

Environmental Impact Study - 112 Pleasant Bay Road, Consecon, Ontario



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Prepared for:
Brauer Homes

Cambium Reference: 13604-002

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1.0 Introduction

Cambium Inc. (Cambium) was retained by Brauer Homes to conduct an Environmental Impact Study - 112 Pleasant Bay Road, Consecon, Ontario (Figure 1). The proposed development includes severance of one new lot and one retained lot. Based on the proposed development, the entire property will be considered the Site for this report.

An Environmental Impact Study (EIS; the Study) is required to address potential negative impacts to natural heritage features identified during the preliminary development review process, as required by the Provincial Policy Statement (PPS) (Ministry of Municipal Affairs and Housing, 2020). The Site contains or is adjacent to (i.e., within 120 m of) the following mapped natural heritage and/or hydrologic features: Pleasant Bay Provincially Significant Wetland and associated watercourse. The Site is within Ecoregion 6E of Ontario (Crins, Gray, Uhlig, & Wester, 2009) and is located outside of a Settlement Area.

The Site is within the jurisdiction of the Quinte Conservation Authority and their regulated area overlaps most of the Site. As the Site contains wetlands and a watercourse, the Study will consider regulations on development as imposed by the local Conservation Authority's Regulation under the *Conservation Authorities Act, 1990*.

The Endangered Species Act, 2007 (ESA) protects endangered and threatened species and their habitats from harm or destruction. Habitat for endangered and threatened species is also afforded protection under provincial natural heritage policy; however, it is ultimately the landowner's responsibility to ensure that no harm to these species or their habitats occurs on their property. This Study includes a habitat-based screening for species of conservation concern to determine if the Site has suitable habitat for any provincially or federally listed species at risk (SAR).

Cambium has conducted this Study to provide an evaluation of reasonably anticipated ecological impacts, positive or negative, that may arise from this proposed development, to guide the decision-making process and address approval authority requirements.



1.1 Terms of Reference

A terms of reference (ToR) for the study details provided herein, was submitted to Quinte Conservation for this project (Appendix A).

1.2 Proposed Development and Conceptual Site Plan

The Site is vacant land with frontage on Pleasant Bay Road on the south and east side of the property. Lands to the west and north are rural residential. Lands east and south of the site are agricultural.

The proposed development includes the subdivision of the lot to create one new lot and one retained lot.



2.0 Applicable Natural Heritage Policy and Regulation

2.1 Provincial Policy Statement, 2020

Section 2.1 of the PPS (Ministry of Municipal Affairs and Housing, 2020) protects the form and function of natural heritage features as defined by the PPS. Natural heritage features included in the PPS are provincially significant wetlands (PSW), significant coastal wetlands, significant woodlands, significant valleylands, significant wildlife habitat (SWH), significant areas of natural and scientific interest (ANSI), fish habitat, and the habitat of endangered and threatened species. Given their significance, development is prohibited within PSWs in Ecoregions 5E, 6E, and 7E and within significant coastal wetlands. Development in fish habitat and the habitat of endangered and threatened species shall only be permitted in accordance with provincial and federal requirements. Development within other natural heritage features and on lands adjacent to all natural heritage features are permitted only if demonstrated that there will be no negative impacts on the feature or their ecological function. Development includes the creation of a new lot, a change in land use, or the construction of buildings and structures requiring approval under the *Planning Act*.

Section 2.2 of the PPS protects the quality and quantity of water, including the form and hydrologic function of sensitive surface water features and sensitive ground water features. Focus is given to maintaining hydrologic linkages and functions at the watershed scale to minimize potential negative impacts, including cross-jurisdictional and cross-watershed impacts of development. Mitigative measures and/or alternative development approaches should be considered for development near water features.

2.2 Official Plan and Zoning By-Law

Schedule 'A-3' of the Official Plan of Prince Edward County (County of Prince Edward, 2021) identifies the Site as a combination of Shore Land and Environmental Protection. Schedule 'B' indicates that the Site is located within Natural Core Area A and is overlapped by a Provincially Significant Wetland (PSW). Schedule 'C': Constraint Areas indicates the presence of a Flood Line that overlaps the property.



According to the Prince Edward County Comprehensive Zoning By-Law No. 1816-2006 (County of Prince Edward, 2006) the property is zoned as a combination of Rural Residential 2 (RR2) and Environmental Protection – Provincially Significant Wetland (EP-W).

2.3 Conservation Authority Regulation

“Conservation Authorities are local watershed management agencies that deliver services and programs to protect and manage impacts on water and other natural resources in partnership with all levels of government, landowners and many other organizations” (Conservation Ontario, 2021). Conservation Authorities each have their own Ontario Regulation under the *Conservation Authorities Act, 1990*. In general, they regulate development within and adjacent to river or stream valleys, Great Lakes and inland lakes shorelines, watercourses, hazardous lands (flood, erosion, unstable soils) and wetlands.

Quinte Conservation Authority regulates these features under Ontario Regulation 319/09: *Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses*.

2.4 Endangered Species Act, 2007

Species listed as endangered or threatened on the Species at Risk in Ontario (SARO) list are protected under the provincial *Endangered Species Act, 2007* (ESA) (Government of Ontario, 2007). Section 9(1) of the ESA prohibits a person from killing, harming, harassing, capturing or taking a member of a species listed as endangered, threatened, or extirpated. Section 10(1) of the ESA prohibits the damage or destruction of habitat of species listed as endangered or threatened. Protection of special concern species is provided through designation of their habitat as significant wildlife habitat (SWH), a provincially protected natural heritage feature.



3.0 Technical Approach and Data Collection Methods

3.1 Background Information Review

Existing background information pertaining to the Site and surrounding landscape was compiled and reviewed, as part of a comprehensive desktop exercise, to better understand local biophysical conditions, and inform field investigations. In southern Ontario, readily available data includes orthoimagery, topographic base mapping, and geological records. Natural environment and land use schedules prepared in support of Official Plans and Zoning By-Laws were reviewed to acquire municipal data. Natural area records and species occurrences were obtained from digital resources and reference materials. The comprehensive desktop review for this Site included the following resources:

- Natural Heritage Areas: Make-a-map (Ministry of Natural Resources and Forestry, 2018);
- Aquatic Species at Risk Maps - Ontario (Fisheries and Oceans Canada, 2018);
- Aquatic Resource Area Summary Data (Government of Ontario, 2015);
- Fish ON-Line (Ministry of Natural Resources and Forestry, 2018);
- Ontario Reptile and Amphibian Atlas (ORAA) (Ontario Nature, 2018);
- Ontario Breeding Birds Atlas (OBBA) (2001-2005) (Bird Studies Canada, 2005)
- County of Prince Edward Official Plan (County of Prince Edward, 2021)
- County of Prince Edward Comprehensive Zoning By-Law No. 1816-2006 (County of Prince Edward, 2006)

Mapped natural heritage features present in the general area of the Site are shown on Figure 2.



3.1.1 Ministry Consultation

Depending on the natural features on the Site, ministry consultation may include the Ministry of Northern Development, Mines, Natural Resources, and Forestry (NDMNR) and/or the Ministry of Environment, Conservation, and Parks (MECP), as applicable.

In early 2019, the Government of Ontario made changes to the regulating authority on matters related to SAR in the province. The MECP is now responsible for administering the ESA and providing direction on potential compliance issues. MECP has prepared a guidance document titled *Client's Guide to Preliminary Screening for Species at Risk* (Ministry of the Environment, Conservation and Parks, 2019). This document aims to “help clients better understand their obligation to gather information and complete a preliminary screening for SAR before contacting the Ministry”. This document was used to guide the SAR habitat-based screening for the Study.

3.2 Field Investigations

Information gathered through the background information review was used to guide the development of the fieldwork program. The purpose of the field visit(s) was to verify information acquired through existing documentation and to gather additional site-specific information. The following sections detail the methodologies that were applied.

3.2.1 Ecological Land Classification and Vegetation Inventory

The Ecological Land Classification (ELC) System for Southern Ontario (Lee, et al., 1998) was used to classify vegetation communities on the Site. Definitions of vegetation types are derived from the ELC for Southern Ontario First Approximation Field Guide (Lee, et al., 1998) and the revised 2008 tables. ELC units were initially delineated and classified by orthoimagery interpretation. Field investigations served to confirm the type and extent of communities on the Site through vegetation inventory and soil assessment with a hand auger. Where vegetation communities extend off the Site, classification is done through observation from property boundaries and publicly accessible lands.



3.2.2 Wetland Boundary Delineation

In Ontario, wetlands are mapped and evaluated under the Ontario Wetland Evaluation System (OWES). Mapped evaluated wetlands have undergone extensive study and been assessed based on their form and function under four categories: Biological, Social, Hydrological, and Special Features (Ministry of Natural Resources, 2014). Evaluated wetlands that score high enough are deemed Provincially Significant Wetlands (PSW). Evaluated wetlands that did not score high enough to be a PSW are called Locally Significant Wetlands (LSW). The province also maps unevaluated wetlands. These mapped wetlands are approximate; as such, they require field verification in order to confirm their presence and determine their boundaries.

The subject wetland was delineated following provincially approved methods outlined in the Ontario Wetland Evaluation System: Southern Manual, 3rd Ed. (Ministry of Natural Resources, 2014). Fieldwork was carried out by provincially certified Cambium staff.

Wetland boundaries were initially delineated and classified by orthoimagery interpretation. The presence/absence of wetlands on the Site was confirmed through field investigations during the growing season (late May through October). Wetland boundaries were determined using the 50% wetland vegetation rule. Where vegetation-based delineation was inconclusive, soil assessment with a hand auger was used to confirm wetland boundaries. Wetland boundaries on the Site were marked with a hand-held GPS unit and staked/flagged in the field. Where wetland communities extend off the Site, classification was done through observation from property boundaries and publicly accessible lands.

3.2.3 Surface Water and Drainage Feature Mapping

Presence, location, boundary, and direction of flow were confirmed for all surface water features on and adjacent to the Site through visual investigation. Where feasible, the substrate type and cover features of surface water features were also noted. Indicators of surface drainage, including erosion of soils, gullies, and sediment deposition areas were noted and traced to identify sources of erosion. All watercourse and drainage feature crossings were noted and GPS marked in the field, including bridges, culverts, and bed-level crossings.



3.2.4 Habitat-Based Wildlife Surveys

Given the scale of the proposed development, a habitat-based approach was used to assess potential impacts to wildlife, consistent with standard practice. General habitat information gathered through the field investigations was used to assess the connectivity of the Site with the surrounding landscape and evaluate the ecological significance of the local area. Cambium staff actively searched for features that may provide specialized habitat for wildlife. These searches included inspecting tree cavities, overturning logs, rocks and debris, and scanning for scat, browse, sheds, fur, etc. Any evidence of breeding, forage, shelter, or nesting was noted. Species and habitat observations were documented and photographed.



4.0 Characterization of Natural Features and Functions

Data acquired through the background information review and field investigations is summarized in the following sections. Based on the information gathered, an assessment of significance has been completed to identify protected natural heritage features on and/or adjacent to the Site.

The following field investigations were carried out on the Site at survey stations/areas are shown on Figure 3, and are summarized in Table 1.

Table 1 Summary of Field Investigations

Date	Time On Site	Weather	Observer	Activities
2021-10-14	0845-1045	19°C, Wind: 0, Noise: 0, Partly Cloudy	T. Jamieson	Ecological Land Classification Wetland Delineation Surface Water and Drainage Feature Mapping Habitat-based Wildlife Surveys

Notes:

Wind speed is reported as a Beaufort Wind Scale value (0 = 0-2 kph, 1 = 3-5 kph, 2 = 6-11 kph, 3 = 12-19 kph, 4 = 20-30 kph, 5 = 31-39 kph, 6 = 40-50 kph).

Noise is reported based on background noise levels: Index 0 – no appreciable effect, 1 – slightly affecting sampling, 2 – moderately affecting sampling, 3 – seriously affecting sampling, 4 – profoundly affecting sampling.

4.1 Landscape Position and Topography

The Site is located within the Mixedwood Plains Ecozone: Lake Simcoe Rideau Ecoregion 6E, which extends southward from a line connecting Lake Huron in the west to the Ottawa River in the east, including Ottawa, Kingston, Peterborough, Barrie, Tobermory, Kitchener, and Toronto. This Ecoregion is characterized by a mixed geology that includes both shallow soil areas such as alvar and bedrock plains, as well as deep soil areas such as the Oak Ridges Moraine. It falls within the Great-Lakes St. Lawrence Forest Region, including deciduous and mixed forests; however, over 50% of the landscape in this Ecoregion is currently in use as agricultural land (Lee, et al., 1998).

In general, the Site is relatively flat with little topographic relief. The property slopes down to the north, directing drainage towards the watercourse and PSW located in the northern portion



of the property. A steep drop-off (2 – 3 m) is present along the shore of the PSW, which constrains the feature and is anticipated to be the extent of the active floodplain.

4.2 Vegetation Communities

A review of publicly available imagery indicates the Site is covered by a combination of mowed lawn, open meadow, and shrub thicket. A marsh overlaps the northern portion of the Site, with areas of open water.

The vegetation communities on the Site are summarized in Table 2 and are mapped on Figure 3. A list of identified species and representative photos for each community are provided in Appendix C.

Table 2 Vegetation Communities

No.	ELC Code	Community Description	Community Type	S -Rank
1	CUM1	Mineral Cultural Meadow	Terrestrial	N/A
2	CUT1	Mineral Cultural Thicket	Terrestrial	N/A
3	MAS2-1	Cattail Mineral Shallow Marsh	Wetland	
4	SWD4-1	Willow Mineral Deciduous Swamp	Wetland	
5	FODM11	Naturalized Deciduous Hedgerow	Terrestrial	
-	CVR	Residential	Terrestrial	N/A

A search for butternut (*Juglans cinerea*; provincially endangered) was completed as part of the vegetation survey; no butternut trees were identified.

The imagery for the Site shows a small area of woody vegetation within the northern portion of Community 1 (CUM1) and colouration that appears to be a drainage feature. The field investigation confirmed this area to be a knoll that was colonized by a thicket of prickly ash (*Zanthoxylum americanum*). This terrestrial plant community did not contain any wetland indicator plant species or riparian vegetation. As such, it did not contain a watercourse or wetland area.



4.3 Wetland Delineation

The Site is overlapped by a PSW: Pleasant Bay Provincially Significant Wetland. The Pleasant Bay PSW is a large (331.7 ha) coastal wetland composed of two wetland types (10% swamp, 90% marsh). This PSW provides nesting and foraging habitat for colonial waterbirds and is locally significant for waterfowl production. The PSW is also significant for fish spawning and rearing, specifically for Northern Pike, Yellow Perch, and Bullhead Catfish.

The wetland boundary was distinguished from the surrounding landscape based on a change in elevation along its boundary (i.e., shoreline), and the dominance of wetland species (>50% relative cover).

The area of PSW that overlaps the Site consisted of two wetland community types: cattail marsh (Community 3), and deciduous swamp (Community 4). Community 3 was dominated by Narrow-leaved Cattails, with Red-osier dogwood, White Meadowsweet, and Reed Canarygrass associates. Areas of open water were observed within this community, beyond the property boundaries to the northeast. Community 4 was dominated by Willows, with Silver Maples, Red-osier Dogwood, and Spotted Jewelweed associates.

4.4 Surface Water and Drainage Features

The PSW contains a watercourse that is situated beyond the property boundaries and contained within the interior of the wetland. The watercourse conveys flow to the west, towards Pleasant Bay.

A review of publicly available imagery indicates the presence of a drainage feature to the west of the Site. This feature directs drainage from agricultural lands on the adjacent property, south towards Pleasant Bay Road. Given this feature is located beyond the Site boundaries, on private property, observations of this feature were made from the Site boundaries. At the time of field investigations, the channel was indistinguishable due to thick vegetation cover. No flowing water was observed in the area.

A review of publicly available imagery indicates the potential presence of a drainage feature in the eastern portion of the Site. The field investigation confirmed this area to be a knoll that was



colonized by a thicket of prickly ash. This terrestrial plant community did not contain any wetland indicator plant species or riparian vegetation. Topography is such that drainage flows across the field, before draining towards the PSW to the north. No defined channel, sorted substrates, or wetland vegetation were observed during the field investigation in this area. As such, it did not contain a watercourse or wetland area. It is suspected that water within this area, when present, is limited to early freshet and the collection of snowmelt.

4.5 Wildlife Survey Results

Notwithstanding the adjacent PSW, wildlife habitat on the Site is limited. Most of the Site consists of manicured lawn, and cultural meadow. The meadow habitat is very small, and receives disturbance pressure from the surrounding residential development, and the adjacent roadway. Further, large and more preferable meadow habitat is present in the adjacent agricultural lands that surround the Site. As such, the Site does not provide potential grassland bird habitat.

Treed habitat on the Site was also limited. The area of swamp that overlaps the northern boundary of the Site extends beyond the Site boundaries; however, tree cover is sparse and patchy, with no interior habitat. The Site is also surrounded by a treed hedgerow with patchy tree and shrub cover. The hedgerow provides little in terms of interior, and experiences disturbance pressure from the adjacent roadway.

The wetland community contains open water which likely provides habitat for fish, reptiles (snakes and turtles) and amphibians. The wetland extends beyond the Site boundary, and likely also contains habitat for marshland bird species and waterfowl. Given the Site's proximity to the wetland and the open meadow habitat, the Site also provides potential foraging habitat for snakes, and potential nesting habitat for turtles.

4.6 Significant Wildlife Habitat

The Natural Heritage Reference Manual (NHRM) states the assessment requirements for Significant Wildlife Habitat (SWH) on residential severances. The Province recommends that the evaluation of SWH be investigated, on lands beyond the boundary of a Settlement Area,



when the creation of more than three lots through either consent or plan of subdivision (Ministry of Natural Resources, 2010). As such, a fulsome assessment is not required for this Site. However, details on species of conservation concern (including special concern species) and their protected habitats are provided in Section 4.7.

4.7 Species of Conservation Concern

A list of species of conservation concern, including species at risk, with potential to occur in the general vicinity of the Site has been compiled based on known species' ranges, habitat requirements, and review of background information sources (as listed in Section 3.1). In addition, the list has been augmented with direct field observations from the Study, as detailed in the previous sections. Cambium has employed a habitat-based screening, supplemented with targeted field surveys when necessary, in order to identify suitable habitat for species located on or adjacent to the Site. A detailed habitat suitability analysis is provided in Appendix D and a discussion of the results is provided below.

No Critical Habitat for aquatic species at risk listed under SARA was identified in the watercourse on or adjacent to the Site.

4.7.1 Endangered and Threatened Species

King Rail (Endangered) and Least Bittern (Threatened) are marshland bird species that require large areas of shallow marsh dominated by emergent vegetation interspersed with patches of woody vegetation (i.e. shrubs) and open water. The portion of the PSW adjacent to the Site is narrow, is in near to terrestrial habitats, and may increase rates of predation of birds and their young. As such, it is unlikely that the portion of the PSW adjacent to the Site provides suitable conditions for the life processes of these species. Neither of these species were observed within the area of wetland that overlaps the Site during field investigations. It is possible that these species could utilize the PSW habitat located more than 250 m west of the Site.

Bobolink (Threatened) and Eastern Meadowlark (Threatened) are grassland bird species that utilize tall, grassy meadows, hayfields, and croplands for foraging and tend to nest in forage crops (hayfields and pastures). These species typically prefer large areas (> 5 ha) of



uninterrupted grasslands for nesting. As discussed previously, the majority of open habitat at the Site is manicured lawn. The cultural meadow community (Community 1) is relatively small (approx. 1 ha) and is not large enough to support nesting of these grassland birds. As such, the Site is not considered habitat for Bobolink or Eastern Meadowlark. Larger, more preferable habitat is found in the adjacent agricultural fields. A Meadowlark was heard calling in the adjacent agricultural fields to the east of the Site, across Pleasant Bay Road during field investigations. As no suitable nesting habitat is present on the Site for Eastern Meadowlark or Bobolink, the proposed development is not anticipated to result in negative impacts to these species or their habitats.

Blanding's Turtle is listed as threatened both federally and provincially. They spend most of their life cycle in large wetlands or shallow lakes with high densities of aquatic plants, nutrient rich water, and organic sediment. Blanding's Turtle overwintering habitat may be present within the interior of the PSW that overlaps the Site; however, no potential overwintering habitat was identified within the Site boundaries. Blanding's Turtles will travel great distances to nest in upland areas, including fields and roadsides. Herbaceous vegetation on the Site was too dense to provide suitable conditions for Blanding's Turtle nesting and incubation. The terrestrial habitat on the Site does not represent nesting habitat for this species. No Blanding's Turtles or signs of turtle nesting were identified at the Site during field investigations.

The Western Chorus Frog is listed as threatened federally, but currently not listed provincially. It could utilize habitat within community 4 (SWD4-1 Willow Mineral Deciduous Swamp).

4.7.2 Special Concern Species

Black Tern is a marshland bird species that prefers shallow cattail marshes for nesting. The interior of the PSW that overlaps the Site likely provides habitat for this species. No Black Tern were observed during field investigations.

The Eastern Wood-pewee lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests with little understory vegetation. An Eastern Wood-pewee was heard calling from Community 4 during the field investigations.



The Grasshopper Sparrow inhabits open grasslands and prairies, or pastures and hayfields, with well-drained soil that are sparsely vegetated. As stated previously, grassland bird habitat on the Site of insufficient size and larger areas of more preferable habitat available in the surrounding agricultural fields off-Site.

As stated previously, the PSW that overlaps the Site likely provides habitat for turtles, including Midland Painted Turtle, Northern Map Turtle, and Snapping Turtle. Permanent overwintering habitat for these species is likely found within the aquatic habitat within the interior of the PSW that overlaps the Site. Much like Blanding's Turtles, these species will travel into upland areas to nest; though these species tend to stay within 30 m of their permanent habitat. As such, the Site may provide potential nesting habitat. No turtles or signs of turtle nesting were identified at the Site during field investigations.

A review of aquatic SAR mapping indicates that Pleasant Bay, downstream of the Site, provides potential habitat for two aquatic species of Special Concern: Eastern Pondmussel and Bridle Shiner. No mapped habitat or observations of these species are reported within 120m of the Site. Regardless, the open water areas of the PSW that overlaps the Site may provide habitat for these species.

The Milksnake is a federally listed species of Special Concern. Though previously listed as a provincially at risk, Milksnake were delisted because of their local abundance and abundance of habitat. This species tends to use open habitats such as rocky outcrops, fields and forest edges. The Site provides potential habitat for this species. No Milksnake or potential snake hibernacula were identified on the Site during field investigations.

The Site contains flowering vegetation species, and as such provides potential foraging habitat for pollinator species of Special Concern such as Monarch Butterfly and Yellow-banded Bumble Bee. The Monarch Butterfly uses a variety of habitats with wildflowers but requires milkweed plants as a food source for their caterpillars. A few specimens of Common Milkweed were observed in Community 1; however, no adult Monarchs or caterpillars were observed during field investigations. Yellow-banded Bumble Bees are habitat generalists and could



therefore utilize all the vegetation communities identified at the Site. No Yellow-banded Bumble Bees were observed during field investigations.



5.0 Impact Assessment and Mitigation Measures

The proposed development includes the subdivision of the existing lot to create one new lot and one retained lot. No in-water work is proposed for this development.

The following sections address potential impacts to protected features identified on and adjacent to the Site that may result from the proposed development and site alteration:

- Provincially Significant Wetland
- Surface Water and Drainage Features
- Habitat for species of conservation concern

No other natural heritage features protected by provincial policy were confirmed on or adjacent to the Site.

Mitigation measures and best management practices have been recommended to ensure that the integrity of the current existing natural features are protected and/or enhanced and furthermore that their functions are not negatively impacted during or following construction.

5.1 Provincially Significant Wetlands

A 30 m development setback is recommended for the PSW on the Site, as shown on Figure 4. The 30 m setback is considered sufficient to protect the existing form and function of local wetland features provided that the area continues to be a cultural thicket (i.e., not mowed or cleared) and be allowed to naturally self-sustain (i.e., a buffer area where no vegetation removals or grading is allowed).

Given that the Site is located up-gradient of the PSW, there is the potential for increased erosion and sedimentation into the wetland during construction activities. Before construction activities taking place, it is essential that perimeter sediment fencing be installed around construction areas. Fencing should be properly keyed into the ground and securely fastened to vertical supports spaced ≤ 2 m apart. This key control measure will help prevent sediment from entering surface water features (i.e., wetlands and the watercourse) in the surrounding landscape. All sediment fencing should be regularly maintained and kept in good working



condition, until the area has been stabilized and/or successfully revegetated. Any observed overland drainage channels originating from Site, that may or may not have arisen as a result of erosion, should be directed to a check dam structure, prior to discharging to off-site areas.

Runoff from the Site is expected to increase with the introduction of impermeable surfaces (i.e., building roofs, roadways, and walkways) and compacted surfaces with reduced infiltration capacity. Measures to increase infiltration of run-off from these surfaces should be encouraged and, where possible, included in the Site Plan for the development. Eaves trough downspouts should be directed to vegetated areas (such as lawn, or gardens) and not onto hardened surfaces, to encourage infiltration.

5.2 Surface Water and Drainage Features

The PSW that overlaps the Site contains a mapped watercourse that flows into Pleasant Bay to the west. As such, mitigations strategies discussed in Section 5.1 should be sufficient to protect the watercourse, and associated fish and fish habitat, from potential impacts relating to future construction. No in-water work is proposed for this development.

A drainage ditch was identified on the adjacent property to the west. No additional setbacks are recommended for this feature, provided it's function as a drainage feature are preserved. Mitigation strategies provided in Section 5.1 regarding ESC measures should be sufficient to protect this feature from potential increases in erosion and sedimentation during construction.

5.3 Species of Conservation Concern

The PSW that overlaps the Site provides potential habitat to several Endangered, Threatened, and Special Concern species, including birds, turtles, and aquatic SAR. Given that the proposed development does not include encroachment into the wetland, no direct impacts to these species are anticipated as part of the proposed development or future construction activities at the Site. Mitigation strategies regarding setbacks and ESC measures provided in Section 5.1 should be sufficient to protect the habitat found within the PSW.

No suitable areas for turtle nesting were observed on the Site. However, given the proximity of the Site to the PSW, the Site may provide potential nesting habitat for turtles during



construction activities when exposed earth and stockpiled materials are present. Turtles are particularly vulnerable to construction-related impacts on sites adjacent to wetlands, watercourses, and waterbodies. To mitigate impacts during construction, ESC fencing can be used as wildlife exclusion fencing. Fencing should be installed around the entire perimeter of the construction area prior by May 15 to keep turtles from entering the construction area. This fencing should be made of light-duty silt fence, staked at regular intervals, trenched-in at least 10-20 cm below ground, with an above ground height of at least 60 cm.

The silt fence should be inspected regularly to ensure that it remains in good condition: and any downed areas, rips, or holes should be repaired or replaced immediately. The area of construction should also be actively inspected for turtles each day prior to the start of work throughout the duration of construction.

As the Site is located adjacent to potential habitat for turtles, workers should be aware of the nesting season for turtles, which extends from May 15 to August 15. All stockpiled materials should be kept inside the exclusion fencing area and ideally should be covered and well secured around the base, to prevent turtles from nesting in loose substrates. Should any nesting turtles be encountered, work should stop immediately, and the turtle should be left to finish nesting undisturbed. The turtle should be photographed, and the nest marked to ensure it is not disturbed during construction, or until eggs have hatched (late August – September). If a nest is laid in a stockpile or other area that requires disturbance, Cambium should be contacted to determine if the nest can be relocated.

If any individuals are encountered, they should be photographed and allowed time to move out of harm's way. Species at Risk observations, including most species of turtles, should be reported to the Natural Heritage Information Centre.

Incidental observations of two SAR bird species were recorded during field investigations: Eastern Wood-pewee were heard calling from Community 4. No other SAR birds were observed calling from the Site. Given that the Eastern Wood-pewee were heard calling from within the PSW, impacts to this species should be sufficiently mitigated as development will be situated entirely outside of the PSW and associated setback.



Nesting birds and their nests, eggs, and young are protected under the *Migratory Birds Convention Act*, 1994. Vegetation clearing on the Site should occur outside the breeding bird season, which extends from April 15 to August 15 in the local area (as per Environment and Climate Change Canada Guidelines).

If vegetation clearing is to occur between April 15 and August 15, the vegetation should be investigated by a qualified biologist to confirm if any nests are present. Vegetation clearing can proceed provided there are no active nests. If active nests are confirmed, the nests should be left undisturbed until young have fledged or the nest is determined to be inactive.

If construction is planned to proceed during the breeding bird season, the area should be investigated for the presence of breeding birds and nests containing eggs and/or young, prior to Site alteration. Nests discovered should be left undisturbed until young have fledged or the nest is determined to be inactive.

5.4 Best Management Practices

5.4.1 Pollinator Habitat

The Site was identified as having potential foraging habitat for Monarch Butterfly and Yellow-banded Bumble Bee. The removal of pollinator habitat during construction is also expected to be minimal, and large areas of foraging habitat will continue to exist elsewhere on the Site. Future property owners can improve pollinator habitat by incorporating flowering native species into their ornamental gardens or to enhance the 30 m setback to the wetland. The inclusion of native milkweed species, such as Common Milkweed (*Asclepias syriaca*) or Butterfly Milkweed (*Asclepias tuberosa*), will provide potential breeding opportunities for Monarchs who require these species as part of their reproductive cycle.

The publication “A Guide for Southern Ontario: Grow me Instead” published by the Ontario Invasive Plant Council in 2020 (<https://www.ontarioinvasiveplants.ca/resources/grow-me-instead/>) provides landowners, designers and builders with a list of native plants that can be used for gardening and landscaping. The publication can help landowners select and procure plants they should use for their property and which invasive species should be avoided. The



website link also provides a list of nurseries and other commercial sources to obtain the recommended plants (Ontario Invasive Plant Council, 2020).



6.0 Policy Conformity

Based on the natural heritage and hydrologic features identified on or adjacent to the Site, and the findings of the field investigations detailed herein, the proposed development of the Site is in conformance with the PPS and the Prince Edward County Official Plan. Conformity with applicable natural heritage policy is summarized Table 3.

Table 3 PPS Policy Conformity Summary

Key Natural Heritage / Hydrologic Feature	On Site	On Adjacent Lands	Meets Associated Policy
Significant Coastal Wetland	Yes	Yes	Yes
	Explanation: Development and site alteration will maintain a minimum setback of 30 from the PSW. Provided the recommended mitigation measures are followed the ecological and hydrological functions of the PSW are maintained.		
Fish Habitat	Yes	Yes	Yes
	Explanation: No in-water works are proposed for this development. The use of silt fence during construction will be sufficient to prevent negative impacts to fish and fish habitat.		
Habitat of Threatened and Endangered Species	Potentially	Potentially	Yes
	Explanation: The proposed severance is not anticipated to result in negative impacts to SAR and will be carried out in compliance with the <i>Endangered Species Act</i> .		

The western portion of the Site is located within the Natural Core Area “A. North Bay/Pleasant Bay/Huyck’s Bay” (County of Prince Edward, 2021). According to the County’s Official Plan, Section 4.5.4.3, residential development via severance may continue to be permitted within Natural Core Areas outside of Settlement Areas. The proposed development will not negatively affect the ecosystem processes of the natural heritage features within the Natural Core Area. Therefore, the proposed development conforms to the Official Plan and will maintain the ecological health of the County.



7.0 Summary of Mitigation, Compensation, and Best Practices

The following recommendations are provided for the proposed development:

1. All required approvals and permits should be obtained prior to the commencement of any Site alteration / construction activities.
2. Site Plans developed for the proposed development should show the location of all confirmed natural features and setbacks, including the PSW boundary with the associated 30 m setback.
3. For future construction, it will be essential that light-duty silt fencing be installed properly around the perimeter of the construction area. All silt fencing should be properly trenched in and maintained in good working order until the area has been successfully revegetated. This fencing can also serve as wildlife exclusion fencing.
4. Eavestrough downspouts should be directed to grassed or vegetated areas and not onto laneways or roadways, to allow for infiltration of the run-off into the ground. Where feasible, the Client should consider the use of permeable paving options (i.e., interlocking brick, permeable pavements) for surfaces such as parking areas and laneway.
5. Wildlife exclusion fencing, such as light-duty silt fence, should be properly installed (i.e., trenched-in) around the construction area prior to May 15 of the year of construction to prevent turtles from entering the construction area.
6. Due to the nearby PSW, workers should be aware of the nesting season for turtles which extends from May 15 to August 15. Should any nesting turtles be encountered, work should stop immediately and the turtle should be left to finish nesting undisturbed. The turtle should be photographed and the nest marked to ensure it is not disturbed during construction until it has hatched (late August – September). If a nest is laid in a stockpile or other area that requires disturbance, Cambium should be contacted to determine if the nest can be relocated.



7. The construction area should be inspected for turtles daily prior to the beginning of work. Any turtles observed at the Site, should be photographed, and allowed to move out of harm's way.
8. Vegetation clearing for lot development should occur outside the breeding bird season from April 15 to August 15 in the area (as per Environment and Climate Change Canada Guidelines and Ontario Ministry of Natural Resources and Forestry recommendations).
9. If construction is planned to proceed during the bird breeding season, the construction area should be checked for the presence of breeding birds and nests containing eggs and/or young. Any discovered nests should be left undisturbed until young have fledged or the nest is determined to be inactive by a certified biologist.
10. Future homeowners should consider the inclusion of pollinator gardens that include native milkweed species (Common Milkweed or Butterfly Milkweed) to maintain and improve pollinator habitat at the Site.
11. Though not identified in the field inventories, any subsequently identified SAR discovered on the property will be left undisturbed as dictated by the Endangered Species Act, 2007. If any SAR individuals are encountered, they should be photographed and allowed time to move out of harms way. SAR observations should be reported to the Natural Heritage Information Centre.



8.0 Closing

In closing, potential negative impacts associated with the proposed development and site alteration can be appropriately minimized, provided that the recommendations outlined in Section 7.0 are followed. The information presented herein demonstrates that the proposed development can be carried out in a way that will not adversely impact natural heritage and hydrologic features and function identified on or adjacent to the subject Site. Furthermore, the proposed development complies with applicable provincial policy.

Respectfully submitted,

Cambium Inc.

Matthew Wheeler, B.A. Hons.
Senior Ecologist / Project Manager

Tyler Jamieson, M.Sc.
Biological/Ecological Technologist



References

- Anderson, H. (2021). *Invasive Dog-strangling Vine (Vincetoxicum rossicum) Best Management Practices in Ontario*. Peterborough: Ontario Invasive Plant Council.
- Bird Studies Canada. (2005). *Atlas of the Breeding Birds of Ontario*.
- Conservation Ontario. (2021). *Conservation Ontario*. Retrieved from What Are Conservation Authorities: <https://conservationontario.ca/conservation-authorities/about-conservation-authorities>
- County of Prince Edward. (2006). *County of Prince Edward Comprehensive Zoning By-Law No. 1816-2006*. County of Prince Edward.
- County of Prince Edward. (2021). *County of Prince Edward Official Plan*. County of Prince Edward Development Services.
- Crins, W. J., Gray, P. A., Uhlig, P. W., & Wester, M. C. (2009). *The Ecozones of Ontario, Part I: Ecozones and Ecozones*. Peterborough, Ontario: Ministry of Natural Resources: Inventory, Monitoring and Assessment. Retrieved from <https://dr6j45jk9xcmk.cloudfront.net/documents/2712/stdprod-101587.pdf>
- Fisheries and Oceans Canada. (2018). *Aquatic Species at Risk Map*. Retrieved from Fisheries and Oceans Canada: <http://www.dfo-mpo.gc.ca/species-especes/sara-lep/map-carte/index-eng.html>
- Government of Ontario. (2007, August). *O.Reg 230/08: Species at Risk in Ontario List under Endangered Species Act, 2007, S.O. 2007, c.6*. Retrieved from e-Laws: <https://www.ontario.ca/laws/regulation/080230>
- Government of Ontario. (2015). *Aquatic Resource Area Summary*. Retrieved from Land Information Ontario: <https://www.ontario.ca/data/aquatic-resource-area-survey-point>
- Lee, H., Bakowsky, W., Riley, J., Bowles, J., Puddister, M., uhlig, P., & McMurray, S. (1998). *Ecological Land Classification for Southern Ontario: First Approximation and Its Application*. Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guid FG-02: Ministry of Natural Resources.



Ministry of Municipal Affairs and Housing. (2020). Provincial Policy Statement. Ontario.

Ministry of Natural Resources. (2010). *Natural Heritage Reference Manual from the Natural Heritage Policies of the Provincial Policy Statement, 2005 - Second Ed.*

Ministry of Natural Resources. (2014). *Ontario Wetland Evaluation System Southern Manual, 3rd Ed.* Ontario.

Ministry of Natural Resources and Forestry. (2018). Retrieved from Make a Map: Natural Heritage Areas:

http://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US

Ministry of Natural Resources and Forestry. (2018). *Bobolink General Habitat Description.*

Retrieved from Species at Risk: <https://www.ontario.ca/page/bobolink-general-habitat-description>

Ministry of Natural Resources and Forestry. (2018). *Fish ON-Line.* Retrieved from

<https://www.gisapplication.lrc.gov.on.ca/FishONLine/Index.html?locale=en-US&site=FishONLine&viewer=FishONLine>

Ministry of the Environment, Conservation and Parks. (2019). *Client's Guide to Preliminary Screening for Species at Risk.*

Ontario Invasive Plant Council. (2020). *Ontario Invasive Plant Council.* Retrieved from Ontario Invasive Plant Council; Grow Me Instead:

<https://www.ontarioinvasiveplants.ca/resources/grow-me-instead/>

Ontario Ministry of Natural Resources. (2013). *Ontario Wetland Evaluation System Southern Manual, 3rd Ed.* Ontario.

Ontario Nature. (2018). *Ontario Reptile and Amphibian Atlas.* Retrieved from Ontario Nature:

<https://ontarionature.org/oraa/maps/>



Glossary of Terms

ANSI: Area of Natural and Scientific Interest	GIS: Geographic Information System
ARA: Aquatic Resources Area	GLSL: Great Lakes – St. Lawrence
ARA: Aggregate Resources Act	GPGGH: Growth Plan for the Greater Golden Horseshoe
AS: Agricultural System	GPS: Global Positioning System
ATK: Aboriginal Traditional Knowledge	HSA: Habitat Suitability Analysis
BMA: Bear Management Area	HIS: Habitat Suitability Index
BMP: Best Management Practice	KHA: Key Hydrologic Areas
CA: Conservation Authority	KHF: Key Hydrologic Features
CEAA: Canadian Environmental Assessment Act/Agency	KNHF: Key Natural Heritage Features
CFA: Canadian Forestry Association	LCFSP: Licence to Collect Fish for Scientific Purposes
CFIP: Community Fisheries Involvement Program	LIO: Land Information Ontario
CFS: Canadian Forestry Service	LRIA: Lake and Rivers Improvement Act
CHU: Critical Habitat Unit	LUP: Land Use Permit or Plan
CH: Cultural Heritage	MA: Management Area
CLI: Canada Land Inventory	MAFA: Moose Aquatic Feeding Area
CLU: Crown Land Use	MCEA: Municipal Class Environmental Assessment
COSSARO: Committee on the Status of Species at Risk in Ontario	MECP: Ontario Ministry of Environment, Conservation and Parks
CR: Conservation Reserve	MNDMRF: Ontario Ministry of Natural Resources and Forestry
CWIP: Community Wildlife Involvement Program	NER: Natural Environment Report
CWS: Canadian Wildlife Service	NHIC: Natural Heritage Information Centre
DFO: Fisheries and Oceans Canada	NHIS: Natural Heritage Information System
EA: Environmental Assessment	NHS: Natural Heritage System
EAA: Environmental Assessment Act	OBM: Ontario Base Map
EAB: Emerald Ash Borer	OFIS: Ontario Fisheries Information System
EBR: Environmental Bill of Rights	OLI: Ontario Land Inventory
EIA: Environmental Impact Assessment	OMAFRA: Ontario Ministry of Agriculture, Food and Rural Affairs
EIS: Environmental Impact Study/Statement	OWES: Ontario Wetland Evaluation System
ELC: Ecological Land Classification System	PPS: Provincial Policy Statement (2014)
ELUP: Ecological Land Use Plan	PSW: Provincially Significant Wetland
END: Endangered species	RLUP: Regional Land Use Plan
EPA: Environmental Protection Act	RMP: Regional Management Plan
ER: Environmental Registry	R.P.F.: Registered Professional Forester
ESA: Endangered Species Act (2007)	SAR: Species at Risk
ESA: Environmentally Sensitive Area	SARO: Species at Risk in Ontario
ESC: Erosion and Sediment Control	SC: Special Concern species



F&W: Fish and Wildlife
FA: Fisheries Act (Federal)
FEC: Forest Ecosystem Classification
FMP: Forest Management Plan
FRI: Forest Resources Inventory
FWCA: Fish and Wildlife Conservation Act
GGH: Greater Golden Horseshoe
GHP: General Habitat Protection

SWH: Significant Wildlife Habitat
SWM: Stormwater Management
THR: Threatened species
TOR: Terms of Reference
TPP: Tree Preservation Plan
WIA: Woodlands Improvement Act
WMU: Wildlife Management Unit








Appended Figures

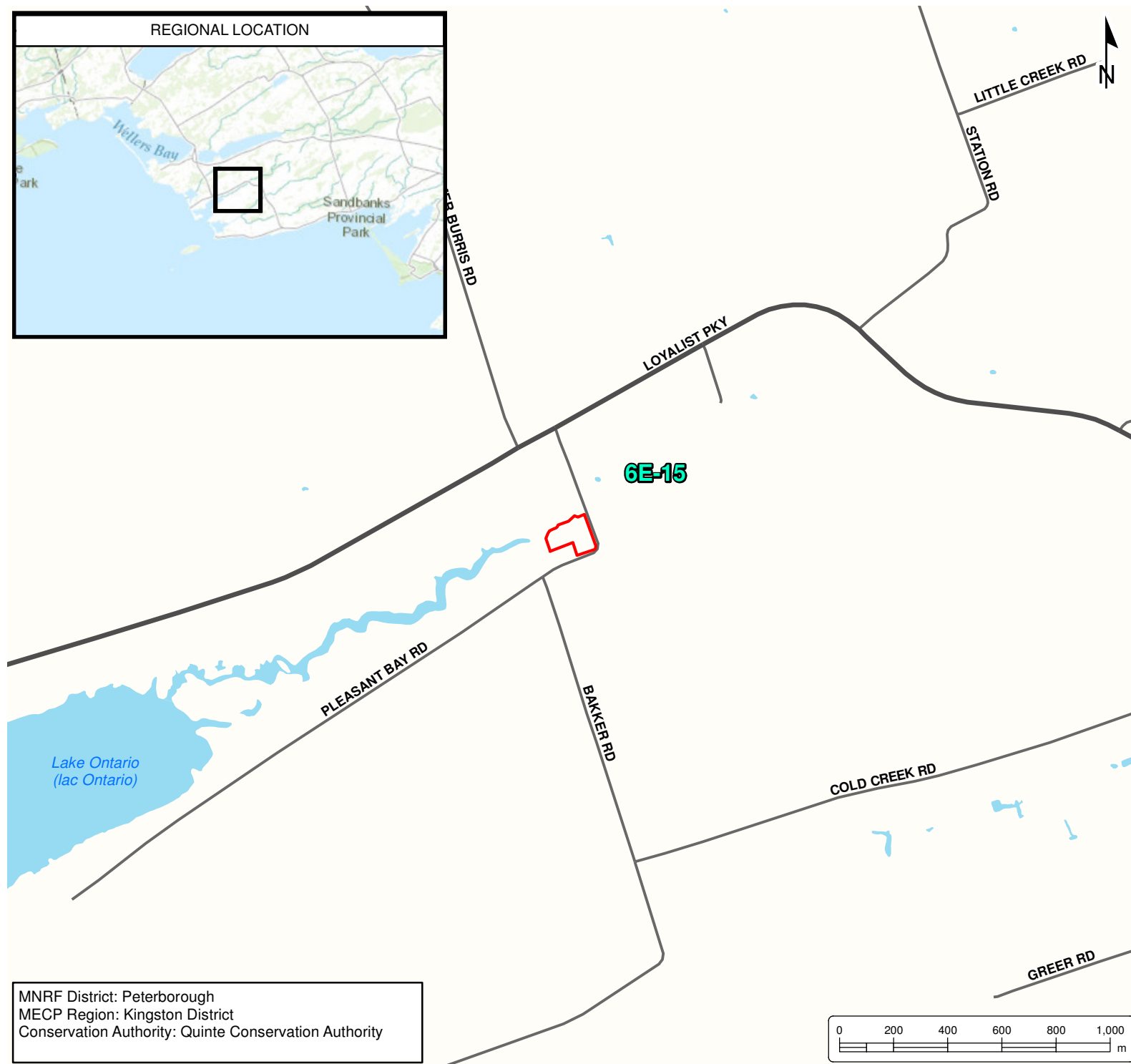
REGIONAL LOCATION



**ENVIRONMENTAL
IMPACT STUDY**
BRAUER HOMES
112 Pleasant Bay Road,
Conescon, Ontario

LEGEND

-  Major Road
-  Minor Road
-  Water Area
-  Ecodistrict
-  Subject Property (1.66 ha) (approximate)



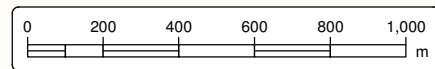
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**SITE LOCATION AND
SPECIAL PLANNING AREAS**

MNR District: Peterborough
 MECP Region: Kingston District
 Conservation Authority: Quinte Conservation Authority



Project No.: 13604-002	Date: February 2022
Scale: 1:20,000	Rev.: NAD 1983 UTM Zone 18N
Created by: MAT	Checked by: MW
Figure: 1	

O:\GIS\MXD\13600-13699\13604-002 Brauer Homes - EIS - Pleasant Bay Rd - PEC\2022-02-11 FIG 1 - Site Location and Special Planning Areas.mxd

**ENVIRONMENTAL
IMPACT STUDY**
BRAUER HOMES
112 Pleasant Bay Road,
Conescon, Ontario

LEGEND

-  Major Road
-  Minor Road
-  Watercourse, Intermittent
-  Watercourse, Permanent
-  Contour 5m Interval (Major)
-  Contour 5m Interval (Minor)
-  Unevaluated Wetlands
-  Provincially Significant Wetlands
-  Water Area
-  Subject Property (1.66 ha) (approximate)

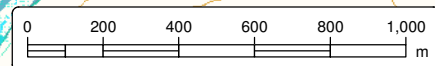
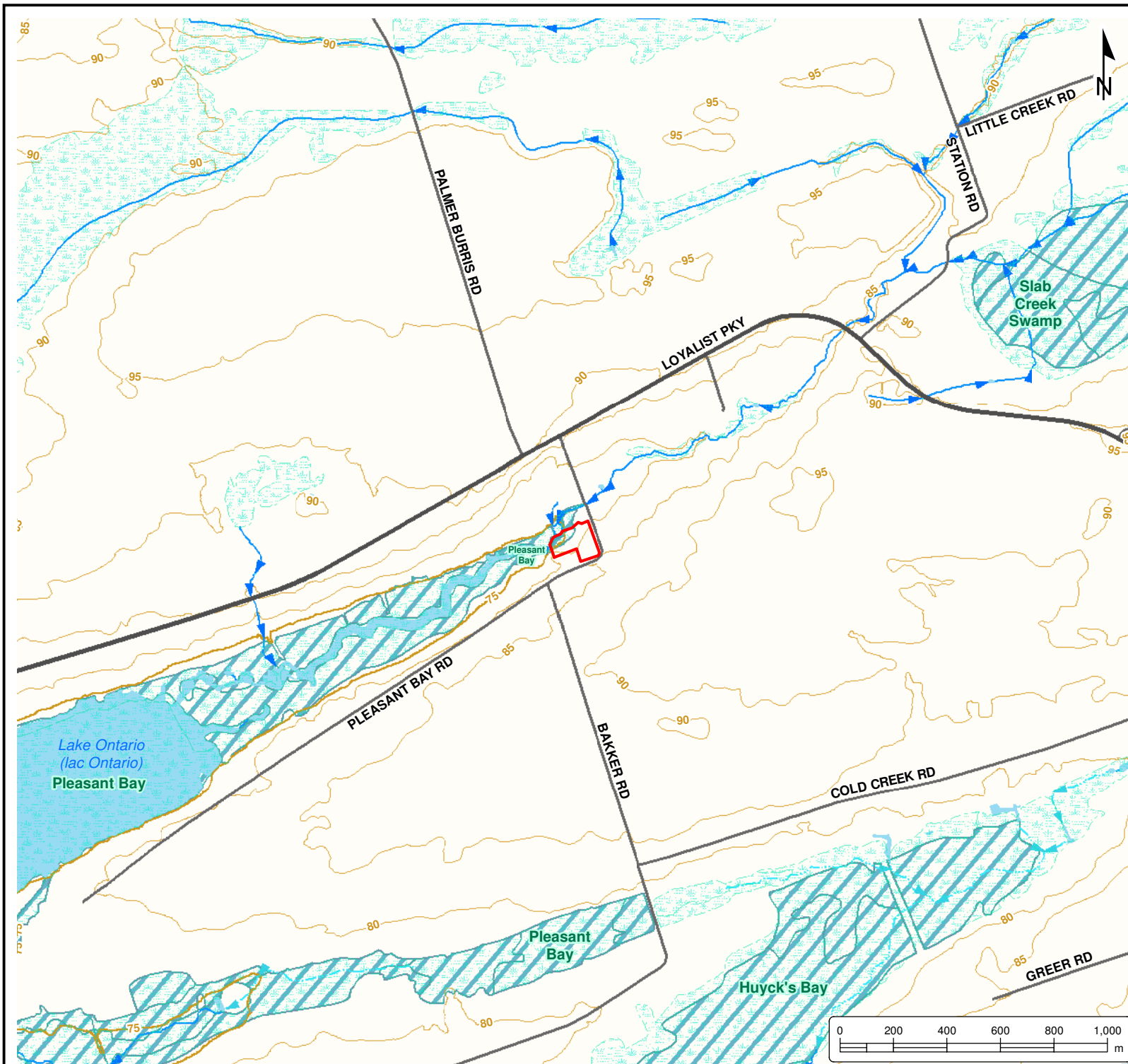
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**LOCAL NATURAL
HERITAGE FEATURES**

Project No.:	13604-002	Date:	February 2022
Scale:	1:20,000	Rev.:	
Created by:	MAT	Projection:	NAD 1983 UTM Zone 18N
Checked by:	MW	Figure:	2



O:\GIS\MXD\13600-13699\13604-002 Brauer Homes - EIS - Pleasant Bay Rd - PEC\2022-02-11 FIG 2 - Local Natural Heritage Features.mxd

O:\GIS\MXDs\13600-13699\13604-002 Brauer Homes - EIS - Pleasant Bay Rd. PEC\2022-02-11 FIG 3 - Site Natural Heritage Features.mxd



**ENVIRONMENTAL
IMPACT STUDY**
BRAUER HOMES
112 Pleasant Bay Road,
Conescon, Ontario

LEGEND

- Drainage Feature
- Verified Wetland Boundary
- Watercourse, Permanent
- Contour 5m Interval (Major)
- Contour 5m Interval (Minor)
- Wetland
- Provincially Significant Wetland
- 120m Adjacent Lands
- Vegetation Community
- Subject Property (1.66 ha) (approximate)

VEGETATION COMMUNITIES

- 1: CUM1; Mineral Cultural Meadow**
- 2: CUT1; Mineral Cultural Thicket**
- 3: MAS2-1; Cattail Mineral Shallow Marsh**
- 4: SWD4-1; Willow Mineral Deciduous Swamp**
- 5: FODM11; Naturalized Deciduous Hedgerow**
- CVR1; Residential**

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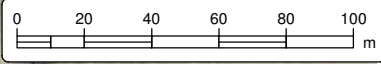


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**SITE NATURAL
HERITAGE FEATURES**

Project No.:	13604-002	Date:	February 2022
Scale:	1:2,250	Rev.:	
Created by:	MAT	Projection:	NAD 1983 UTM Zone 18N
Checked by:	MW	Figure:	3

O:\GIS\MXDs\13600-13699\13604-002 Brauer Homes - EIS - Pleasant Bay Rd. PEC\2022-02-11 FIG 4 - Natural Heritage Constraints.mxd



**ENVIRONMENTAL
IMPACT STUDY**
BRAUER HOMES
112 Pleasant Bay Road,
Conescon, Ontario

LEGEND

- 30m Wetland Setback
- ▶ Drainage Feature
- Verified Wetland Boundary
- ▶ Watercourse, Permanent
- Contour 5m Interval (Major)
- Contour 5m Interval (Minor)
- Wetland
- Provincially Significant Wetlands
- Developable Area (0.90 ha)
- 120m Adjacent Lands
- Subject Property (1.66 ha) (approximate)

Notes:
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**NATURAL HERITAGE
CONSTRAINTS**

Project No.:	13604-002	Date:	February 2022
Scale:	1:2,250	Projection:	NAD 1983 UTM Zone 18N
Created by:	MAT	Checked by:	MW
			4



Appendix A

Correspondence

Matthew Wheeler

From: Matthew Wheeler
Sent: April 29, 2022 1:50 PM
To: Sharlene Richardson
Subject: RE: Terms of Reference---EIS, Pleasant Bay Road, PEC (13604-002)

Hi Sharlene,

It was good to speak with you on Friday April 22, 2022. As discussed, the knoll in the northeastern portion of the property, which appears on the aerial imagery as a drainage watercourse, is actually an upland area colonized by a thicket of prickly ash (*Zanthoxylum americanum*). It is not a watercourse or wetland feature. The October site visit was sufficient to document the plant communities on site and to delineate the wetland boundary. As such, I don't believe a spring visit will be required.

Kind regard, Matt Wheeler

From: Matthew Wheeler
Sent: April 19, 2022 2:45 PM
To: Sharlene Richardson <SRichardson@quinteconservation.ca>
Subject: RE: Terms of Reference---EIS, Pleasant Bay Road, PEC (13604-002)

Hi Sharlene,

I hope you're doing well and had a great long weekend.

Can you please give me a call when you have a moment to discuss;

1. Pleasant Bay Road property: the circled feature below (which I questioned as well) and a spring visit
2. 1539 County Road 7: QC Comments.

Cheers, Matt
Cell 613-876-1515

From: Sharlene Richardson <SRichardson@quinteconservation.ca>
Sent: April 7, 2022 10:20 AM
To: Matthew Wheeler <Matthew.Wheeler@cambium-inc.com>
Subject: RE: Terms of Reference---EIS, Pleasant Bay Road, PEC (13604-002)

Hi Matthew,

Thanks for your email. Your terms of reference look acceptable, but I would suggest doing one spring site visit. We're finishing up our own EIS Submission Standards that we'll hopefully post soon and one of the requirements is for a minimum of one spring site visit for severances and development on vacant land. Properties that are already developed may be able to forgo a spring visit depending on the time of year that the EIS is requested and what the development is, but for all other reports we'd like the spring visit.

I'll be interested to see what the proposed lot lines look like on this property after the setbacks from the PSW are plotted. The County has a 40m setback so these may end up being lots that have a small development envelope relative to the whole size of the property.

I'm sure the report will talk about it, but what's in the north-eastern corner of the property? The contours make it look like there's a small knoll there near the road, but it looks like there's drainage/a watercourse that curves through that area and connects to the PSW. I'm just curious at this point.

If you have any questions at all let me know. I'm sorry for the delay in getting back to you, the last two weeks have been eaten up by preparing for a Land Tribunal case so I'm just now starting to catch up!

Hope all is well,
Sharlene



Sharlene Richardson (she/her)
Regulations Officer
Quinte Conservation
srichardson@quinteconservation.ca

RR#2, 2061 Old Hwy #2, Belleville, ON K8N 4Z2
Phone: (613) 968-3434 or (613) 354-3312 ext 112

Working, living, and learning on the traditional territories of the Anishnabek, Huron-Wendat, and Haudenosaunee (Iroquois) peoples.



IMPORTANT COVID-19 NOTICE: In light of health concerns related to the Covid-19 virus, the QC office will be closed to the public until further notice. Events and meetings will be postponed until further notice. Residents can reach the office by calling 613-968-3434 or by emailing info@quinteconservation.ca. Documents can be dropped off via the mail slot at the main office or by mail at 2061 Old Hwy 2, Belleville ON, K8N 4Z2.

[Click here to sign up for one of Quinte Conservation's e-newsletters!](#)

www.QuinteConservation.ca

www.QuinteSourceWater.ca

Disclaimer: This is intended for the addressee indicated above. It may contain information that is privileged, confidential, or otherwise protected from disclosure under the Municipal Freedom of Information and Privacy Protection Act. If you have received this in error, please notify us immediately.

From: Matthew Wheeler <Matthew.Wheeler@cambium-inc.com>

Sent: March 16, 2022 12:09 PM

To: Sharlene Richardson <SRichardson@quinteconservation.ca>

Cc: Cambium Admin <file@cambium-inc.com>

Subject: Terms of Reference---EIS, Pleasant Bay Road, PEC (13604-002)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon Sharlene,

I hope you are well! Cambium has been retained by the owner of part Lot 24, Concession 3 Lakeside, PEC to complete a scoped EIS. The property is a vacant existing lot of record and is proposing a severance to create one new lot (0.8 ha) and one retained lot (0.9 ha).

The following Terms of Reference is provided for your review/input:

- Consult with the Quinte Conservation to determine their interest/concerns regarding the proposed works and scope the work requirements.
- Compile and review applicable background information and environmental mapping of the Site, including the adjacent lands (120 m) to the proposed lot.
- One (1) site visit of the property has been completed on October 14, 2021, to support the EIS report
- Classify existing vegetation communities on the Site, according to the Ecological Land Classification (ELC) System for Southern Ontario (Lee, et al., 1998), and evaluate them for sensitivity, rarity, and botanical quality.
- Delineate wetland boundary following the Ontario Wetland Evaluation System (OWES) for Southern Ontario (Ministry of Natural Resources, 2013).

- Record observations of wildlife occurrences and assess wildlife habitat function.
- Undertake a Species at Risk (SAR) screening to assess for potential SAR habitat and evaluate compliance with the provincial ESA.
- Identify, assess, and include detailed descriptions of the natural features and functions identified on the Site and adjacent lands.
- Map natural heritage and hydrologic features, vegetation communities, other environmental features (watercourses, wetlands, areas of groundwater discharge, wildlife habitat, etc.), and development setbacks on current high quality aerial imagery.
- Provide an assessment of the potential impacts of the proposed development on natural features and their related ecological and hydrologic functions.
- Demonstrate conformity with the applicable policies within the Provincial Policy Statement, 2020; Endangered Species Act, 2007; and the Official Plan for Prince Edward County.
- Develop and provide an appropriate avoidance, mitigation, restoration, and/or offsetting strategy, to address the potential impacts identified.
- Complete one (1) final report for circulation for approval to the County and Quinte CA.

If you have any questions or comments on the proposed Terms of Reference, please feel free to contact me by phone (613-876-1515) or email.

Kind Regards,
Matthew Wheeler



Matthew Wheeler
Project Manager/Senior Ecologist

Cambium - Kingston

- 📞 613.876.1515
- ☎ 866.217.7900
- 🌐 cambium-inc.com

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Since 2006, our team has worked diligently to bring the insights needed for good decisions and collective success. We are grateful for what has been and is yet to come!



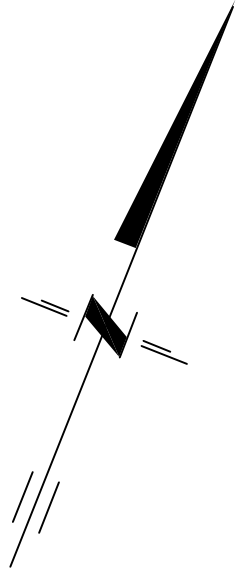
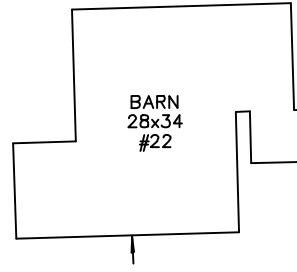
Environmental | Building Sciences | Geotechnical | Construction Quality Verification

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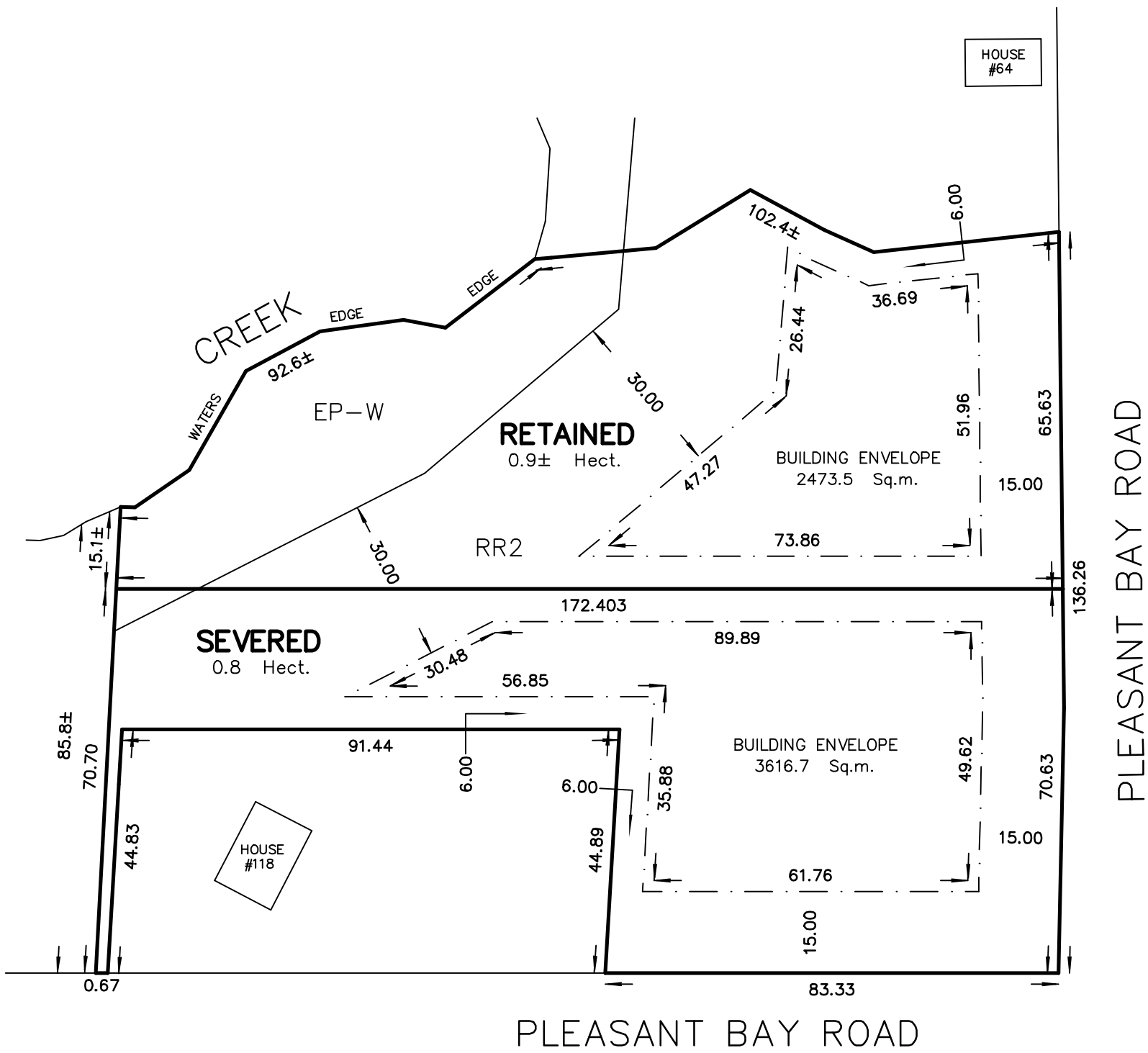


Appendix B
Conceptual Site Plan

SKETCH
 PART OF LOT 6
 REGISTERED PLAN 6
 TOWNSHIP OF HILLIER
 NOW IN THE MUNICIPALITY OF
 THE COUNTY OF PRINCE EDWARD
 METRIC SCALE 1 : 1000



1:67,000
 NOT TO SCALE



NOTES :

SETBACKS ARE DERIVED FROM RR2 ZONING PEC

218 CHURCH STREET
 BELLEVILLE, ONTARIO

WATSON
 LAND SURVEYORS Ltd.

K8N - 3C3
 (613) 962 - 9521

JUNE 24, 2021

PROJECT N^o 13169-B-21



Appendix C
Vegetation Species List



VEGETATION
COMMUNITY

CLASSIFICATION: CUM1

COMMUNITY #: 1

LOCATION: 112 Pleasant Bay Rd.

COORDINATES: 43.9663146, -77.4690494

PROJECT NUMBER: 13602-002

DATE: October 14, 2021

PROJECT
MANAGER: Matt Wheeler

FIELD STAFF: Tyler Jamieson

FIELD SHEET – Vegetation Species List

Common Name	Scientific Name	Family	CoW	CoC	SARA	SARO	S-Rank
Canada Goldenrod	<i>Solidago canadensis</i> var. <i>canadensis</i>	Asteraceae	3	1			S5
Common Apple	<i>Malus pumila</i>	Rosaceae	5				SNA
Common Juniper	<i>Juniperus communis</i> var. <i>communis</i>	Cupressaceae	3				SNA
Common Lilac	<i>Syringa vulgaris</i>	Oleaceae	5				SNA
Common Milkweed	<i>Asclepias syriaca</i>	Apocynaceae	5	0			S5
Common Prickly-ash	<i>Zanthoxylum americanum</i>	Rutaceae	3	3			S5
Common Viper's Bugloss	<i>Echium vulgare</i>	Boraginaceae	5				SNA
Eastern Red Cedar	<i>Juniperus virginiana</i>	Cupressaceae	3	4			S5
European Buckthorn	<i>Rhamnus cathartica</i>	Rhamnaceae	0				SNA
Field Bindweed	<i>Convolvulus arvensis</i>	Convolvulaceae	5				SNA
New England Aster	<i>Symphotrichum novae-angliae</i>	Asteraceae	-3	2			S5
Riverbank Grape	<i>Vitis riparia</i>	Vitaceae	0	0			S5
Smooth Brome	<i>Bromus inermis</i>	Poaceae	5				SNA
Staghorn Sumac	<i>Rhus typhina</i>	Anacardiaceae	3	1			S5

NOTES: Patch of Prickly-ash in northern portion of the Site near top of bank.



VEGETATION
COMMUNITY

CLASSIFICATION: CUM1

COMMUNITY #: 1

LOCATION: 112 Pleasant Bay Rd.

COORDINATES: 43.9663146, -77.4690494

PROJECT NUMBER: 13602-002

DATE: October 14, 2021

PROJECT
MANAGER: Matt Wheeler

FIELD STAFF: Tyler Jamieson

FIELD SHEET – Vegetation Species List

VEGETATION COMMUNITY PHOTOS:





VEGETATION
COMMUNITY

CLASSIFICATION: CUT1

COMMUNITY #: 2

LOCATION: 112 Pleasant Bay Rd.

COORDINATES: 43.9673883, -77.4843579

PROJECT NUMBER: 13604-002

DATE: October 14, 2021

PROJECT MANAGER: Matthew Wheeler

FIELD STAFF: Tyler Jamieson

FIELD SHEET – Vegetation Species List

Common Name	Scientific Name	Family	CoW	CoC	SARA	SARO	S-Rank
Black Cherry	<i>Prunus serotina</i> var. <i>serotina</i>	Rosaceae	3	3			S5
Canada Goldenrod	<i>Solidago canadensis</i> var. <i>canadensis</i>	Asteraceae	3	1			S5
Common Juniper	<i>Juniperus communis</i> var. <i>communis</i>	Cupressaceae	3				SNA
Common Milkweed	<i>Asclepias syriaca</i>	Apocynaceae	5	0			S5
Common Prickly-ash	<i>Zanthoxylum americanum</i>	Rutaceae	3	3			S5
Common Viper's Bugloss	<i>Echium vulgare</i>	Boraginaceae	5				SNA
Eastern Red Cedar	<i>Juniperus virginiana</i>	Cupressaceae	3	4			S5
European Buckthorn	<i>Rhamnus cathartica</i>	Rhamnaceae	0				SNA
New England Aster	<i>Symphotrichum novae-angliae</i>	Asteraceae	-3	2			S5
Red Ash	<i>Fraxinus pennsylvanica</i>	Oleaceae	-3	3			S4
Riverbank Grape	<i>Vitis riparia</i>	Vitaceae	0	0			S5
Smooth Brome	<i>Bromus inermis</i>	Poaceae	5				SNA
Staghorn Sumac	<i>Rhus typhina</i>	Anacardiaceae	3	1			S5
White Heath Aster	<i>Symphotrichum ericoides</i> var. <i>ericoides</i>	Asteraceae	3	4			S5

NOTES: Cut. Higher shrub and tree cover than 1



VEGETATION
COMMUNITY

CLASSIFICATION: CUT1

COMMUNITY #: 2

LOCATION: 112 Pleasant Bay Rd.

COORDINATES: 43.9673883, -77.4843579

PROJECT NUMBER: 13604-002

DATE: October 14, 2021

PROJECT MANAGER: Matthew Wheeler

FIELD STAFF: Tyler Jamieson

FIELD SHEET – Vegetation Species List

VEGETATION COMMUNITY PHOTOS:





VEGETATION
COMMUNITY

CLASSIFICATION: MAS2-1

COMMUNITY #: 3

LOCATION: 112 Pleasant Bay Rd.

COORDINATES: 43.9720052, -77.4703077

PROJECT NUMBER: 13604-002

DATE: October 14, 2021

PROJECT MANAGER: Matthew Wheeler

FIELD STAFF: Tyler Jamieson

FIELD SHEET – Vegetation Species List

Common Name	Scientific Name	Family	CoW	CoC	SARA	SARO	S-Rank
Common Boneset	<i>Eupatorium perfoliatum</i>	Asteraceae	-3	2			S5
Narrow-leaved Cattail	<i>Typha angustifolia</i>	Typhaceae	-5				SNA
Panicled Aster	<i>Symphotrichum lanceolatum</i>	Asteraceae	-3	3			S5
Red Raspberry	<i>Rubus idaeus</i>	Rosaceae	3	2			S5
Red-osier Dogwood	<i>Cornus sericea</i>	Cornaceae	-3	2			S5
Reed Canarygrass	<i>Phalaris arundinacea</i> var. <i>arundinacea</i>	Poaceae	-3	0			S5
Spotted Jewelweed	<i>Impatiens capensis</i>	Balsaminaceae	-3	4			S5
White Meadowsweet	<i>Spiraea alba</i> var. <i>alba</i>	Rosaceae	-3	3			S5

NOTES: Beaver activity in wetland (i.e. damming, browse on woody veg)



VEGETATION
COMMUNITY

CLASSIFICATION: MAS2-1

COMMUNITY #: 3

LOCATION: 112 Pleasant Bay Rd.

COORDINATES: 43.9720052, -77.4703077

PROJECT NUMBER: 13604-002

DATE: October 14, 2021

PROJECT MANAGER: Matthew Wheeler

FIELD STAFF: Tyler Jamieson

FIELD SHEET – Vegetation Species List

VEGETATION COMMUNITY PHOTOS:





VEGETATION
COMMUNITY

CLASSIFICATION: SWD4-1

COMMUNITY #: 4

LOCATION: 112 Pleasant Bay Rd.

COORDINATES: 43.9673883, -77.4843579

PROJECT NUMBER: 13604-002

DATE: October 14, 2021

PROJECT MANAGER: Matthew Wheeler

FIELD STAFF: Tyler Jamieson

FIELD SHEET – Vegetation Species List

Common Name	Scientific Name	Family	CoW	CoC	SARA	SARO	S-Rank
Crack Willow	<i>Salix euxina</i>	Salicaceae	0				SNA
European Buckthorn	<i>Rhamnus cathartica</i>	Rhamnaceae	0				SNA
Manitoba Maple	<i>Acer negundo</i>	Aceraceae	0	0			S5
Northern Willowherb	<i>Epilobium ciliatum</i> ssp. <i>ciliatum</i> var. <i>ciliatum</i>	Onagraceae	-3	3			S5
Red-osier Dogwood	<i>Cornus sericea</i>	Cornaceae	-3	2			S5
Reed Canarygrass	<i>Phalaris arundinacea</i> var. <i>arundinacea</i>	Poaceae	-3	0			S5
Silver Maple	<i>Acer saccharinum</i>	Aceraceae	-3	5			S5
Spotted Jewelweed	<i>Impatiens capensis</i>	Balsaminaceae	-3	4			S5

NOTES: Willow dominant. Extends off property



VEGETATION
COMMUNITY

CLASSIFICATION: SWD4-1

COMMUNITY #: 4

PROJECT NUMBER: 13604-002

DATE: October 14,
2021

LOCATION: 112 Pleasant Bay
Rd.

COORDINATES: 43.9673883, -
77.4843579

PROJECT MANAGER: Matthew
Wheeler

FIELD STAFF: Tyler Jamieson

FIELD SHEET – Vegetation Species List

VEGETATION COMMUNITY PHOTOS:





VEGETATION
COMMUNITY

CLASSIFICATION: FODM11

COMMUNITY #: 5

LOCATION: 112 Pleasant Bay Rd.

COORDINATES: 43.9678572, -77.4681788

PROJECT NUMBER: 13604-002

DATE: October 14, 2021

PROJECT MANAGER: Matthew Wheeler

FIELD STAFF: Tyler Jamieson

FIELD SHEET – Vegetation Species List

Common Name	Scientific Name	Family	CoW	CoC	SARA	SARO	S-Rank
Alfalfa	<i>Medicago sativa</i> ssp. <i>sativa</i>	Fabaceae	5				SNA
Black Cherry	<i>Prunus serotina</i> var. <i>serotina</i>	Rosaceae	3	3			S5
Canada Goldenrod	<i>Solidago canadensis</i> var. <i>canadensis</i>	Asteraceae	3	1			S5
Common Apple	<i>Malus pumila</i>	Rosaceae	5				SNA
Common Dandelion	<i>Taraxacum officinale</i>	Asteraceae	3				SNA
Common Lilac	<i>Syringa vulgaris</i>	Oleaceae	5				SNA
Common Milkweed	<i>Asclepias syriaca</i>	Apocynaceae	5	0			S5
Common Prickly-ash	<i>Zanthoxylum americanum</i>	Rutaceae	3	3			S5
European Buckthorn	<i>Rhamnus cathartica</i>	Rhamnaceae	0				SNA
New England Aster	<i>Symphotrichum novae-angliae</i>	Asteraceae	-3	2			S5
Red Ash	<i>Fraxinus pennsylvanica</i>	Oleaceae	-3	3			S4
Red Clover	<i>Trifolium pratense</i>	Fabaceae	3				SNA
Red-osier Dogwood	<i>Cornus sericea</i>	Cornaceae	-3	2			S5
Riverbank Grape	<i>Vitis riparia</i>	Vitaceae	0	0			S5
Smooth Brome	<i>Bromus inermis</i>	Poaceae	5				SNA
Staghorn Sumac	<i>Rhus typhina</i>	Anacardiaceae	3	1			S5
Wild Carrot	<i>Daucus carota</i>	Apiaceae	5				SNA
Wild Chicory	<i>Cichorium intybus</i>	Asteraceae	5				SNA

NOTES: Deciduous hedgerow.



VEGETATION
COMMUNITY

CLASSIFICATION: FODM11

COMMUNITY #: 5

LOCATION: 112 Pleasant Bay Rd.

COORDINATES: 43.9678572, -77.4681788

PROJECT NUMBER: 13604-002

DATE: October 14, 2021

PROJECT MANAGER: Matthew Wheeler

FIELD STAFF: Tyler Jamieson

FIELD SHEET – Vegetation Species List

VEGETATION COMMUNITY PHOTOS:





Appendix D
Species of Conservation Concern Screening



APPENDIX: Species of Conservation Concern - Prince Edward County

COMMON NAME	SCIENTIFIC NAME	Federal SARA	Provincial SARO	S-RANK	SPECIES DESCRIPTION AND HABITAT REQUIREMENTS	SUITABLE HABITAT	SPECIES OBSERVATIONS	ASSESSMENT
Birds								
Bank Swallow	<i>Riparia riparia</i>	THR	THR	S4B	The Bank Swallow is a small songbird of around 12 cm long with a distinctive dark breast band, that flies with quick and erratic wingbeats (1). It nests in burrows in natural and human-made settings where there are vertical faces in silt and sand deposits. This can include banks of rivers and lakes, bluffs, active sand and gravel pits, road cuts and stockpiles of soils. However, they prefer sand-silt substrates for excavating their nest burrows. They often use large wetlands as communal nocturnal roosts post-breeding or during wintering periods (2).	No	Known to occur in the general area	No further consideration required
Barn Swallow	<i>Hirundo rustica</i>	THR	THR	S4B	The Barn Swallow is a mid-sized songbird with steel-blue backs and wings, glossy in males, and a line of white spots across its upper tail. It lives in a variety of open habitats for foraging, such as grassy fields, pastures, certain agricultural crops, shorelines, cottage areas, wetlands, or subarctic tundra (2). They prefer to nest within human made structures such as barns, bridges, and culverts. Barn Swallow nests are cup-shaped and made of mud, typically attached to horizontal beams or vertical walls underneath an overhang (1).	No	Known to occur in the general area	No further consideration required
Black Tern	<i>Chlidonias niger</i>	No Status	SC	S3B	The Black Tern is a small waterbird with a forked tail, straight pointed bill, slender shape, and black head during breeding season. It builds floating nests in loose colonies in shallow marshes, with a preference for cattails. They breed primarily in the marshes along the edges of the Great Lakes, but may also use wetlands further north if suitable (1).	Yes: adjacent lands only	Known to occur in the general area	Potential significant wildlife habitat on adjacent lands
Bobolink	<i>Dolichonyx oryzivorus</i>	THR	THR	S4B	The Bobolink is a mid-sized songbird of tan colour with black stripes, except for males during summer breeding season who are black with a white back and yellow collar. It prefers tall, grassy meadows, hayfields and some croplands, and feeds (largely on insects) on the ground in dense grasses (1). It tends to nest in forage crops: hayfields and pastures dominated by species including clover, bluegrass, and broadleaf plants (2).	Yes: adjacent lands only	Known to occur in the general area	No further consideration required
Canada Warbler	<i>Cardellina canadensis</i>	THR	SC	S4B	The Canada Warbler is a small songbird with bright yellow underparts and bluish-grey back and tail (1). It can be found in a variety of forest types, but is most abundant in moist, mixed forests with a well-developed, dense shrub layer. Nests are usually located on or near the ground on mossy logs, and along stream banks (3).	No	Known to occur in the general area	No further consideration required
Cerulean Warbler	<i>Setophaga cerulea</i>	END	THR	S3B	The Cerulean Warbler, a small songbird, is blue-green with white eyebrows and two prominent white wing bars (1). It requires relatively large tracts of mature deciduous forest (>100 ha), and nests in older, second-growth deciduous forests. During breeding season, it is found in relatively large tracts of mature deciduous forests that feature large, tall trees and an open understory (4).	No	Known to occur in the general area	No further consideration required
Chimney Swift	<i>Chaetura pelagica</i>	THR	THR	S4B,S4N	The Chimney Swift is a small bird, between 12 and 14 cm, with a brown, cigar-shaped body, slender wings, and an erratic flight pattern. Prior to settlement, the Chimney Swift would mainly nest in cave walls and hollow trees. Now, it is found mostly near urban and suburban areas where the presence of chimneys or other manmade structures provide nesting and roosting habitat. They also tend to stay in habitat close to the water (1).	No	Known to occur in the general area	No further consideration required



APPENDIX: Species of Conservation Concern - Prince Edward County

COMMON NAME	SCIENTIFIC NAME	Federal SARA	Provincial SARO	S-RANK	SPECIES DESCRIPTION AND HABITAT REQUIREMENTS	SUITABLE HABITAT	SPECIES OBSERVATIONS	ASSESSMENT
Common Nighthawk	<i>Chordeiles minor</i>	THR	SC	S4B	The Common Nighthawk is a medium-sized bird with long, pointed wings, a long tail with a notch, and large eyes. Its plumage of dark brown with black and white specks blends with its roost site. It is typically found in open areas such as gravel beaches, rock outcrops and burned woodlands, that have little to no ground vegetation. This species can also be found in highly disturbed locations such as clear cuts, mine tailing areas, cultivated fields, urban parks, gravel roads, and orchards (1).	No	Known to occur in the general area	No further consideration required
Eastern Meadowlark	<i>Sturnella magna</i>	THR	THR	S4B	The Eastern Meadowlark is a medium-sized migratory songbird with a bright yellow throat and belly, a black V shape on its chest, and a pointed bill. It prefers pastures and hayfields, but is also found to breed in orchards, shrubby fields, human-use areas such as airports and roadsides, or other open areas. The Eastern Meadowlark can nest from early May to mid-August, in nests that are built on the ground and well-camouflaged with a roof woven from grasses (1).	Yes: adjacent lands only	Incidental observation on adjacent lands	No further consideration required
Eastern Whip-poor-will	<i>Antrostomus vociferus</i>	THR	THR	S4B	The Eastern Whip-poor-will is a medium-sized bird with mottled brown and grey feathers to blend in with its surroundings, a large flattened head, and small bill. They are usually found in areas with a mix of open and forested areas such as patchy forests with clearings, forests that are regenerating after major disturbances, savannahs, open woodlands or openings in more mature forests. Breeding habitat is dependent on forest structure rather than composition, although common tree associations are pine and oak, and it nests directly on the forest floor (2). The species prefers to nest in semi-open or patchy forests with clearings as it forages in open areas and uses forested areas for roosting (1).	No	Known to occur in the general area	No further consideration required
Eastern Wood-Pewee	<i>Contopus virens</i>	SC	SC	S4B	The Eastern Wood-pewee is a species of 'flycatcher', a bird that eats flying insects. It grows to approximately 15 cm, has greyish-olive upper parts and pale bars on its wings. This species lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It prefers intermediate-age forest stands with little understory vegetation (1). It typically creates nests on tree branches 2-12 m in height (2).	Yes: adjacent lands only	Incidental observation on adjacent lands	Potential significant wildlife habitat on adjacent lands
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	SC	SC	S4B	The Grasshopper Sparrow is a small songbird with a streaked back, a white stripe down the center of its crown, a flattish head, and a conical beak. It inhabits open grasslands and prairies with well-drained soil, preferring areas that are sparsely vegetated. It will also nest in hayfields and pastures, as well as alvars and occasionally grain crops such as barley (1).	Yes: adjacent lands only	Known to occur in the general area	Potential significant wildlife habitat on adjacent lands
King Rail	<i>Rallus elegans</i>	END	END	S2B	The King Rail is a large bird, standing at around 40 cm tall, with a long, curved bill, orange chest and neck, and black sides with vertical white bars. This species prefers densely vegetated freshwater marshes with open shallow water and shrub thicket areas. Current records for Ontario suggest that these birds prefer sites within coastal marshes of the Great Lakes. Most breeding pairs left in Ontario are found in wetlands bordering Lake St Clair or coastal marshes along Lakes Erie and Ontario (1).	Yes: adjacent lands only	Known to occur in the general area	Potential significant wildlife habitat on adjacent lands
Least Bittern	<i>Ixobrychus exilis</i>	THR	THR	S4B	The Least Bittern is a small member of the heron family, reaching around 30 cm in length. It has brown and beige plumage with chestnut patches on its wings (1). The species nests in marshes (> 5 - 10 ha) and swamps dominated by emergent vegetation, preferably cattails, interspersed with patches of woody vegetation and open water. They require dense vegetation and open water with stable levels within 10 m for nesting, and access to clear, open water for foraging (4).	Yes: adjacent lands only	Known to occur in the general area	Consideration required under the ESA



APPENDIX: Species of Conservation Concern - Prince Edward County

COMMON NAME	SCIENTIFIC NAME	Federal SARA	Provincial SARO	S-RANK	SPECIES DESCRIPTION AND HABITAT REQUIREMENTS	SUITABLE HABITAT	SPECIES OBSERVATIONS	ASSESSMENT
Loggerhead Shrike	<i>Lanius ludovicianus</i>	END	END	S2B	The Loggerhead Shrike is a small bird with a black, hooked bill, grey crown, and white throat and chest. This species has specific habitat requirements that are dependent on active livestock grazing, or grassland areas that have naturally short grass cover (i.e. alvar communities). They also require spiny, multi-branched shrubs, or barbed fencing, to catch prey. They prefer grassland habitats that have sporadic occurrences of low trees and shrubs; particularly hawthorn species, which are used as part of their feeding behaviour (1).	No	Known to occur in the general area	No further consideration required
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	END	END	S4B	The Red-headed Woodpecker is a mid-sized bird, at around 20 cm long, with a vivid red head, neck and breast as well a strong bill. The species can be found in open woodland and woodland edges, often near man-made landscapes such as parks, golf courses and cemeteries. These areas must contain a large number of dead trees for perching and nesting (1).	No	Known to occur in the general area	No further consideration required
Rusty Blackbird	<i>Euphagus carolinus</i>	SC	SC	S4B	The Rusty Blackbird, a medium-sized songbird with pale, yellow eyes and a slender black bill, has recently been listed as special concern both federally and provincially. The species breeds in habitats dominated by coniferous forest with wetlands nearby including bogs, marshes, and beaver ponds. In Ontario, their breeding range is found in the Hudson Bay Lowlands and northern Boreal Shield ecozones. During the winter, it can be found in wet woodlands, swamps, and pond edges plus often foraging in agricultural lands (1).	No	Known to occur in the general area	No further consideration required
Short-eared Owl	<i>Asio flammeus</i>	SC	SC	S2N,S4B	The Short-eared Owl has a large round head with small tufts of feathers, long wings, a short tail, and cryptic colouring of brown streaks. This species is found in scattered pockets across the province where suitable open habitat, including grasslands, tundra, peat bogs and marsh, can be found in sufficient quantities. Adults build nests on the ground in grassy areas and occasionally agricultural fields (1). The main factor influencing their choice in habitat is believed to be an abundance of their food source, primarily rodents and other small mammals (2).	No	Known to occur in the general area	No further consideration required
Wood Thrush	<i>Hylocichla mustelina</i>	THR	SC	S4B	The Wood Thrush is a medium-sized songbird of around 20 cm with rusty brown coloured upper parts and white underparts with large dark spots. It breeds in deciduous and mixed forests with moderate understories, shade and abundant leaf litter where it forages for food, including larval and adult insects as well as plant material. They prefer moist stands of trees with well-developed undergrowth and tall trees for perches (1).	No	Known to occur in the general area	No further consideration required
Fish								
American Eel	<i>Anguilla rostrata</i>	No Status	END	S1?	The American Eel is a long, slender bodied fish, with one long fin extending down the back and around the tail, and two small pectoral fins. It has thick lips, and a protruding lower jaw that extends out above the upper jaw. At the juvenile stage, they swim up the St. Lawrence River to reach Lake Ontario and connected tributaries where they will remain for 8 to 23 years before migrating back to their spawning grounds. In Ontario, the American eel prefers mud, sand or gravel substrates during the juvenile stage when they reside primarily in the benthic zone of waterbodies. More mature eels are able to thrive in most environments provided there is available cover during daylight hours, and the habitat is accessible (2).	No	Known to occur in the general area	No further consideration required



APPENDIX: Species of Conservation Concern - Prince Edward County

COMMON NAME	SCIENTIFIC NAME	Federal SARA	Provincial SARO	S-RANK	SPECIES DESCRIPTION AND HABITAT REQUIREMENTS	SUITABLE HABITAT	SPECIES OBSERVATIONS	ASSESSMENT
Bridle Shiner	<i>Notropis bifrenatus</i>	SC	SC	S2	The Bridle Shiner is a small minnow with a slender body of up to 6 cm long, and a small mouth extending back to the lower edge of its eye. Adults of this species are silvery, often blue-green, with a paler underbelly. They live in clear, unpolluted streams, rivers, and lakes typically with an abundance of vegetation and prefer warm water with a sand, silt, or organic debris bottom (1).	Yes: adjacent lands only	Known to occur in the general area	Potential significant wildlife habitat on adjacent lands
Lake Sturgeon	<i>Acipenser fulvescens</i>	No Status	END	S2	The Lake Sturgeon, a large freshwater fish, has an extended snout with four whisker-like organs hanging near the mouth and is dark to light brown or grey on its back and sides with a lighter belly. In Ontario, this fish is found in the rivers of the Hudson Bay Basin, the Great Lakes basin, and their connecting waterways. Lake Sturgeon's live almost exclusively in freshwater lakes and rivers with soft bottoms of mud, sand or gravel and are usually found at depths of 5 to 20 m. They spawn in relatively shallow, fast-flowing water or if available deeper water habitat as well (1).	No	Known to occur in the general area	No further consideration required
Upper Great Lakes Kiyi	<i>Coregonus kiyi kiyi</i>	SC	SC	S3	The Upper Great Lakes Kiyi, a member of the whitefish subfamily, grows up to 25 cm, has silvery sides with pink or purple iridescence, a dark back, and white underside. Its lower jaw has a distinct projection, extending beyond the upper jaw. It can be found in clear, cold water at depths of 35 to 200 m (1).	No	Known to occur in the general area	No further consideration required
Herptiles								
Blanding's Turtle	<i>Emydoidea blandingii</i>	END	THR	S3	Blanding's Turtles are identifiable by their bright yellow throat and chin and domed shell. They spend the majority of their life cycle in the aquatic environment, usually in large wetlands or shallow lakes with high densities of water plants (1). These turtles prefer shallow, nutrient rich water with organic sediment and dense vegetation. They use terrestrial sites for travel between habitat patches and to lay clutches of eggs, often going hundreds of meters from their nearest water body. Blanding's Turtles nest in dry coniferous and mixed forest habitats, as well as fields and roadsides (2). From late October until the end of April, they hibernate in the mud at the bottom of permanent water bodies (1).	Yes: adjacent lands only	Known to occur in the general area	Consideration required under the ESA
Eastern Musk Turtle	<i>Sternotherus odoratus</i>	SC	SC	S3	The Eastern Musk Turtle is small with a narrow carapace, a dark brown body and two light stripes on each side of their head (5). It is a small freshwater turtle found primarily in slow moving water bodies with abundant emergent vegetation and mucky bottoms along the southern edge of the Canadian Shield within which they burrow into overwinter. Nesting sites vary, but must be close to the water and exposed to direct sunlight (1).	No	Known to occur in the general area	No further consideration required
Midland Painted Turtle	<i>Chrysemys picta marginata</i>	SC	-	S4	The Midland Painted Turtle has a olive to black carapace with red or dark orange markings on the marginal scutes, as well as red and yellow stripes on the head and neck. The species uses a variety of waterbodies including, ponds, marshes, lakes and slow-moving creeks with a soft bottom and an abundance of basking sites and aquatic vegetation. This species usually hibernates on the bottom of waterbodies (5).	Yes: adjacent lands only	Known to occur in the general area	No further consideration required
Northern Map Turtle	<i>Graptemys geographica</i>	SC	SC	S3	The Northern Map Turtle is a medium sized turtle identified by its carapace's map contour-like patterning. It lives in larger lakes and rivers, requiring high water quality to support their primary prey species: molluscs. This species can often be seen in large groups basking together on rocks and logs. In the winter, the Northern Map Turtle can be found hibernating on the bottom of slow-moving rivers (1).	Yes: adjacent lands only	Known to occur in the general area	Potential significant wildlife habitat on adjacent lands



APPENDIX: Species of Conservation Concern - Prince Edward County

COMMON NAME	SCIENTIFIC NAME	Federal SARA	Provincial SARO	S-RANK	SPECIES DESCRIPTION AND HABITAT REQUIREMENTS	SUITABLE HABITAT	SPECIES OBSERVATIONS	ASSESSMENT
Snapping Turtle	<i>Chelydra serpentina</i>	SC	SC	S3	The Snapping Turtle, with its large serrated carapace, small plastron, and spiked tail, is Canada's largest freshwater turtle (5). It spends the majority of its life in water, preferring shallow water with soft mud and leaf litter, and will travel upland to gravel or sandy embankments, roadsides, along railway lines or beaches to lay their eggs (1).	Yes: adjacent lands only	Known to occur in the general area	Potential significant wildlife habitat on adjacent lands
Spiny Softshell	<i>Apalone spinifera</i>	END	END	S2	The Spiny Softshell can be easily distinguished since it is the province's only turtle with a flexible, leathery carapace. These turtles have long snouts, a yellow strip outlined in black along the head, an olive-grey or brown carapace, and may reach a size of up to 40 cm in length. They are typically found in rivers with soft bottoms, aquatic vegetation, and sandbars, but may also be found in lakes or impoundments. They nest in gravelly or sandy areas (5).	No	Known to occur in the general area	No further consideration required
Spotted Turtle	<i>Clemmys guttata</i>	END	END	S2	The Spotted Turtle is named after the distinct yellow spots on its carapace. The species is semi-aquatic and prefers ponds, marshes, bogs and even ditches with slow-moving, unpolluted water and an abundant supply of aquatic vegetation. This species usually hibernates in wetlands or seasonally wet areas with structures such as overhanging banks, hummocks, tree roots, or aquatic animal burrows (1).	No	Known to occur in the general area	No further consideration required
Wood Turtle	<i>Glyptemys insculpta</i>	THR	END	S2	The Wood Turtle has orange coloured front legs, neck and chin and a sculpted carapace with raised, pyramidal scutes (5). They prefer clear rivers and streams that have moderate current, and sandy or gravelly substrates. This species spends more time on land than other turtle species including in meadows, swamps and fields. Wooded areas are an essential habitat component, and the species uses aquatic habitats for hibernation and mating. Nesting occurs in areas with sandy soil and abundant light (1).	No	Known to occur in the general area	No further consideration required
Eastern Hog-nosed Snake	<i>Heterodon platirhinos</i>	THR	THR	S3	The Eastern Hog-nosed Snake can be a variety of colours and patterns so is most easily identified by its flattened, upturned nose. They prefer sandy well-drained habitats such as beaches and dry forests because they lay their eggs, hibernate and burrow in these areas. The main diet of this snake is toads and frogs, so they usually stay close to water including marshes and swamps, where they have an increased chance of finding their preferred prey (1).	No	Known to occur in the general area	No further consideration required
Eastern Milksnake	<i>Lampropeltis triangulum</i>	SC	NAR	S4	The Eastern Milksnake's colouration is grey or tan with reddish alternating blotches outlined in black along its back and sides (5). It has recently been delisted from being a species at risk in Ontario (1). This species tends to use open habitats such as rocky outcrops, fields and forest edges. The preferred prey of milksnakes are mice, small rodents, and ground nesting birds which are amply found in and surrounding agricultural outbuildings. The milksnake is secretive and is not likely to be encountered during the day or at night while hunting (5).	Yes: on-site and adjacent lands	Known to occur in the general area	No further consideration required
Eastern Ribbonsnake	<i>Thamnophis sauritus</i>	SC	SC	S4	The Eastern Ribbonsnake is slender with three bright yellow stripes running down its back and sides and a white crescent in front of each eye. This snake is usually found close to water as they are strong swimmers, often fleeing predators by diving into shallow water. It prefers wetland habitats where its prey species, frogs and small fish, are abundant. Over winter, they congregate in underground burrows or rock crevices to hibernate (1).	No	Known to occur in the general area	No further consideration required



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Western Chorus Frog	<i>Pseudacris triseriata</i>	THR	-	S3	The Western Chorus Frog is small with a dark stripe running through its eye and a light stripe underneath (5). It is primarily a lowland terrestrial species that requires access to terrestrial and aquatic habitats in close proximity to one another. Relying on marshes and wooded wetlands adjacent to forested habitats, this species also requires isolated, predator free pools for breeding. Temporary pools, such as vernal pools in wooded areas, are preferred. This species hibernates terrestrially in a variety of environments, including leaf litter, wood debris, and vacant animal burrows (2).	Yes: adjacent lands only	Known to occur in the general area	No further consideration required
Invertebrates								
Monarch Butterfly	<i>Danaus plexippus</i>	SC	SC	S2N,S4B	The Monarch is an orange and black butterfly with small white spots and a wingspan of around 10 cm. It relies on milkweed plants as a food source for growing caterpillars, but the adult butterflies forage in diverse habitats for nectar from wildflowers (1).	Yes: on-site and adjacent lands	Known to occur in the general area	No further consideration required
Yellow-banded Bumble Bee	<i>Bombus terricola</i>	SC	SC	S3S5	The Yellow-banded Bumble Bee is medium-sized, with a yellow and black abdominal band pattern. This species is considered a habitat generalist since it is able to use a variety of nectaring plants and can tolerate a range of environmental conditions, including habitats such as mixed woodlands, grasslands, farmlands, and urban areas. Their nest sites are often found underground in abandoned burrows or decomposing logs.	Yes: on-site and adjacent lands	Known to occur in the general area	No further consideration required
Eastern Pondmussel	<i>Ligumia nasuta</i>	SC	SC	S1	The Eastern Pondmussel is a freshwater mussel that can grow to 10 centimetres long. They must attach to a fish host, consuming nutrients off its body until becoming juvenile, but it is unknown which fish species act as hosts. Typically found in sheltered areas of lakes and in slow-moving areas of river and canals with sand or mud bottoms, the Eastern Pondmussel was once one of the most common mussels in the lower Great Lakes but there are now only two known populations in Canada: one in the delta of Lake St. Clair and the second in Lyn Creek, a small tributary of the upper St. Lawrence River (1).	Yes: adjacent lands only	Known to occur in the general area	Potential significant wildlife habitat on adjacent lands
Mammals								
Tri-colored Bat	<i>Perimyotis subflavus</i>	END	END	S3?	The Tri-colored Bat is small, with pale brown with orange-red forearms, muzzle, and ears. It is named for the black, yellow, and brown hairs on its back. It is considered rare in this region of Ontario which is at the northernmost limit of the natural range. These bats prefer to nest in foliage, tree cavities and woodpecker holes, but are occasionally found in buildings; though this is not their preferred habitat. Winter hibernation takes place in caves, mines and deep crevices. Tri-colored Bats prefer an open forest habitat type in proximity to water (6).	No	Known to occur in the general area	No further consideration required
Eastern Small-footed Myotis	<i>Myotis leibii</i>	No Status	END	S2S3	The Eastern Small-footed Myotis has fur with black roots and shiny brown tips as well as very small feet. In the spring and summer, the Eastern Small-footed Myotis will roost in a variety of habitats, including in or under rocks, in rock outcrops, in buildings, under bridges, or in caves, mines, or hollow trees. They change their roosting locations daily and hunt at night for insects. They hibernate in winter, often in caves and abandoned mines choosing colder and drier sites than other similar bats (1).	No	Known to occur in the general area	No further consideration required



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Little Brown Myotis	<i>Myotis lucifugus</i>	END	END	S4	The Little Brown Myotis has glossy brown fur and a fleshy projection covering the entrance to its ears. This species roosts in trees and buildings, often selecting attics, abandoned buildings and barns for summer colonies where they can raise their young. Little Brown Bats hibernate from October/November to March/April, most often in caves or abandoned mines that are humid and remain above freezing (1).	No	Known to occur in the general area	No further consideration required
Northern Myotis	<i>Myotis septentrionalis</i>	END	END	S3	The Northern Myotis has dull yellow-brown fur with pale bellies and long, rounded ears. This species is found in boreal forests, roosting under loose bark and in the cavities of trees. These bats hibernate from October/November to March/April, most often in caves or abandoned mines (1).	No	Known to occur in the general area	No further consideration required
Trees, plants, fungi and lichens								
American Ginseng	<i>Panax quinquefolius</i>	END	END	S2	American Ginseng is a perennial plant which grows up to 60 centimetres in height. The leaves typically have five leaflets arranged in a whorl at the end of the leaf stem. The root looks like a gnarly parsnip. The flowers are an inconspicuous green-white in colour, but the berries are bright red and arranged in a cluster. In Ontario, the American Ginseng typically grows in rich, moist, and mature deciduous woods dominated by Sugar Maple, White Ash, and American Basswood. It typically grows in deep, nutrient rich soil over limestone or marble bedrock (1).	No	Known to occur in the general area	No further consideration required
Black Ash	<i>Fraxinus nigra</i>	No Status	END	S4	The Black Ash is a smaller-sized tree with a narrow crown, light grey and scaly bark, and green, oval leaflets on a central stalk. It grows everywhere in Ontario except for the Far north, preferring moist climates and soils such as swampy woodlands or bogs (1).	No	Known to occur in the general area	No further consideration required
Butternut	<i>Juglans cinerea</i>	END	END	S2?	The Butternut is a medium sized tree reaching 30 m in height. It has large compound leaves with 11 to 17 leaflets. The fruit is oval, fuzzy and sticky. In Ontario, the Butternut prefers moist, well-drained soil, often along streams, or occasionally well-drained gravel sites. It grows alone or in small groups in deciduous forests (1).	No	Known to occur in the general area	No further consideration required
Climbing Prairie Rose	<i>Rosa setigera</i>	SC	SC	S3	The Climbing Prairie Rose has arching, climbing branches growing several metres long. Its leaves are alternate, compound, and its 3-5 leaflets are opposite. This rose's flower is large, pink, and five-petaled. It is typically found in open habitats with moist clay or clay-loam soils depending on periodic fire or other disturbance such as old fields, prairie remnants, shrub thickets, and abandoned agricultural land (1).	No	Known to occur in the general area	No further consideration required
Four-leaved Milkweed	<i>Asclepias quadrifolia</i>	No status	END	S1	The Four-leaved Milkweed is a leafy perennial growing 20 to 80 cm tall with clusters of small, pink-white flowers. Its leaves are arranged in opposite pairs. It grows in dry woodlands dominated by tallgrass prairie herbs, bur oaks, and hickories, or woodland alvars dominated by red cedar and pasture grasses (1).	No	Known to occur in the general area	No further consideration required
Swamp Rose-mallow	<i>Hibiscus moscheutos</i>	SC	SC	S3	The Swamp Rose-mallow is a large wetland plant, reaching 2 m tall, with showy pink or white flowers, stems emerging from a shared root system, and alternate, serrated, variably shaped leaves (1;2). Its habitat in Ontario is restricted to shoreline marshes, commonly in deep-water cattail marshes, meadow marshes, or dyked wetlands with periodic flooding (1).	No	Known to occur in the general area	No further consideration required



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Golden-eye Lichen (Great Lakes population)	<i>Teloschistes chrysophthalmus</i>	END	END	S2S3	The Golden-eye Lichen is orange and green-grey, and grows in the form of a small branching shrub. It can be identified by its orange fruiting bodies with marginal hair-like structures. This organism lives in well-lit, humid environments with nutrient rich substrates, often on the branches of trees. The known Great Lakes population is now restricted to within Sandbanks Provincial Park (1).	No	Known to occur in the general area	No further consideration required

References

1. Ministry of Environment, Conservation and parks. (2019). Species at risk in Ontario. Retrieved from https://www.ontario.ca/page/species-risk-ontario
2. Government of Canada. (2019). Species at risk public registry. Retrieved from https://species-registry.canada.ca/index-en.html#/species?ranges=5&sortBy=commonNameSort&sortDirection=asc&pageSize=10
3. Committee on the Status of Endangered Wildlife in Canada. (2008).
4. Environment Canada. (2018).
5. Ontario Nature. (2020). Reptiles and amphibians. Retrieved from https://ontarionature.org/programs/citizen-science/reptile-amphibian-atlas/species/
6. University of Michigan Museum of Zoology. (2004).