Scoped Environmental Impact Study (sEIS) Proposed Single Residential Redevelopment 38B Baileys Road East (Lot 8), Papineau Lake Part Lot 2, Concession 6 (Wicklow) Municipality of Hastings Highlands, County of Hastings

Oakridge Environmental Ltd.

Environmental and Hydrogeological Services

### **Prepared For:**

Mary-Ellen Thompson 1074 Rosebush Road Frankford, Ontario K0K 2C0

ORE File No. 25-3543

May 2025



May 27<sup>th</sup>, 2025

1074 Rosebush Road Frankford, Ontario K0K 2C0

### Attention: Mary-Ellen Thompson

Re: Scoped Environmental Impact Study (sEIS) Proposed Single Residential Redevelopment 38B Baileys Road East (Lot 8), Papineau Lake Part Lot 2, Concession 6 (Wicklow) Municipality of Hastings Highlands, County of Hastings ORE File No. 25-3543

We are pleased to provide this *scoped* Environmental Impact Study (*s*EIS) for the abovereferenced property. Our report has been completed in support of your application to redevelop a single residential home and detached garage.

Based on our review of the site conditions, Papineau Lake and the unevaluated wetland associated with Little Papineau Creek to the south appear to be the main environmental receptors. Provided the recommendations outlined in this report are adhered to, any potential adverse impacts to these features should be mitigated.

We trust that this report will be sufficient for any agency reviews. Should you have any questions or require clarification, please do not hesitate to contact our office.

Yours truly,

### Oakridge Environmental Ltd.

Those that

Rob West, HBSc. Senior Ecologist

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### **1.0 Introduction**

Oakridge Environmental Ltd. is pleased to present this *scoped* Environmental Impact Study (*s*EIS) in support of your application to redevelop a single residential home and detached garage.

The property fronts onto Papineau Lake. As a result, an *s*EIS is required to support the application and to demonstrate that the development will not result in any impacts to nearby Key Natural Heritage Features (KNHF).

While this *s*EIS was determined to be a requirement by the Municipality, a detailed Terms of Reference (ToR) was not provided. It was confirmed, however, that the inspection should be completed under snow-free conditions. Similar to other applications, it has been assumed that a *scoped* assessment will be acceptable, with a focus on nearby sensitive hydrological features, fish and fish habitat. A high level screening for Species at Risk (SAR) has also been included in this study.

The following sections outline our data sources, methodologies, findings and recommendations.

### 2.0 Site Location and Description

The site is located at 38B Baileys Road East (Lot 8), within Part Lot 2, Concession 6 (Wicklow), Municipality of Hastings Highlands. The subject property has an approximate area of 0.519 ha (1.28 acres), as illustrated on Figures 1 and 2. It is located at the southwest end of Papineau Lake, just east of Little Papineau Creek.

The property is currently developed with a cottage. There are existing cottages/residences on the adjacent lands.

### 3.0 Proposed Development / Site Alteration

A single residential 1-storey home is proposed to be developed with a detached garage. The former cottage has already been demolished/removed and the redevelopment area mostly cleared. The proposed residence and garage will have a larger footprint than the existing cottage, however, will be set further back from the shoreline of Papineau Lake. During ORE's site inspection, the shell of the garage was mostly constructed and construction of the residence had not commenced. The property owner would like to remove the majority of the trees along the shoreline to allow for a vista of Papineau Lake.

The reader is referred to the proponent's conceptual site plan (Appendix A).

### 4.0 Policy

This report has been prepared to meet the requirements of the Municipality of Hastings Highlands.

It is understood that a scoped study with a focus on potential impacts to sensitive hydrologic features would be acceptable, and that the inspection should be completed under snow-free conditions.

### 5.0 Scope of Work

The following tasks were completed for this assessment:

- Relevant background information regarding the site (air photos, mapping, etc) was compiled and reviewed. A high level screening of Species at Risk (SAR) databases was also completed.
- One (1) site inspection was completed by ORE's Senior Ecologist. The inspection focussed on the proposed development envelope and nearby sensitive features.
- Terrain mapping of the site included an assessment of vegetation communities, habitat, surficial soils, springs, recharge zones, etc., and confirmation of the presence or absence of wetland/drainage features. Any incidental observations of wildlife were recorded. All features were delineated and mapped. ORE staff also reviewed the shoreline and littoral zone conditions to determine whether it is suitable fish habitat.
- The proposed development footprint was superimposed on a geo-referenced air photo base plan. This information was used to determine any areas of potential concern (i.e., constraints) on the subject site.

• Upon completing the preceding tasks, the data were analysed and interpreted and this report was prepared.

### 6.0 Topography and Drainage

The subject property occurs on the southern shore of Papineau Lake, within a broad bedrock-controlled valley, typical of the Canadian Shield terrain. The valley slopes gently to the north, toward the lake (Figure 2). Relief within the valley (and on the site) is minimal, according to the mapping. A small bedrock ridge occurs about 200 m to the east, forming a short peninsula that extends into the lake. The ridge rises approximately 10 m above the site.

There are no watercourses mapped within or immediately adjacent to the site, other than the lake. However, the valley contains Little Papineau Creek and its tributaries. Although these watercourses begin in the higher elevation areas to the west, east and south, they exhibit meandering channels in the valley and likely indicate the presence of an elevated water table. The tributary situated closest to the site begins at David Pond, which occupies a localized bedrock depression with associated wetlands that drains generally northward to Papineau Lake.

### 7.0 Geological Setting

As illustrated by Figure 3, the subject site occurs within an area of glaciofluvial outwash deposits. These highly permeable sand and gravel deposits occupy the valley lands containing the subject site and are likely partly responsible for the low topographic relief. An area licensed for aggregate extraction is mapped about 1.2 km southwest of the site (where the topography rises), likely exploiting those deposits (Figure 2).

Northwest and southwest of the site, the mapping indicates the presence of till deposits, likely "shield-derived" and part of the "Precambrian bedrock-drift complex". These soils tend to consist of a silty sand, shield-derived till (with minor gravel) that discontinuously mantles the rock. As such, their composition will reflect the composition of the bedrock in the upgradient (i.e., "up-ice") direction from which the glacial ice advanced.

Elsewhere, the mapping indicates the presence of Precambrian bedrock outcroppings and subcroppings, mapped as having minimal soil cover. Locally, the bedrock consists of dark coloured amphibolite, gabbro, diorite and/or mafic gneisses. There are no carbonate-based rocks (e.g., limestone or marble) immediately near the site. Given the low relief, presence of the creek system and proximity to Papineau Lake, a shallow water table condition is expected for the subject site.

The thickness of the overburden cannot be determined from the geological mapping. However, some indication of the thickness can be obtained from perusal of local well records from Ministry of the Environment, Conservation and Parks' database. For example, the log of nearby well No. 7168940 indicates the presence of 35.4 m of layered sand and gravel overlying red/black granite bedrock, with a static water level of only 1.7 m. Similar conditions are indicated at other nearby wells, such as No. 7114479.

### 8.0 SAR Database Review

#### 8.1 General

The following databases were reviewed as part of a high level screening to determine the potential for SAR to exist on or within the vicinity of the subject property:

- Natural Heritage Information Centre (NHIC);
- Ontario Breeding Bird Atlas (OBBA);
- eBird;
- iNaturalist;
- Ontario Reptile & Amphibian Atlas (ORAA), and
- Fish ON-Line.

The search radius ranged from 1km<sup>2</sup> (NHIC) to 10 km<sup>2</sup> (OBBA), depending on the available database. The results of the updated search are found in Appendix B.

Based on our review, the following SAR occurrences were noted on or proximal to the subject property.

# **8.2** Natural Heritage Information Centre (NHIC) (18TR7922)

<u>Common Name</u>	<u>Scientific Name</u>	<u>SARO Status</u>
Ogden's Pondweed	Potamogeton x ogdenii	Endangered

The query indicates that one (1) Natural Area was recorded in the area:

Colonial Waterbird Nesting Area - is mapped within the Little Papineau Creek area.

### 8.3 Ontario Breeding Bird Atlas (OBBA) (18TTR82 & 18TTR72, Region 27, Algonquin)

Common Name	<u>Scientific Name</u>	SARO Status	
Barn Swallow Bobolink Canada Warbler Chimney Swift Eastern Meadowlark Eastern Wood-Pewee Evening Grosbeak Olive-sided Flycatcher Peregrine Falcon Wood Thrush	Hirundo rustica Dolichonyx oryzivorus Cardellina canadensis Chaetura pelagica Sturnella magna Contopus virens Coccothraustes vespertinus Contopus cooperi Falco peregrinus Hylocichla mustelina	Special Concern Threatened Special Concern Threatened Threatened Special Concern Special Concern Special Concern Special Concern Special Concern	

### 8.4 eBird

(Lake St. Peter Provincial Park (L1807270))

Common Name	<u>Scientific Name</u>	SARO Status
Barn Swallow	Hirundo rustica	Special Concern
Canada Warbler	Cardellina canadensis	Special Concern
Common Nighthawk	Chordeiles minor	Special Concern
Eastern Wood-Pewee	Contopus virens	Special Concern
Olive-sided Flycatcher	Contopus cooperi	Special Concern
Wood Thrush	Hylocichla mustelina	Special Concern

### 8.5 iNaturalist

<u>Common Name</u>	<u>Scientific Name</u>	SARO Status
Pale-bellied Frost Liche	n Physconia subpallida	Endangered
Snapping Turtle	Chelydra serpentina	Special Concern

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#### 8.6 Ontario Reptile & Amphibian Atlas Program (ORRA) (18TR72 & 18TR82)

Common Name	Scientific Names	SARO Status
Blanding's Turtle	Emydoidea blandingii	Threatened
Midland Painted Turtle	Chrysemys picta marginata	NAR <sup>12</sup>
Snapping Turtle	Chelydra serpentina	Special Concern

1 Not at Risk (NAR)

2 Listed as Special Concern by the Committee of Endangered Wildlife in Canada (COSEWIC) and the federal Species at Risk Act Registry (SARA).

#### 8.7 Fish ON-Line

No SAR fish species were recorded, however, the following common species were noted.

Little Papineau Creek (18-2791-50181)

Brook Trout (*Salvelinus fontinalis*) White Sucker *(Catostomos commersonii*)

Papineau Lake (18-2795-50249)

Brown Bullhead (*Ameiurus nebulosis*) Burbot (*Lota lota*) Cisco (*Coregonus sp.*) Lake Trout (*Salvelinus namaycush*) Lake Whitefish (*Coregonus clupeaformis*) Largemouth Bass (*Micropterus salmoides*) Northern Pike (*Esox lucius*) Pumpkinseed (*Lepomis gibbosus*) Rock Bass (*Ambloplites rupestris*) Smallmouth Bass (*Micropterus dolomieu*)

### 9.0 Inspection Methodologies

The site has been characterized utilizing the methodologies included in the *Ecological Land Classification (ELC) - First Approximation and Its Applications* (1998) guide. The 1998 guide is used to standardize the classification of different vegetation community types across Ontario. The classification system enables an ecologist to identify

vegetation communities based on the species present, soil materials and moisture regimes.

There have been a number of updates to the ELC scheme to further refine the classification of Ecosites throughout Ontario. As a result, the 2008 *Draft* ELC guide provides a further breakdown of the 1998 ELC communities and includes several new communities to index from. The 2008 ELC scheme also provides a cross-reference to the 1998 guide communities. This report uses a combination of the 1998 ELC communities (which are considered the primary vegetation communities) and the 2008 ELC communities.

The vegetation types were assessed by applying the protocols in the Ecological Land Classification for Southern Ontario (FG-02), 1998 (or draft 2008 version) and/or the Field Guide to Forest Ecosystems of Central Ontario (FG-01), 1997, as applicable. The FG-01 was used to determine the upland woodland community types and the FG-02 was used to describe/ascertain the aquatic and wetland communities as FG-01 has very little in the form of wetland or aquatic types in the guide.

Considering this is a proposed redevelopment, the schedules for Significant Wildlife Habitat (SWH) were not assessed as part of this study. Therefore, only one (1) inspection has been completed and no additional inspections were completed based on the Ecoregion 5E criteria.

The Township requested a Species at Risk pre-screen be included for the property, ORE staff included an early morning site visit to detect potential SAR avian on the subject property as a result of the pre-screen.

Prior to conducting the site inspection, aerial photography of the subject site was analysed to roughly delineate communities based on recognizable vegetation differences. Each identified community was subsequently inspected. Dominant vegetation types were recorded and boundaries of the various communities mapped on an air photo or utilizing a dGPS.

In addition to identifying and mapping the vegetation communities, ORE staff assessed each vegetation community from the perspective of whether there are any hydrologically sensitive features on-site. The vegetation survey included examination of the development footprint and immediate surrounding areas.

### **10.0** Site Inspection Data

#### **10.1 Site Inspection**

ORE staff attended the site on the following date:

<u>Date of</u>	<u>Temp.</u>	<u>Beaufort (Wind)</u>	<u>Conditions</u>
<u>Inspection</u>	<u>°C</u>	<u>Scale</u>	<u>Reason for Inspections</u>
May 9 <sup>th</sup> , 2025	14	1 - Light Air	0% Cloud Cover. Clear spring day with minimal air movement. The lake exhibited minor ripples from very light air movement. Observed vegetation/ existing site conditions, identified SAR, vegetation mapping - species list, and wildlife detection. Wetland habitat mapping confirmation and evidence of seeps and/or springs, hydrological features, etc., focus on area of proposed building site, including new elements such as the larger cottage and detached garage. Review of waterfront and riparian conditions within 30 m of the shoreline interface.

Appendix C contains the list of species identified on the property during our inspection.

#### **10.2** Ecological Land Classification (ELC)

Based on our site observations, we have determined that there are three (3) upland woodland communities/habitats on-site, and two (2) aquatic/wetland communities associated with Little Papineau Creek and Papineau Lake.

Figure 4 illustrates the distribution of the on-site vegetation communities and the off-site aquatic community. These habitats and their associated vegetation and environmental sensitivities are characterized below. Representative photos of these communities are provided in Figure 5.

Upland Community:

1. <u>Rural Property (CVR\_4)</u>

There is no description in the ELC regarding the Residential-type community.

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This community includes the existing development footprint associated with the former cottage and its associated private services. The vegetation in this ELC type consists mainly of open native sand and filled areas. The former buildings/structures on the site were removed/demolished by the proponent and the majority of the site was cleared. Otherwise, only the partially constructed new garage is present, just north of the Bailey's Road East road allowance. The building site for the proposed residence was cleared and no remnants of the former cottage development were visible during our inspection.

There are some overstorey trees that were retained along the building envelope edge and waterfront area associated with the former cottage development. The trees are of similar height and type associated with the Black Spruce-Pine (ES16.1) woodland (discussed in next section). This community encompasses the area where the redevelopment is proposed to occur. ORE staff did not observe any SAR flora or fauna in this community, nor were there any hydrological features within the proposed building envelope (the area is all upland).

#### 2. <u>Black Spruce-Pine: dry to moderately fresh soils (ES16.1)</u>

The FG-01 characterizes the ES16.1 woodland community as:

Black Spruce-Pine dominated stands on dry to moderately fresh soils. White Pine (*Pinus strobus*), Red Pine (*Pinus resinosa*) and Jack Pine (*Pinus banksiana*) may be present in the main canopy, whereas the sub-canopy consists of Black Spruce (*Picea nigra*) and Balsam Fir (*Abies balsamifera*). Understorey with high levels of conifer regeneration and feather-mosses, and moderate levels of ericaceous shrubs. Low number of herbs. Soils typically sandy to coarse loamy, and shallow.

The groundcovers contain mixtures of Bunchberry, Wild-lily-of-the-Valley, Blue Bead Lily, Starflower, Goldthread, and Bracken fern.

This community dominates the majority of the upland wooded areas that occur south of Bailey's Road East containing mature/large diameter Jack Pine, Black Spruce (*Picea nigra*), Balsam Fir (*Abies balsamifera*), Paper Birch (*Betula papyrifera*), Eastern White Pine (*Pinus strobus*), Red Maple (*Acer rubrum*) and Eastern White Cedar (*Thuja occidentalis*) trees. The majority of the groundcover described above are present within this community.

None of the species identified within this community are Species at Risk.

None of the proposed redevelopment will occur within this woodland community. There

are some retained overstorey tree species that occur within the Rural Property (CVR\_4), as this woodland community likely occurred within the CVR\_4 type prior to the majority of it being cleared for cottage use.

# 3. <u>White Cedar-White Pine-White Birch-White Spruce: dry to moderately fresh soils</u> (ES 21.1)

The FG-01 characterizes the ES 21.1 woodland community as:

White Cedar-White Pine-White Birch-White Spruce mixed-wood stands on dry to moderately fresh soils. Understorey with moderate levels of conifer regeneration and tall hardwood shrubs. Moderate number of herbs. Wide range of soil textures, typically very shallow to shallow sites.

The understorey and groundcovers contain mixtures of:

Understorey: Mountain maple, Fly Honeysuckle, Beaked Hazel, Low Sweet Blueberry, Showy Mountain-Ash, Bush Honeysuckle, Twinflower.
Groundcovers: Wild-lily-of-the-Valley, Blue Bead-Lily, Wild Sarsaparilla, Starfower, Goldthread, Bunchberry, Spinulose Wood Fern, Ground Pine, Rose Twisted-stalk, Large-leaved Aster, (Bracken Fern).

This community dominates the majority of the swath that occurs between the lakeshore and the Rural Property (CVR\_4) type. It possesses Black Spruce, Balsam Fir, Paper Birch (*Betula papyrifera*), Eastern White Pine - *co-dominant*, Red Maple and Eastern White Cedar - dominant trees. There are also a number of Black Spruce that occur as a rim that are more proximal to the beach and OAO community discussed under the wetland/aquatic types, below. The majority of the groundcover species described above are present within this community.

None of the species identified within this community are Species at Risk.

The proposed redevelopment will remove some of trees between the proposed residence and the lakeshore (consisting of Black Spruce and Cedars) to create a vista of the lake. The mature trees (White Pine, etc.) along the edge of the property, within the side yard setback, will be retained (according to the property owner). Typically, the preference is to retain all if not the majority of the trees between the residence and lakeshore and trim the trees to achieve a vista of the lake. If all or the majority of the vegetation is to be removed in this area, mitigation in the form of plantings may be required. Details

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are provided further on in this sEIS in this regard.

*Wetland/Aquatic Community*.

4. Open Aquatic (OAO)

The ELC (2008) describes OAO as:

An aquatic environment containing no macrophyte vegetation. This ecosite tends to be dominated by plankton and has a lake trophic status.

This ecosite represents the open water/offshore habitat of Papineau Lake, which corresponds to the northern edge of the subject property. The lake bottom substrate along the shoreline is comprised of fine to medium beach sand. The shoreline contains a beach area which extends well off-shore and is a very shallow transition. The beach is a natural feature as it extends across the majority of the southerly shoreline of the lake.

There was no evidence of fish spawning within 10 m of the shoreline due to the shallow draft in this area. The proponent mentioned that most residents along this shoreline anchor their watercraft well offshore and wade to its anchored location where there is sufficient depth to operate the vessel. ORE staff expect there are some redd areas in this deeper section of the lake. However, ORE staff did not observe any fish identified within Fish On-Line database.

ORE staff did not observe Ogden's Pondweed within 10 m of the shoreline and expect it would not occur within 50 m or more of the subject property, as the aerial imagery indicates that the beach materials extend off-shore to this distance. Ogden's Pondweed requires an organic base bottom to germinate within.

No development is to occur within the OAO/lakeshore environment, nor the beach area between the shoreline interface and upland ES 21.1 community described above. The proponent may introduce a dock, which should be permitted (if necessary) by the appropriate agency.

#### 5. <u>Alder Mineral Deciduous Thicket Swamp Ecosite (SWT2/SWTM1)</u>

According to the ELC, a SWT2-1 community must contain greater than 25% tree and shrub cover, and be dominated by hydrophytic tree and shrub species. It can experience variable flooding regimes and would possess 20% or more vernal pooling. During the drought periods, the vernal pools can be aerated by early to mid-summer and not resemble a wetland. The native substrates are dominated by mineral and peaty phase

mineral (organic accumulations of 20 cm to 40 cm).

This type of thicket swamp occurs within the ORE identified wetland area in the southern portion of the subject property. The area is illustrated on Figure 4 and occurs approximately 70 m to 80 m south of the partially constructed garage. There are some trees interspersed within this thicket swamp habitat, however, they occur on raised tufts of organic material, constituting less than 25% of the vegetation cover.

The proposed redevelopment will not encroach nor impose upon this thicket swamp habitat and it will remain in an entirely natural state.

#### 10.3 Fauna

No significant fauna were observed directly on-site. Only tracks of common/secure mammals were observed on the subject parcel.

Due to the shoreline area being predominantly comprised of unconsolidated sandy materials, there is a high probability that fish are spawning offshore within the littoral zone. However, the littoral zone is expected to be further out based on the very shallow aquatic conditions in the off-shore environment.

Although ORE staff did not observe any turtles in the area of the subject property, there is a potential for turtles to access the subject property (e.g., the access road, beach and exposed areas within the existing cultural areas of the property) and to use these areas for nesting purposes. As such, the property owner/contractor should install measures to prevent turtle species from entering the construction area/work zone from the south (via the unevaluated wetland and from the north via the lake) especially if filling and grading are necessary.

It is assumed that there will be some filling and grading in the area of the proposed residence to raise the footprint of this structure. Some minor filling and grading appear to have been necessary to raise/flatten the footprint of existing garage that was partially constructed at the time of our site inspection.

No SAR fish nor SAR fauna were observed during the inspections within the lake area or the on-site/local adjacent woodlands. According to our review of the SAR databases, no SAR fish have been identified to occur within Papineau Lake or Little Papineau Creek.

According to Figure 2, there are Moose Aquatic Feeding areas around the edge of the lake, presumably in weedy bays where Potamogeton species such as Ogden's Pondweed would occur. The NHIC suggests there is a Natural Area in the vicinity of the property

- Colonial Waterbird Nesting Area which includes the 1 km square NHIC area that the subject site occurs within. ORE assumes the nesting area pertains to the Little Papineau Creek wetland system. Presumably, the colonial birds are Blue Herons which are likely nesting within the dead trees in the Little Papineau Creek thicket/treed swamp riverine type wetland. No Great Blue Heron nests were observed within 20 m of the thicket swamp shoreline and ORE staff did not see any herons flying in and out of the swamp habitat during our site inspection.

The fauna species observed on-site are listed within Appendix C for completeness.

#### 10.4 Flora

ORE staff inspected the subject parcel to detect any SAR plant species or wetland areas that would be sensitive to the proposed development.

Very few SAR plant species occur within Ecoregion 5E landscape; they are predominantly in Ecoregion 6E, south of the geological contact between these two (2) Ecoregions.

No SAR species were detected on-site during the site surveys. A thicket swamp was detected on the south side of the subject property that was not mapped in the LIO database. ORE staff delineated the boundary of this feature (on the subject property) and it is illustrated on Figure 4.

### **11.0** Impact Assessment

#### **11.1 General Considerations**

Based on our assessment, it is our opinion that potential impacts related to the proposed redevelopment of the subject property could include the following:

- 1) Potential impacts from the degradation/alteration of the ground surface and removal of existing trees could impact either Papineau Lake or the Little Papineau Creek wetland system. The proponent would like to remove vegetation across the waterfront area to create vistas of the lake. These hydrological features occur on either side (north and south) of the redevelopment area, such that erosion and/or sedimentation resulting in water quality deterioration could impact either waterway during construction.
- 2) Potential impacts related to non-contained construction activities (e.g., ground

vegetation removal, etc.), including destabilisation and denuding of the groundcovers by equipment accessing the construction site.

- 3) Potential impacts related to post-construction occupation and stabilizing of a large area of bare or disturbed/altered surficial soils.
- 4) Potential impacts to nesting turtles in the spring season, as turtle species may enter the site via the wetland to the south (associated with Little Papineau Creek) or from the lakeside to nest within the disturbed soils of the construction area.
- 5) Removal of trees during the migratory bird/breeding bird period once nesting avian are established.
- 6) Potential to impact Papineau Lake which contains fish and fish habitat.
- 7) Potential for SAR fauna to occur in the general area of the redevelopment whether it be directly on-site, the adjacent hydrological features or the neighbouring properties;

Further discussion of the above is provided in the following sections.

#### **11.2 Development Envelope**

The main concern with respect to the proposed redevelopment is the disturbed area relative to the lake and the unevaluated wetland's shoreline associated with Little Papineau Creek (as illustrated on Figure 6). Construction within the redevelopment area could result in a relatively large area of bare soils being exposed proximal to the lakeshore, as filling and grading will undoubtedly be necessary.

Notwithstanding, it is expected that the construction zone will not expand significantly beyond the original footprint of the former building towards the lakeshore, other than some tree removal for the vista of the lake. As such, the construction can be mostly confined to those areas that have been historically altered/disturbed, resulting in minimal tree loss for the purpose of constructing the new residence and garage.

The gradient down to the shoreline from the proposed garage and residence is relatively gentle (somewhat rolling topography based on vegetated covered beach-bars). The site contains mostly sandy soils in the mid to northern portion of the property, therefore, runoff is expected to permeate within these sandy soils and eventually discharge to the lake.

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Runoff on the south side of Bailey's Road would drain as sheet flow towards the unevaluated wetland/Little Papineau Creek system, and would not be affected by the proposed redevelopment. Moreover, the majority of runoff will be impeded by the new residence/building which will slow runoff and allow it to be infiltrated. As such, runoff flows should be manageable during the construction and post-construction phase, with respect to the lake. There is a sufficient area north of the proposed residence for runoff to collect and permeate into the ground surface within the beach-bar materials associated with the lakefront.

ORE staff noted that the trees along the property edge are mostly large diameter mature trees, lining the side yards (east, west, and southern lot lines). The property owner reported that these would be retained, which is ideal with respect to soil stability and nutrient/water uptake. The mature trees are mainly comprised of pine and minor amounts of deciduous species. The area between the shoreline and proposed residence contains mainly immature scrubby coniferous trees, and patchy ground covers due to the highly permeable nature of the sandy soils in this area.

The property owner has done well to retain and manage the mature trees and woodland edge in a natural state on all three (3) sides of the property. Although some trees will be removed for the purpose of allowing a vista of the lake, the property edge and southern half of the lot will still have an abundance of natural woodland containing large diameter and small diameter tree/shrubs and groundcovers.

Based on these findings, the redevelopment will not result in any negative impacts to either the lake/lakeshore or the unevaluated wetland/Little Papineau Creek hydrological features.

Recommendations are provided below to ensure that the potential for impacts relating to occupation and use of the proposed redevelopment area are minimized.

### 12.0 Recommendations

### **12.1** Development Envelopes and Constraints

• Equipment should <u>not</u> be operated within 6 m of the water's edge to remove trees, etc. Grading can occur up to the 6 m boundary, however, not any closer, so as to retain the native ground surface and soil permeability. A 2.5 m wide trail can be maintained to the waterfront as defined on Figure 6. The trail surface can either be lined with woodchips and/or clean-washed stone to access the beach.

Small equipment or equipment that can reach beyond the 6 m limit/light-duty

fence can be used to construct the 2.5 m wide walkway to the beach. Under no circumstances can the shoreline be hardened by installing stone (such as the neighbouring property to the west). Removal of the riparian vegetation and replacement with stone, eliminates the buffering capacity at the shoreline, thereby potentially impacting the lake's water quality. It also removes canopy cover at the shoreline which can sterilize fish spawning areas in the nearshore/littoral zone due to thermal impacts.

The property owner stated that they plan to remove a series of native trees between the proposed new residence and the lakeshore to allow for views of the lake. Consequently, ORE recommends the property owner plant a series of shrubs and native groundcovers such that it landscapes the frontage. ORE staff recommend retaining a few of the mature trees, if possible, for shade purposes and to maintain root stabilization along the waterfront, similar to the property east of the subject property. However, if all the native trees are to be removed, then a shoreline enhancement plan shall be provided by the property owner demonstrating that the area will remain in a natural state in certain areas or that those areas where vegetation will be impacted must be compensated/enhanced to ensure the shoreline sandy areas will remain in a stable state.

Certain shrub species that do not grow to tree heights can be planted without obscuring the lake vistas. The shrubs can also be the type that can be trimmed on a yearly basis to maintain a shorter height/stature. The shrubs will enhance the shoreline with respect to erosion-stabilization while improving the buffering capacity for runoff generated from the cottage area. Alternatively, some of the existing trees can be trimmed from the base-up, allowing a view beneath the trees once they achieve their full height.

The proponent can remove the scrubby Black Spruce and Eastern White Cedar along the waterfront for the view from the residence within the present breeding bird period, provided no birds are nesting within these trees. No nests were observed within the scrubby short trees between the residence and waterfront during the ORE inspection. That being said, those trees will have to be replaced with native shrub species at a 2:1 ratio in addition to native groundcovers in the area where the Black Spruce and White Cedar are removed across the waterfrontage (between the new residence and lakeshore and not part of a lawnspace). ORE completed a tally of the trees over 10 cm diameter-at-breastheight and there were approximately twenty-one. Therefore, forty-two shrubs would have to be planted within this area to replace the trees removed. The shrubs will become bird nesting habitat in the post construction period, potentially increasing the number of woody species in this area over what presently exists in this location. Figure 6 illustrates the approximate limit of the *disturbance/construction area* defined by the 6 m setback from the water's edge and the retained trees along the east and west property boundaries.

Alternatively, the property owner could remove some of the existing trees (selective removal) and trim the base branches of the trees as they grow. This thins out the tree density, retains the healthy trees and allows for vistas beneath the lower third of the native Black Spruce. The property owner could then landscape around the healthy trees. If this option is chosen, then only fifteen (15) shrubs would have to be planted, and native groundcovers could be landscaped around these new shrubs.

- Provided the authorities are in agreement with the proposal, the redevelopment can proceed with very little additional disturbed areas occurring on the subject property, other than the selective tree removal to allow for vistas of the lakefront. The property owner will have to work with existing grades and natural shoreline areas within 6 m of the current water interface.
- The property owner can plant smaller native seedling sized stock as mentioned above between the residence and lakeshore to replace the existing native trees. These should be obtained from a reputable nursery as opposed to transplanting from the nearby woodland habitats. There are a variety of colourful native trees or shrubs that can be planted. ORE staff can provide recommendations in this regard.

The landscape type plantings are not meant to obscure the vistas of the lake, but rather improve, protect and beautify the property and the shoreline area. Shorelines that are predominantly devoid of vegetation (i.e., only groundcovers such as grass) tend to contribute more nutrient laden runoff to the lake, resulting in a potential for deterioration of water quality. Considering the lake is used for recreational purposes, any minor improvements would be beneficial

• The two (2) sensitive Hydrologic receptors consist of the lake (on the north edge) and the unevaluated wetland/Little Papineau Creek system on the south side of the subject property. However, the lake is the predominant receptor based on the where the proposed redevelopment/disturbed areas are to occur on-site. The unevaluated wetland/Little Papineau Creek feature is unlikely to be impacted as the area south of Bailey's Road East appears to drain towards this feature, of which this area is to remain in an entirely natural state. Furthermore, a greater than 30 m setback can be maintained from the unevaluated/wetland/Little Papineau Creek system from any of the proposed redevelopment areas on-site.

To ensure the disturbed area does not advance any closer to the lakeshore, a light-duty silt fence (Appendix D) shall be installed around the edge of the redevelopment area, to indicate the limit of where heavy-duty equipment can be used. No filling or grading is proposed to occur within areas outside of the silt fence.

Tree removal within the 6 m setback from the lake interface will have to be removed by hand and a stump grinder used to remove the stump if necessary. An excavator (from within the silt fence) can be used to reach over the fence and drop topsoil in those areas to be enhanced with plantings once the trees are removed for the vistas. The shrub seedlings and native groundcovers can then be planted and maintained within the 6 m setback. The limit of the silt fence and construction/grading activities within the redevelopment area are illustrated on Figure 6.

The silt fence will prevent the construction crew from unnecessarily increasing the disturbance footprint. The light-duty silt fence should be extended around the entire building envelope perimeter (with the exception of the north access trail to the beach). When the contractor is not working within the construction zone, a length of light-duty silt fence should be installed along the south edge access swath to close the work area in the evening to ensure turtles cannot migrate from the either the lake or unevaluated wetland/Little Papineau Creek side and nest within any exposed soils or sandy fill material areas placed in the building envelope. Although the MNRF recommends the use of heavy-duty silt fencing for turtle exclusion, where the use is short term and temporary to enclose a small area, light duty silt fencing should be sufficient in our opinion, provided the owner or contractor regularly inspects the installation to ensure it is properly functioning as an exclusion fence in addition to it's erosion capabilities.

The contractor can open the silt fence at the entrance to the work area to allow access to the building site and continue with the day-to-day construction activities. The light-duty silt fencing will ensure that any loose/unconsolidated materials do not migrate beyond the cordoned construction area, thereby protecting the lake and unevaluated wetland/Little Papineau Creek feature.

• As there is a potential for turtles to occur within the waterways, the light-duty silt fence can serve as a turtle exclusion fence. Although, heavy-duty silt fence is

the preferred turtle exclusion fence material, light-duty silt fence can serve to exclude turtles, provided it is properly secured, taught, and maintained on a daily basis. If the contractor possesses heavy-duty silt fence, this can be substituted for the light-duty silt fence and is a much sturdier fence as it typically possesses a wire framed backing. Nesting turtles and/or their eggs can be damaged by construction equipment if the turtles are allowed to enter the work area. The fence outline is there to prevent this from occurring.

- Invasive/exotic species can also be an issue with respect to recently disturbed sites. They can out-compete other native species. As such, the contractor's machinery should be cleaned according to the provincial protocols to prevent transportation of invasive/exotic species to and from the subject site<sup>1</sup>. If the equipment leaves the site, it should be cleaned prior to reentering the property.
- Grass seed and/or sod should also be applied to any exposed/bare soils resulting from site preparation and construction activities once the final grades are achieved, in addition to any shrub/tree plantings within the redevelopment area that the property owners want to plant for landscaping purposes.
- The recommended shrub and/or tree plantings specified above should be completed directly after the trees are removed between the proposed new residence and the lakeshore. This will reduce the duration with which the area will be without vegetation coverage.

The property owner can forward any landscaping plans to ORE for review, and an email would be forwarded to the Township to ensure this requirement is met.

As mentioned above, if the majority of the existing trees/vegetation between the proposed residence and shoreline is to remain in a natural state and the property owner intends to trim the lower branches of the trees to achieve a vista of the lake (similar to the neighbouring property to the east), then the planting requirement at a 2:1 ratio would not be necessary and fewer shrubs would have to be planted. The property owner could consult the Otonabee Region Conservation Authority's (ORCA) Healthy Shorelines Planting Guide in this regard and landscape around some of the existing trees (in addition to selective cutting of less mature scrubby trees in this area). Even though ORCA has no

1

Clean Equipment Protocol for Industry - Inspecting and cleaning equipment for the purposes of invasive species prevention

jurisdiction in this area, the document is a useful reference to help target any compensatory plantings within areas that will benefit the lakeshore/riparian zone.

• ORE staff did not identify any Species at Risk (SAR) on the subject site within the waterways or on neighbouring lands. All the species observed or overheard during the site inspection were common/secure species and not listed within the SAR Ontario website.

Therefore, it is not necessary to contact the Ministry of Environment, Conservation and Parks (MECP) to determine if there are any Endangered Species Act (ESA) requirements for the redevelopment.

• Passive stormwater management controls should be incorporated into the development design to extend roof leaders away from the newly constructed buildings. Roof leaders should discharge to an area where the flows will not gouge or destabilize soils over time. The warm flows from the roof leaders should be infiltrated into the ground, so as to reduce potential thermal impacts to the lake.

ORE expects the soils are relatively well drained sandy materials in the area of the proposed redevelopment, therefore, it may be possible to outlet the roof leaders onto the surface. Gravel can also be introduced at the end of the leaders (there are also plastic flow dissipaters that can be purchased at most hardware/landscaping retailers) to create an apron that dissipates the concentrated energy of the roof leader flows, distributing them over a larger area to enhance infiltration.

### 12.2 Construction Mitigation

- All recommended erosion controls should be installed prior to commencing any work on the property, to ensure the sensitive hydrological features (lake and unevaluated wetland/Little Papineau Creek) are not impacted.
- Construction should not continue during heavy precipitation events. After these events, the silt fence should be checked to ensure its effectiveness.
- Only clean fill should be imported to the site. The fill should not contain organic

materials such as plant debris or topsoil that may contain exotic or invasive species that could out-compete native species along the waterfront. If imported topsoil is required, screened topsoil should be the only material applied to topdress the fill.

Any imported materials that are stockpiled on-site should also be surrounded by light-duty silt fence until the materials are applied. The fence will prevent species such as turtles from leaving the waterways to nest within the loose unconsolidated piled materials during construction.

- We are currently at the cusp of the breeding bird period and within the migratory bird period. If trees are to be removed along the waterfront, it would be best to wait until after August 31<sup>st</sup> to avoid disturbing nesting bird species along the waterfront. The Migratory Bird Period is between April 1<sup>st</sup> and August 31<sup>st</sup> each year and the Migratory Bird Convention Act states that vegetation should not be removed within this period. Once the vegetation is removed, the work can proceed during this period without any additional restrictions to birds.
- Absolutely no construction equipment should be operated beyond the 6 m waterfront setback limitation (other than to reach over and deposit clean topsoil for planting purposes as per the landscape plan), nor should equipment grade any new materials within the 6 m setback associated with the lakefront. The property owner has to work with the existing grades in this area. Some minor grading and filling may be necessary with respect to the 2.5 m wide access trail to the beach within the 6 m setback area. This is permissible and it should be possible to do most of the filling/grading from within the 6 m setback/light-duty fence limit. All equipment must remain within the area designated for construction (as outlined by the light-duty silt fence).

#### 12.3 Closing Remarks

It is our opinion that the applicant should be granted a Building Permit for the purpose of redeveloping the site as per the Site Plan, provided the mitigation measures recommended herein are adhered to. The proponent should recognize that this *scoped* Environmental Impact Study provides recommendations pertaining only to natural environmental issues. Other development related requirements may also need to be addressed with respect to the proposed building application such as the location of private services, etc.

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The proponent should obtain all required permits from the agencies prior to commencing any construction on-site. Failure to do so may result in delays and/or other liabilities.

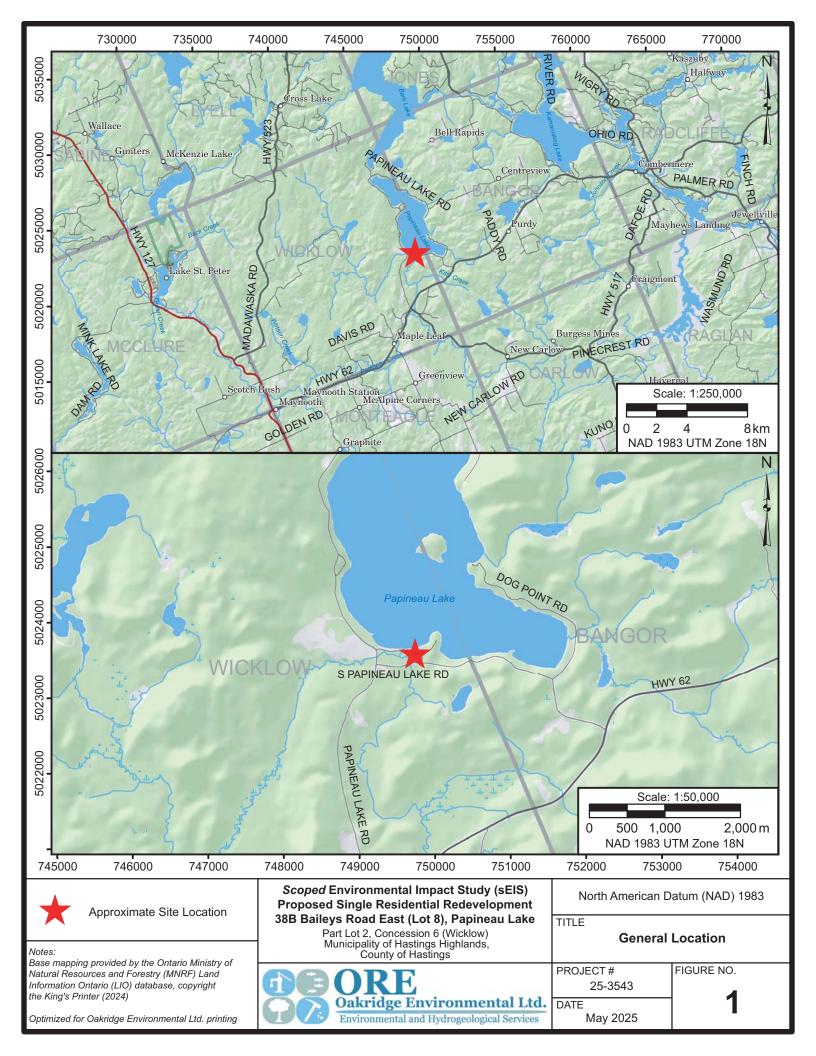
\*\*End of *Scoped* EIS Report\*\*

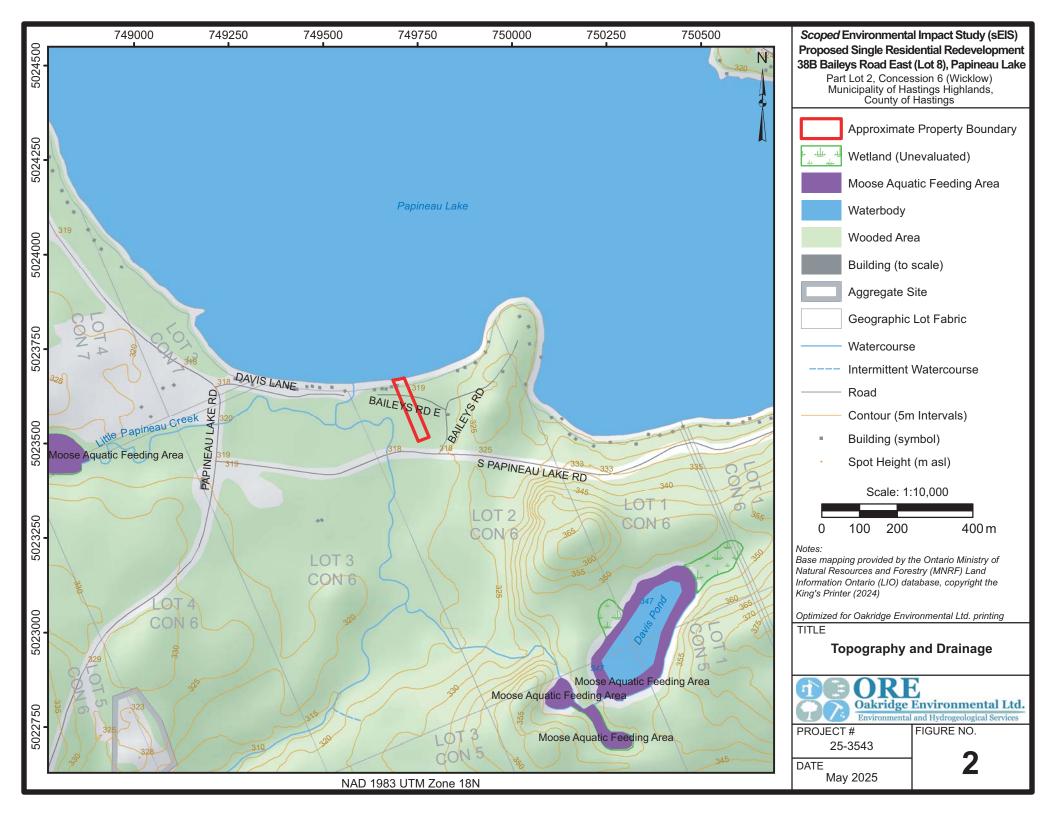
Yours truly, Oakridge Environmental Limited

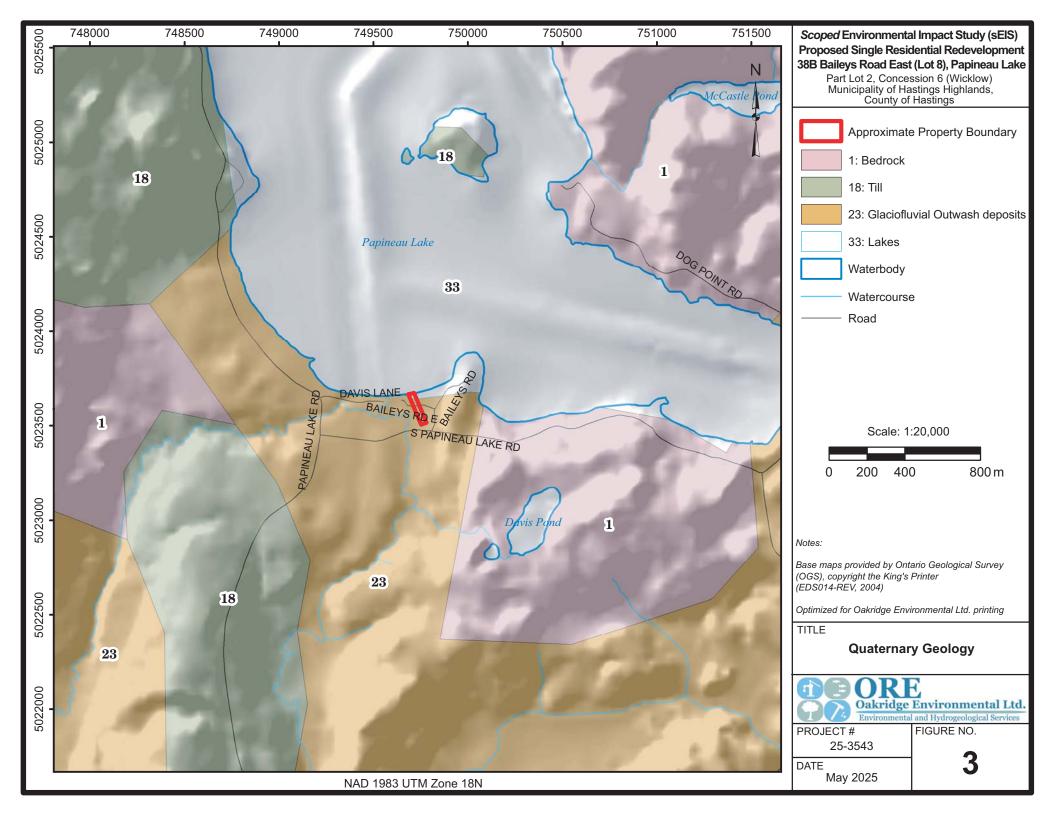
Those thet

Rob West, HBSc. Senior Ecologist

Figures







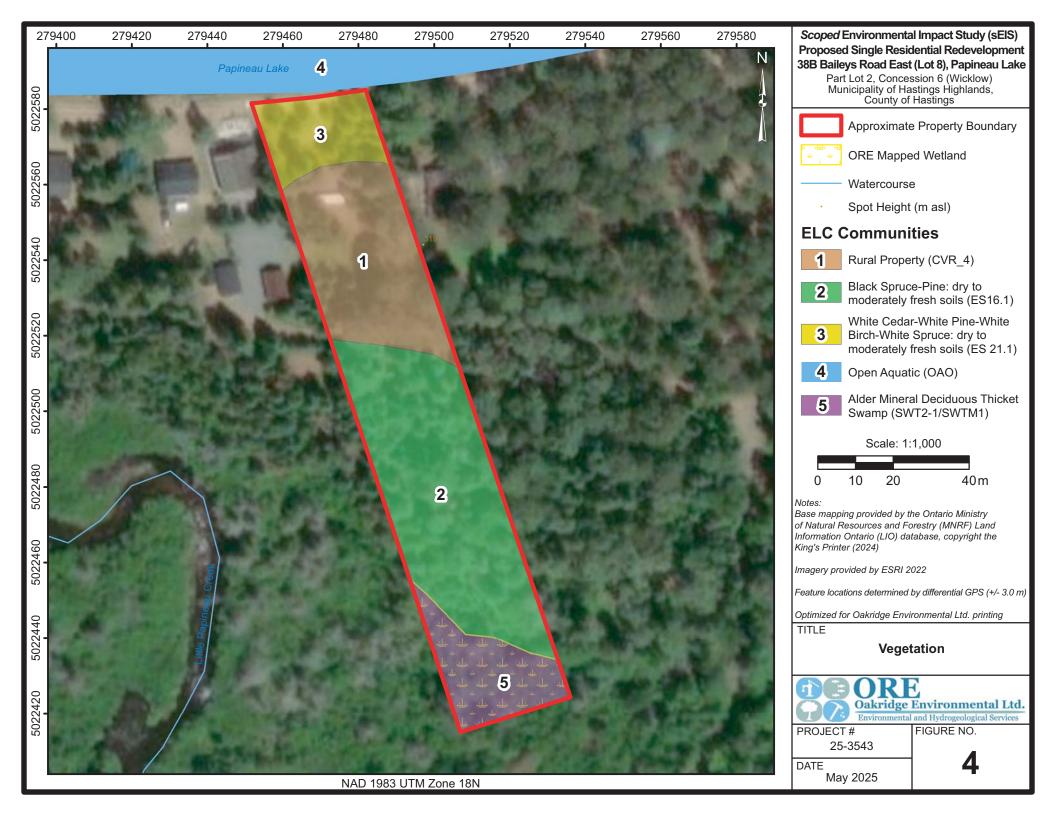




Photo A (Above): was taken looking towards the lake (in the background) and captures the building envelope area where the proposed residence is to be constructed.



Photo C (Above):was taken looking east along the lakeshore and illustrates the shallow beach conditions in the littoral zone of the lake. The spruce shoreline is characteristic of the majority of the shoreline in this area.



Photo E (Above): was taken within the southern portion of the subject property and is of the thicket swamp conditions that ORE staff identified on the constraints plan.



Photo B (Above): was taken a little closer to the lake and illustrates the view the residence would have if the trees in between the lake and building were to be retained. An existing walkway occurs to access the lakeshore.



Photo D (Above): was taken looking south from the beach area towards the partially constructed garage in the background. The entrance to the redevelopment area is to the left of the garage in this photo.



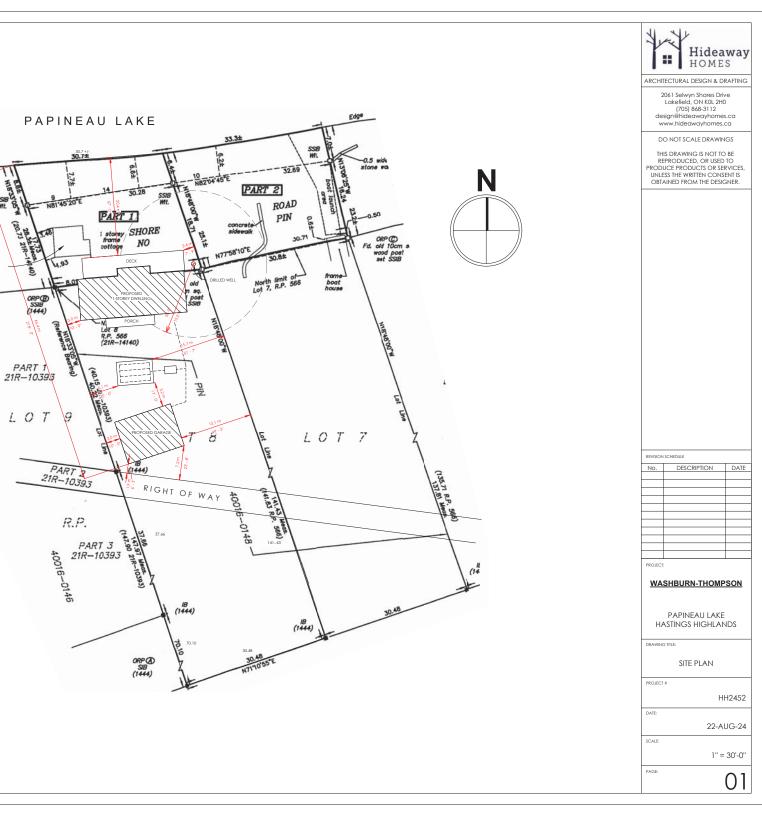
Photo F (Above): was taken looking northeast from the proposed location of the residence and identifies some of the large White Pine that the property owner plans to retain along the property boundary.

Site photos were taken on May 9, 2025	Scoped Environmental Impact Study (sEIS) Proposed Single Residential Redevelopment		
<b>38B Baileys Road East (Lot 8), Papineau Lake</b> Part Lot 2, Concession 6 (Wicklow) Municipality of Hastings Highlands, County of Hastings	TITLE Site Photos		
	<b>ORE</b>	PROJECT # 25-3543	FIGURE NO.
	Oakridge Environmental Ltd. Environmental and Hydrogeological Services	DATE May 2025	5



## Appendix A

Proponent's Conceptual Site Plan

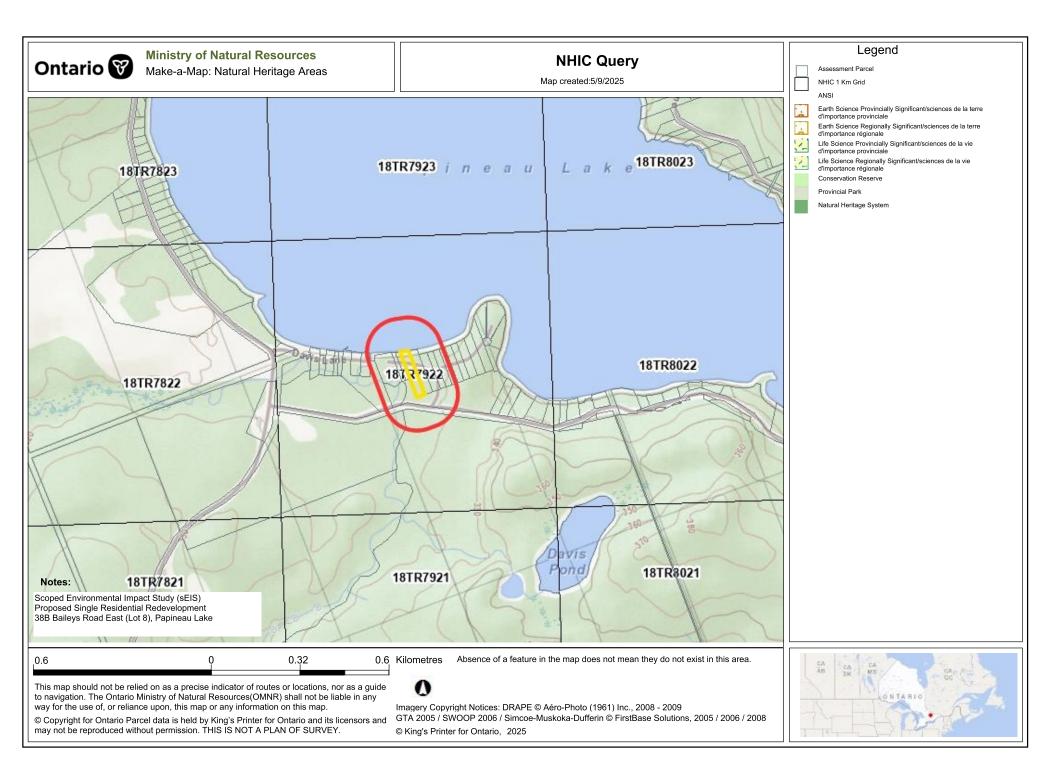


SSIR

EXISTING COTTAGE TO BE DEMOLISHED

## Appendix B

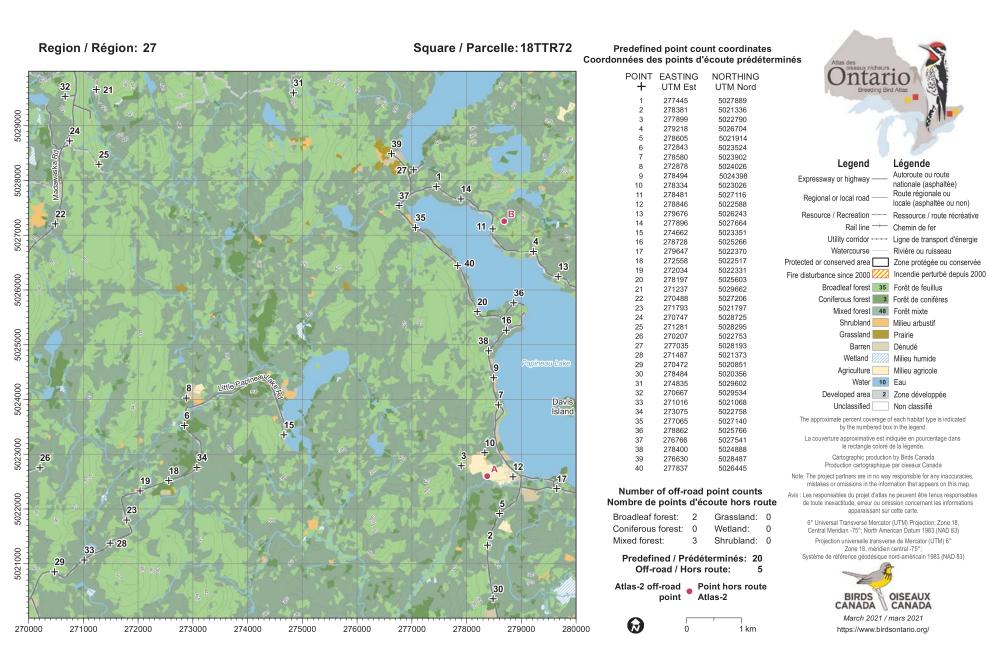
SAR Database Excerpts



## NHIC Data

To work further with this data select the content and copy it into your own word or excel documents.

OGF ID	Element Type	Common Name	Scientific Name	SRank	SARO Status	COSEWIC Status	ATLAS NAD83 IDENT	COMMENTS
1070458 SPE	CIES	(Potamogeton hillii X Potamogeton zosteriformis)	Potamogeton x ogdenii	SNA	END	END	18TR7922	
	LDLIFE NCENTRATION EA	Colonial Waterbird Nesting Area	Colonial Waterbird Nesting Area				18TR7922	



18TTR72



### Square Summary (18TTR72) [change]

	#species			#he	ours	#pc done		
	poss	prob	conf	total	total	peak	road	offrd
Curr.	24	38	28	90	60.4	42	47	0
Prev.	59	6	4	69	20.4	_	2	24

#### Region summary (#27: Algonquin, ON)

#squares	#sq with data	#species	#squares (pc)	
			target	compl.
158	151	164	158	64
158	153	165	0	137

Target number of point counts in this square: 25 in total: 20 road side, 5 off road (Broadleaf Forest in 2, Mixed Forest in 3). Please try to ensure that each off-road station is located such that the entire 100m radius circle is within the prescribed habitat. Predef. completed: [01, 02, 04, 05, 06, 07, 08, 09, 11, 13, 14, 15, 16, 17, 18, 19, 20, 23, 24, 27, 28, 29, 30, 32, 33, 34, 35, 37, 38, 39, 40]

SPECIES	Prev. C	ode	%
Canada Goose		FY	60
Trumpeter Swan ‡			3
Wood Duck			48
Blue-winged Teal ‡			0
Mallard		FY	41
American Black Duck			36
Green-winged Teal ‡			1
Ring-necked Duck			39
Common Goldeneye ‡		FY	8
Hooded Merganser		FY	36
Common Merganser	Н	FY	52
Wild Turkey ‡		S	35
Ruffed Grouse	FY	М	77

Spruce Grouse			4
Rock Pigeon (Feral Pigeon) ‡			0
Mourning Dove ‡	S	FY	23
Black-billed Cuckoo	S		27
Common Nighthawk ‡			12
Eastern Whip-poor-will ‡			23
Chimney Swift §			29
Ruby-throated Hummingbird	S	Т	56
Virginia Rail ‡			19
Sora ‡			1
Common Gallinule ‡			0
American Coot ‡			0
Sandhill Crane ‡			24
Killdeer ‡			4
Upland Sandpiper †			0
American Woodcock	S	S	26
Wilson's Snipe			36
Spotted Sandpiper			38
Ring-billed Gull §	Н		4
American Herring Gull §			41

SPECIES	Prev.	Code	%
Pied-billed Grebe ‡			1
Common Loon	Р	AE	76
Double-crested Cormorant § ‡			12
American Bittern			24
Least Bittern †			1
Green Heron ‡			1
Great Blue Heron §	Н	Н	43
Turkey Vulture	Т	н	58
Osprey		Н	25
Sharp-shinned Hawk			12
Cooper's Hawk ‡			0
American Goshawk §		Н	8
Northern Harrier			5
Bald Eagle ‡		NY	32
Broad-winged Hawk	S	Α	72

Red-shouldered Hawk ‡			2
Red-tailed Hawk			29
Great Horned Owl ‡			3
Barred Owl		S	40
Great Gray Owl ‡			0
Long-eared Owl ‡			0
Northern Saw-whet Owl			16
Belted Kingfisher		Т	52
Yellow-bellied Sapsucker	Н	D	92
American Three-toed Woodpecker ‡			0
Black-backed Woodpecker			25
Downy Woodpecker	S	Н	49
Hairy Woodpecker		Н	80
Pileated Woodpecker	S	S	74
Northern Flicker	S	NY	85
American Kestrel §		Т	10
Merlin		FY	37
Peregrine Falcon ‡			7

SPECIES	Prev.	Code	%
Olive-sided Flycatcher §			50
Eastern Wood-Pewee §	S	Т	68
Yellow-bellied Flycatcher	NY		33
Alder Flycatcher	S	М	78
Willow Flycatcher ‡	S		1
Least Flycatcher	Р	Т	78
Eastern Phoebe	Р	М	59
Great Crested Flycatcher	S	Т	47
Eastern Kingbird ‡		Н	54
Yellow-throated Vireo ‡		S	2
Blue-headed Vireo	S	FY	90
Philadelphia Vireo ‡	Н		6
Warbling Vireo ‡			9
Red-eyed Vireo	S	DD	97
Canada Jay		Н	25
Blue Jay	A	FY	95
American Crow	S	FY	60

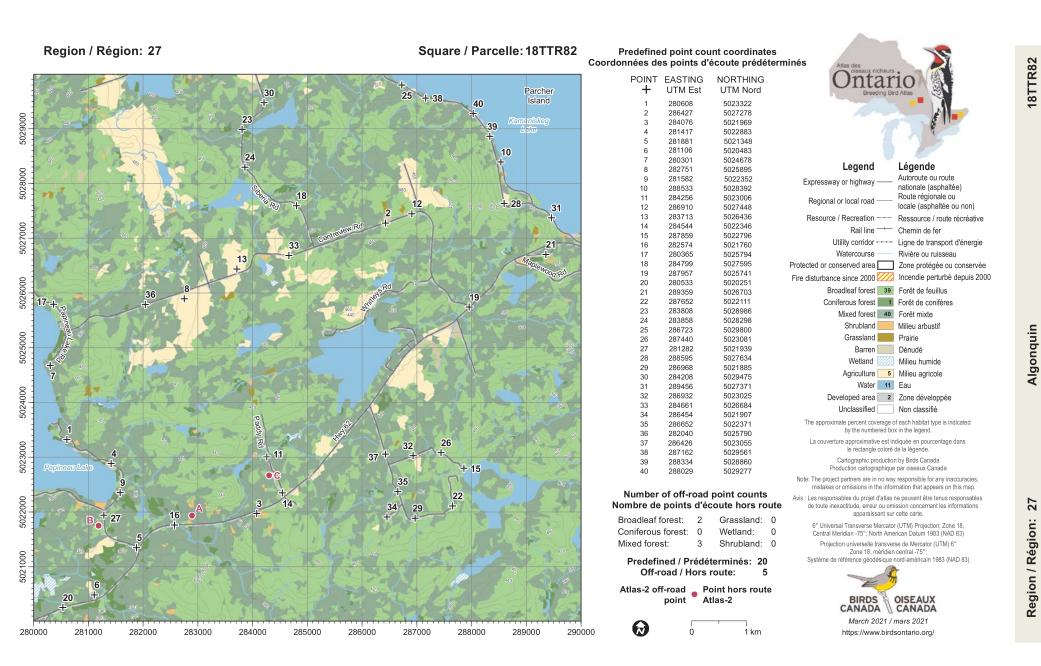
Common Raven	S	FY	76
Black-capped Chickadee	CF	FY	90
Boreal Chickadee ‡			1
Bank Swallow § ‡			0
Tree Swallow		AE	51
Northern Rough-winged Swallow ‡			0
Barn Swallow ‡	S	FY	24
Cliff Swallow § ‡			3
Ruby-crowned Kinglet		S	64
Golden-crowned Kinglet		S	79
White-breasted Nuthatch	S	S	46
Red-breasted Nuthatch	S	М	91
Brown Creeper	S	Т	79
Northern House Wren ‡		Т	23
Winter Wren		М	92
Pacific/Winter Wren ‡	S		0

SPECIES	Prev.	Code	%
Sedge Wren ‡			1
Marsh Wren ‡			3
European Starling		AE	19
Gray Catbird	S	Т	33
Brown Thrasher ‡		CF	21
Northern Mockingbird ‡			C
Eastern Bluebird ‡	S	FY	23
Veery	S	М	93
Swainson's Thrush		S	67
Hermit Thrush	S	Т	86
Wood Thrush §	A	Т	54
American Robin	S	CF	92
Cedar Waxwing	S	Н	77
House Sparrow ‡			1
Evening Grosbeak §			25
House Finch ‡			C
Purple Finch	S	Т	86
Red Crossbill §			56
White-winged Crossbill			17
Pine Siskin §		Н	29
American Goldfinch	S	S	55
Grasshopper Sparrow ‡			C
Chipping Sparrow	S	FY	67
Clay-colored Sparrow ‡			C
Field Sparrow ‡			3
Dark-eyed Junco			37
White-throated Sparrow	S	Т	95
Vesper Sparrow ‡		Т	1
LeConte's Sparrow ‡			C
Savannah Sparrow ‡			19
Song Sparrow	S	CF	86
Lincoln's Sparrow			11
Swamp Sparrow	S	CF	88

Eastern Towhee ‡		S	5
Bobolink ‡			6
Eastern Meadowlark ‡			5
Baltimore Oriole ‡			5
Red-winged Blackbird	S	S	80
Brown-headed Cowbird ‡			3
Rusty Blackbird ‡			2
Common Grackle	FY	Т	87
Ovenbird	S	М	95
Northern Waterthrush	S	М	78
Golden-winged Warbler †			1
Black-and-white Warbler	S	М	94
Tennessee Warbler ‡	S		4
Nashville Warbler	S	М	90
Mourning Warbler	S	Т	64
Common Yellowthroat	S	Т	90
American Redstart	S	М	90
Cape May Warbler ‡			28
Northern Parula	S	Т	93
Magnolia Warbler	S	S	90
Bay-breasted Warbler ‡	S		11
Blackburnian Warbler		FY	88
Yellow Warbler	S	Т	49
Chestnut-sided Warbler	S	CF	92
Black-throated Blue Warbler	S	М	94
Pine Warbler	S	М	82
Yellow-rumped Warbler	S	М	92
Black-throated Green Warbler	S	S	83
Canada Warbler §		Т	56
Wilson's Warbler ‡			0
Scarlet Tanager	S	Т	71
Rose-breasted Grosbeak	S	FY	90
Indigo Bunting	S	Т	52

This list includes all breeding species expected in the region #27 (Algonquin). Underlined species are those that you should try to add to this square (18TTR72). They have not yet been reported in this square, but have been reported in more than 50% of the squares in this region so far. "Prev." is the code for the highest breeding evidence for that species in square 18TTR72 in the previous atlas. "Code" is the code for the highest breeding evidence for that species in square 18TTR72 over the last 5 years. The % columns give the percentage of squares in that region where that species was reported (this gives an idea of the expected chance of finding that

species in region #27). Rare/Colonial Species Report Forms should be completed for species marked: § (Species of interest), ‡ (regionally rare), † (provincially rare). An up-to-date version of this sheet is available from <a href="https://naturecounts.ca//nc//atlas/squaresummaryform.jsp?squareID=18TTR72&lang=EN">https://naturecounts.ca//nc//atlas/squaresummaryform.jsp?squareID=18TTR72&lang=EN</a> Data current as of **11/03/2025 18:02**.





### Square Summary (18TTR82) [change]

	#species			#ho	ours	#pc done		
	poss	prob	conf	total	total	peak	road	offrd
Curr.	25	18	28	71	7.5	4.2	30	0
Prev.	35	25	36	96	21.4	_	3	6

#### Region summary (#27: Algonquin, ON)

#squares	#sq with data	#species	#squares (pc)	
			target	compl.
158	151	164	158	64
158	153	165	0	137

Target number of point counts in this square: 25 in total: 20 road side, 5 off road (Broadleaf Forest in 2, Mixed Forest in 3). Please try to ensure that each off-road station is located such that the entire 100m radius circle is within the prescribed habitat. Predef. completed: [01, 02, 03, 04, 05, 06, 08, 09, 11, 12, 14, 15, 16, 17, 19, 20, 23, 26, 27, 29, 32, 33, 34, 35, 36, 37, B]

SPECIES	Prev.	Code	%
Canada Goose	FY		60
Trumpeter Swan ‡			3
Wood Duck		Н	48
Blue-winged Teal ‡			0
Mallard	FY	FY	41
American Black Duck			36
Green-winged Teal ‡			1
Ring-necked Duck	FY		39
Common Goldeneye ‡			8
Hooded Merganser	FY		36
Common Merganser	FY		52
Wild Turkey ‡			35
Ruffed Grouse		S	77

Spruce Grouse			4
Rock Pigeon (Feral Pigeon) ‡	AE		0
Mourning Dove ‡	Р		23
Black-billed Cuckoo	Н		27
Common Nighthawk ‡			12
Eastern Whip-poor-will ‡			23
Chimney Swift §	Н		29
Ruby-throated Hummingbird	Н	Н	56
Virginia Rail ‡	Н		19
Sora ‡			1
Common Gallinule ‡			0
American Coot ‡			0
Sandhill Crane ‡			24
Killdeer ‡	S		4
Upland Sandpiper †			0
American Woodcock	S		26
Wilson's Snipe	Н		36
Spotted Sandpiper			38
Ring-billed Gull §	NY		4
American Herring Gull §	NY		41
	Dura	Carla 0	

SPECIES	Prev.	Code	%
Pied-billed Grebe ‡	Н		1
Common Loon	FY	Н	76
Double-crested Cormorant § ‡	NE		12
American Bittern	Н		24
Least Bittern †			1
Green Heron ‡			1
Great Blue Heron §	Н		43
Turkey Vulture		Н	58
Osprey	Р		25
Sharp-shinned Hawk			12
Cooper's Hawk ‡			0
American Goshawk §			8
Northern Harrier			5
Bald Eagle ‡		FY	32
Broad-winged Hawk	Т	Т	72

Red-shouldered Hawk ‡			2
Red-tailed Hawk	CF		29
Great Horned Owl ‡			3
Barred Owl	S		40
Great Gray Owl ‡			0
Long-eared Owl ‡			0
Northern Saw-whet Owl	Т		16
Belted Kingfisher	NU	Н	52
Yellow-bellied Sapsucker	S	NY	92
American Three-toed Woodpecker ‡			0
Black-backed Woodpecker			25
Downy Woodpecker	AE	Н	49
Hairy Woodpecker	CF	Н	80
Pileated Woodpecker	Р		74
Northern Flicker	AE	Н	85
American Kestrel §	н		10
Merlin			37
Peregrine Falcon ‡		NY	7

SPECIES	Prev.	Code	%
Olive-sided Flycatcher §			50
Eastern Wood-Pewee §	S	Т	68
Yellow-bellied Flycatcher			33
Alder Flycatcher	Р	S	78
Willow Flycatcher ‡			1
Least Flycatcher	Т	S	78
Eastern Phoebe	NY	AE	59
Great Crested Flycatcher	S	S	47
Eastern Kingbird ‡	CF		54
Yellow-throated Vireo ‡			2
Blue-headed Vireo	Т	Т	90
Philadelphia Vireo ‡			6
Warbling Vireo ‡	S		9
Red-eyed Vireo	Т	FY	97
Canada Jay			25
Blue Jay	Т	FY	95
American Crow	FY	FY	60

Common Raven	FY	FY	76
Black-capped Chickadee	CF	FY	90
Boreal Chickadee ‡	S		1
Bank Swallow § ‡			0
Tree Swallow	FY	AE	51
Northern Rough-winged Swallow ‡			0
Barn Swallow ‡	AE	Н	24
Cliff Swallow § ‡			3
Ruby-crowned Kinglet	S		64
Golden-crowned Kinglet	S	FY	79
White-breasted Nuthatch	FY	FY	46
Red-breasted Nuthatch	Н	Т	91
Brown Creeper		Т	79
Northern House Wren ‡	S	S	23
Winter Wren		D	92
Pacific/Winter Wren ‡	Т		0

SPECIES	Prev.	Code	%
Sedge Wren ‡			
Marsh Wren ‡			3
European Starling	Н	FY	19
Gray Catbird			33
Brown Thrasher ‡		AE	2
Northern Mockingbird ‡			(
Eastern Bluebird ‡	CF	AE	23
Veery	Т	Т	93
Swainson's Thrush	S	S	67
Hermit Thrush	Т	CF	86
Wood Thrush §	S	FY	54
American Robin	CF	FY	92
Cedar Waxwing	Р		77
House Sparrow ‡			
Evening Grosbeak §	FY		25
House Finch ‡			(
Purple Finch	S	S	86
Red Crossbill §			56
White-winged Crossbill			17
Pine Siskin §			29
American Goldfinch	Р	Н	58
Grasshopper Sparrow ‡			(
Chipping Sparrow	FY	FY	67
Clay-colored Sparrow ‡			(
Field Sparrow ‡			3
Dark-eyed Junco			37
White-throated Sparrow	FY	Т	95
Vesper Sparrow ‡			
LeConte's Sparrow ‡			(
Savannah Sparrow ‡	Н	Т	19
Song Sparrow	CF	FY	86
Lincoln's Sparrow			11
Swamp Sparrow	Т	Т	88

Eastern Towhee ‡	S		5
Bobolink ‡	S		6
Eastern Meadowlark ‡	Н		5
Baltimore Oriole ‡	S	_	5
Red-winged Blackbird	CF	Р	80
Brown-headed Cowbird ‡	FY		3
Rusty Blackbird ‡			2
Common Grackle	CF	FY	87
Ovenbird	FY	FY	95
Northern Waterthrush	Т	S	78
Golden-winged Warbler †			1
Black-and-white Warbler	Т	FY	94
Tennessee Warbler ‡			4
Nashville Warbler	S	Т	90
Mourning Warbler	Т	S	64
Common Yellowthroat	A	Т	90
American Redstart	CF	FY	90
Cape May Warbler ‡		S	28
Northern Parula		S	93
Magnolia Warbler	S	А	90
Bay-breasted Warbler ‡			11
Blackburnian Warbler	Т	Т	88
Yellow Warbler	CF	S	49
Chestnut-sided Warbler	CF	FY	92
Black-throated Blue Warbler	А	Т	94
Pine Warbler	S	S	82
Yellow-rumped Warbler	Р	FY	92
Black-throated Green Warbler	Т	FY	83
Canada Warbler §	S	S	56
Wilson's Warbler ‡			0
Scarlet Tanager		Т	71
Rose-breasted Grosbeak	Р	S	90
Indigo Bunting	S	Т	52

This list includes all breeding species expected in the region #27 (Algonquin). Underlined species are those that you should try to add to this square (18TTR82). They have not yet been reported in this square, but have been reported in more than 50% of the squares in this region so far. "Prev." is the code for the highest breeding evidence for that species in square 18TTR82 in the previous atlas. "Code" is the code for the highest breeding evidence for that species in square 18TTR82 in the previous atlas. "Code" is the code for the highest breeding evidence for that species in square 18TTR82 over the last 5 years. The % columns give the percentage of squares in that region where that species was reported (this gives an idea of the expected chance of finding that

species in region #27). Rare/Colonial Species Report Forms should be completed for species marked: § (Species of interest), ‡ (regionally rare), † (provincially rare). An up-to-date version of this sheet is available from <a href="https://naturecounts.ca//nc//atlas/squaresummaryform.jsp?squareID=18TTR82&lang=EN">https://naturecounts.ca//nc//atlas/squaresummaryform.jsp?squareID=18TTR82&lang=EN</a> Data current as of **11/03/2025 18:02**.

# eBird

### S Change Region ▼

# Lake St. Peter Provincial Park Hastings, Ontario, Canada

#### ▶ HOTSPOT NAVIGATION

## **Bird List**

Updated ~8 seconds ago

R 95 All Years	R O This Yea	ar	C C This M	<b>)</b> Nonth
Last Observed First Observe	ed Hi	gh Count		Custom Time Period 🔻
SPECIES NAME	COUNT	DATE 🔻	OBSERVER	LOCATION
1. Canada Goose Branta canadensis	3	20 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
2. Wood Duck Aix sponsa	3	20 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
3. Common Loon Gavia immer	1	20 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
4. Downy Woodpecker Dryobates pubescens	1	20 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
5. Hairy Woodpecker Dryobates villosus	1	20 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
6. Northern Flicker Colaptes auratus	1	20 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
7. Least Flycatcher Empidonax minimus	1	20 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
8. Eastern Phoebe Sayornis phoebe	1	20 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
9. Blue Jay Cyanocitta cristata	8	20 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
10. American Crow	3	20 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park

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Corvus brachyrhynchos

11. Black-capped Chickadee Poecile atricapillus	12	20 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
12. White-breasted Nuthatch Sitta carolinensis	1	20 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
13. Cedar Waxwing Bombycilla cedrorum	1	20 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
14. Chipping Sparrow Spizella passerina	1	20 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
15. White-throated Sparrow Zonotrichia albicollis	1	20 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
16. Chestnut-sided Warbler Setophaga pensylvanica	1	19 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
17. <b>Song Sparrow</b> Melospiza melodia	2	19 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
18. American Redstart Setophaga ruticilla	1	19 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Park
19. Belted Kingfisher Megaceryle alcyon	1	19 Aug 2024	Tom LACROIX	Lake St. Peter Provincial Rark
20. American Herring Gull Larus smithsonianus	1	6 Aug 2024	Timm Arnold	Lake St. Peter Provincial Park
21. Brown Creeper Certhia americana	1	6 Aug 2024	Timm Arnold	Lake St. Peter Provincial Park
22. <b>Red-breasted Nuthatch</b> Sitta canadensis	3	12 Jul 2024	Adam Holder	Lake St. Peter Provincial Park
23. Veery Catharus fuscescens	1	12 Jul 2024	Adam Holder	Lake St. Peter Provincial Park
24. <b>Ovenbird</b> Seiurus aurocapilla	1	12 Jul 2024	Adam Holder	Lake St. Peter Provincial Park
25. Black-and-white Warbler Mniotilta varia	1	12 Jul 2024	Adam Holder	Lake St. Peter Provincial Park
26. Black-throated Green Warbler	1	12 Jul 2024	Adam Holder	Lake St. Peter Provincial Park

Setophaga virens

27.	Broad-winged Hawk Buteo platypterus	1	11 Jul 2024	Adam Holder	Lake St. Peter Provincial Park
28.	<b>Red-eyed Vireo</b> Vireo olivaceus	1	11 Jul 2024	Adam Holder	Lake St. Peter Provincial Park
29.	Yellow-bellied Sapsucker Sphyrapicus varius	2	1 Jul 2024	Natalie Gillis	Lake St. Peter Provincial Park
30.	<b>Pileated Woodpecker</b> Dryocopus pileatus	1	1 Jul 2024	Natalie Gillis	Lake St. Peter Provincial Park
31.	American Robin Turdus migratorius	Х	1 Jul 2024	Natalie Gillis	Lake St. Peter Provincial Park
32.	<b>Red-winged Blackbird</b> Agelaius phoeniceus	Х	1 Jul 2024	Natalie Gillis	Lake St. Peter Provincial Park
33.	<b>Common Grackle</b> Quiscalus quiscula	1	1 Jul 2024	Natalie Gillis	Lake St. Peter Provincial Park
34.	Hooded Merganser Lophodytes cucullatus	1	15 Jun 2024	Scott Gibson	Lake St. Peter Provincial Rark
35.	Ruby-throated Hummingbird Archilochus colubris	1	15 Jun 2024	Scott Gibson	Lake St. Peter Provincial Park
36.	Merlin Falco columbarius	1	15 Jun 2024	Scott Gibson	Lake St. Peter Provincial Park
37.	<b>Blue-headed Vireo</b> Vireo solitarius	3	15 Jun 2024	Scott Gibson	Lake St. Peter Provincial Park
38.	<b>Common Raven</b> Corvus corax	1	15 Jun 2024	Scott Gibson	Lake St. Peter Provincial Park
39.	Purple Finch Haemorhous purpureus	1	15 Jun 2024	Scott Gibson	Lake St. Peter Provincial Park
40.	American Goldfinch Spinus tristis	1	15 Jun 2024	Scott Gibson	Lake St. Peter Provincial Park
41.	Common Yellowthroat Geothlypis trichas	1	15 Jun 2024	Scott Gibson	Lake St. Peter Provincial Park

42. Northern Parula Setophaga americana	2	15 Jun 2024	Scott Gibson	Lake St. Peter Provincial Park
43. Magnolia Warbler Setophaga magnolia	1	15 Jun 2024	Scott Gibson	Lake St. Peter Provincial Park
44. <b>Pine Warbler</b> Setophaga pinus	1	15 Jun 2024	Scott Gibson	Lake St. Peter Provincial Park
45. Yellow-rumped Warbler Setophaga coronata	2	15 Jun 2024	Scott Gibson	Lake St. Peter Provincial Park
46. Canada Warbler Cardellina canadensis	1	15 Jun 2024	Scott Gibson	Lake St. Peter Provincial Rark
47. Rose-breasted Grosbeak Pheucticus Iudovicianus	1	15 Jun 2024	Scott Gibson	Lake St. Peter Provincial Park
48. Black-billed Cuckoo Coccyzus erythropthalmus	1	23 May 2024	Quinten Wiegersma	Lake St. Peter Provincial Rark
49. <b>Gray Catbird</b> Dumetella carolinensis	1	23 May 2024	Quinten Wiegersma	Lake St. Peter Provincial Park
50. Pine Siskin Spinus pinus	1	23 May 2024	Quinten Wiegersma	Lake St. Peter Provincial Park
51. <b>Common Nighthawk</b> Chordeiles minor	1	22 May 2024	Quinten Wiegersma	Lake St. Peter Provincial Park
52. American Woodcock Scolopax minor	1	22 May 2024	Quinten Wiegersma	Lake St. Peter Provincial Park
53. Eastern Wood-Pewee Contopus virens	1	21 May 2024	Adam Holder	Lake St. Peter Provincial Park
54. Wood Thrush Hylocichla mustelina	1	21 May 2024	Adam Holder	Lake St. Peter Provincial Park
55. <b>Tennessee Warbler</b> Leiothlypis peregrina	1	21 May 2024	Adam Holder	Lake St. Peter Provincial Park
56. Cape May Warbler Setophaga tigrina	1	21 May 2024	Adam Holder	Lake St. Peter Provincial Park
57. Blackpoll Warbler Setophaga striata	1	21 May 2024	Dana Latour	Lake St. Peter Provincial Park

58. Hermit Thrush Catharus guttatus	1	21 May 2024	Adam Holder	Lake St. Peter Provincial Park
59. <b>Turkey Vulture</b> Cathartes aura	1	22 Apr 2024	Kip Daynard	Lake St. Peter Provincial Park
60. <b>Redpoll</b> Acanthis flammea	60	2 Mar 2024	Elizabeth Chitty	Lake St. Peter Provincial Park
61. White-winged Crossbill Loxia leucoptera	5	29 Dec 2023	Donald A. Sutherland	Lake St. Peter Provincial Rark
62. Olive-sided Flycatcher Contopus cooperi	1	15 Aug 2023	Alex G.	Lake St. Peter Provincial Park
63. Ruffed Grouse Bonasa umbellus	1	27 Apr 2023	Craig Doolan	Lake St. Peter Provincial Park
64. Golden-crowned Kinglet Regulus satrapa	4	27 Apr 2023	Craig Doolan	Lake St. Peter Provincial Park
65. Common Merganser Mergus merganser	1	25 Apr 2023	Craig Doolan	Lake St. Peter Provincial Park
66. Dark-eyed Junco Junco hyemalis	2	1 Oct 2022	Jelissa Kollaard	Lake St. Peter Provincial Park
67. Great Blue Heron Ardea herodias	1	16 Sep 2022	Nancy Elliot	Lake St. Peter Provincial Park
68. Bay-breasted Warbler Setophaga castanea	1	16 Sep 2022	Nancy Elliot	Lake St. Peter Provincial Park
69. Blackburnian Warbler Setophaga fusca	1	16 Sep 2022	Nancy Elliot	Lake St. Peter Provincial Park
70. <b>Palm Warbler</b> Setophaga palmarum	5	16 Sep 2022	Nancy Elliot	Lake St. Peter Provincial Park
71. <b>Yellow Warbler</b> Setophaga petechia	1	12 Aug 2022	Treena Mochulla	Lake St. Peter Provincial Park
72. Black-throated Blue Warbler Setophaga caerulescens	3	9 Jul 2022	Sophia Samuelsson	Lake St. Peter Provincial Park

73. Eastern K Tyrannus tyr		2	3 Aug 2019	Tom Wheatley	Lake St. Peter Provincial Park
74. <b>Mourning</b> Zenaida mo		2	22 Jul 2019	Chris Ellingwood	Lake St. Peter Provincial Park
75. Alder Flyc Empidonax		1	22 Jul 2019	Chris Ellingwood	Lake St. Peter Provincial Park
76. Great Cre Myiarchus c	ested Flycatcher	1	22 Jul 2019	Chris Ellingwood	Lake St. Peter Provincial Park
77. European Sturnus vulg	-	2	22 Jul 2019	Chris Ellingwood	Lake St. Peter Provincial Park
78. <b>Swamp S</b> Melospiza g	-	1	22 Jul 2019	Chris Ellingwood	Lake St. Peter Provincial Park
79. Brown-he Molothrus a	eaded Cowbird	1	22 Jul 2019	Chris Ellingwood	Lake St. Peter Provincial Park
80. Nashville Leiothlypis r		1	22 Jul 2019	Chris Ellingwood	Lake St. Peter Provincial Park
81. Scarlet Ta Piranga oliv	-	1	22 Jul 2019	Chris Ellingwood	Lake St. Peter Provincial Park
82. <b>Ruby-cro</b> Corthylio co	wned Kinglet alendula	2	16 May 2019	Travis Cameron	Lake St. Peter Provincial Park
83. Winter W Troglodytes		1	16 May 2019	Travis Cameron	Lake St. Peter Provincial Park
84. <b>Canada Ja</b> Perisoreus c	-	1	5 Jun 2018	Travis Cameron	Lake St. Peter Provincial Rark
85. Mallard A	Anas platyrhynchos	1	25 May 2018	Travis Cameron	Lake St. Peter Provincial Park
86. <b>Ring-bille</b> Larus delaw		3	26 Jul 2017	Dan Luckman	Lake St. Peter Provincial Park
87. Osprey P	Pandion haliaetus	1	26 Jul 2017	Dan Luckman	Lake St. Peter Provincial Park
88. Eastern So Megascops		1	26 Jul 2017	Dan Luckman	Lake St. Peter Provincial Rark

89. <b>Red-tailed Hawk</b> Buteo jamaicensis	1	23 Oct 2014	Philip Careless	Lake St. Peter Provincial Park
90. Boreal Chickadee Poecile hudsonicus	1	23 Oct 2014	Philip Careless	Lake St. Peter Provincial Rark
91. Killdeer Charadrius vociferus	2	2 Jun 1984	Donald A. Sutherland	Lake St. Peter Provincial Rark
92. <b>Wilson's Snipe</b> Gallinago delicata	1	2 Jun 1984	Donald A. Sutherland	Lake St. Peter Provincial Rark
93. <b>Tree Swallow</b> Tachycineta bicolor	2	2 Jun 1984	Donald A. Sutherland	Lake St. Peter Provincial Rark
94. Barn Swallow Hirundo rustica	2	2 Jun 1984	Donald A. Sutherland	Lake St. Peter Provincial Rark
95. Northern House Wren Troglodytes aedon	1	2 Jun 1984	Donald A. Sutherland	Lake St. Peter Provincial Rark
ADDITIONAL TAXA (2)				
Bay-breasted/Blackpoll Warbler Setophaga castanea/striata	1	16 Sep 2022	Nancy Elliot	Lake St. Peter Provincial Park
blackbird sp. Icteridae sp.	2	21 Jun 2021	Flora Poulton	Lake St. Peter Provincial Park

Contact

## **Cornell**Lab of Ornithology

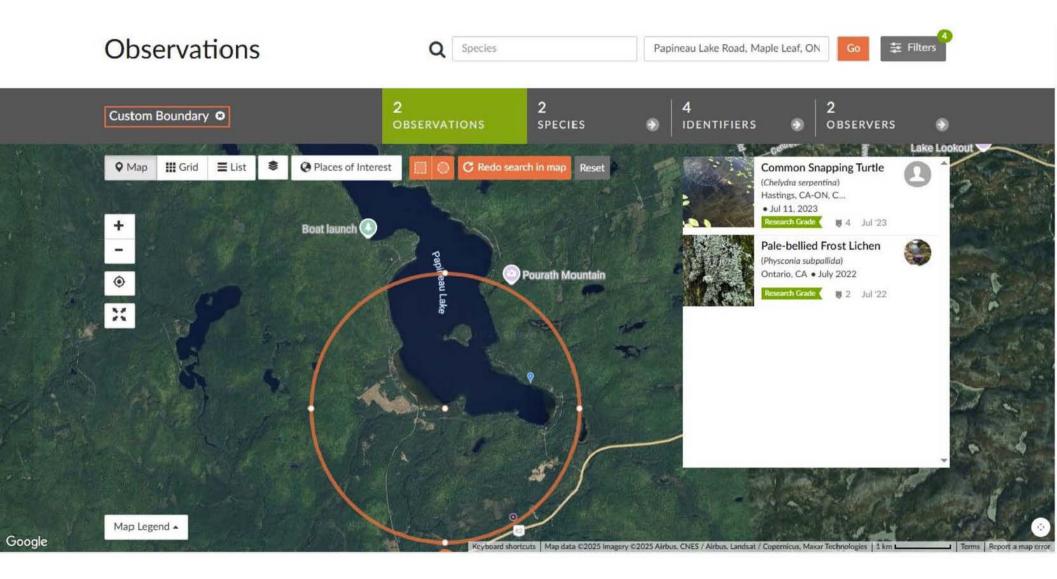
Explore	Science	About
Species Maps	eBird Status and Trends	Resources
Explore Regions	Conservation impacts	Regional portals &
Explore Hotspots	Publications	collaborators
Search photos and sounds	Request data	Staff
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## Species list in taxonomic order for square 18TR72

All species

#### Number of rows of data displayed below: 7.

Species #	Common Name	# of Records	Earliest Yr	Latest Yr
6	Snapping Turtle	2	1990	2011
28	Gray Treefrog	2	1986	1988
29	Green Frog	3	1986	1988
30	Mink Frog	1	1988	1988
35	Wood Frog	1	1988	1988
36	American Toad	1	1988	1988
53	Spotted Salamander	1	1988	1988

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## Species list in taxonomic order for square 18TR82

All species

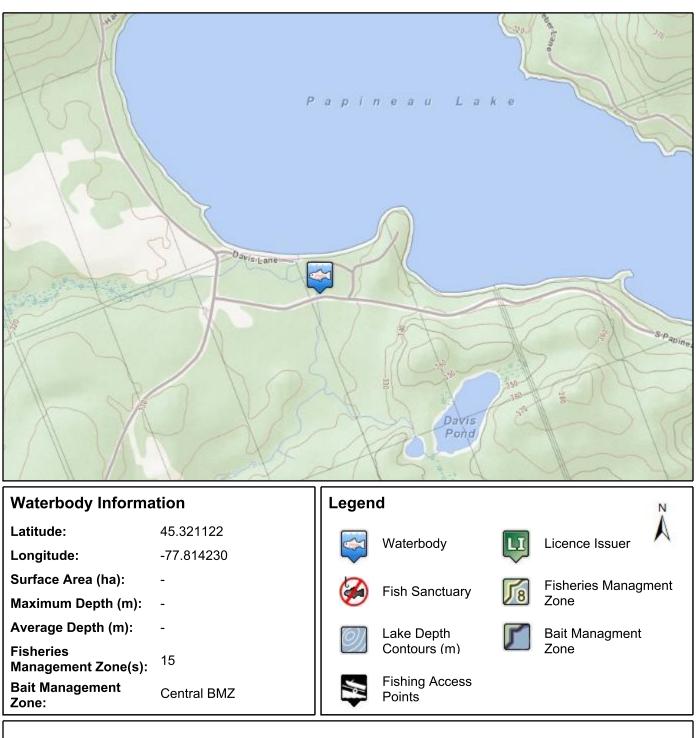
Species #	Common Name	# of Records	Earliest Yr	Latest Yr
1	Blanding's Turtle	1	2015	2015
3	Midland Painted Turtle	4	1988	2017
12	Eastern Gartersnake	2	1988	2010
28	Gray Treefrog	5	1988	1992
29	Green Frog	5	1988	2010
30	Mink Frog	1	2010	2010
33	Spring Peeper	7	1971	2010
35	Wood Frog	1	1992	1992
36	American Toad	4	1988	2017
40	Blue-spotted Salamander	1	2017	2017
50	Northern Two-lined Salamander	1	1992	1992

Number of rows of data displayed below: 11.

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## **Little Papineau Creek**





**Fish Species Found in Waterbody** 

Brook Trout, White Sucker

## Papineau Lake

## Ontario 😵



#### **Fish Species Found in Waterbody**

Brown Bullhead, Burbot, Cisco, Lake Trout, Lake Whitefish, Northern Pike, Pumpkinseed, Rock Bass, Smallmouth Bass, White Sucker

## Appendix C

Species List

# Species List

KINGDOM	Common Name	Scientific Name	SARO	SARA
Animalia				
	American Goldfinch	Spinus tristis		
	American Redstart	Setophaga ruticilla		
	American Robin	Turdus migratorius		
	Baltimore Oriole	Icterus galbula		
	Black-and-white Warbler	Mniotilta varia		
	Black-capped Chickadee	Poecile atricapillus		
	Blue Jay	Cyanocitta cristata		
	Canada Goose	Branta canadensis		
	Cape May Warbler	Setophaga tigrina		
	Clouded Sulphur	Colias philodice		
	Common Grackle	Quiscalus quiscula		
	Common Loon	Gavia immer	NAR	
	Common Merganser	Mergus merganser		
	Common Raven	Corvus corax		
	Common Yellowthroat	Geothlypis trichas		
	DeKay's Brownsnake	Storeria dekayi	NAR	
	Eastern Bluebird	Sialia sialis	NAR	
	Eastern Chipmunk	Tamias striatus		
	Eastern Kingbird	Tyrannus tyrannus		
	Eastern Palm Warbler	Setophaga palmarum hypochrysea		
	Eastern Phoebe	Sayornis phoebe		
	Emerald Spreadwing	Lestes dryas		
	Gray Catbird	Dumetella carolinensis		
	Gray Treefrog	Dryophytes versicolor		
	Great Horned Owl	Bubo virginianus		
	Green Heron	Butorides virescens		

KINGDOM	Common Name	Scientific Name	SARO	SARA
	Mourning Dove	Zenaida macroura		
	Muskrat	Ondatra zibethicus		
	Nashville Warbler	Leiothlypis ruficapilla		
	Northern Cardinal	Cardinalis cardinalis		
	Northern Flicker	Colaptes auratus		
	Northern Leopard Frog	Lithobates pipiens	NAR	
	Northern Parula	Setophaga americana		
	Northern Raccoon	Procyon lotor		
	Northern Waterthrush	Parkesia noveboracensis		
	Ovenbird	Seiurus aurocapilla		
	Pileated Woodpecker	Dryocopus pileatus		
	Red Admiral	Vanessa atalanta		
	Red Fox	Vulpes vulpes		
	Red-breasted Nuthatch	Sitta canadensis		
	Red-necked Grebe	Podiceps grisegena	NAR	
	Rock Pigeon	Columba livia		
	Ruby-crowned Kinglet	Corthylio calendula		
	Ruffed Grouse	Bonasa umbellus		
	Song Sparrow	Melospiza melodia		
	Striped Shiner	Luxilus chrysocephalus	NAR	
	Swamp Darner	Epiaeschna heros		
	Swamp Sparrow	Melospiza georgiana		
	Turkey Vulture	Cathartes aura		
	Veery	Catharus fuscescens		
	White-tailed Deer	Odocoileus virginianus		
	White-throated Sparrow	Zonotrichia albicollis		
	Wood Frog	Lithobates sylvaticus		
	Yellow-rumped Warbler	Setophaga coronata		
Funci				

Fungi

KINGDOM	Common Name	Scientific Name	SARO	SARA
	Pale-bellied Dog-lichen	Peltigera ponojensis		
Plantae				
	Autumn Willow	Salix serissima		
	Balsam Poplar	Populus balsamifera		
	Bebb's Willow	Salix bebbiana		
	Black Spruce	Picea mariana		
	Black Willow	Salix nigra		
	Bracken Fern	Pteridium aquilinum		
	Butter-and-eggs	Linaria vulgaris		
	Calico Aster	Symphyotrichum lateriflorum		
	Canada Goldenrod	Solidago canadensis		
	Cardinal Flower	Lobelia cardinalis		
	Common Dandelion	Taraxacum officinale		
	Common Lilac	Syringa vulgaris		
	Common Mullein	Verbascum thapsus		
	Common Plantain	Plantago major		
	Common Self-heal	Prunella vulgaris		
	Common Speedwell	Veronica officinalis		
	Common St. John's-wort	Hypericum perforatum		
	Common Timothy	Phleum pratense		
	Common Vetch	Vicia sativa		
	Common Viper's Bugloss	Echium vulgare		
	Common Yarrow	Achillea millefolium		
	Dark-green Bulrush	Scirpus atrovirens		
	Downy Arrowwood	Viburnum rafinesqueanum		
	Downy Yellow Violet	Viola pubescens var. pubescens		
	Eastern Marsh Fern	Thelypteris palustris var. pubescens		
	Eastern White Cedar	Thuja occidentalis		
	Eastern White Pine	Pinus strobus		
	Flat-top White Aster	Doellingeria umbellata		

KINGDOM	Common Name	Scientific Name	SARO	SARA
	Goldthread	Coptis trifolia		
	Grey Dogwood	Cornus racemosa		
	Ground-ivy	Glechoma hederacea		
	Hard Fescue	Festuca trachyphylla		
	Hard-stemmed Bulush	Schoenoplectus acutus		
	Jack Pine	Pinus banksiana		
	Japanese Barberry	Berberis thunbergii		
	Kentucky Bluegrass	Poa pratensis		
	Large-toothed Aspen	Populus grandidentata		
	Narrow-leaved Cattail	Typha angustifolia		
	Northern Bayberry	Morella pensylvanica		
	Northern Black Currant	Ribes hudsonianum		
	Northern Dewberry	Rubus flagellaris		
	Northern Red Oak	Quercus rubra		
	Northern Willow	Salix arctophila		
	Northern Willowherb	Epilobium ciliatum		
	Ostrich Fern	Matteuccia struthiopteris		
	Paper Birch	Betula papyrifera		
	Path Rush	Juncus tenuis		
	Pearly Everlasting	Anaphalis margaritacea		
	Pennsylvania Sedge	Carex pensylvanica		
	Philadelphia Fleabane	Erigeron philadelphicus		
	Purple Loosestrife	Lythrum salicaria		
	Purple Willow	Salix purpurea		
	Pussy Willow	Salix discolor		
	Red Ash	Fraxinus pennsylvanica		
	Red Clover	Trifolium pratense		
	Red Maple	Acer rubrum		
	Red Raspberry	Rubus idaeus		
	Red-osier Dogwood	Cornus sericea		

KINGDOM	Common Name	Scientific Name	SARO	SARA
	Reed Canarygrass	Phalaris arundinacea		
	Rock Polypody	Polypodium virginianum		
	Rose Twisted-stalk	Streptopus lanceolatus		
	Rough-stemmed Goldenrod	Solidago rugosa		
	Sensitive Fern	Onoclea sensibilis		
	Silver Maple	Acer saccharinum		
	Speckled Alder	Alnus incana ssp. rugosa		
	Spinulose Wood Fern	Dryopteris carthusiana		
	Spotted Joe Pye Weed	Eutrochium maculatum		
	Star Sedge	Carex echinata		
	Sweet Gale	Myrica gale		
	Sweet-fern	Comptonia peregrina		
	Tall Meadow-rue	Thalictrum pubescens		
	Tamarack	Larix laricina		
	Trembling Aspen	Populus tremuloides		
	Tussock Sedge	Carex stricta		
	White Oak	Quercus alba		
	Wild Carrot	Daucus carota		
	Wild Raisin	Viburnum cassinoides		
	Wild Sarsaparilla	Aralia nudicaulis		
	Wild Strawberry	Fragaria virginiana		
	Willow-leaved Meadowsweet	Spiraea salicifolia		
	Woodland Strawberry	Fragaria vesca		
	Woolly Blue Violet	Viola sororia		
	Yellow Marsh Marigold	Caltha palustris		
	Yellow Violet	Viola pubescens		

## Appendix D

OPSD Light-duty Silt Fence

