Version 1.1

1182 Birchview Road in the
Township of Douro-Dummer

June 2026

Environmental Impact Study

Sumac
ENVIRONMENTAL CONSULTING

Prepared For:
David Zemans and
Catherine Poyen Zemens

Prepared By:
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June 5, 2026 SEC 26-082

David Zemans and Catherine Poyen Zemans
31 Shelborne Avenue
Toronto, Ontario
M5N 1Y8

Re: **Environmental Impact Study at 1182 Birchview Road in the Township of Douro-Dummer**

To whom it may concern,

Thank you for retaining Sumac Environmental Consulting to prepare an Environmental Impact Study at 1182 Birchview Road in the Township of Douro-Dummer. The following report identifies the form and function of natural heritage on the subject property and assesses the potential impacts to said features with respect to a proposed redevelopment. Recommendations and mitigation strategies have been included. This report has been prepared for David Zemans and Catherine Poyen Zemans and the undersigned accepts no responsibility for future use by other parties.

We thank you for the opportunity to be part of this project and should you have any questions, please do not hesitate to contact the undersigned.

Sumac Environmental Consulting

Cassandra Fligg, M.Sc.
Environmental Consultant

Tyler Ambeau, M.Sc.
Ecologist/GIS Technician

Report Summary

Sumac Environmental Consulting has prepared an Environmental Impact Study at 1182 Birchview Road in the Township of Douro-Dummer. It is our understanding that this report has been requested by the Municipality in response to a permit application that supports the reconstruction of a detached cottage on the subject property. A site visit was carried out in spring of 2026 to examine natural features that have the potential of being impacted by a proposed development. A Species at Risk Habitat Assessment was completed to screen for absent, candidate and confirmed habitat of endangered and threatened species (HETS). A Significant Wildlife Habitat (SWH) Assessment was completed to screen for absent, candidate and confirmed SWH. Fish habitat, HETS, SWH and significant woodland were identified as occurring on or near the subject property. Significant impacts to the identified features are not anticipated, should the proponent follow the recommendations provided herein.

The recommendations provided in Section 8.2 are summarized as follows:

- To reduce light pollution and minimize disorientation of birds, exterior lighting for the new cottage and boathouse should use warm-spectrum, low-intensity fixtures directed downward and away from natural cover.
- Window treatments such as patterned glazing or external shading devices are encouraged on large lakeside windows to reduce collision risk.
- All disturbed portions of the subject property should be re-seeded and planted with native non-invasive vegetation immediately following the completion of site works.
- Additional restoration plantings using native species should be incorporated where feasible to enhance edge stability and support long-term woodland resilience.
- Tree preservation hoarding should be used during construction to protect the remaining treed communities.
- A silt fence should be used during construction to protect Clear Lake.
- A turbidity curtain should be used during in-water works to protect fish and fish habitat.
- An emergency response plan should be prepared for all works involving machinery in case of fluid leaks.
- All machinery should be kept in a clean condition and free of fluid leaks.
- Washing, fueling and servicing machinery should not occur within 30 m of aquatic features.
- Stockpiling of fill and/or construction material should not occur within 30 m of aquatic features unless otherwise contained by silt fence.
- Avoid vegetation removal during the sensitive periods listed below unless other directed by a qualified biologist prior to the onset of site works:
    - Migratory birds: April 1 – August 31.
    - Roosting bats: March 15 – November 30.

- Two (2) bat exit surveys during the appropriate seasonal window are recommended to confirm use of the subject property by Eastern small-footed myotis.
- Encountered wildlife should be allowed to exit the site on their own, via safe routes, or be removed/relocated by qualified wildlife service providers working in accordance with

Key Staff

Environmental Consultant – Cassandra Fligg, M.Sc.
Mrs. Fligg received a master's degree in science (biology) from Lakehead University. She has previously been qualified as an Ecologist with expertise in natural heritage and freshwater ecology by the Ontario Land Tribunal. Mrs. Fligg is proficient in the preparation of natural heritage reports in southern and central Ontario, particularly those that include policy of the Lake Simcoe Protection Plan, Greenbelt Plan, Oak Ridges Moraine Conservation Plan and Niagara Escarpment Plan. She has prepared species at risk screenings to the satisfaction of the Ministry of Environment, Conservation and Parks and assisted proponents in demonstrating avoidance to the harm and/or destruction of species at risk and their habitat, and navigated proponents through the overall benefit permit process where complete avoidance was not possible. Mrs. Fligg is a certified arborist as recognized by the International Society of Arboriculture, certified butternut health assessor as recognized by the Ministry of Natural Resources and Forestry, certified level 2 backpack electrofisher (crew leader) and has completed a fish identification workshop, turtle identification and handling workshop, and diatom algae culture and isolation workshop.

Ecologist/GIS Technician – Tyler Ambeau, M.Sc.
Mr. Ambeau completed his diploma in Fish and Wildlife Technology at Fleming College where he formed a solid foundation in identification of flora and fauna. He has more than 7 years experience of conducting biological inventories for various research facilities, government bodies and charities, including the Ontario Turtle Conservation Centre, Oak Ridges Moraine Land Trust and Ministry of Natural Resources. He furthered his studies by obtaining an Honors Bachelor's degree in biology at Trent University. As a Master's student at Carlton University, Mr. Ambeau taught field ecology and data collection associated with Ontario's herpetofauna to undergraduate students. He specializes in plant, bird and herpetofauna surveys and is well versed in species-specific studies for the purpose of the Endangered Species Act. Mr. Ambeau has successfully attained a Field Ornithology Certificate, Ontario Benthic Biomonitoring Network Certificate and Level 2 Electrofishing Certificate.

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1.0 Introduction

Sumac Environmental Consulting (Sumac) was retained to prepare an Environmental Impact Study (EIS) at 1182 Birchview Road in the Township of Douro-Dummer (hereinafter referred to as the 'subject property'). It is our understanding that an EIS has been requested by the Municipality in response to a permit application that supports the reconstruction of a detached cottage on the subject property.

The subject property is approximately 0.59 ha in size and consists of a cottage, accessory buildings, gravel driveway, maintained areas and natural cover (Figure 1). The subject property is situated on the shoreline of Clear Lake. According to the County of Peterborough GIS mapping, the subject property is located within the 'Lakeshore Residential' and 'Environmental Constraint' land use designations. The surrounding area is predominantly composed of lakeshore residential properties, open water and natural cover.

2.0 Planning Context

2.1. Federal

2.1.1. Species At Risk Act

The *Species at Risk Act* (SARA) provides the federal framework for the protection and recovery of species listed as extirpated, endangered, threatened, or of special concern in Canada. The purposes of the Act are outlined in SARA s. 6, which aims to prevent wildlife species from becoming extirpated or extinct, facilitate the recovery of listed species, and manage species of special concern to prevent further decline. Federal listing processes are established under SARA ss. 14 and 27, which govern how species are assessed by COSEWIC and formally added to Schedule 1.

General prohibitions against killing, harming, harassing, capturing, or taking individuals of listed endangered or threatened species are set out in SARA s. 32, while SARA s. 33 prohibits the damage or destruction of their residences (e.g., nests, dens, hibernacula). Once critical habitat is identified in a recovery strategy (SARA s. 37) or action plan (SARA s. 47), its protection is governed by SARA s. 58, which prohibits destruction of any part of that habitat on federal lands or for federally managed species (e.g., aquatic species, migratory birds protected by the *Migratory Birds Convention Act*).

In circumstances where an activity cannot avoid contravening the prohibitions in ss. 32 or 33, SARA provides a permitting mechanism under s. 73. Section 73(1) authorizes the competent federal minister to issue permits for three specific purposes:

(a) Scientific research relating to the conservation of the species;

(b) Activities that benefit the species or enhance its chances of survival in the wild; or
(c) Activities that incidentally affect the species, provided they are otherwise carried out in accordance with the Act.

Under s. 73(2), the Minister must also be satisfied that all reasonable alternatives to the activity were considered and the best solution was adopted, that all feasible measures will be taken to minimize impacts, and that the activity will not jeopardize the survival or recovery of the species. Together, these provisions form the primary federal pathway for authorizing otherwise prohibited impacts to listed species, their residences, or their critical habitat on federal lands or for federally managed species.

2.1.2. Fisheries Act

The fish and fish habitat protection provisions of the *Fisheries Act* include two (2) core prohibitions against persons carrying on works, undertaking or activities that result in the following:

- the death of fish, by means other than fishing; and
- the harmful alteration, disruption, or destruction of fish habitat.

2.1.3. Migratory Birds Convention Act

The purpose of the *Migratory Birds Convention Act* is to implement the Convention by protecting and conserving migratory birds – as populations and individual birds – and their nests. Migratory Birds Regulations is a regulation made under the *Migratory Birds Convention Act*. Section 5 (1) of the Migratory Birds Regulation states that a person must not engage in any of the following activities unless they have a permit that authorizes them to do so or they are authorized by these Regulations to do so:

(a) capture, kill, take, injure or harass a migratory bird or attempt to do so;
(b) destroy, take or disturb an egg; and
(c) damage, destroy, remove or disturb a nest, nest shelter, eider duck shelter or duck box.

2.2. Provincial

2.2.1. Species Conservation Act

The *Species Conservation Act*, 2025 (SCA) establishes Ontario's current framework for identifying protected species and regulating their habitat. The purposes of the Act are set out in SCA s. 1, which directs the province to identify species at risk, support their protection and recovery, and balance ecological, social, and economic considerations.

A key component of the SCA is its definition of habitat, provided in SCA s. 2(1). For animal species, habitat is defined as a dwelling place, such as a den, nest or other similar place, that is occupied or habitually occupied by one or more members of a species for the purposes of breeding, rearing, staging, wintering or hibernating, and the area immediately around it that is essential for said purposes. For vascular plant species, habitat is defined as the critical root zone surrounding a member of the species. For all other species, habitat is defined as an area on which any member of the species directly depends in order to carry on its life processes. SCA s.2(2) states that for greater certainty, the definition of "habitat" does not include an area where the species formerly occurred or has the potential to be reintroduced unless existing members of the species depend on that area to carry on their life processes.

Species protected under the Act are listed on the Protected Species in Ontario List, established under SCA s. 14, and do not include species of birds protected by the *Migratory Birds Convention Act* (MBCA) or aquatic species as defined in subsection 2(1) of the SARA. Activities that may harm protected species or damage regulated habitat are subject to prohibitions under SCA s. 16.

The SCA defines "section 16 activity" as any activity that results or is likely to result in, the killing, harming, capturing or taking of a member of a species that is listed on the Protected Species in Ontario List, or damage to or destruction of the habitat of a species that is listed on the Protect Species in Ontario List. A "registrable activity" means a section 16 activity that is not prescribed for the purposes of subsection 16 (2); that being in accordance with a permit. The SCA s.16(1) states that no person shall engage in a registerable activity unless,

(a) The person has registered the activity in the Registry in accordance with the regulations;
(b) The Minister has provided the person with a confirmation of registration in respect of the activity;
(c) The person engages in the activity in accordance with the regulations; and
(d) The registration is not suspended and has not been removed from the Registry.

Depending on the nature of the activity and the species involved, proponents may be required to complete an online registration (SCA ss. 17–20) or obtain a permit (SCA ss. 21–22) before proceeding with a section 16 activity.

2.2.2. Fish and Wildlife Conservation Act

The *Fish and Wildlife Conservation Act* aims to conserve and manage fish and wildlife in Ontario.

Section 7 (1) of the *Fish and Wildlife Conservation Act* states that a person shall not destroy, take or possess the nest or eggs of a bird that belongs to a species that is wild by nature.

Section 8 (2) of the *Fish and Wildlife Conservation Act* states that a person shall not intentionally damage or destroy the den or habitual dwelling of a furbearing mammal, other than a fox or skunk, unless the person holds a licence to trap furbearing mammals.

2.2.3. Provincial Planning Statement

As per Section 4.1.4 of the Provincial Planning Statement, development and site alteration shall not be permitted in significant wetlands in Ecoregions 6E.

As per Section 4.1.5 of the Provincial Planning Statement, development and site alteration shall not be permitted in significant woodlands in Ecoregions 6E. significant valleylands in Ecoregions 6E, significant wildlife habitat, and significant areas of natural and scientific interest unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

As per Section 4.1.6 of the Provincial Planning Statement, development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.

As per Section 4.1.7 of the Provincial Planning Statement, development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.

As per Section 4.1.8 of the Provincial Planning Statement, development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 4.1.4, 4.1.5, and 4.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

2.2.1. Conservation Authorities Act

Regulated lands of the Otonabee Region Conservation Authority (ORCA) have been mapped on the subject property (Appendix A). Conservation Authorities are empowered by the *Conservation Authorities Act* to regulate development and activities in or adjacent to river or stream valleys, Great Lakes and inland lakes' shorelines, watercourses, hazardous lands and wetlands.

2.3. Municipal

2.3.1. County of Peterborough Official Plan

As per the County of Peterborough Official Plan (office consolidation 2025), the following land use designations have been mapped on the subject property:

- Lakeshore Residential (County GIS mapping); and
- Environmental Constraint (County GIS mapping).

As per Section 4.1.3.4 of the County of Peterborough Official Plan (office consolidation 2025), local plans will prohibit development and site alterations within the following types of significant natural heritage features:

- significant wetlands;
- significant portions of the habitat of endangered and threatened species;

Moreover, local plans may permit development and site alteration in:

- significant woodlands south and east of the Canadian Shield;
- significant valleylands south and east of the Canadian Shield;
- significant wildlife habitat; and;
- significant areas of natural and scientific interest.

Development and site alteration will not be permitted in fish habitat except in accordance with provincial and federal requirements.

Moreover, development or site alteration such as filling, grading and excavating may be permitted within or adjacent to the remaining natural heritage features listed in Section 4.1 of this Plan, provided that it has been demonstrated by an Environmental impact assessment that there will be no negative impacts on the natural features or ecological functions for which the area is identified.

As per Section 4.4.3 of the County of Peterborough Official Plan (office consolidation 2025), notwithstanding any other policy of Section 4.4.3, local plans and zoning by-laws will require that all new development and leaching beds be set back at least 30 metres from the ordinary high water marks of all waterbodies. Excepted from this requirement are marina facilities, and other water access facilities, pumphouses, and minor accessory buildings and structures as defined in zoning by-laws.

As per Section 6.2.6.2 of the County of Peterborough Official Plan (office consolidation 2025), the predominant use of land within the Lakeshore Residential designation shall be for permanent single-detached dwellings and seasonal cottages on public roads.

As per Section 6.2.6.3 c. of the County of Peterborough Official Plan (office consolidation 2025), with respect to Lakeshore Residential Policies, structures permitted in the Lakeshore Residential

designation, including leaching beds of septic systems, on lots created by consent or plan of subdivision after the date Official Plan Amendment No.3 comes into effect, shall be set back a minimum of 30 metres from the shoreline of any lake or major watercourse in order to ensure adequate protection from changes in water level and flooding and to ensure maintenance of water quality and the protection of fish and wildlife habitats.

Moreover, notwithstanding anything in this section to the contrary, structures such as pump houses, boat houses, docks, open decks and stairs shall be a permitted use and may encroach into the 30 metre setback without a minor variance provided that the property owner can demonstrate to the Township's satisfaction and, if appropriate, the authority having jurisdiction over the waterway, that it does not negatively affect the waterfront environment.

Moreover, structures legally existing as of the date Official Plan Amendment No.3 comes into effect (October 22, 2008) that do not comply with the required water setback provision that require replacement due to structural defects or destruction by fire or other natural causes or by permission of the Township will be permitted to be replaced on the same footprint and may only be enlarged in accordance with the provisions of the Zoning By-law, and where the enlargement does not further encroach into the 30 metre water setback.

As per Section 6.2.15.1 of the County of Peterborough Official Plan (office consolidation 2025), the Environmental Constraint Area designation includes those lands having inherent environmental hazards such as flood or erosion susceptibility, poor drainage, organic soils, instability or any other similar physical characteristic or limitation and includes other nonprovincially-significant wetlands which, if developed upon, could result in the deterioration or degradation of the environment and cause property damage or loss of life.

As per Section 6.2.15.2 of the County of Peterborough Official Plan (office consolidation 2025), with respect to permitted uses, the predominant use of land within the Environmental Constraint designation is the preservation and conservation of the natural environment.

As per Section 6.2.15.3 of the County of Peterborough Official Plan (office consolidation 2025), the erection of buildings and structures or the placing or removal of fill of any kind whether originating on the site or elsewhere, shall be prohibited except where buildings or structures are intended for flood or erosion control, landscape stabilization or essential utilities. Those works shall be in accordance with the regulations and the approval of the Otonabee Region Conservation Authority or the Ministry of Natural Resources.

2.3.1. Township of Douro-Dummer

The Township of Douro-Dummer has included their local policies in the County Official Plan.

3.0 Background Review

The following resources were reviewed to gain a deeper understanding of natural heritage with the potential of occurring on the subject property and adjacent lands (i.e., up to 120 m):

- Atlas of the Mammals of Ontario (Dobbyn, 1994);
- Atlas Square No. 17QK22 of the Ontario Butterfly Atlas;
- Atlas Square No. 17QK22 of the Ontario Reptile and Amphibian Atlas;
- Atlas Square No. 17QK2229 and 17QK2129 of the Natural Heritage Information Centre;
- Atlas Square No. 17TQK22 of the Ontario Breeding Bird Atlas;
- County of Peterborough Official Plan (office consolidation 2022);
- Department of Fisheries and Oceans Canada Aquatic Species at Risk Map;
- eBird;
- iNaturalist;
- Land Information Ontario;
- Ministry of Natural Resources (MNR) Aquatic Resources Area Mapping; and,
- Peterborough County Official Plan (June 2022 draft).

Given the relevant planning jurisdiction, the following features are being considered in the EIS, where applicable to the subject property and adjacent lands:

- Areas of Natural and Scientific Interest (ANSI);
- Fish Habitat;
- Habitat of Endangered and Threatened Species;
- Significant Valleylands;
- Significant Wetlands;
- Significant Wildlife Habitat; and
- Significant Woodlands.

4.0 Characterizing the Natural Environment: Approach and Methodology

The field studies as described below were carried out by Sumac staff, Tyler Ambeau, during a single-day site visit on May 19, 2026.

4.1. Vegetation

4.1.1. Botanical Inventory

A vascular plant inventory was completed for the vegetation communities that occur on or extend onto the subject property.

4.1.2. Vegetation Communities

Orthographic imagery of the subject property and adjacent lands was used for the basis of Ecological Land Classification (ELC) and further refined through a ground-truthing exercise. Vegetation communities were classified following protocol of the Ecological Land Classification (ELC) for Southern Ontario (Lee, H. et al., 1998) and associated Vegetation Type List (Lee, H., 2008), where applicable.

4.2. Area of Natural and Scientific Interest

Background mapping from the MNR was reviewed to identify the nearest ANSI.

4.3. Fish Habitat

Fish habitat is defined in subsection 2(1) of the *Fisheries Act* to include all waters frequented by fish and any other areas upon which fish depend directly or indirectly to carry out their life processes. The subject property, including its shoreline, was screened for evidence of supporting features to fish habitat associated with Clear Lake. Fish habitat and supporting features to fish habitat were mapped and characterized accordingly.

4.4. Habitat of Endangered and Threatened Species

For the purpose of this study, we have defined "Species at Risk" (SAR) to include species designated threatened and endangered under O. Reg. 60/26 in accordance with the SCA and Schedule 1 to the SARA. Species occurrence data from sources outlined in Section 3.0 of this report was used to determine which species at risk are known to occur in proximity to the subject property. An ELC exercise was completed to identify potential habitat opportunities for the listed species at risk. A SAR Habitat Assessment was completed to identify candidate, confirmed and absent SAR habitat on the subject property.

4.5. Valleyland

The subject property was screened for valleyland associated with Clear Lake. If present, valleyland was assessed for significance using the recommended evaluation criteria and standards as described in the Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement (MNR, 2005).

4.6. Wetland

The subject property was screened for wetland feature(s) and if present, delineated following the appropriate method (e.g., 50% vegetation rule) as described in the Ontario Wetland Evaluation System: Southern Manual 4th Edition. Digital terrain models and orthographic imagery were used to identify candidate wetland on the adjacent lands.

4.7. Wildlife Habitat

Incidental observations of wildlife, wildlife signs (e.g., scat, tracks, remains of food, claw marks on trees or shrubs, trails or corridors, stunted vegetation, stick nests, turned stones) and habitat opportunities were noted during Sumac's field investigations.

The potential for Significant Wildlife Habitat (SWH) on the subject property was assessed following criteria and thresholds outlined in the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNR, 2015).

4.8. Woodland

The ELC approach for defining "forest" using canopy cover was used to delineate woodland patches that occur on or extend onto the subject property. If present, woodland patches were mapped and characterized. Woodland significance was assessed using the recommended evaluation criteria and standards as described in the Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement (MNR, 2005).

5.0 Data Analysis

5.1. Vegetation

5.1.1. Botanical Inventory

A list of vascular plant species for the vegetation communities that extend onto the subject property has been provided for reference (Table 1).

5.1.2. Vegetation Communities

The subject property contained four (4) distinct vegetation communities (Figure 2):

1. CVR_3 Single Family Residential: Approximately 937 m^2 of maintained land occurred across southern portions of the subject property. This area was mostly cleared, consisting of exposed rock, sparse young trees (e.g., Eastern white cedar) and sparse shrubs (e.g., common juniper).
2. FOC4-1 Fresh - Moist White Cedar Coniferous Forest Type: Approximately 2,517 m^2 of coniferous forest occurred across central and southern portions of the subject property, extending east, into the adjacent lands. An open canopy consisted mostly of mid-aged Eastern white cedar with sparsely distributed hardwood associates (e.g., sugar maple, paper birch, trembling aspen and Eastern hop-hornbeam). A sparse shrub layer consisted mostly of round-leaved dogwood, common juniper and chokecherry. Sparse groundcover consisted of large-leaved aster, creeping bellflower, wall lettuce and common dandelion.

3. FOD6-5 Fresh - Moist Sugar Maple - Hardwood Deciduous Forest Type: Approximately 2,426 m^2 of mid-aged to mature deciduous forest occurred across a northern portion of the subject property, extending into the adjacent lands. The canopy consisted mostly of sugar maple with basswood, paper birch and Freeman's maple. A moderately vegetated sub-canopy consisted of Eastern white cedar, Eastern hop-hornbeam, sugar maple and Eastern red cedar. A moderately vegetated shrub layer consisted of round-leaved dogwood and Northern bush-honeysuckle. The groundcover consisted mostly of European lily-of-the-valley, orange daylily, creeping jenny, and lesser periwinkle.
4. OA Open Water: Approximately 74 m of shoreline associated with Clear Lake occurred along the northern perimeter of the subject property. Mostly unvegetated and open water conditions occurred in the visible nearshore.

5.2. Area of Natural and Scientific Interest

The nearest ANSI, Youngs Point White Pine Stand, is mapped approximately 5.4 km southwest of the subject property (Appendix B). No further analysis required.

5.3. Fish Habitat

Data extracted from the MNR Aquatic Resource Area database identified Clear Lake as exhibiting a warm water thermal regime with documented occurrences of a variety of fish species (e.g., lake whitefish, largemouth bass, muskellunge, pumpkinseed, rock bass, smallmouth bass, walleye, white sucker, yellow perch, etc.). The Ordinary High Water Mark (OHWM) was recorded during Sumac's field investigations and has been mapped for reference (Figure 3).

The backshore was moderately sloped (~30%) and consisted mostly of deciduous forest with a semi-maintained understory. Portions of the canopy were near or overhanging the waters edge, providing part-shade conditions. The foreshore exhibited a gentle slope (<20 %) and was mostly unvegetated, consisting of boulder and cobble. Offshore was gently sloped (~20%) and was mostly unvegetated with boulder, cobble and sand.

5.4. Habitat of Endangered and Threatened Species

No endangered or threatened plant species were encountered on the subject property (Table 1).

The SAR Habitat Assessment identified candidate habitat of the following endangered and threatened species on the subject property (Table 2).

5.4.1. Mammals

Eastern Red Bat, Hoary Bat, Little Brown Myotis and Tri-colored Bat: The FOC4-1 and FOD6-5 communities identified on the subject property have the potential to function as suitable roosting

habitat for Eastern red bat, hoary bat, little brown myotis and tri-colored bat. Foraging habitat on the subject property may include shoreline, should these species be present.

Eastern Small-footed Myotis: The subject property shoreline was characterized as having steep rocky slopes, cracks and crevices with the potential to function as roosting habitat for Eastern small-footed myotis. Foraging habitat on the subject property may include the shoreline, should this species be present.

5.5. Valleyland

The topography on the subject property was not suggestive of the presence of valleyland or other significant landform depression associated with Clear Lake. No further analysis required.

5.6. Wetland

No wetland encountered on the subject property. No further analysis required.

5.7. Wildlife Habitat

The following observation were noted during Sumac's field investigations:

- American Crow (*Corvus brachyrhynchos*)
- American Goldfinch (*Spinus tristis*)
- Bay-breasted Warbler (*Setophaga castanea*)
- Black-and-white warbler (*Mniotilta varia*)
- Black-capped Chickadee (*Poecile atricapillus*)
- Blue Jay (*Cyanocitta cristata*)
- Chipping Sparrow (*Spizella passerina*)
- Eastern Phoebe (*Sayornis phoebe*)
- Eastern Towhee (*Pipilo erythrophthalmus*)
- Great Blue Heron (*Ardea herodias*)
- Great Crested Flycatcher (*Myiarchus crinitus*)
- Northern Cardinal (*Cardinalis cardinalis*)
- Northern Flicker (*Colaptes auratus*)
- Ruby-throated Hummingbird (*Archilochus colubris*)
- Song Sparrow (*Melospiza melodia*)
- White-tailed deer (*Odocoileus virginianus*)
- Yellow-rumped warbler (*Setophaga coronata*)

The SWH Assessment identified two (2) candidate SWH as occurring on the subject property.

5.7.1. Seasonal Concentration Areas of Animals

Bat Maternity Colonies: The FOC4-1 and FOD6-5 communities have the potential of containing bat maternity roost sites and functioning as the SWH, Bat Maternity Colonies.

5.7.2. Habitats of Species of Conservation Concern Considered SWH

Special Concern and Rare Wildlife Species: No provincially rare plant species were encountered on the subject property (Table 1). Habitat for special concern species has the potential of occurring on the subject property (Table 2).

Eastern Wood-pewee: The FOC4-1 and FOD6-5 communities identified on the subject property have the potential to provide suitable breeding habitat for Eastern wood-pewee.

Northern Map Turtle: Northern map turtle may utilize the rocky shoreline of Clear Lake for basking, should this species be present. No high-quality turtle nesting habitat identified on the subject property.

5.8. Woodland

The forested communities that occur on the subject property (i.e., FOC4-1 and FOD6-5 communities) form part of a woodland feature that extends across the greater landscape, measuring greater than 100 ha in size. According to the Otonabee Region Watershed Report Card (2023), woodland cover in this jurisdiction is approximately 42%. According to the Natural Heritage Reference Manual, where woodland cover is about 30-60% of the land cover, woodlands 50 ha in size or larger should be considered as significant. As such, the forested communities that occur on the subject property would be considered as significant woodland.

6.0 Project Description

The proposed development supports the reconstruction of a detached cottage and associated accessory structures on the subject property. The existing cottage, boathouse, dock, and related disturbed areas will be removed, with redevelopment occurring within the defined Area of Work as illustrated on the site plan. Proposed works include construction of a new cottage set farther landward, a new boathouse with a wet slip, a new swim dock, regrading and slope stabilization around exposed bedrock features, installation of a new septic system, and restoration of former development areas with native vegetation. The impact assessment below reviews potential effects associated with these works as contained within the Area of Work, as depicted on Figure 3.

7.0 Impact Assessment

7.1. Vegetation

The following vegetation communities will be disturbed to facilitate the proposed development:

- Up to 726 m^2 of the CVR_3 community
- Up to 1,607 m^2 of the FOC4-1 community
- Up to 1,663 m^2 of the FOD6-5 community
- Up to 225 m^2 of the OA feature

The proponent is encouraged to re-vegetate all disturbed areas remaining post-development with non-invasive native trees, shrubs and groundcover, where feasible (Section 8.2.2). Bird-friendly design is recommended due to proximity of the proposed dwelling to natural cover (Section 8.2.1).

7.2. Fish Habitat

Approximately 225 m^2 of Clear Lake will be disturbed for the purposes of the new boathouse and swim dock. This footprint consists of gently sloped boulder, cobble, and sand with minimal aquatic vegetation, and the works are confined to an area already influenced by existing shoreline use. Given the nature of the substrate and the absence of sensitive habitat features within the footprint, the in-water works are not expected to result in a measurable reduction in habitat function. Once constructed, the new boathouse and swim dock are anticipated to function as localized microhabitat—such as shaded areas and structural complexity—that can offer resting, refuge, or foraging opportunities for some warmwater fish species. A turbidity curtain should be installed and maintained for the duration of all in-water activities to contain suspended sediments and protect water clarity (Section 8.2.3).

The existing cottage is located approximately 6.3 m to the OHWM at its closest point. The proposed cottage is located approximately 7.7 m from the OHWM at its closest point. The existing septic system is being decommissioned and removed. The proposed septic system is located more than 30 m from the OHWM at its closest point, reducing the potential for nutrient inputs to the nearshore zone.

Collectively, the limited and localized nature of the in-water disturbance, combined with increased setbacks, improved servicing, and the use of appropriate sediment controls (Section 8.2.3), is expected to maintain or enhance conditions that support fish habitat along this portion of Clear Lake.

7.3. Habitat of Endangered and Threatened Species

7.3.1. Mammals

Eastern Red Bat, Hoary Bat, Little Brown Myotis and Tri-colored Bat: Although tree removal from the FOC4-1 and FOD6-5 communities is required to facilitate the proposed development, this amount of removal would be considered very small (<0.1%) relative to the remaining amount of available roosting habitat for Eastern red bat, hoary bat, little brown myotis and tri-colored bat. Moreover, the proposed development is not anticipated to significantly impair or eliminate the available candidate foraging habitat (e.g., forest edge, shoreline) for said species. To protect roosting migratory bats, tree clearing should not occur during the active bat window (Section 8.2.5).

Eastern Small-footed Myotis: Bat exit surveys during the appropriate seasonal window are recommended to confirm use of the subject property by Eastern small-footed myotis (Section 8.2.6). If Eastern Small-footed Myotis is confirmed roosting on the property, the activity would likely require registration under the *Species Conservation Act*. Through this process, a Conservation Plan would be prepared to assess and address potential impacts to the species and its habitat. The Conservation Plan would outline measures to avoid or minimize disturbance, identify and secure appropriate habitat offsetting to compensate for any loss of roosting features, and establish monitoring or adaptive management requirements as needed. Timing restrictions for site works would also apply, generally limiting vegetation removal and disturbance between March 15 and November 30, to ensure that construction activities do not adversely affect roosting individuals (Section 8.2.5).

7.4. Wildlife Habitat

7.4.1. Seasonal Concentration Areas of Animals

Bat Maternity Colonies: Although tree removal from the FOC4-1 and FOD6-5 communities is required to facilitate the proposed development, this amount of removal would be considered very small (<0.1%) relative to the remaining amount of available maternity roosting habitat for migratory bats. To protect roosting migratory bats, tree clearing should not occur during the active bat window (Section 8.2.5).

7.4.2. Habitats of Species of Conservation Concern Considered SWH

Special Concern and Rare Wildlife Species:

Eastern Wood-pewee: Although tree removal from the FOC4-1 and FOD6-5 community is required to facilitate the proposed development, this amount of removal would be considered very small (<0.1%) relative to the remaining amount of available breeding

habitat for Eastern wood-pewee. To protect migratory birds, vegetation clearing should not occur during the sensitive timing window (Section 8.2.5).

Northern Map Turtle: Although Northern map turtle may occasionally bask along the rocky shoreline of Clear Lake, no suitable nesting habitat was identified on the subject property, and the proposed works are confined to areas already disturbed by existing structures and anthropogenic use. Redevelopment of the cottage, boathouse, and dock, along with localized regrading and slope stabilization, may result in brief, low-intensity disturbance to any turtles present along the shoreline, but these effects are expected to be temporary and minor. Any wildlife, including turtles, encountered during site clearing or subsequent construction activities should be allowed to exit the site on their own, via safe routes (Section 8.2.7).

7.5. Woodland

Up to 3,270 m² of significant woodland will be removed to accommodate the proposed development; however, this represents a very small proportion (<0.1%) of the extensive significant woodland that continues across the surrounding landscape. The area of removal occurs along the outer edge of the feature in a portion already influenced by long-standing anthropogenic use, and its loss is not expected to alter the overall form, function, or ecological integrity of the broader woodland system. To ensure the remaining treed communities are protected, site-specific measures as outlined in the associated Tree Inventory and Preservation Plan should be implemented, including installing tree protection fencing prior to any site works, avoiding root disturbance and soil compaction near retained trees, and conducting any necessary pruning or removals under the direction of a qualified arborist. Additional restoration plantings using native species should be incorporated where feasible to enhance edge stability and support long-term woodland resilience (Section 8.2.2). With these measures in place, no significant negative impacts to significant woodland are anticipated.

8.0 Conclusion and Recommendations

8.1. Conclusion

The proposed redevelopment at 1182 Birchview Road has been evaluated with respect to the natural heritage features and ecological functions identified on and adjacent to the subject property. As documented in this report, fish habitat, candidate habitat of endangered and threatened species, candidate significant wildlife habitat, and significant woodland occur within or near the Area of Work. The impact assessment demonstrates that, with adherence to the recommended mitigation measures, the proposed works are not anticipated to result in negative impacts to these features.

This conclusion appears consistent with the applicable federal, provincial, and municipal policy framework outlined in Section 2.0. Specifically, the project has been designed to avoid contravention of the *Fisheries Act*, *Migratory Birds Convention Act*, and *Species at Risk Act*, and complies with the requirements of the *Species Conservation Act*, which governs activities that may affect protected species or their habitat. The proposed development also conforms to the Provincial Planning Statement, which prohibits development in significant natural heritage features unless it can be demonstrated that no negative impacts will occur—a standard met through the avoidance-focused design and mitigation strategy presented herein. Furthermore, the project aligns with the County of Peterborough Official Plan, which permits development within or adjacent to certain natural heritage features where an Environmental Impact Study demonstrates no negative impacts, and respects the 30-m setback requirements for septic systems and shoreline protection.

As such, and provided the recommendations in Section 8.2 are implemented in full, the proposed redevelopment is considered consistent with the environmental policy and regulatory requirements described in Section 2.0, and no significant negative impacts to natural heritage features or their ecological functions are anticipated.

8.2. Recommendations

8.2.1. Bird-Friendly Design

To reduce light pollution and minimize disorientation of birds, exterior lighting for the new cottage and boathouse should use warm-spectrum, low-intensity fixtures directed downward and away from natural cover. Window treatments such as patterned glazing or external shading devices are encouraged on large lakeside windows to reduce collision risk.

8.2.2. Native Plantings

All disturbed areas should be restored using native, non-invasive trees, shrubs, and groundcover. Additional restoration plantings using native species should be incorporated where feasible to enhance edge stability and support long-term woodland resilience. Planting should follow species-appropriate timing windows and nursery stock should be inspected for girdling roots prior to installation.

8.2.3. Perimeter Control

Tree preservation hoarding is recommended to protect the remaining treed communities. The fence should be erected prior to the onset of siteworks and must remain in place for the duration of all construction activity. The recommended location of the fence is depicted on the associated Tree Inventory and Preservation Plan. We recommend diligent monitoring of said fence throughout the entirety of the development to ensure the integrity of the fence does not fail. Tree

preservation hoarding should meet municipal standards and specifications. In the absence of municipal standards and specifications, the following standards and specifications may be used:

- Orange high density polyethylene with 8.89 cm x 3.81 openings should be used for fencing material.
- Fence height should be a minimum of 1.2 m.
- Steel posts should be installed for support and spaced 2.43 m on center.
- Steel posts dimensions should be 5 cm x 1.82 m.
- Installation of tree preservation hoarding should not alter the existing grade unless otherwise indicated on the plans.
- Signage laminated in plastic should be affixed to the fencing, spaced every 15 m. Signage should read "KEEP OUT TREE PROTECTION AREA".

A silt fence consisting of non-woven geotextile material wire looped to wooden/metal stakes installed at 2-m intervals for support should be erected prior to the onset of siteworks to protect aquatic features. The proposed location of silt fence has been depicted on Figure 3. The silt fence should remain in place for the duration of all construction activity. The silt fence should be buried into the ground a minimum 30 cm and compacted with native materials. We recommend diligent monitoring of said fence throughout the entirety of the development to ensure the integrity of the fence does not fail.

In addition to the silt fence, a turbidity curtain should be deployed in the water for the duration of all in-water works, including removal of existing shoreline structures and installation of the new boathouse and swim dock (Figure 3). The turbidity curtain should be a full-depth, impermeable barrier anchored to the lakebed and supported by a continuous flotation boom. It must fully enclose the in-water work area while maintaining a buffer from active construction to prevent disturbance of the curtain. The curtain should be inspected daily and following storm events to ensure proper anchoring, tension, and absence of gaps, and it should remain in place until all in-water works are complete and suspended sediments have visibly settled.

8.2.4. Preventing Entry of Deleterious Substances in Aquatic Feature(s)

Deleterious substances should never be deposited and/or enter aquatic features. A response plan should be prepared prior to the onset of site works and an emergency spill kit should be kept on-site during site activities. All machinery should be kept in a clean condition and free of fluid leaks. Washing, fueling and servicing machinery should not occur within 30 m of aquatic features. Stockpiling of fill and/or construction material should not occur within 30 m of aquatic features unless otherwise contained by silt fence.

8.2.5. Sensitive Timing Window

To protect breeding migratory birds, vegetation removal should not occur between April 1 and August 31 of any given year unless otherwise directed by a biologist or other qualified person at the time of site works.

To protect roosting bats, woody vegetation removal should not occur between March 15 and November 30 of any given year unless otherwise directed by a biologist or other qualified person at the time of site works.

8.2.6. Species at Risk Survey

Two (2) bat exit surveys during the appropriate seasonal window are recommended to confirm use of the subject property by Eastern small-footed myotis. If Eastern Small-footed Myotis is confirmed through bat exit surveys, the activity will likely require registration under the *Species Conservation Act*, triggering preparation of a Conservation Plan. The plan should address impact avoidance, habitat offsetting, monitoring, and timing restrictions, consistent with SCA requirements for registrable activities.

8.2.7. Wildlife Encounters

Any wildlife encountered during site clearing or subsequent construction activities should be allowed to exit the site on their own, via safe routes. Construction staff should not attempt to capture or handle most kinds of wildlife, unless an animal is in imminent peril or is injured and cannot wait for rescue by qualified personnel. Improper handling can result in injuries to both workers and wildlife and may in some cases contravene provincial or federal legislation. Removal and relocation of mammals, in particular, should only be done by qualified wildlife service providers working in accordance with applicable laws (i.e., *Fish and Wildlife Conservation Act*). Observation records should include the observer's name, date and time, species, location (descriptive and georeferenced), photographs, and action taken.

9.0 References

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R.S.C., 1985. c. F-14. Fisheries Act.
R.S.O. 1990, c C.27. Conservation Authorities Act.
R.S.O. 1990, c. P.13. Planning Act.
S.C. 1994, c. 22. Migratory Birds Convention Act.
S.C. 2002, c. 29. Species at Risk Act.
S.O. 1997, c. 41. Fish and Wildlife Conservation Act.
S.O. 2025, c. 4. Species Conservation Act.

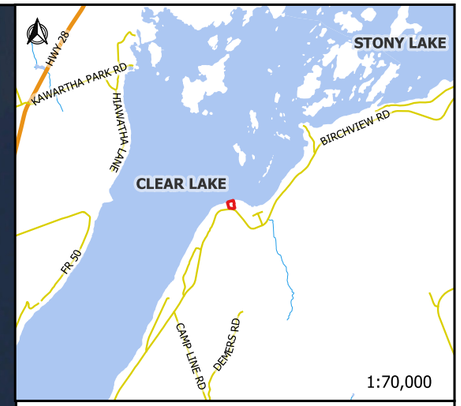
Limitations:

This report was prepared using the most current site plan provided to Sumac's office. The conclusion and recommendations provided herein may no longer be applicable should changes be made to the site plan following submission of this report. The assessment provided herein is valid at the time of inspection.

Disclaimer:

N

CLEAR LAKE



Legend

Subject Property

Adjacent Lands

0 20 40 60 80 100 m

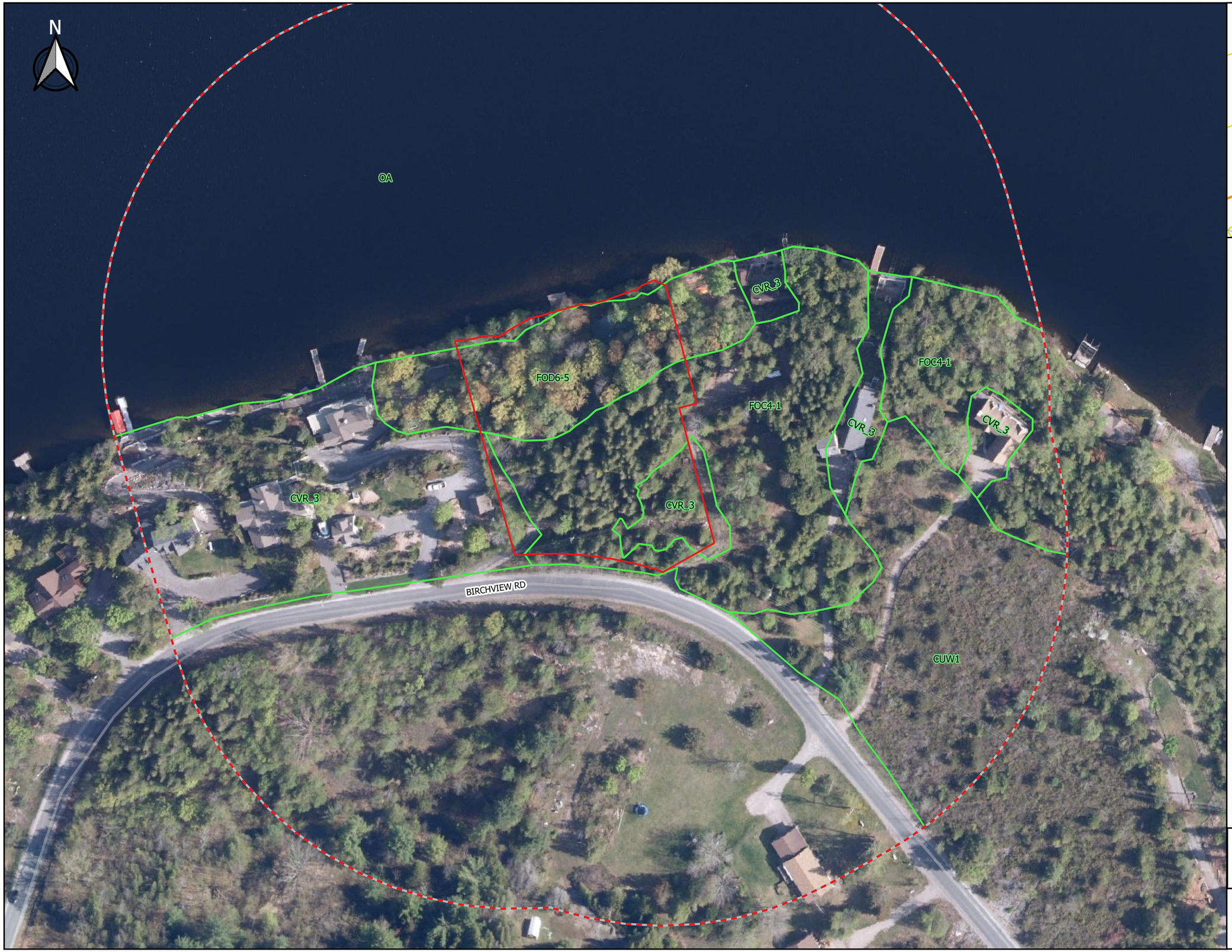
1:1,700

Figure 1: Subject Property

Sumac ENVIRONMENTAL CONSULTING

Designed by: M.S.
Date: 06/01/2026
Project: SEC26-082

\\SUMAC-QNAP\sumac 1_qnap\Projects\2026\26-082 1182 Birchview Rd EIS\5.0 GIS\Project Database



Legend

	Subject Property
	Adjacent Lands
	ELC Vegetation Communities
CUW1	Mineral Cultural Woodland Ecosite
CVR_3	Single Family Residential
FOC4-1	Fresh - Moist White Cedar Coniferous Forest Type
FOD6-5	Fresh - Moist Sugar Maple - Hardwood Deciduous Forest Type
OA	Open Water

0 10 20 30 40 50 60 m

1:1,200

Figure 2: Existing Conditions

Sumac ENVIRONMENTAL CONSULTING

Designed by: N.F.
Date: 06/02/2026
Project: SEC26-082

\\sumac-qnap\sumac 1_qnap\Projects\2026\26-082 1182 Birchview Rd EIS\5.0 GIS\Project Database

Legend

- Subject Property
- To be Removed
- Proposed Building
- Proposed Driveway
- Proposed Hardscaping
- Proposed Septic
- Area of Work
- Silt Fence
- Turbidity Curtain
- Ordinary High Watermark
- Significant Woodland

0 5 10 15 20 25 m

1:500

Figure 3: Proposed Development

Sumac ENVIRONMENTAL CONSULTING

Designed by: N.F.
Date: 06/04/2026
Project: SEC26-082

\\SUMAC-QNAP\sumac 1_qnap\Projects\2026\26-082 1182 Birchview Rd EIS\5.0 GIS\Project Database

Table 1: Vascular Plant Inventory **SEC 26-082 1182 Birchview Road**

Scientific Name	Common Name	Vegetation Community[A]			S-Rank[B]	G-Rank[C]	Provincially Tracked	Species at Risk Status		Non-native Status	Coefficient of Wetness
		CVR_3	FOC4-1	FOD6-5				Provincial[D]	Federal[E]		
Acer saccharum	Sugar Maple	✓		✓	S5	G5	N				3
Acer x Freemanii	(Acer rubrum X Acer saccharinum)			✓	SNA	GNA	N				-5
Anemonastrum canadense	Canada Anemone			✓	S5	G5	N				-3
Aralia nudicaulis	Wild Sarsaparilla	✓			S5	G5	N				3
Arctium minus	Common Burdock	✓			SNA	GNR	N			SE5	3
Betula papyrifera	Paper Birch	✓		✓	S5	G5	N				3
Campanula rapunculoides	Creeping Bellflower	✓		✓	SNA	GNR	N			SE5	5
Carex eburnea	Bristle-leaved Sedge	✓			S5	G5	N				3
Convallaria majalis	European Lily-of-the-valley			✓	SNA	G5	N			SE5	5
Cornus alternifolia	Alternate-leaved Dogwood	✓			S5	G5	N				3
Cornus rugosa	Round-leaved Dogwood	✓		✓	S5	G5	N				5
Cornus sericea	Red-osier Dogwood			✓	S5	G5	N				-3
Corydalis aurea	Golden Corydalis			✓	S5	G5	N				5
Diervilla lonicera	Northern Bush-honeysuckle			✓	S5	G5	N				5
Dryopteris marginalis	Marginal Wood Fern			✓	S5	G5	N				3
Equisetum variegatum	Variegated Scouring-rush			✓	S5	G5	N				-3
Eurybia macrophylla	Large-leaved Aster	✓	✓		S5	G5	N				5
Fragaria virginiana	Wild Strawberry	✓			S5	G5	N				3
Fraxinus americana	White Ash	✓		✓	S4	G4	N				3
Fraxinus pennsylvanica	Red Ash	✓			S4	G4	N				-3
Galium mollugo	Smooth bedstraw	✓			SNA	GNR	N			SE5	5
Geranium robertianum	Herb-robert	✓			S5	G5	N				3
Hemerocallis fulva	Orange Daylily			✓	SNA	GNA	N			SE5	5
Juncus tenuis	Path Rush	✓	✓		S5	GNR	N				0
Juniperus communis	Common Juniper	✓	✓		S5	G5	N				3
Juniperus virginiana	Eastern Red Cedar	✓	✓	✓	S5	G5	N				3
Lathyrus latifolius	Everlasting pea			✓	SNA	GNR	N			SE4	5
Lonicera tatarica	Tatarian Honeysuckle	✓			SNA	GNR	N			SE5	3
Maianthemum canadense	Wild Lily-of-the-valley	✓			S5	G5	N				3
Mentha canadensis	Canada Mint			✓	S5	G5	N				-3
Mycelis muralis	Wall Lettuce	✓			SNA	GNR	N			SE2	5
Myosotis scorpioides	True Forget-me-not	✓			SNA	G5	N			SE5	-5
Onoclea sensibilis	Sensitive Fern			✓	S5	G5	N				-3
Ostrya virginiana	Eastern Hop-hornbeam			✓	S5	G5	N				3
Plantago major	Common Plantain			✓	SNA	G5	N			SE5	3
Polygonatum pubescens	Hairy Solomon's Seal	✓			S5	G5	N				5
Populus tremuloides	Trembling Aspen			✓	S5	G5	N				0
Prunus virginiana	Chokecherry	✓	✓		S5	G5	N				3
Ranunculus acris	Common Buttercup	✓			SNA	G5	N			SE5	0
Rhamnus cathartica	European Buckthorn	✓	✓	✓	SNA	GNR	N			SE5	0
Rhus typhina	Staghorn Sumac	✓			S5	G5	N				3

Scientific Name	Common Name	Vegetation Community[A]			S-Rank[B]	G-Rank[C]	Provincially Tracked	Species at Risk Status		Non-native Status	Coefficient of Wetness
		CVR_3	FOC4-1	FOD6-5				Provincial[D]	Federal[E]		
Ribes cynosbati	Eastern Prickly Gooseberry			✓	S5	G5	N				3
Rubus odoratus	Purple-flowering Raspberry	✓			S5	G5	N				5
Sambucus racemosa	Red Elderberry			✓	S5	G5	N				3
Symphyotrichum lateriflorum	Calico Aster			✓	S5	G5	P				0
Taraxacum officinale	Common Dandelion	✓	✓	✓	SNA	G5	N			SE5	3
Thuja occidentalis	Eastern White Cedar	✓	✓	✓	S5	G5	N				-3
Tilia americana	Basswood	✓		✓	S5	G5	N				3
Trillium grandiflorum	White Trillium			✓	S5	G5	N				3
Tussilago farfara	Coltsfoot			✓	SNA	GNR	N			SE5	3
Vicia cracca	Tufted Vetch			✓	SNA	GNR	N			SE5	5
Vinca minor	Lesser Periwinkle			✓	SNA	GNR	N			SE5	5
Viola labradorica	Labrador Violet	✓			S5	G5	N				0

[A]Refer to Figure 2 for Ecological Land Classification descriptors.

[B]Provincial Ranking Status. Definitions of each S-Rank can be found at the following website: https://caroliniancanada.ca/legacy/SpeciesHabitats_SRank.htm.

[C]Global Ranking Status. Definitions of each G-Rank can be found at the following website: https://caroliniancanada.ca/legacy/SpeciesHabitats_GRank.htm.

[D]Species at Risk status as per the O. Reg. 60/26.

[E]Species at Risk status as per the *Species at Risk Act* (S.C. 2002, c.29).

Species Grouping	Common Name	Scientific Name	Provincial Status[A]	Federal Status[B]	SAR Habitat Assessment
Birds	Barn Swallow	*Hirundo rustica*	Not Listed	Threatened	Absent. No barn swallows nests identified on the existing structures on the subject property.
Birds	Bobolink	*Dolichonyx oryzivorus*	Not Listed	Threatened	Absent. No suitable open habitat for bobolink identified on the subject property.
Birds	Eastern Meadowlark	*Sturnella magna*	Not Listed	Threatened	Absent. No suitable open habitat for Eastern meadowlark identified on the subject property.
Birds	Eastern Whip-poor-will	*Antrostomus vociferus*	Not Listed	Threatened	Absent. No suitable combination of open and forested areas for Eastern whip-poor-will identified on the subject property.
Birds	Eastern Wood-Pewee	*Contopus virens*	Not Listed	Special Concern	Candidate. The FOC4-1 and FOD6-5 communities identified on the subject property have the potential to provide suitable breeding habitat for Eastern wood-pewee.
Birds	Golden-winged Warbler	*Vermivora chrysoptera*	Not Listed	Threatened	Absent. No suitable open or edge habitat for golden-winged warbler identified on the subject property.
Birds	Grasshopper Sparrow	*Ammodramus savannarum pratensis*	Not Listed	Special Concern	Absent. No suitable grassland habitat for grasshopper sparrow identified on the subject property.
Birds	Least Bittern	*Ixobrychus exilis*	Not Listed	Threatened	Absent. No suitable wetland habitat for least bittern identified on the subject property.
Birds	Red-headed Woodpecker	*Melanerpes erythrocephalus*	Not Listed	Endangered	Absent. No suitable treed habitat with an abundance of dead/dying trees for red-headed woodpecker identified on the subject property. Moreover, no red-headed woodpecker cavities were encountered during Sumac's investigations.
Birds	Wood Thrush	*Hylocichla mustelina*	Not Listed	Threatened	Absent. The FOC4-1 and FOD6-5 communities identified on the subject property have the potential to provide suitable breeding habitat for wood thrush; however, given that the subject property is located on non-federal lands only the individuals and their nests would be protected.
Insects	Monarch	*Danaus plexippus*	Not Listed	Endangered	Absent. No milkweed for monarch breeding identified on the subject property. No areas containing an abundance of favorable nectar sources for foraging adult monarch identified on the subject property.
Mammals	Eastern Red Bat	*Lasiurus borealis*	Endangered	Not Listed	Candidate. The FOC4-1 and FOD6-5 communities have the potential to function as roosting habitat for Eastern red bat. Foraging habitat on the subject property may include shoreline, should this species be present.
Mammals	Eastern Small-footed Myotis	*Myotis leibii*	Endangered	Not Listed	Candidate. The subject property shoreline was characterized as having steep rocky slopes, cracks and crevices with the potential to function as roosting habitat for Eastern small-footed myotis. Foraging habitat on the subject property may include the shoreline, should this species be present.
Mammals	Hoary Bat	*Lasiurus cinereus*	Endangered	Not Listed	Candidate. The FOC4-1 and FOD6-5 communities have the potential to function as roosting habitat for hoary bat. Foraging habitat on the subject property may include forest edge and shoreline, should this species be present.
Mammals	Little Brown Myotis	*Myotis lucifugus*	Endangered	Endangered	Candidate. The FOC4-1 and FOD6-5 communities have the potential to function as roosting habitat for little brown myotis. Foraging habitat on the subject property may include forest edge and shoreline, should this species be present.
Mammals	Northern Myotis	*Myotis septentrionalis*	Endangered	Endangered	Absent. Given its preference of mature, interior forest conditions, Northern myotis is not anticipated to occur on the subject property.

Species Grouping	Common Name	Scientific Name	Provincial Status[A]	Federal Status[B]	SAR Habitat Assessment
Mammals	Silver-haired Bat	*Lasionycteris noctivagans*	Endangered	Not Listed	Absent. Silver-haired bat are generally associated with forests containing upwards of 21 snags per hectare. Given the age and overall structure of the woodland feature that extends onto the subject property, this species and its habitat are not anticipated.
Mammals	Tri-colored Bat	*Perimyotis subflavus*	Endangered	Endangered	Candidate. The FOC4-1 and FOD6-5 communities have the potential to function as roosting habitat for tri-colored bat. Foraging habitat on the subject property may include shoreline, should this species be present.
Reptiles	Blanding's Turtle	*Emydoidea blandingii*	Threatened	Endangered	Absent. No suitable wetland habitat for Blanding's turtle identified on or near the subject property.
Reptiles	Eastern Hog-nosed Snake	*Heterodon platirhinos*	Threatened	Threatened	Absent. Eastern hog-nosed snake are not anticipated to occur on the subject property due to lack of favorable food source (e.g., American toad) anticipated on or near the subejct property.
Reptiles	Eastern Musk Turtle	*Sternotherus odoratus*	Not Listed	Special Concern	Absent. No suitable aquatic habitat for Eastern musk turtle identified on or near the subject property.
Reptiles	Northern Map Turtle	*Graptemys geographica*	Not Listed	Special Concern	Candidate. Northern map turtle may utilize the rocky shoreline of Clear Lake for basking, should this species be present. No high quality turtle nesting habitat identified on the subject property.
Reptiles	Snapping Turtle	*Chelydra serpentina*	Not Listed	Special Concern	Absent. No suitable shallow aquatic habitat for sanpping turtle identified on the subject property.
Vascular Plants	Black Ash	*Fraxinus nigra*	Endangered	Not Listed	Absent. No black ash encountered on the subject property.
Vascular Plants	Butternut	*Juglans cinerea*	Endangered	Endangered	Absent. No butternut encountered on the subject property.

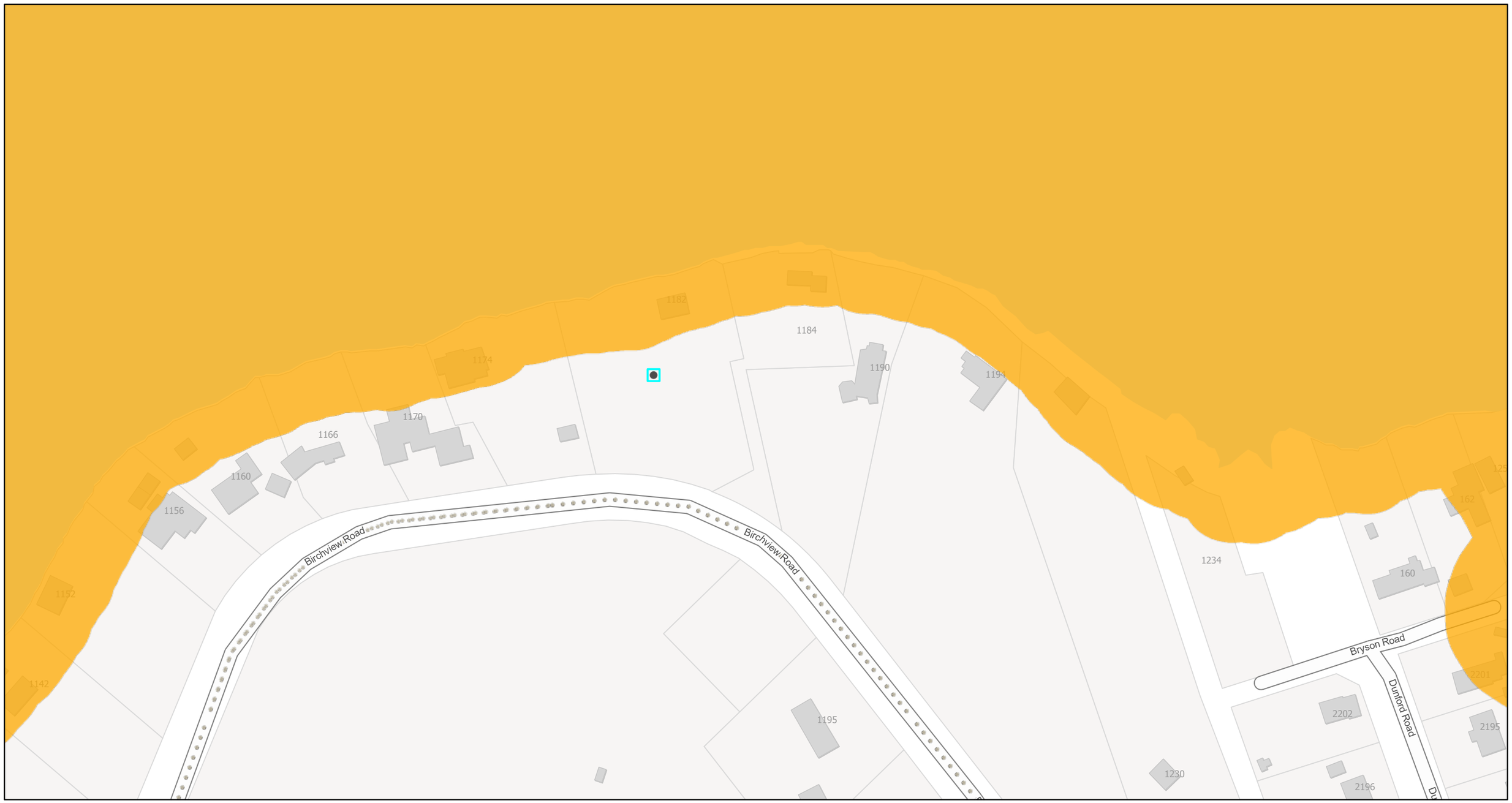
[A]Classification of species as they appear on O. Reg. 60/26 made under the *Species Conservation Act* (March, 2026).

[B]Classification of species as they appear on Schedule 1 of the *Species at Risk Act* (February, 2026).

List of Appendices

Appendix A: ORCA Regulated Areas Mapping

1182 Birchview



6/1/2026, 3:02:52 PM

Regulated Area

1:2,257

0 0.02 0.04 0.08 mi

0 0.03 0.06 0.12 km

Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community

Printed from the Flood Mapping 2022 Web Application
Otonabee Region Conservation Authority

Appendix B: Natural Heritage Areas Mapping

Ontario

Ministry of Natural Resources

Make-a-Map: Natural Heritage Areas

1182 Birchview

Map created:6/1/2026

Notes:

Enter map notes

Legend

ANSI

- Earth Science Provincially Significant/sciences de la terre d'importance provinciale
- Earth Science Regionally Significant/sciences de la terre d'importance régionale
- Life Science Provincially Significant/sciences de la vie d'importance provinciale
- Life Science Regionally Significant/sciences de la vie d'importance régionale

2.6 0 1.31 2.6 Kilometres

Absence of a feature in the map does not mean they do not exist in this area.

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