more in diameter at breast height on private properties within the urban area that are 1 hectare or less in size

The property in question is located at:

3670 B River Road,
Manotick

The property is currently owned by:
Eric Benckhuysen
3670 B River Road,
Manotick

Contact Information:
benckhuysen@sympatico.ca

The subject lands are within the Rural Area and this is private property. No city trees have been identified within the subject lands. City trees are present however to the east of the property. These trees were recorded and assessed. Many small regenerating trees (ash; DBH 1cm) were present within the eastern adjacent lands. For these, their closest extent to the subject lands were delignated. No city trees or their associated critical root zone will be affected for the purpose of the proposed development. For description of the onsite vegetation see section 3.1. The property is within the Rural area and private trees are not protected under the bylaw.

Tree removal will not be required. Potential impacts during construction and associated removal of trees and other vegetation includes impacts on wildlife, increased erosion and release of sediments and other

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potential contaminants from truck traffic and construction activity, harm to wildlife remaining in the work area during construction, and impacts associated with an increase in noise, dust and light. Prescribed mitigation measures in section 11.0 will limit these impacts.

Although tree cover within the adjacent lands is very limited, there is still some ecological function provided such as local wildlife habitat and climate, air quality, wildlife, and nature appreciation benefits. All trees within the adjacent lands will have their critical root zone protected by temporary fencing (snow fencing) to ensure it is not affected (Figure 4 and 5). If encroachment and impacts to trees on adjacent properties is necessary, then permission from the property owners must be obtained or it must be determined that the tree will not be negatively impacted by the encroachment. No impacts to any trees are anticipated.

Any tree in the vicinity of works will have its critical roots zone protected by temporary fencing (snow fencing) to ensure it is not affected.

All trees 10cm or larger within the subject lands and surrounding 10m adjacent lands were recorded and shown on the map below (Figure 4 and 5). A detailed assessment of each individual trees was conducted during the field visit on April 29, 2024 and can be found in Appendix D.

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FIGURE 4: TREE LOCATIONS

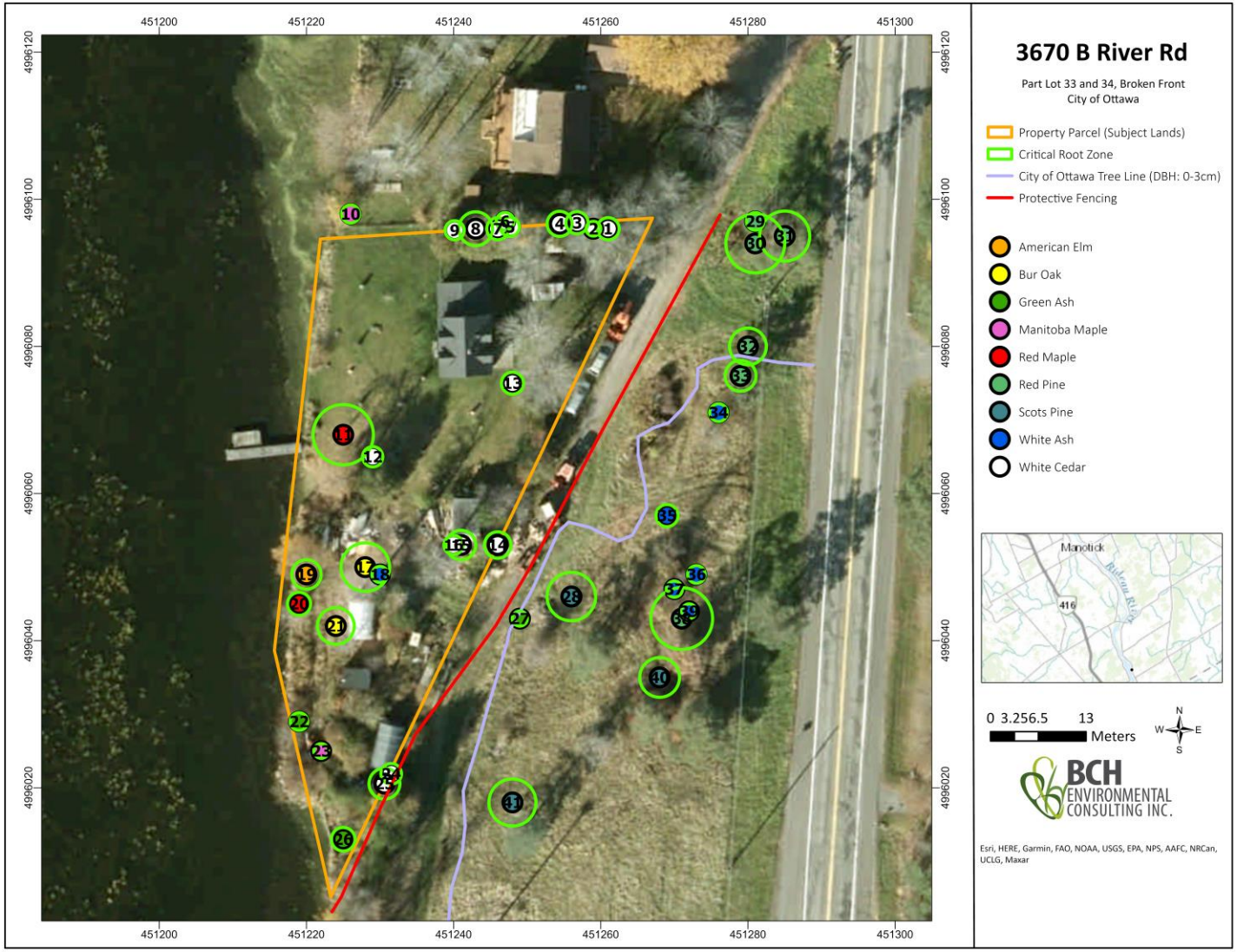

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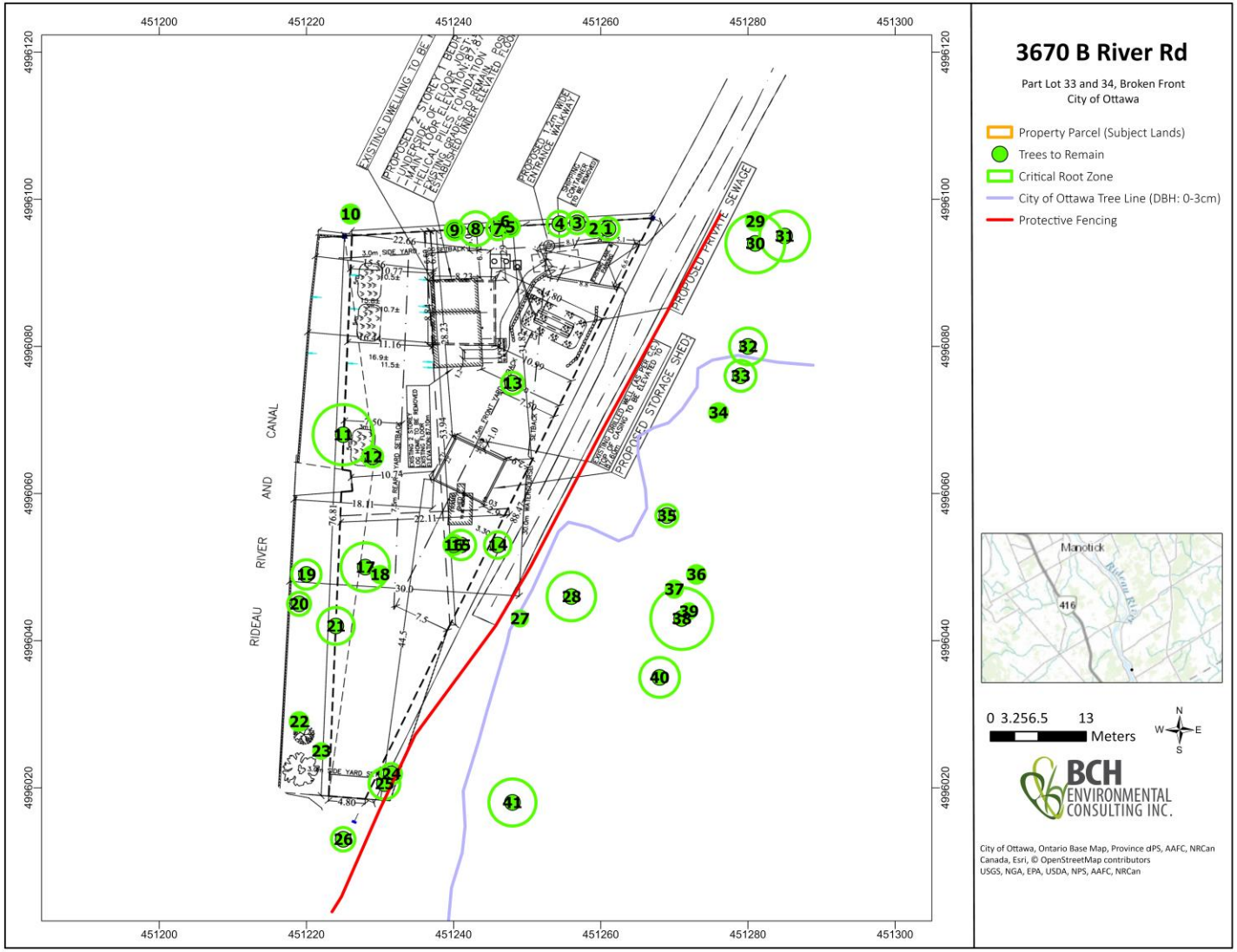
FIGURE 5: TREE TO REMAIN



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10.0. Development Constraints and Cumulative Impacts

No significant constraints, regulatory requirements, or buffer requirements have been identified in relation to Significant Wildlife Habitat. Development will be limited to a distance of a minimum of 15m from the high-water mark of the Rideau River for the residential building/services and 10m for the shed.

Rideau River: Has been taken into account, the residential building and serviced will be setback 15m from the high-water mark of the Rideau River. The shed will be setback 10m from the high-water mark of the Rideau River

Species at Risk: Constraints regarding potential species at risk is examined in depth within section 4.0.

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.

Given the small nature of these proposed works, there is very little impacts to the natural landscape, but continual development within the surrounding area could result in a slow chipping away at the natural landscape. The EIS limits further development within this property parcel (development limited to the building envelope).

As per the EIS guidelines climate change should be taken into account when developing the property. The main concerns with climate change are the following: extreme heat and drought, changing seasons, rain and flooding and extreme weather events.

The subject lands currently consist of mowed lawn, trees, thicket and meadow habitat. To aid in mitigating the potential for extreme heat and drought where possible native trees should be considered for planting within remnant green spaces after development along with retaining, where possible, present tree cover. The shade produced by these trees will aid in mitigating heat being produced by hardened surfaces. To aid in the mitigation of the increased risk of rain and flood, the design of the stormwater infrastructure should accommodate the potential increased flows. Additional measures such as designing building and infrastructure to be resilient in future climate conditions such as extreme weather, greater rainfall and higher temperatures should be considered.

For further information see the City of Ottawa Climate Resiliency webpage (https://ottawa.ca/en/living-ottawa/environment-conservation-and-climate/climate-change-and-energy/climate-resiliency#section-a8783773-3a10-4998-b516-b4d9c5e73cf0)

With proper implementation of the mitigation measures described in this report it is anticipated that the setback reduction to the Rideau River and potential construction will not increase the potential for cumulative effects in the general landscape.

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FIGURE 6: ENVIRONMENTAL CONSTRAINTS

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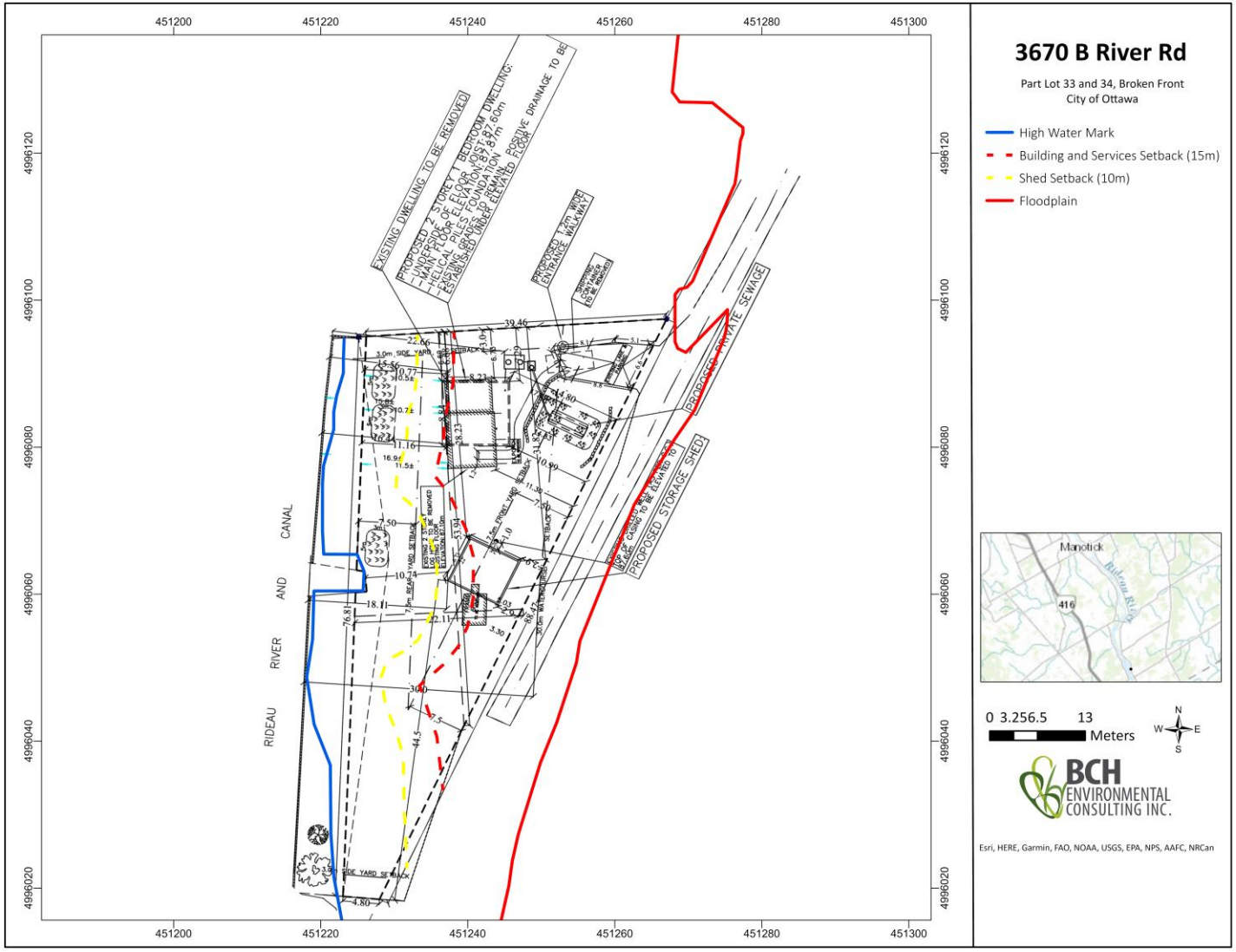
FIGURE 7: ENVIRONMENTAL CONSTRAINTS (PLANS)



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11.0. Recommendations and Conclusion

This study's recommendations are intended to mitigate potential negative impacts due to the proposed development and should be implemented through a development agreement between the owners and the municipality in order to control development of the site.

11.1. Mitigation for the Species at Risk and Migratory Birds Convention Act

1- To protect breeding birds, no tree or shrub removal should occur between March 31st and August 31st, unless a breeding bird survey is completed by a qualified biologist within five days of the woody vegetation removal and identifies no nesting activity.
2- To prevent impacts to bats, no clearing of trees greater than 10cm on-site should take place between March 15 and November 30 (inclusive) without a qualified biologist first confirming the absence of bats (i.e., open work timing window from December 1 to March 14). If tree clearing is conducted between December 1 and March 14, no interactions with bats are anticipated, and therefore, significant negative impacts to SAR bats would be avoided.
3- With regard to turtles, clearing of vegetation should be undertaken between October 31st and April 1st, which is outside of the more active season for turtles.
4- Construction staff is to be made aware of the characteristics of species at risk and in the event that any Species at Risk (SAR) are encountered during site clearing, work in the area will be stopped immediately. Measures will be undertaken to ensure the animal is not harmed and the project biologist and the Ministry of the Environment, Conservation and Parks contacted to discuss how to proceed.

11.2. Ottawa River Recommendations and Mitigation Measures

1- The residential building and associated services will occur more than 15 m from the high-water mark of the Rideau River.
2- The shed will occur more than 10 m from the high-water mark of the Rideau River.
3- The hydrology and quality of the Rideau River and Fish Habitat should not be impacted and should be maintained.
4- A setbacks have been established along the high-water mark, no works are to be completed within the proposed setback unless otherwise indicated and this area is to remain in a natural state with the exception of a small, mowed walkway for dock access.
5- It is the landowner's responsibility to make sure all material stocked onsite is kept contained and no material is permitted to enter the Rideau River.
6- To provide further protection to the Rideau River after completion of construction, native grasses, shrubs and trees are recommended be planted within the setback area. As much of this area consists of manicured lawn these plantings should be viewed as an enhancement to the area. Examples of acceptable species include but are not limited to: red-osier dogwood (Cornus stolonifera), Willows (Salix discolor and Salix bebbiana), nannyberry (Viburnum lentago), common elder (Sambucus canadensis), staghorn sumac (Rhus typhina), red maple (Acer

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rubrum), green ash (Fraxinus pennsylvanica) and black ash (Fraxinus nigra). Contact the Conservation Authority to inquire about their seedling program. Appendix G shows the locations of proposed tree and shrub plantings

7- Should dust particles be created during construction they will be suppressed using the appropriate method (i.e. water spraying).
8- Install and maintain the erosion control measures during construction. No work will occur until the appropriate sediment and erosion control measures have been designed and implemented prior to any work. At a minimum these will include:
    a. Provide regular maintenance to the sediment and erosion control measures during construction. Contractor shall be responsible for ensuring that the sediment and erosion control measures are maintained. No turbid water is permitted to leave the work area.
    b. Additional materials (i.e. rip rap, filter cloth and silt fencing) will be readily available in case they are needed promptly for erosion and/or sediment control.
    c. Any stock piles of soil or fill material will be stored as far as possible from the Rideau River protected by silt fencing.
    d. Sediment fencing will be installed at the edge of the work area, and kept in good working condition. The sediment fencing will not be removed until the area has stabilized.

11.3. Mitigation for Tree Protection

1- Any tree in the vicinity of works will have its critical roots zone protected by sturdy temporary fencing at least 1.3 metres in height installed from the tree trunk to a distance of ten times the retained tree's diameter where possible.
2- All trees within the adjacent lands will have their critical root zone protected by temporary fencing (snow fencing) to ensure it is not affected. If encroachment and impacts to trees on adjacent properties is necessary, then permission from the property owners must be obtained or it must be determined that the tree will not be negatively impacted by the encroachment.
3- No grading, heavy machinery traffic, stockpiling of material, machinery maintenance and refueling, or other activities that may cause soil compaction are to occur within three metres of the critical root zone of the trees to be protected.
4- The root system, trunk, and branches of the trees to be protected are to be protected and not damaged. If any roots of trees to be retained are exposed during site alterations, the roots shall be immediately reburied with soil or covered with filter cloth, burlap or woodchips and kept moist until the roots can be buried permanently. A covering of plastic should be used to retain moisture during an extended period when watering may not be possible. Any roots that must be cut are to be cut cleanly to facilitate healing and as far from the tree as possible. Overhanging branches from protected trees that may be damaged during construction are to be pruned by a qualified arborist prior to construction.
5- Exhaust fumes from all equipment during construction will not be directed towards the canopy of the adjacent protected trees.

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11.4. Climate Change Recommendations

1- To aid in mitigating the potential for extreme heat and drought where possible native trees should be considered for planting within remnant green spaces after development. The shade produced by these trees will aid in mitigating heat being produced by hardened surfaces.
2- To aid in the mitigation of the increased risk of rain and flood, the design of the stormwater infrastructure should accommodate the potential increased flows.
3- Additional measures such as designing building and infrastructure to be resilient in future climate conditions such as extreme weather, greater rainfall and higher temperatures should be considered.

11.5. Additional Mitigation Measures

4- The extent of any vegetation removal is to be minimized were possible and limited to the identified building areas (Appendix G).
5- All rules governing septic systems and wells must be followed and be kept in good operational order.
6- There will be no use of herbicides in clearing of vegetation.
7- Municipal by-laws and provincial regulations for noise will be followed.
8- To discourage wildlife from entering the work areas during construction, the site should be kept clear of food wastes and other garbage. Proper drainage should be provided to avoid accumulation of standing water, which could attract amphibians, birds, and other wildlife to the work areas.
9- As recommended in City of Ottawa Protocol for Wildlife Protection during Construction (2022), prior to beginning work each day, wildlife is to be checked for by conducting a thorough visual inspection of the work space and immediate surroundings. See Section 2.0 of City of Ottawa Protocol for Wildlife Protection during Construction (2022) and Appendix C for additional recommendations on construction site management with respect to wildlife. It is the responsibility of the contractor to be familiar with all components of City of Ottawa Protocol for Wildlife Protection during Construction (2022). Any sensitive wildlife in the work area are to be relocated to away from the subject lands into suitable habitat. Animals should be moved only far enough to ensure their immediate safety.

To conclude this EIS, no negative impacts of the proposed setback reduction is anticipated on any natural heritage features present, or any habitat of species at risk.

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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REFERENCES

Bradley, David J. 2013. Southern Ontario Vascular Plant Species List. Ont. Min. Natur. Resour. Science and Information Branch, Southern Sci. and Info., SIB SR-03 78p.

COSEWIC. 2010a. COSEWIC assessment and status report on the Bobolink Dolichonyx oryzivorus in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vi + 42 pp. (www.sararegistry.gc.ca/status/status_e.cfm).

COSEWIC. 2011. COSEWIC assessment and status report on the Eastern Meadowlark Sturnella magna in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 40 pp. (www.sararegistry.gc.ca/status/status_e.cfm).

COSEWIC. 2012a. COSEWIC assessment and status report on the Eastern Wood-pewee Contopus virens in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 39 pp. (www.registrelep-sararegistry.gc.ca/default_e.cfm).

COSEWIC. 2012b. COSEWIC assessment and status report on the Wood Thrush Hylocichla mustelina in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 46 pp. (www.registrelep-sararegistry.gc.ca/default_e.cfm).

COSEWIC. 2013a. COSEWIC assessment and status report on the Grasshopper Sparrow pratensis subspecies Ammodramus savannarum pratensis in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 36 pp. (www.registrelepsararegistry.gc.ca/default_e.cfm).

COSEWIC. 2013b. COSEWIC assessment and status report on the Bank Swallow Riparia riparia in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 48 pp.

COSEWIC. 2013c. COSEWIC assessment and status report on the Little Brown Myotis lucifugus, Northern Myotis septentrionalis and Tri-colored Bat Perimyotis subflavus in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xxiv + 93 pp. (www.registrelep-sararegistry.gc.ca/default_e.cfm).

COSEWIC. 2017a. COSEWIC assessment and status report on the Butternut Juglans cinerea in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xiii + 74 pp. (http://www.registrelep-sararegistry.gc.ca/default.asp?lang=en&n=24F7211B-1).

COSEWIC. 2018a. COSEWIC Assessment and Status Report on the Black Ash (Fraxinus nigra) in Canada 2018

Department of Fisheries and Oceans (DFO). 2025. Aquatic Species at Risk Map Available https://www.dfo-mpo.gc.ca/species-especes/sara-lep/map-carte/index-eng.html (Accessed April 28, 2025).

Heagy, A., D. Badzinski, D. Bradley, M. Falconer, J. McCracken, R.A. Reid and K. Richardson. 2014. Recovery Strategy for the Barn Swallow (Hirundo rustica) in Ontario. Ontario Recovery Strategy Series. Prepared for the Ontario Ministry of Natural Resources and Forestry, Peterborough, Ontario. vii + 64 pp.

City of Ottawa. 2022. Official Plan for the City of Ottawa

City of Ottawa. 2022. Protocol for Wildlife Protection during Construction. December 2022.

City of Ottawa. 2022. The City of Ottawa Environmental Impact Statement Guidelines. Ottawa.

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Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998. Ecological Land Classification for Southern Ontario: First Approximation and its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.

Ministry of Agriculture, Food and Rural Affairs (MAFRA). 2025. AgrMap Available https://www.lioapplications.lrc.gov.on.ca/AgMaps/Index.html?viewer=AgMaps.AgMaps&locale=en-CA (Accessed April 28, 2025).

Ministry of Municipal Affairs and Housing (MMAH). 2024. Ontario Provincial Planning Statement. Issued under section 3 of the Planning Act.

Ontario Ministry of Natural Resources (OMNR). 2000. Significant wildlife habitat technical guide. 151p.

Ontario Ministry of Natural Resources (OMNR). March 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. Second Edition. Toronto: Queen's Printer for Ontario. 248 pp

Ontario Ministry of Natural Resources (OMNR). 2025. Land Information Ontario. Available https://www.ontario.ca/page/land-information-ontario (Accessed April 28, 2025)

Ontario Ministry of Natural Resources and Forestry (MNRF). 2015. Significant Wildlife Habitat Criteria Schedules For Ecoregion 6E. 38p.

Ontario Ministry of Natural Resources and Forestry (MNRF). 2022. ONTARIO WETLAND EVALUATION SYSTEM. Southern Manual, 4th Edition.

Ontario Nature. 2025. Ontario Breeding Bird Atlas. Available http://www.birdsontario.org/atlas/index.jsp (Accessed April 28,2025)

Ontario Nature. 2025. Ontario Reptile and Amphibian Atlas. Available https://ontarionature.org/oraa/maps/ (Accessed April 28, 2025)

Ontario Nature, 2025. Ontario Reptile and Amphibian Atlas: a citizen science project to map the distribution of Ontario's reptiles and amphibians. Ontario Nature, Ontario. Available: https://www.ontarioinsects.org/herp; (Accessed April 28, 2025)

Species at Risk Ontario (SARO). 2025. Species at Risk Ontario. Retrieved April 28, 2025 at http://www.ontario.ca/environment-and-energy/species-risk-ontario-list

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APPENDIX A: OBSERVED SPECIES LIST

COMMON NAME	SCIENTIFIC NAME	SRANK	SARA STATUS	SARO STATUS	BRUNTON 2005
Ostrich Fern	*Matteuccia struthiopteris*	S5			Common
Sensitive Fern	*Onoclea sensibilis*	S5			Common
Red Pine	*Pinus resinosa*	S5			
Eastern White Cedar	*Thuja occidentalis*	S5			Common
Narrowleaf Cattail	*Typha angustifolia*	SNA			Common
Broad-leaved Cattail	*Typha latifolia*	S5			Common
Reed Canary Grass	*Phalaris arundinacea*	S5			Common
Wild Lily-of-the-valley	*Maianthemum canadense*	S5			Common
Black Walnut	*Juglans nigra*	S4?			Rare
Bur Oak	*Quercus macrocarpa*	S5			Common
American Elm	*Ulmus americana*	S5			Common
European Stinging Nettle	*Urtica dioica*	SNA			Common
Wild Black Currant	*Ribes americanum*	S5			Common
Common Apple	*Malus pumila*	SNA			Common
Goldenrods	*Solidogo sp.*				
Wild Red Raspberry	*Rubus idaeus ssp. strigosus*	S5			Common
Black Medic	*Medicago lupulina*	SNA			Common
Red Clover	*Trifolium pratense*	SNA			Common
White Clover	*Trifolium repens*	SNA			Common
Manitoba Maple	*Acer negundo*	S5			Common
Red Maple	*Acer rubrum*	S5			Common
Common Buckthorn	*Rhamnus cathartica*	SNA			Common
Riverbank Grape	*Vitis riparia*	S5			Common
Purple Loosestrife	*Lythrum salicaria*	SNA			Common
Wild Carrot	*Daucus carota*	SNA			Common
Red-osier Dogwood	*Cornus sericea*	S5			Common
White Ash	*Fraxinus americana*	S4			Common
Green Ash	*Fraxinus pennsylvanica*	S4			Common
Common Milkweed	*Asclepias syriaca*	S5			Common
Common Mullein	*Verbascum thapsus*	SNA			Common
Common Plantain	*Plantago major*	SNA			Common
Tatarian Honeysuckle	*Lonicera tatarica*	SNA			Common
Common Dandelion	*Taraxacum officinale*	SNA			Common
Hawthorns	*Crataegus sp.*				
Scots Pine	*Pinus sylvestris var. sylvestris*	SNA			Rare
Grasses					Common

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COMMON NAME	SCIENTIFIC NAME	SRANK	SARA STATUS	SARO STATUS	BRUNTON 2005
Osprey	*Pandion haliaetus*	S5B			
American Robin	*Turdus migratorius*	S5B			
Red-winged Blackbird	*Agelaius phoeniceus*	S4			

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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 (Kemptville, 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.

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- 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 Carillion 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 macroinvetebrate 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 Lavalle 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 Lavalle 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).

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- 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 Metalicuus 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)

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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, WHSA, 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

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- 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)

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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.

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APPENDIX D: TREE LOCATIONS

TREE ID	UTM NAD83	SPECIES	DBH (cm)							AVG DBH (cm)	CRITICAL ROOT ZONE (m)	HEALTH	COMMENTS	OWNERSHIP
1	18 T 451261 4996096	White Cedar	15							15	1.5	Good	Single Stem	Shared/On Border
2	18 T 451259 4996096	White Cedar	10							10	1	Poor	Leaning. Single Stem	Shared/On Border
3	18 T 451257 4996105	White Cedar	14	16						15	1.5	Good	Multistem	Shared/On Border
4	18 T 451255 4996102	White Cedar	20	14						17	1.7	Good	Multistem	Shared/On Border
5	18 T 451247 4996099	White Cedar	13							13	1.3	Poor	Leaning. Single Stem	Shared/On Border
6	18 T 451247 4996097	White Cedar	11	13						12	1.2	Poor	Leaning. Multistem	Shared/On Border
7	18 T 451246 4996096	White Cedar	10	17	18					15	1.5	Poor	Leaning. Multistem	Shared/On Border
8	18 T 451243 4996096	White Cedar	23							23	2.3	Poor	Broken @4m. Single Stem	Shared/On Border
9	18 T 451240 4996100	White Cedar	13							13	1.3	Poor	Leaning. Single Stem	Shared/On Border
10	18 T 451226 4996098	Manitoba Maple	13	15	10	11				12.25	1.225	Poor	Roots exposed. Leaning. Multistem	Neighbour
11	18 T 451225 4996068	Red Maple	41							41	4.1	Good	Single Stem	Proponent
12	18 T 451229 4996065	White Cedar	13	13	19	10				13.75	1.375	Good	Multistem	Proponent
13	18 T 451248 4996075	White Cedar	14	16	15					15	1.5	Good	Multistem	Proponent

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TREE ID	UTM NAD83	SPECIES	DBH (cm)							AVG DBH (cm)	CRITICAL ROOT ZONE (m)	HEALTH	COMMENTS	OWNERSHIP
14	18 T 451246 4996053	White Cedar	18							18	1.8	Good	Single Stem	Proponent
15	18 T 451241 4996053	White Cedar	20							20	2	Poor	Leaning. Single Stem	Proponent
16	18 T 451240 4996053	White Cedar	13							13	1.3	Good	Single Stem	Proponent
17	18 T 451228 4996050	Bur Oak	33							33	3.3	Good	Single Stem	Proponent
18	18 T 451230 4996049	White Ash	12	11	10					11	1.1	Poor	Old main stem cut, new regrowth. Multistem	Proponent
19	18 T 451220 4996049	American Elm	20							20	2	Dead	No live branches. Single Stem	Neighbour
20	18 T 451219 4996045	Red Maple	18	16	13					15.66666667	1.566666667	Good	Multistem	Neighbour
21	18 T 451224 4996042	Bur Oak	25							25	2.5	Good	Single Stem	Proponent
22	18 T 451219 4996029	Green Ash	12	12						12	1.2	Poor	One main branch broken. Multistem	Proponent
23	18 T 451222 4996025	Manitoba Maple	10							10	1	Good	Single Stem	Proponent
24	18 T 451234 4996021	White Cedar	10	15	15	16				14	1.4	Good	Multistem	Proponent
25	18 T 451232 4996020	White Cedar	21							21	2.1	Good	Single Stem	Proponent
26	18 T 451225 4996013	Green Ash	16							16	1.6	Good	Single Stem	Proponent
27	18 T 451249 4996043	Green Ash	10	10	10	11				10.25	1.025	Good	Multistem	City

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TREE ID	UTM NAD83	SPECIES	DBH (cm)							AVG DBH (cm)	CRITICAL ROOT ZONE (m)	HEALTH	COMMENTS	OWNERSHIP
28	18 T 451256 4996046	Scots Pine	33							33	3.3	Good	Single Stem	City
29	18 T 451281 4996097	Red Pine	12							12	1.2	Good	Single Stem	City
30	18 T 451281 4996094	Red Pine	40							40	4	Dead	No needles, bark falling off. Single Stem	City
31	18 T 451285 4996095	Red Pine	34							34	3.4	Dead	No needles, bark falling off. Single Stem	City
32	18 T 451280 4996080	Red Pine	25							25	2.5	Good	Single Stem	City
33	18 T 451279 4996076	Red Pine	21							21	2.1	Dead	No needles, bark falling off. Single Stem	City
34	18 T 451276 4996071	White Ash	13	10	10	10	14	13	14	12	1.2	Good	Multistem	City
35	18 T 451269 4996057	White Ash	15							15	1.5	Good	Single Stem	City
36	18 T 451273 4996049	White Ash	12							12	1.2	Good	Single Stem	City
37	18 T 451270 4996047	White Ash	10	13	10	11				11	1.1	Good	Multistem	City
38	18 T 451271 4996043	Red Pine	42							42	4.2	Dead	No needles, bark falling off. Single Stem	City
39	18 T 451272 4996044	White Ash	10							10	1	Good	Single Stem	City
40	18 T 451268 4996035	Scots Pine	27							27	2.7	Good	Single Stem	City
41	18 T 451248 4996018	Scots Pine	32							32	3.2	Dead	No needles, bark falling off. Single Stem	City

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APPENDIX E: 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

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APPENDIX F: 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 *Endangered Species Act, 2007).*
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.

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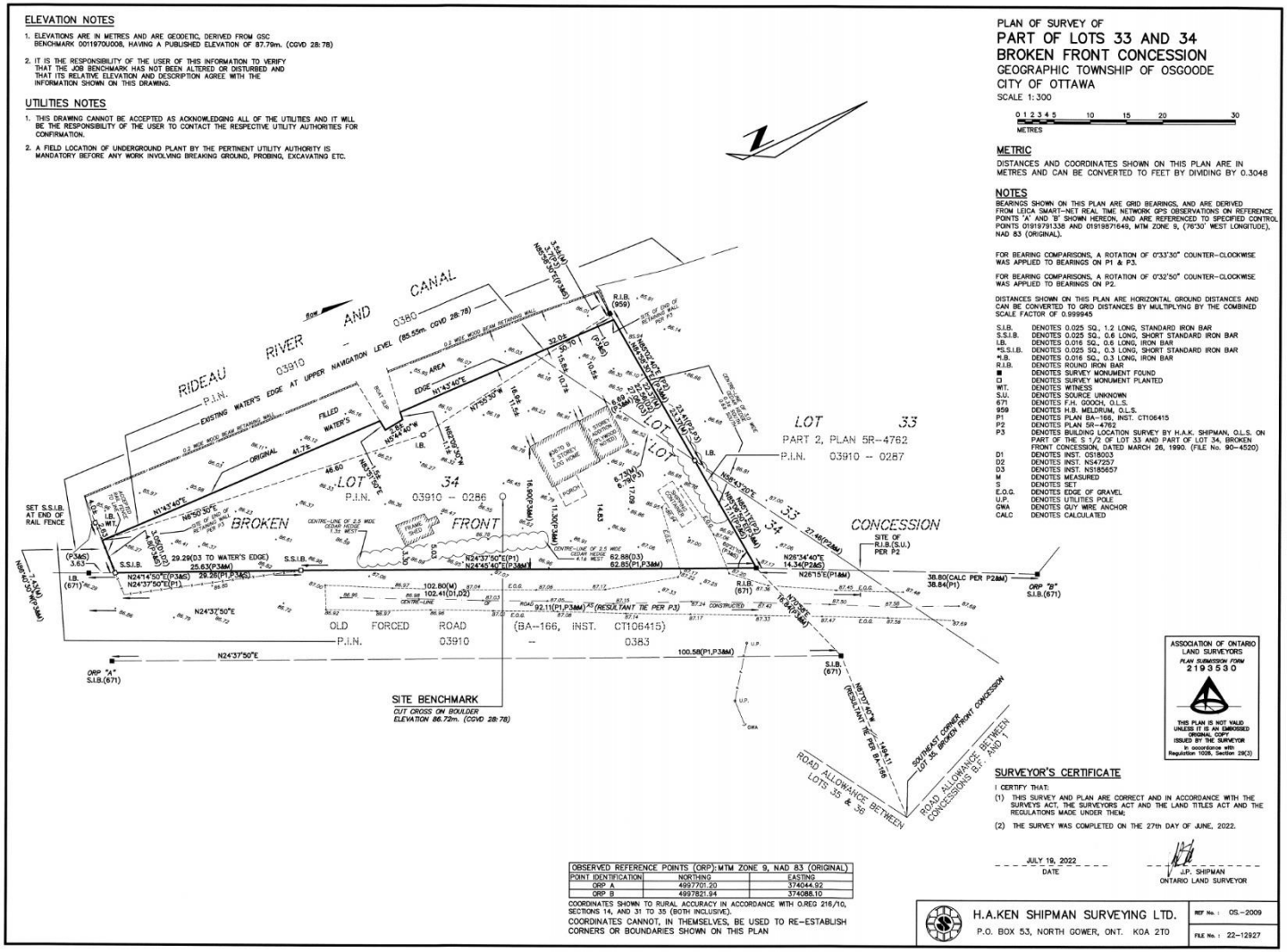
APPENDIX G: PLANS



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