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**Environmental Baseline Study (EBS) Update
Work Performed on Claim Nos. 140706, 242100,
229938, 129222, 288534, 296627, 296626, 336902,
296628 & 129223 (East Gabbro Project)
Part Lots 9, 10, & 11, Concessions 3, 4 & 5 (Methuen)
Township of Havelock-Belmont-Methuen
County of Peterborough**

Prepared For:

Mr. Matt Anderson
Trigan Resources Inc.
c/o Oakridge Golf Course
General Delivery
Ashburn, Ontario
L9L 2A7
Project #: 21-3004



ORE

Oakridge Environmental Ltd.

Environmental and Hydrogeological Services

January 2022

January 7, 2022

Trigan Resources Inc.
c/o Oakridge Golf Course
General Delivery
Ashburn, Ontario
L9L 2A7

Attention: Mr. Matt Anderson

Re: Environmental Baseline Study (EBS) Update
Work Performed on Claim Nos. 140706, 242100, 229938, 129222, 288534,
296627, 296626, 336902, 296628 & 129223 (East Gabbro Project)
Part Lots 9, 10 & 11, Concessions 3, 4 & 5 (Methuen)
Township of Havelock-Belmont-Methuen, County of Peterborough
ORE File No. 21-3004

Dear Mr. Anderson:

Oakridge Environmental Ltd. is pleased to present this Environmental Baseline Study (EBS) Update covering conditions on the above referenced mining claims. This report is intended to be submitted as part of the annual assessment requirements and builds upon previous submissions for the claim group.

Our report presents information pertaining to the natural environment features located within the claims and provides general recommendations with respect to future investigations and constraints that may affect mining activities. As such, the information provided herein should be considered in association with any future development plans for the site.

Should you have any questions, please contact our office at any time.

Yours truly,
Oakridge Environmental Limited



Rob West, HBSc. CSEB
Senior Environmental Scientist

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Environmental Baseline Study (EBS) Update
Work Performed on Claim Nos. 140706, 242100, 229938, 129222,
288534, 296627, 296626, 336902, 296628 & 129223
(East Gabbro Project)
Part of Lots 9, 10 & 11, Concessions 3, 4 & 5 (Methuen)
Township of Havelock-Belmont-Methuen
County of Peterborough

1.0 Introduction

1.1 General

Oakridge Environmental Ltd. is pleased to present this Environmental Baseline Study (EBS) Update. This report includes field and desk-top work completed to update mapping and background information resources for Legacy Claim No. 1240157, that was completed as part of an original Environmental Baseline Study referenced below:

Environmental Baseline Study (EBS), Claim No. 1240157 (East Gabbro Project), Lot 10, Concession 4, (Methuen), Township of Havelock-Belmont-Methuen, County of Peterborough

The legacy claim was converted to Claim Unit Nos. 140706, 242100, 229938, 129222, 288534, 296627, 296626, 336902, 296628 and 129223. The claim group is herein collectively known as the “East Gabbro” claim group.

As the claim group now encompasses additional lands, this report provides an update to the mapping resources and background information provided in the 2016 EBS. In addition, an acoustic survey/inspection, representing new assessment work, was completed within Claim No 242100 to identify potential Species at Risk (SAR) bats and/or Significant Wildlife Habitat (SWH) associated with bat species.

The Claims are situated in the Township of Havelock-Belmont-Methuen (Methuen), County of Peterborough (Figure 1) and are held by:

Trigan Resources Inc.
35 Lauren Rd
Port Perry, ON, L9L 2A7
Attn. Mr. Matt Anderson

It is intended that this EBS update be submitted for assessment purposes.

Trigan Resources Inc. owns a large block of Mining Claims in the former Methuen Township within which the subject claims are centrally located, as illustrated by Figure 2. The claim group covers a large body of metagabbro and related rocks that are under exploration for several target commodities.

The objective of this EBS is to define the base environmental conditions within the subject

Claims and assess which areas, if any, contain sensitive ecological features. Ultimately, any future development of the Claims will need to accommodate these environmental features. This EBS update includes:

- additional background resources that were not available in 2016;
- new queries of previously searched databases;
- an update to the previously provided preliminary vegetation mapping;
- an update to the assessment of associated hydrological features, and
- a newly completed acoustic (bat) analysis for determining potential SWH and/or the presence of SAR.

Similar to the above-referenced 2016 report, this study also attempts to identify data gaps and to provide recommendations to guide more detailed, future studies (especially of the more “sensitive” areas).

The work outlined herein was completed by the following individuals:

Mr. Rob West, Senior Environmental Scientist, Peterborough, Ontario,
assisted by,

Mr. Darryl Mitchell, Environmental Technician, Peterborough, Ontario.

1.2 Site Description and Access

The East Gabbro claim group consists of 10 units, covering a total area of approximately 229.7 ha (567.7 acres). This represents a substantial increase over the legacy claim area (No. 242100), which comprised 85.4 ha (211.6 acres). The locations of the current claim group and the legacy claim are illustrated on Figure 2.

To access the site from Peterborough, at Highway 115, continue eastward to the intersection of Highway 115 and Highway 7 (Figure 1). Proceed onto Highway 7 eastward to the intersection of County Road 46, in Havelock, Ontario. Follow County Road 46 (northbound) approximately 26.7 km to Fire Route 68. Fire Route 68 continues to the west, through Claim Nos. 29938 and 242100, providing access to the claim group.

The majority of the claim group is located within a large expanse of Crown lands situated south of West Twin Lake, southeast of Blue Lake and east of Sams Lake (Figure 2).

Although the legacy claim had been located entirely within the general use Crown lands that comprised Lot 10, Concession 4 (Methuen), the claim group now encompasses several private parcels along the shore of West Twin Lake and within Lot 10, Concession 3 (Methuen). Public access to the Crown lands is gained via a series of All Terrain Vehicle (ATV) trails.

Wetlands, varying in size and composition, are scattered throughout the site among the undulating bedrock ridges, outcrops and subcrops. The upland areas of the site are dominated by relatively mature deciduous forest with an open airy forest floor and extensive canopy, representing potential maternity roosting habitat for most bat species in Ontario. The majority of the claim group remains untouched, with minimal tree harvesting. ATV trails and private development occur along the shore of West Twin Lake.

2.0 Scope of Work

In conducting this EBS, the following tasks have been completed:

- The GIS database for East Gabbro has been updated to incorporate the changes to the claim boundaries that occurred as a result of the conversion.
- Background data resources were compiled and reviewed to encompass the additional lands now covered by the claim group. This included updating information regarding several publicly available databases previously reported on in 2016 and new data from more recent resources, such as eBird and iNaturalist.
- The Claims were attended for the purpose of conducting inspections for bat habitat. This included identifying potential hibernacula (i.e., over-winter) habitats for the purpose of deploying ultrasonic acoustic (i.e., bat) detection equipment. Locations were determined by utilizing a mapping-grade differential Global Positioning System (dGPS).
- Species at Risk (SAR) surveys were completed to identify individual species, with emphasis on potential SAR habitat. Surveys were conducted to identify potential habitat and presence of individuals. However, given the timing of the study, certain SAR (eg., avifauna) were undetectable due to migration and overwintering.
- The collected acoustic data were analysed with industry-specific software and manual vetting of the accumulated sound files.
- This report was prepared outlining our findings, conclusions and recommendations with respect to potential constraints and data gaps.

3.0 Previous Work

Previous work on the subject Claims has included geological mapping and an initial environmental baseline study. The geological mapping focussed on determination of the northern limits of the gabbro body and confirmation of the continuity of favourable gabbro south of the northern contact (Phipps, 2008).

The environmental baseline study (ORE, 2016) focussed on the legacy claim area, identifying key hydrological features (i.e. wetlands) and adjusting the boundaries of these features based on observations in the field. No Species at Risk (SAR) were observed during the initial environmental baseline inspections.

4.0 Physical Setting

4.1 Topography and Drainage

The site lies within Ecoregion 5E in the southern portion of the Canadian Shield. The site consists of typical Canadian Shield terrain, comprised of undulating bedrock outcrops and pockets of predominantly granular soils. Small vernal ponds/pools and isolated pocket wetlands occur between the elevated rock ridges.

The claim group is generally dominated by bedrock outcrop and subcrop ridges. Upland areas that contain overburden cover, tend to be comprised of sandy soils that promote infiltration. Most low-lying areas are dominated by wetlands, typically containing recent silty organic deposits and/or bedrock substrates that are less permeable, slowing infiltration.

Public topographic mapping suggests the maximum local relief within the survey area is somewhat subdued, at approximately 15 m with the average relief typically being <5 m (Figure 3). Imagery obtained through the South Central Ontario Orthophotography Project (SCOOP) suggests a similar range of variation from 264 masl at lake level to 280 masl (i.e., 16 m) in the southwestern-most portion of the claim group. When subjected to a contouring algorithm, the imagery provides many circular contours that appear to define bedrock outcrop and subcrop areas that are not otherwise shown on the published mapping (Figure 4).

As would be expected, the topography is essentially dominated by the bedrock structure. As the site occurs on the northern-most part of the gabbro body, the site generally slopes to the north-northwest, dictating the regional drainage pattern. Drainage is complex within the claim group, with surface flows split between Sams Lake to the west, West Twin Lake to the north and Oak Lake to the south. Available mapping indicates that outflow from Blue Lake (in the northwest of the claim group) flows into West Twin Lake,

despite being located less than 200 m from a wetland associated with Sams Lake.

4.2 Geological Setting

The claim group is situated within the southern part of the Canadian Shield, within the Grenville structural province. The bedrock in this area is dominated by two large metamorphosed anorthositic gabbro and dioritic bodies referred to locally as the "East and West Gabbros". The subject claim is situated largely within the "East Gabbro" body. Figure 5 presents a map of the regional bedrock features.

Bedrock exposures on the site are numerous, especially along the edge and in the middle of the water bodies within the claim group. These rocks are typically competent, non-porous, and exhibit fairly wide spacing of joint sets and fractures. Most outcrop surfaces are quite undulatory, although relatively smooth, presumably the result of glacial erosion.

As outlined by Phipps (2008), the claim group covers a portion of the northern part of the East Gabbro (Figure 5) where it is in contact with mainly gneissic arenaceous metasediments (paragneisses). The gabbro is typically a medium grained, grey, mesocratic rock consisting mainly of plagioclase with lesser amounts of mafic minerals (augite and/or hornblende). Near the surface, weathering of this rock imparts a pinkish hue to the plagioclase, misleadingly giving it the appearance of a more leucocratic acidic rock.

The contact between the gabbro and the country rock metasediments is diffuse. In the contact area, inclusions of metasediments become common and the gabbro is notably finer grained. Compositional differences in the gabbro, especially in the contact zone, are present due to contamination of the gabbroic magma by absorbed metasediments.

The northern contact of the East Gabbro was traced southwesterly from the northeast corner of the west half of the claim group. Gneissic metasediments with conformable granitic and gabbroic zones occur northwest of the contact, and gabbro occurs southeast of the contact. The majority of the claim group is underlain by gabbro with Claim Nos. 140706 and 129222 appearing to occur entirely north of the contact.

From the geological mapping (Figure 5), an interpreted fault line appears to bisect the gabbro body. However, there does not appear to be any horizontal offset in the gabbro body itself. As this feature is mapped to occur in Claim No. 336902 but outside the legacy claim, previous in-the-field observations/mapping are unavailable and could be a target for future geological investigations.

The surficial geology and physiography of the site area is dominated by areas of outcrop

and thin deposits of till and granular outwash (Figure 6). There are no significant granular landforms or valley type features of note in the area.

The site lies close to the northernmost boundary of the area inundated by glacial Lake Iroquois, as defined by Muller and Prest (1985). As such, a thin and discontinuous mantle of granular sediments is expected to be ubiquitous in the area.

The dominant surficial sediment type consists of oxidized, fine, silty sand and minor gravel deposits derived from ancient outwash or perhaps from a brief period of inundation and settling. The deeper troughs between ridges typically host wetland deposits consisting of peat and muck.

5.0 Information Resources

5.1 Ontario Breeding Bird Atlas

The Ontario Breeding Bird Atlas (OBBA) is an organization comprised mainly of volunteers who monitor birds across selected regions of Ontario. Birds are recorded to occur within defined 10 km² areas denoted as “regional squares”. Two versions of the Atlas have been published, with the 2nd edition comprising the most recent data. A third version is currently in development.

Data from the OBBA are used as an indicator or tool to assist in identifying important species and/or habitats that may occur in the area of the subject site, prior to conducting site surveys. The atlas also helps to define the timing necessary for the bird surveys (e.g., morning or evening) and the season in which to detect them.

As the subject claims have expanded the assessment area from the legacy claim, the site now occurs within *two* 10 km² areas, mapped as 18TTQ64 and 18TTQ74, Region 16, Peterborough. The maps and summary sheets for this atlas area are provided in Appendix A.

From our review of the information, significant breeding species that could potentially be associated with habitats in the claim group, include the following:

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status*</u>
Common Nighthawk	<i>Chordeiles minor</i>	Special Concern
Eastern Whip-poor-will	<i>Antrostomus vociferus</i>	Threatened
Black Tern	<i>Chlidonias niger</i>	Special Concern
Least Bittern	<i>Ixobrychus exilis</i>	Threatened
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	Special Concern

Olive-sided Flycatcher	<i>Contopus cooperi</i>	Special Concern
Eastern Wood-Pewee	<i>Contopus virens</i>	Special Concern
Barn Swallow	<i>Hirundo rustica</i>	Threatened
Wood Thrush	<i>Hylocichla mustelina</i>	Special Concern
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	Special Concern
Bobolink	<i>Dolichonyx oryzivorus</i>	Threatened
Eastern Meadowlark	<i>Sturnella magna</i>	Threatened
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	Special Concern
Canada Warbler	<i>Cardellina canadensis</i>	Special Concern

*Status according to Species at Risk Ontario (SARO). Status may differ from the federal Species at Risk Act (SARA) registry.

Brief descriptions of each of the listed species and associated preferred habitats are included in Appendix B. The site inspections included a review of potential SAR habitat and targeted searches for the listed species.

5.2 Natural Heritage Information Centre (NHIC)

The NHIC is an online database managed by the Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNR). Within the database, Ontario has been divided into a grid consisting of a series of 1 km² areas or *regional squares*, each given a unique identifier (similar to the OBBA, described above). The squares can be searched for historical *Species at Risk* (SAR) occurrences, rare *Plant Communities* and for *Areas of Natural and Scientific Interest* (ANSI).

The current study area within the subject claims spans multiple NHIC squares (Appendix C). The NHIC squares include: 18TQ6947, 18TQ6946, 18TQ6945, 18TQ7047, 18TQ7046, 18TQ7045, 18TQ7147, 18TQ7146 and 18TQ7145. The extent of the NHIC search and a summary sheet have been included in Appendix C.

Based on our review, the following natural areas were determined to be located within the 1 km squares:

- Wildlife Concentration Area - Colonial Waterbird Nesting Area
- Natural Area - Oak Lake Wetland
- Wildlife Concentration Area - Mixed Wader Nesting Colony

Several SAR occurrences were noted to include the following:

Atlas I.D.	Common Name	Scientific Name	SARO Status
18TQ6947, 18TQ7047, 18TQ7046, 18TQ7147 and 18TQ7146	Wood Thrush	<i>Hylocichla mustelina</i>	Special Concern*
18TQ7047	Common Nighthawk	<i>Chordeiles minor</i>	Special Concern
18TQ7047, 18TQ7147 and 18TQ7146	Western Chorus Frog - Great Lakes/St. Lawrence - Canadian Shield Population	<i>Pseudacris maculata</i>	Not at Risk*
18TQ7147	Common Five-lined Skink (Southern Canadian Shield)	<i>Plestiodon fasciatus</i>	Special Concern
18TQ7047	Snapping Turtle	<i>Chelydra serpentina</i>	Special Concern
18TQ7047, 18TQ714 and 18TQ7146,	Eastern Whip-poor-will	<i>Antrostomus vociferus</i>	Threatened
18TQ7147	Restricted Species		Threatened
18TQ7146 and 18TQ7145	Midland Painted Turtle	<i>Chrysemys picta marginata</i>	Not at Risk*
18TQ7146 and 18TQ7145	Eastern Ribbonsnake	<i>Thamnophis sauritus</i>	Special Concern
18TQ7146	Canada Warbler	<i>Cardellina canadensis</i>	Special Concern
18TQ7146 and 18TQ7145	Blanding's Turtle	<i>Emydoidea blandingii</i>	Threatened

*listed SARA species.

Descriptions of each species listed and the habitats typically associated with each species above are presented in Appendix B. Targeted inspections for each of the listed species were not completed as part of this assessment. Prior to any detailed SAR inspections, as part of any future assessment work, local Ministry of the Environment, Conservation and Parks (MECP) staff should be contacted to determine the nature of the restricted species listed above, in addition to any other significant species that may be known to utilize the area.

5.3 eBird

The eBird website consists of a database whereby citizen-science individuals provide site level birding data for locations known as “hot-spots”. The bird species data are entered into the database and can be updated by individuals who consistently return to the site.

The nearest eBird hotspots occur approximately 6 km to the west, in an area referred to as the “Nephton Ridge”. Due to the distance from the site, the data associated with this

hotspot is not expected to be overly relevant. Regardless, the species list from this location is presented in Appendix D.

5.4 iNaturalist Database

ORE staff conducted a search of the iNaturalist website database to determine if this database has any significant species occurrences in the vicinity of the current study area.

The database query revealed the following records:

- Snapping Turtle, reported approximately 1 km southeast of the study area on May 16, 2018.
- Common Nighthawk, reported approximately 500 m north of the study area on June 25, 2017.
- Common Five-lined Skink, reported approximately 1.7 km southeast of the study area on July 4, 2017.
- Blandings Turtle, reported approximately 2.5 km to the east of the study area on August 29, 2018 and approximately 1.7 km to the southwest of the study area on April 15, 2010.

A map of the search area and list of species are included in Appendix E. General species descriptions are included in Appendix B.

5.5 Land Information Ontario (LIO) Database

The MNDMNR's Land Information Ontario (LIO) database was referenced to provide background information on the site. LIO data provide geographic information on Ontario's road network, wetlands, water bodies, wooded areas, parks, and protected areas, among other features. A summary of LIO data available for the features within the subject property is presented below.

The LIO database recognizes seventy-one (71) Unevaluated Wetlands that occur fully or partially within the claim group (Figure 3)¹. This is a substantial increase over the thirty-two (32) identified to be contained within the legacy claim in our 2016 report. The

¹ Only a portion of some larger wetlands may fall inside the study area. Thirteen (13) wetland segments are included in the study area, although some segments belong to the same hydrologic feature.

wetlands are designated as “Swamp”, “Marsh” and “Unknown”. These features have a combined total area of 85.2 ha, equivalent to approximately 37% of the total study area. Wetlands completely within the study area are identified by LIO to range from 0.1 ha to 15 ha in area. LIO data suggest there is a Provincially Significant Wetland (PSW) located proximal to the claim group, referred to as the Oak Lake Wetland, located approximately 500 m south. A headwater area of an unnamed watercourse that flows into the wetland is also mapped to occur immediately south of the claim group.

Five (5) woodland tracts (polygons) were identified within the claim group, measuring 127.3 ha in total (55% of the total area). The woodlands on-site are classified by the MNMNR as *Non-sensitive*.

The LIO mapping suggests the claim group contains 22.3 ha of open water communities with some open water occurring within the wetlands described above. The open water communities also contain portions of Sams Lake, Blue Lake and West Twin Lake.

A total of eighteen (18) building symbols occur within the claim group, mostly representing development along the shoreline of West Twin Lake. The building symbols within the LIO data set represent residences and outbuildings (e.g., garages, sheds, farm structures, etc).

The Ontario Land Cover Compilation (v. 2) indicates the study area is comprised of 23.8% coniferous forest, 23.8% mixed forest, 16.1% marsh, 12.1% deciduous forest, 10.9% swamp, 7.2% clear open water, 2.8% undifferentiated rural (open) land, 2.3% sparsely forested land, 0.5% treed upland and 0.5% community/infrastructure.

Although site inspections within the legacy claim were completed to verify the information provided by LIO at that time, updates to that field mapping (to confirm the above) could be addressed through future assessment work.

5.6 Ontario Flow Assessment Tool (OFAT)

The Ontario Flow Assessment Tool (OFAT) is an online tool developed by the MNMNR to assist in the flow evaluation of Ontario watersheds. OFAT uses data from the LIO database to interpret watershed characteristics. The tool can be used to develop a map of watersheds, characterize the watershed’s physical characteristics, and to estimate average stream flows.

From the data provided by the OFAT, assumptions can be made for drainage patterns and stream flow direction. Figure 7 shows the general drainage patterns and the three (3) local subwatersheds (within the Trent-Crowe tertiary watershed) in which the current study area occurs. A brief discussion of each subwatershed is presented below.

The OFAT data suggest that surface water flows are split between subwatersheds for Sams Lake to the west, West Twin Lake to the north and Oak Lake to the south. Sams Lake outlets to the southwest and the flows eventually enter Kasshabog Lake. West Twin Lake flows out to the east, with flows eventually directed through Otter Creek and into Belmont Lake. Although the claim group is far removed from the shores of Oak Lake, many small tributaries and unevaluated wetlands occur within the claim group that eventually flow into the Oak Lake Provincially Significant Wetland and then into Oak Lake, approximately 2.2 km south of the claim group.

6.0 Bio-physical Findings

6.1 Field Methodologies

6.1.1 General

For this study, ORE staff conducted site inspections on the following dates:

<u>Date of Inspection</u>	<u>Survey Time</u>	<u>Temp. °C</u>	<u>Beaufort (Wind) Scale</u>	<u>Conditions</u>
October 28, 2021	10 AM to 5 PM	10	1 - Light Air	Variable cloud cover, no precipitation
October 31, 2021	1 PM to 5 PM	8	5 - Fresh Breeze	100% cloud cover, light drizzle

The above inspections were conducted to identify potential hibernacula (over-winter) habitat for bats within the claim group and to deploy acoustic (bat) detectors. Although not the focus, a cursory inspection of flora and fauna was also completed. The locations of notable features were determined using a mapping-grade differential GPS system.

As the inspections took place out of the typical breeding bird/growing season, any future assessments of vegetation and/or Species at Risk (SAR) should be completed as per the MNDMNR protocols during the optimum time periods.

6.1.2 Vegetation

A preliminary characterization of the various vegetation communities was completed as part of the 2016 assessment work on the legacy claim, generally based on the methodologies included in the *Ecological Land Classification (ELC) - First Approximation and Its Applications* (1998) as part of a preliminary mapping exercise. The classification of each vegetation community was determined in accordance with the draft catalogue

issued in 2008 (which provides more vegetation community classifications than the 1998 version). The draft 2008 guide also provides the classification coding included in the 1998 ELC manual for cross-reference purposes. Typically, the 1998 First Approximation is supposed to be used and the 2008 draft version used only to supplement the 1998 classifications. However, the majority of consultants appear to be utilizing the draft 2008 classifications for consistency.

The vegetation mapping provided in 2016 has been updated to illustrate the current claim group (Figure 8). This mapping was utilized to aid in determining ideal bat habitats within the study area that could be targeted for detailed (e.g., acoustic) surveys.

Descriptions of the communities have been included in Appendix F. Although some of the communities were re-examined as part of the current work, the descriptions have not changed from the 2016 assessment work. Additional assessments could focus on further expanding the vegetation mapping beyond the limit of the legacy claim.

6.1.3 Wetland Delineation

As part of the 2016 assessment work, the on-site wetlands were identified and delineated using criteria from the Ontario Ministry of Natural Resources and Forestry's (OMNRF) Ontario Wetland Evaluation System (OWES), 2013 3rd Edition. The OWES provides protocols for evaluators to delineate wetland boundaries, determine vegetation communities, determine locations for seeps and springs, and ascertain drainage patterns.

The classification and delineation of wetlands must include consideration of various factors:

- Area of ground covered by vegetation;
- Proportion of hydrophytic vegetation (determined using the 50/50 Upland to Wetland Vegetation Rule);
- Presence of hydric mineral and organic substrates (determined using the protocols from the Ontario Ecological Land Classification, 1998), and
- Topography.

Although the boundaries of the wetlands within the legacy claim were confirmed and/or adjusted based on current field observations (Figure 8), ORE staff did not fully evaluate the wetlands according to the OWES. Rather, the boundaries were simply adjusted based on the general wetland vegetation types present.

6.1.4 Bat Surveys

The Ministry of the Environment, Conservation and Parks (MECP) currently lists three (3) myotis and one (1) perimyotis species of bat as Endangered. The SAR bats are listed below:

<u>Common Name</u>	<u>Scientific Name</u>
Eastern Small-Footed Myotis	<i>Myotis leibii</i>
Little Brown Myotis	<i>Myotis lucifugus</i>
Northern Myotis	<i>Myotis septentrionalis</i>
Tri-coloured Bat	<i>Perimyotis subflavus</i>

A recovery strategy was established by the province for Eastern Small-Footed Myotis in 2017 and followed with a recovery strategy for Little Brown Myotis, Northern Myotis and Tri-coloured Bat in 2019. These recovery strategies are generally in line with federal strategies adopted in 2015. Prior to the recovery strategies, detailed studies regarding bat populations were often isolated to wind power projects through the use of the *Bat and Bat Habitats: Guidelines for Wind Power Projects* (MNDMNR, 2011) and general considerations for habitat were considered in reference to the *Significant Wildlife Habitat Technical Guide* (OMNR, 2000). Regional guidance on inspections for proposed developments (e.g., Guelph District) are also available.

For the purpose of this study, the provincial/federal framework outlined above have been utilized in conjunction with evaluating specific Significant Wildlife Habitat (SWH) associated with bats. However, additional resources and inspection methodologies have also been incorporated based on current best management practices.

The primary habitats for bats are divided into the following subcategories:

Maternity and Roosting Habitat

Habitats for roosting males and for rearing and raising young can vary but often include non-natural habitat such as attics or disused chimneys. The natural habitat often consists of rock crevices and cavities/crevices in trees. Determining suitable maternity habitat often requires both a vegetation survey (discussed below) and a survey of trees that contain suitable cavities/crevices (i.e., referred to as “snags”). The bat snag surveys not only identify the prevalence of snags but describe the quality of the snag, with mature hardwood trees representing better quality habitat. This type of survey needs to be completed during leaf-off conditions. As the field surveys were completed in late September/early October,

bat snag surveys were not completed as part of this assessment. However, areas with an obvious abundance of snags were noted and select areas were targeted for acoustic surveys (discussed below).

Foraging Habitat

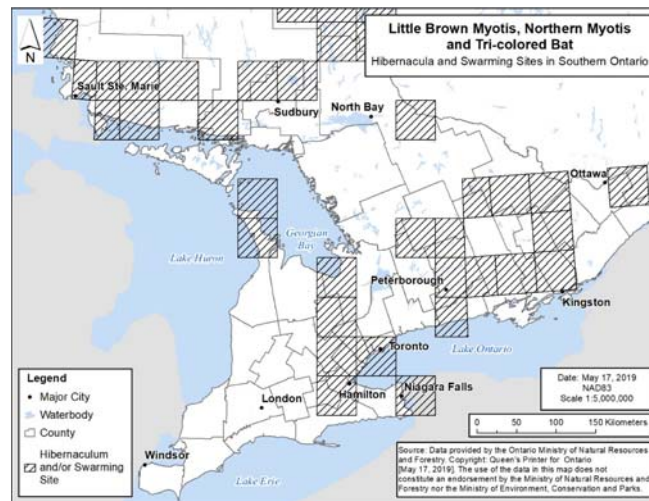
The foraging habitats of different bat species vary according to a number of different factors. Little Brown Myotis may forage nocturnally on insects and spiders in predominantly open habitats, Northern Myotis tend to feed within forested habitats and Tri-coloured Bats tend to forage in forested riparian areas. The Eastern Small-Footed Myotis foraging habitat is less defined and the species has been observed through multiple studies using all the habitats outlined above. Specific methodology for examining foraging habitats include direct observations and captures. While surveys specific to foraging habitat were not included in this study, acoustic detector data may observe certain species of bats using the same areas and/or travel corridors for foraging over multiple survey nights.

Hibernacula

Overwintering habitats (hibernacula) for hibernating bat species generally consists of underground openings, including caves, abandoned mines, wells and tunnels. The locations of these habitats generally maintain a temperature of between 2°C and 10°C², with a relative humidity of less than 80% (Cryan et al. 2010). During this period, the bats enter a torpor state, relying on fat reserves for survival. Natural hibernacula habitat is described by Significant Wildlife Habitat Technical Guide (SWHTG) as being mostly consistent with karst topography, where natural cave formations can extend deep below the surface. However, the structural features and bedrock outcrops of the claim group also provide opportunities for bats to hibernate deep within fractured granites and metasediments that dominate the study area. Talus slopes also provide opportunities for bats to find adequate conditions.

²

Fenton 1970, Anderson and Robert 1971 and Vanderwolf et al 2012



According to the recovery strategy for Ontario, hibernacula habitat has been confirmed in the general area of the claim group, as provided by the above graphic/map.

Confirming the presence/absence of hibernacula within the subject claim group will be necessary to determine whether future extraction activities have a potential to affect SAR bat habitat. However, identification of suitable hibernacula can be difficult, as the number of openings, cave size/length, and angle of chambers can influence the stability and levels of humidity and temperature that bats find suitable (Davis 1970, Raesly and Gates 1987).

The MNDMNR Bat Survey Protocol first published in the *Bat and Bat Habitats: Guidelines for Wind Power Projects* (MNR, 2011), provides criteria for surveying hibernacula habitats:

- *The area around the potential hibernacula should be thoroughly searched to identify multiple entrances.*
- *Acoustic monitoring stations should be positioned at each entrance, within 10 m of the opening of the cave / abandoned mine.*
- *If one entrance is found to have evidence of bats then the other entrances need not be monitored if they are part of the same structure.*

Although the guide provides that hibernacula surveys should be conducted from August 1 to August 30, changes in weather patterns and seasonal variations can

affect activity levels. The guide does provide the ideal weather conditions for these surveys to be on warm/mild nights with an “*ambient temperature above 10°C with low winds (< 6 m/s) and no precipitation*”.

The U.S. National Park Service (NPS) also provides that bats will often enter torpor for just a few hours on a cold day, or can remain in torpor for up to a month while hibernating. Even during periods of hibernation, bats will interrupt torpor for brief periods of arousal when their body temperatures return to normal.

Although acoustic surveys (described below) were conducted outside the recommended survey period (August 1st to 30th), the surveys conducted from October 28th, 2021 to October 31st, 2021 were completed when daytime highs were consistently around 10°C. As a result, it is anticipated that bats seeking to hibernate would not have been completely inactive and would continue to leave the hibernacula to forage/mate or seek out new habitat.

Swarming Habitat

Swarming habitat refers to the congregation of bat species in a particular area, typically for the purpose of mating. This often includes hibernacula, as the bats search out mates in the autumn. Acoustic surveys and visual inspections are utilized to confirm presence/absence of swarming habitat. Surveys completed for roosting and hibernacula habitat should also have consideration for swarming populations.

As outlined above, bat hibernacula and swarming habitats were surveyed within the study area using acoustic surveying methods. A description of the acoustic survey techniques is provided below.

6.2 Acoustic Survey Methodology

6.2.1 Data Acquisition

As physical observations of bats can be difficult and can actually harm bats by arousing them from torpor, forcing them to utilize much needed fat reserves to over-winter, researchers have had to employ alternate methods. The most effective of these methods has been to isolate the bat’s echolocation calls. As bats utilize high frequency echolocation calls typically out of the range of human hearing, ultrasonic sound detector equipment is needed to record these calls and either display the sound wave pattern visually or convert the frequency of the call such that it is within the audible range for a human.

Schnitzler and Kalko (2001) provides a comprehensive view of echolocation calls utilized by bats:

“Bats use a wide variety of species-specific signal types differing in frequency structure, duration, and sound pressure level (SPL). In addition, signal structure varies depending on the echolocation task confronting the bat. Search signals that are emitted when bats search for prey differ from approach signals that are emitted when they approach prey.”

There are various methods and technologies to record and interpret the echolocation calls from bats. The MNDMNR (2011) provides the following guidelines for the deployment of acoustic detectors to evaluate potential hibernacula:

- “• *Acoustic monitoring should use modern broadband bat detectors (these may be automated systems in conjunction with computer software analysis packages or manual devices) with condenser microphones.*
- *Acoustic monitoring systems should allow the observer to determine the signal to noise ratio of the recorded signals (e.g. from oscillograms or time-amplitude displays). These systems provide information about signal strength and increase the quality and accuracy of the data being analysed. Zero-crossing acoustic detectors do not provide this information.*
- *Microphones should be positioned to maximize bat detection (e.g. microphone(s) situated away from nearby obstacles to allow for maximum range of detection, microphone(s) angled slightly away from the prevailing wind to minimize wind noise).*
- *It is recommended that the same brand and /or model acoustic recording system be used throughout the survey (if multiple devices are required), as the type of system may influence detection range /efficiency. If different systems must be used, this variation should be quantified.*
- *Information on the equipment used should be recorded, including information on all adjustable settings (e.g. gain level), the position of the microphones, dates and times by station when recording was conducted.*
- *Acoustic survey data should be analysed to identify species whenever possible. Unidentified species should also be included in analysis and reporting.”*

The United States Geological Survey (USGS) provides more detailed guidance with regards to the brand and settings of the detector equipment utilized in an attempt to standardize acoustic data collected as part of the North American Bat Monitoring Program (“NABat”). As a result, acoustic surveys completed for this study were conducted utilizing Titley Scientific Anabat Swift detectors with the following USGS recommended settings for stationary point surveys:

Table 1: USGS Anabat Swift Settings

Trigger	Sensitivity	15
	Minimum Event	1ms
	Record Window	2s
	Minimum Frequency	15kHz
	Maximum Frequency	120kHz
Recording	Div Ratio	-
	FS/ZC	Full Spectrum (FS)
	Sample Rate	320k
	Analog Filter on/off	On
	Max. File Time	15s (fixed)

In addition to the above, the manufacturer also provides suggestions with regards to detector settings in order to maximize the number of recorded bats while minimizing the number of files that simply consist of noise or interference. NABat and the NPS also provide guidance with regards to bat detector deployments in terms of detector and microphone positioning, which are in line with the recommendation provided by the MNDMNRFP guidance.

For the purpose of assessing the study area claims, two (2) anabat swift detectors were deployed within forested ecosites near bedrock outcrops that contained large cracks or crevices. The detectors were deployed for three (3) nights, from October 28th to October 31st, 2021. The locations of the detectors are illustrated on Figure 8. Photos of the deployment areas and habitats are included on Figure 9.

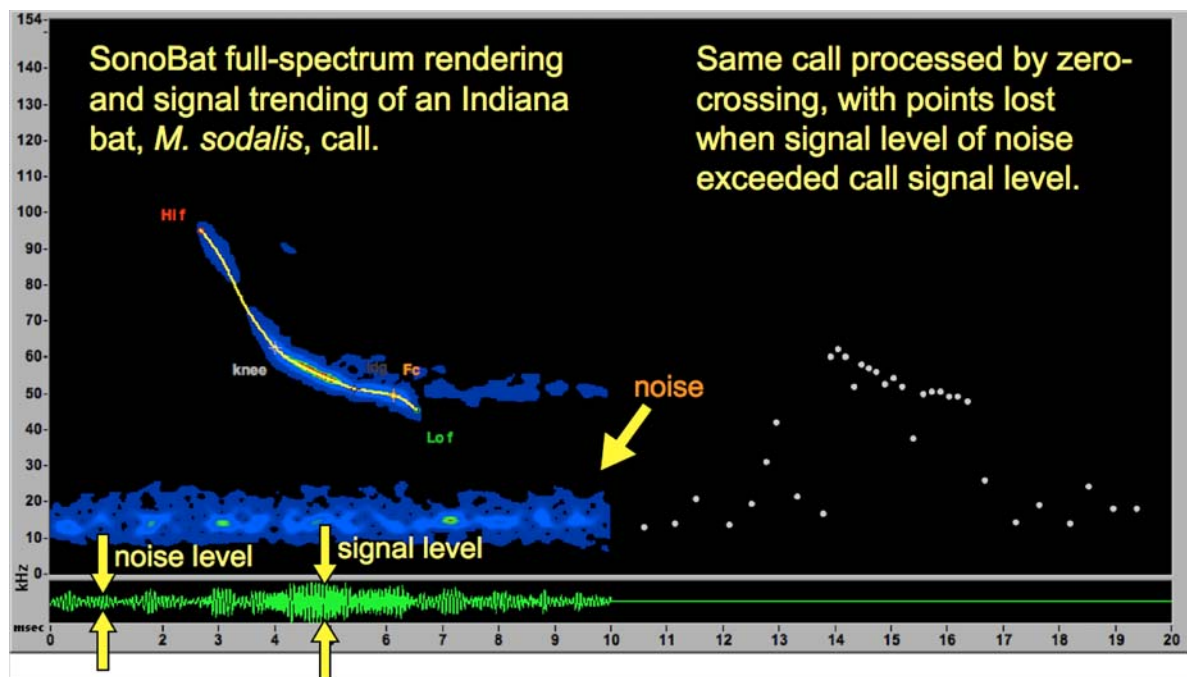
6.2.2 Data Analysis

The components of a bat echolocation call can be quite complex. Fortunately, research in this area has accumulated a sufficient database of reference calls to enable species identification from visually analysing sound files or simply converting the ultrasonic sound waves into an audible range for humans that can be listened to and compared to the reference calls for that species. Programs specifically made to analyse the frequency, duration, shape and amplitude of echolocation calls typically provide a visual representation of the call utilizing a plot of frequency versus time. More advanced programs, will utilize different components of a call and compare the measured values to known ranges for a specific species. An algorithm will then be utilized to determine the probability that the call originated from a specific species. Should the confidence level of the algorithm be satisfied, the program will automatically assign the sound file to that

species for a quick and easy way to inventory bats.

For this study, the bat detectors (described above) were collected on October 31, 2021 and the sound files were subsequently downloaded for follow-up detailed analyses (“post-processing”) utilizing SonoBat 4.4.1 North America. The SonoBat software renders high resolution “sonograms” of each call pulse to support the SonoBat intelligent call trending algorithm that utilizes classifiers to assign a species to a specific call based on several key components of an echolocation call.

Humboldt State University Bat Lab (2011) provides a general overview of the characteristics utilized by the SonoBat program to identify particular species of bat and can be used as a quick reference to visually identify good quality calls from the sonogram. These key characteristics include lowest apparent frequency ($lo f$), highest apparent frequency ($hi f$), characteristic frequency (f_c), frequency with the greatest power (f_{maxE}), call duration (dur), the slope of the upper portion or onset of call from the $hi f$ to the knee ($uppr slp$), the slope of the lower portion or body of the call from the knee to the f_c , slope at the characteristic frequency ($slp @ f_c$) and the total slope ($total slp$). A general description of the shape of the sonogram is also provided. An example sonogram output from SonoBat is provided below:



From the two (2) detectors deployed within the study area, a total of 1,116 sound files were generated for analysis. None of the sound files contained any discernable bat calls. Some files exhibited signal interference (due to ambient noise in the recorded frequency range). Signal interference is common in urban settings but less common in remote settings, such as the study area. The source of the signal interference is unknown but the

sensitivity of the microphones make them susceptible to other distant sources of high frequency (i.e., over 15 kHz) and ultrasonic (over 20 kHz) “noise”. That interference typically consists of relatively low amplitude (i.e., power) noise and does not resemble a call (as illustrated above).

A summary of the bat detector data is provided in Appendix G.

6.3 Wildlife Assessment / SAR Presence

6.3.1 Bats

Although the bat detectors described above did not detect any bats over the survey period, the data simply suggest hibernacula do not exist in proximity to these locations. The Significant Wildlife Habitat Mitigation Support Tool (SWHMiST) defines hibernaculum Significant Wildlife Habitat (SWH) as being within 200 m of the entrance to the hibernaculum for most development types. As a result, future assessments for bat hibernacula should focus on areas that are at least 200 m from the detector locations shown on Figure 8. Given the presence of shoreline development in the study area, it is also possible that some bats would utilize structures for over-winter habitat.

The SWH for bat maternity colonies typically includes the entire forested ecosite (i.e., ELC) where a maternity colony has been identified. Although not identified during this study, SWHMiST provides that any removal of the forest cover should be avoided. However, if avoidance is not possible, removal of any forest cover should be minimized and subsequently rehabilitated. Evaluation of maternity roosts would need to be completed prior to any development activities.

6.3.2 Other Mammals

No rare or significant mammal species (including bats, as described above) were identified during the site inspections for the 2021 and 2016 assessments. There are no records of any SAR mammals identified on-site as per the information provided in the NHIC query.

The Claims possess an abundance of furbearers such as Beaver, Muskrat, Coyote, Black Bear, Red Fox, etc. It is possible that trap lines for furbearing species exist within the claim group, although, no traps were observed. It is also possible that the claim areas are part of the traditional territories used by nearby First Nations for trapping or gathering.

It may be beneficial to determine whether the Claims contain any traditional trapping ties and/or determine if anyone has obtained a permit from MNDMNR to trap within the Claims.

A full list of the mammals identified on-site is presented in Appendix H.

6.3.3 Herptiles

No species of herptile were identified on-site during the most-recent assessments. It would be beneficial to include surveys in the spring season for a more accurate herptile inventory. Surveys were conducted for basking turtles, although none were observed. Given the time of year when the surveys were conducted, ORE staff did not expect to see any turtles.

The 2016 assessment had identified two (2) species of amphibian. Both species are considered common throughout Ontario. These observations included the Eastern Red-backed Salamander (*Plethodon cinereus*) and the Blue-spotted Salamander (*Ambystoma laterale*).

Although there were no SAR herptile sightings, additional surveys during spring emergence and nesting periods are recommended to confirm the presence or absence of any/all SAR. Given the reported sightings of Snapping Turtle, Blandings Turtle, Five-lined Skink and Eastern Ribbonsnake, any future development would require detailed multi-season surveys to determine presence/absence of SAR.

6.3.4 Fish and Mussel Habitat

The Open Aquatic ecosites provide the best habitat for fish. Some areas of wetland and streams will also provide marginal habitat. With the exception of watercourses connecting the lakes, many of the watercourses and drainage areas on-site did not possess any flows during our inspections, therefore, should not be considered significant habitat for fish. During the spring freshet - melt period, it is possible that the streams and drainage areas would flow sufficiently to allow fish to migrate between wetlands and open water areas, although this will vary annually.

A survey was not completed by ORE to assess for the presence of SAR fish and mussels. However, it is unlikely that any SAR fish or mussels are present as they have not been detected in the past by agencies. Regardless, further studies should be completed to determine any constraints associated with potential fisheries.

6.3.5 Vascular Plants and Lichens

Surveys were conducted for vascular plant and lichen SAR, however, none were observed. A complete list of vascular plant and lichen species identified on-site is provided in

Appendix H.

More detailed inventories should be completed to confirm presence or absence of any plant and lichen SAR.

6.3.6 Avifauna

During our inspections, a total of twenty-six (26) bird species were identified on-site, none of which were significant. Among the birds listed within the OBBA square for this site, the following species could find adequate habitat within the claim area:

- **Barn Swallow (*Threatened*)** - Adjacent properties contain structures that would be appealing for this species to nest within. In addition, there is an abundance of dead tree snags near the watercourses which could appeal to this species. ORE notes that the claim group conversion has resulted in man-made structures being within the subject claims. As a result, the probability of Barn Swallow being present on-site is now considered likely but is expected to be isolated to the shoreline of West Twin Lake, where development is prevalent.
- **Black Tern (*Special Concern*)** - There is plenty of marshy wetland habitat available on-site that would provide adequate habitat and nesting areas for Black Tern. The open aquatic areas of the lakes would also provide sufficient feeding grounds for this species. As the claim group now contains larger lakes and wetland features, the probability of Black Tern being present on-site is considered moderate to high.
- **Canada Warbler (*Special Concern*)** - The subject property provides both mixed and deciduous forests that abut waterways in the claim group that may be suitable habitat to breed and nest within. This species prefers coniferous lined creeks and rivers that flow periodically throughout the year. The probability of Canada Warbler being present on-site is considered moderate to high.
- **Chimney Swift (*Threatened*)** - Historically, this species would inhabit open cavities in standing trees. However, it has adapted over time to utilize similar habitats in urban settlements such as chimneys to nest within. There are plenty of trees with cavities available on-site, although it may be attracted to the nearby cottages in the area which are more spacious for this communal species. The probability of Chimney Swift being present on-site is now considered low to moderate given the presence of cottage development within the claim group.

- **Eastern Whip-poor-will** (*Threatened*) - The mixed forest communities in the claim group are excellent habitat for this species to breed, nest and forage within. It would utilize the tall pines to call from during the breeding bird period. This species is also known to forage for insects overtop of wetlands of which there is an abundance of lakes and wetlands on-site. The probability of Whip-poor-will being present on-site is considered high.
- **Eastern Wood-Pewee** (*Special Concern*) - The subject claims provide a large tract of deciduous forest for this species to breed within. Similar to the above, the probability of Eastern Wood-Pewee being present on-site is considered high.
- **Golden-Winged Warbler** (*Special Concern*) - The Thicket Swamp habitat is the preferred habitat of this species. The subject claims provide an abundance of this type of habitat in the transition area between the upland shores and the marshy areas. The probability of Golden-winged Warbler being present on-site is believed to be moderate.
- **Wood Thrush** (*Special Concern*) - The subject claims provide secondary succession mixed and deciduous forests for this species to breed within. The woodlands have been harvested in the past, therefore, secondary succession woodlands are present within the claim group. The probability of Wood Thrush being present on-site is considered high.

Species that possess a Special Concern designation are not regulated under the ESA. These species are protected under the Significant Wildlife Habitat (SWH) criteria for Ecoregion 5E. According to the Significant Wildlife Habitat Mitigation Support Tool (SWHMiST) the habitat of Special Concern species are not to be impacted. However, provided the mitigation measures outlined in the SWHMiST are applied (as per the type of the development listed in the SWHMiST), future resource development could potentially occur.

Species that possess a Threatened or Endangered status according to the Species at Risk Ontario (SARO) website database, receive both individual and habitat protection under the ESA. The delineated habitat, if its presence is confirmed on-site, would therefore represent a potential constraint and a SAR permit from the Ministry of Environment, Parks and Conservation would be required to potentially harm, harass or alter/destroy the habitat of the said species.

Additional assessments conducted within the breeding fauna period would be necessary to confirm or exclude the presence of any potential SAR identified within the background information.

7.0 Conclusions & Recommendations

- 7.1 In general, expansion of the claim group area resulting from the legacy claim conversion process, has resulted in additional lands available for assessment. In addition, the conversion changes have resulted in the background data suggesting that additional sensitive habitats (i.e., wetlands) and Species at Risk may be present within or in close proximity to the claim group. As a result, mapping and background information resources have been updated as part of this assessment to include the larger claim group and to update data that were previously included in our 2016 assessment report.
- 7.2 It is generally recommended that the design of any future development maintain the current drainage regime within the identified subwatersheds (i.e., Sams Lake, West Twin Lake and Oak Lake). Given the potential local significance of the wetlands within these subwatersheds, detailed studies would need to be completed to determine the potential hydrological and ecological impacts (on-site and off-site) should development in those areas be contemplated. This is relevant considering that the gabbro contact runs through these subwatersheds.
- 7.3 An acoustic survey was completed to evaluate potential hibernaculum for bats within the forested ecosites identified as part of the 2016 assessment work. No bats were detected. Notwithstanding, it cannot be ruled out that the locations where the detectors were deployed (Figure 8) contain no suitable hibernacula habitat. Future assessment of hibernacula should focus on suitable habitat that is at least 200 m from these locations.
- 7.4 While future development will necessarily result in the removal of some trees and other vegetation, it should be possible to mitigate those removals by restoring the forest and waterways elsewhere to produce an “*overall net benefit*” with respect to the lands and species. This type of mitigation should be considered at the development design stage. A progressive-type rehabilitation process that actively follows the extraction limit/works is recommended. To ensure the full scale of the impacts are realized, more detailed inspections of the proposed development area would be required prior to development.
- 7.5 No Species at Risk (SAR) were observed within the subject claims during the site inspections. However, the inspections were not conducted during the ideal time of year. As there appears to be an abundance of potentially suitable habitat on-site that could potentially contain SAR, further assessments in the appropriate seasons are recommended.

7.6 The waterways and forests that occur within the subject claims possesses fur-bearing animals that Indigenous people in the area may utilize for hunting/trapping and gathering. These groups may also obtain medicines from the woodlands and wetlands within the claims. As such, consultation with Indigenous communities should be considered prior to any proposed development within the claims.

****End of Environmental Baseline Report Update****

Respectfully Submitted,
Oakridge Environmental Limited



Rob D. West, HBSc. CSEB
Senior Environmental Scientist

Statement of Qualifications

I, Rob D. West have been practising in the fields of Environmental Sciences and Earth Sciences for more than 20 years. I have supervised the design of, collection of data for, and interpretive work involved in this study.

My educational background includes completion of an Honours Bachelor of Science degree from Laurentian University, Sudbury, Ontario, specializing in Ecology, Biology, Vertebrates/Invertebrates, Vascular/Non Vascular Plants Taxonomy, Environmental Chemistry and Environmental Geology. My expertise also includes:

- 2012 - MTO/DFO/OMNR Protocol for Protecting Fish & Fish Habitat
- 2011 - Fish Identification, Royal Ontario Museum
- 2008 - Electrofishing Techniques, Central Lake Ontario Conservation
- 2008 - Mussel Identification, Environment Canada
- 2007 - Ministry of Natural Resources - Data Sensitivity Training (NHIC)
- 2002 - Ministry of Environment - Well Technician Certification
- 2001 - Ministry of Natural Resources - Wetland Evaluation Course

I hold memberships or participate in the following:

- ESA - Member, Ecological Society of America
- CSEB - Member, Canadian Society of Environmental Biologists
- OBBA - Ontario Breeding Bird Atlasser
- PFN - Member, Peterborough Field Naturalists
- PADI - Certified Open Water Diver

It is further stated that neither Oakridge Environmental Ltd. nor its employees have any ownership interest in the subject property and that the only remuneration to be received is monetary and that the remuneration is solely related to the work completed as outlined in this report.

Rob West

Oakridge Environmental Ltd.

rob@oakridgeenvironmental.com email

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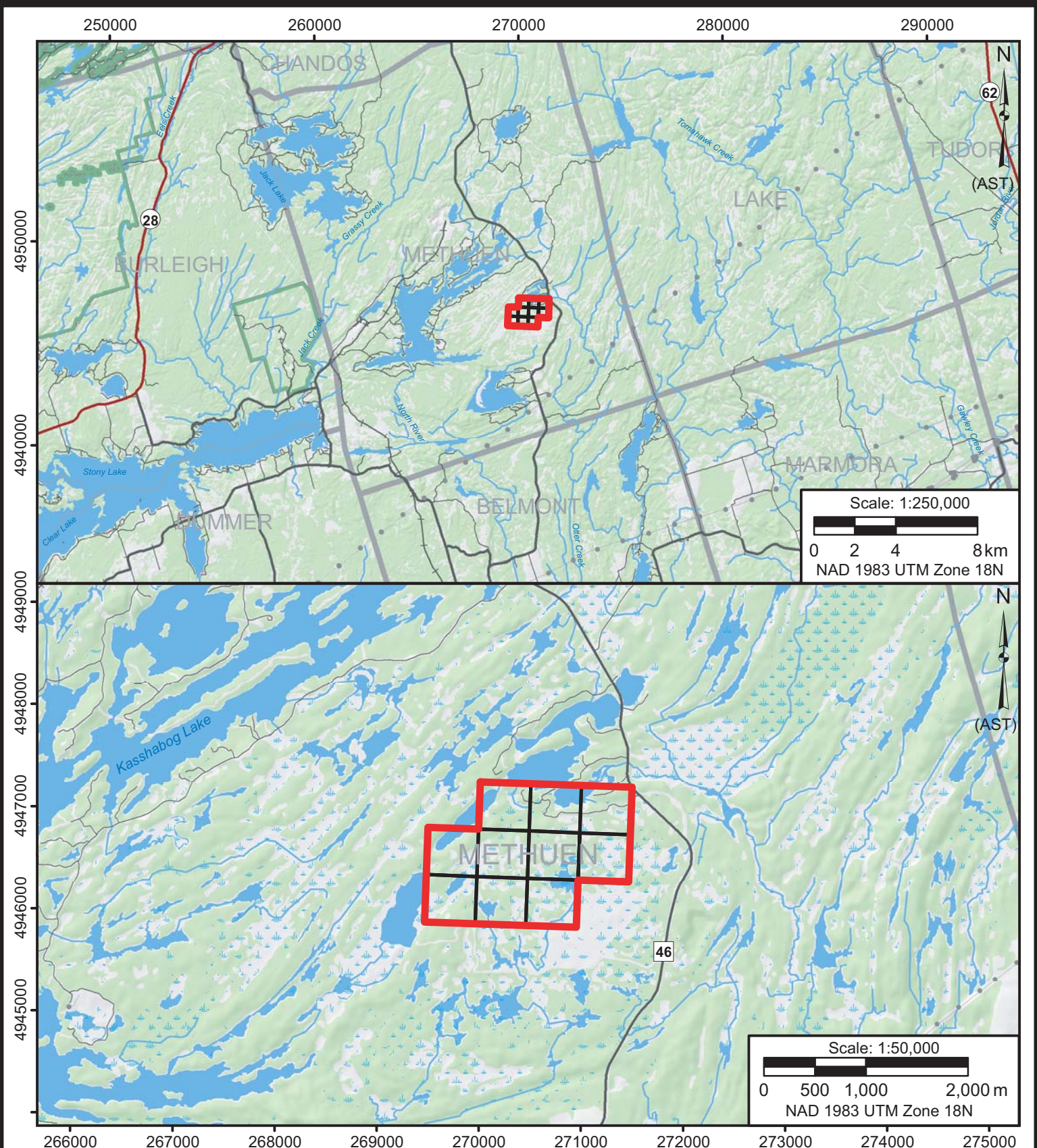
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Figures



 Claim Boundary
 East Gabbro Claim Group
 Notes: Base maps provided by Land Information Ontario and Natural Resources Canada (2021).
 Claim boundaries provided by the Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNR, 2021)
 AST - Astronomical North Arrow
 Optimized for Oakridge Environmental Ltd. printing

Environmental Baseline Study (EBS) Update
Work Performed on Claim Nos. 140706, 242100, 229938, 129222, 288534, 296627, 296626, 336902, 296628 & 129223 (East Gabbro Project)
 Part Lots 9, 10, & 11, Concessions 3, 4 & 5 (Methuen)
 Township of Havelock-Belmont-Methuen

ORE
Oakridge Environmental Ltd.
 Environmental and Hydrogeological Services

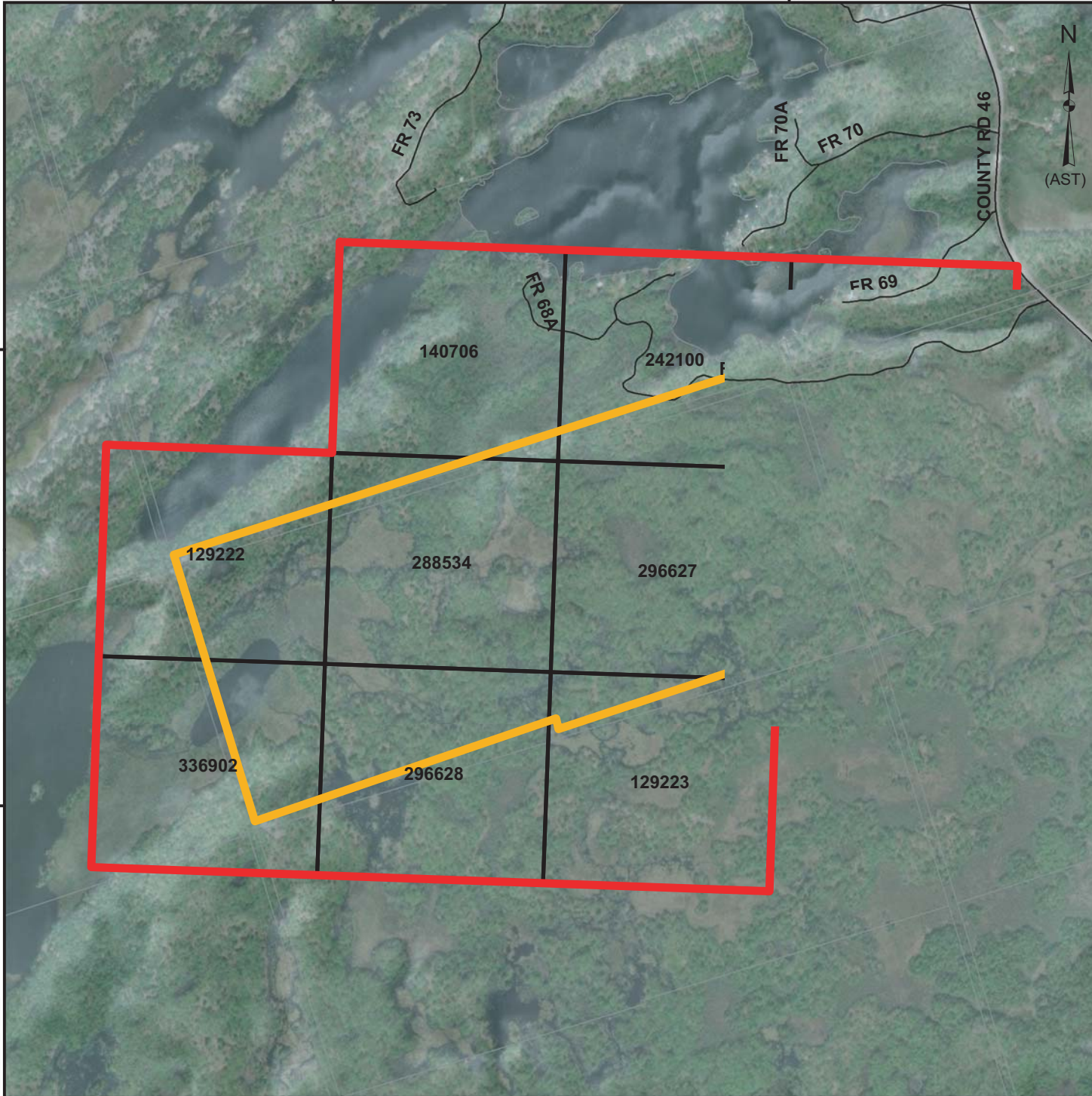
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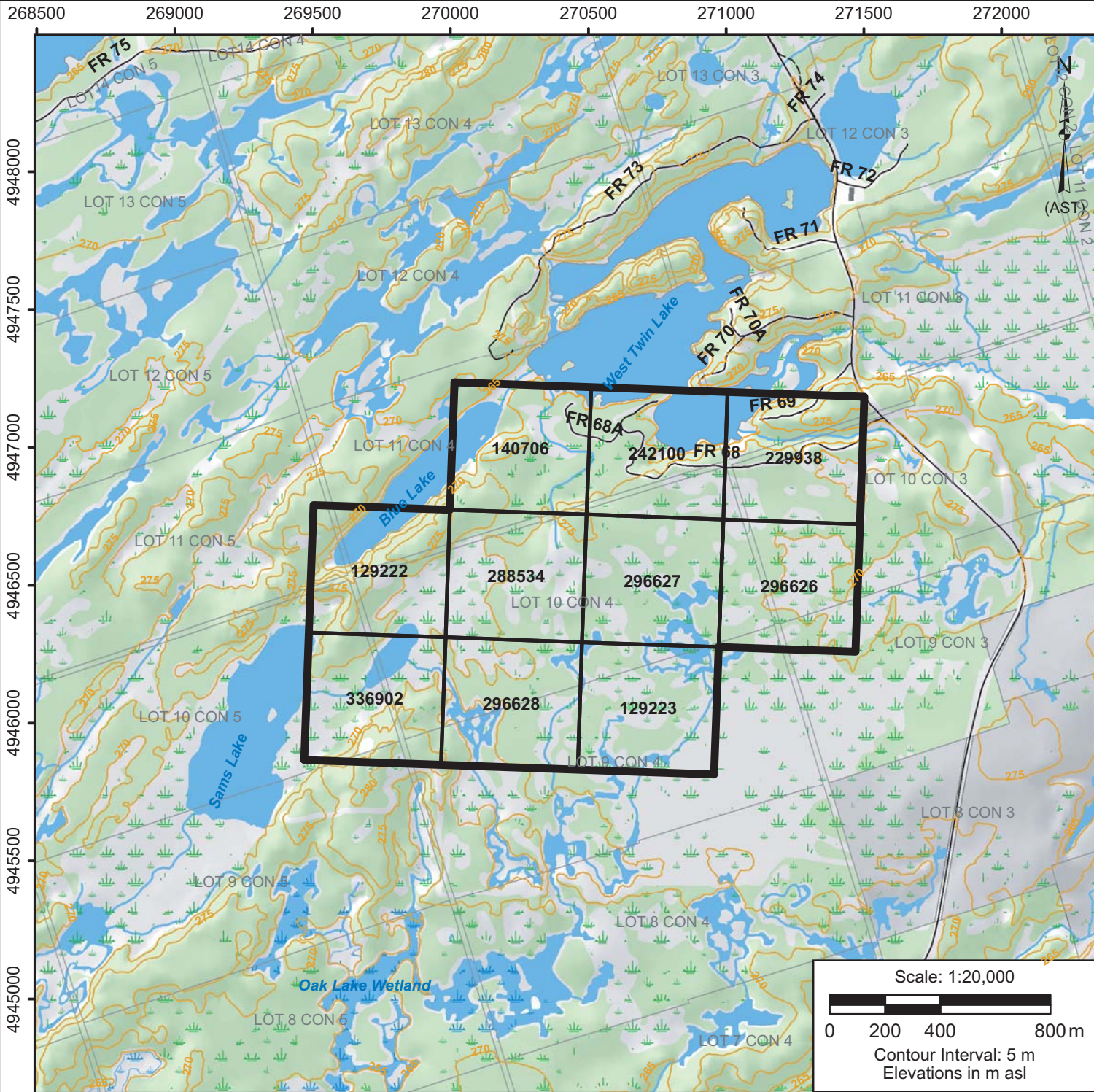
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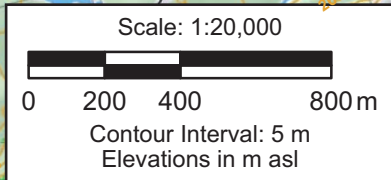
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North American Datum 1983 UTM Zone 18



**Environmental Baseline Study (EBS)
Update, Work Performed on
Claim Nos. 140706, 242100, 229938, 129222,
288534, 296627, 296626, 336902,
296628 & 129223 (East Gabbro Project)**

Part Lots 9, 10, & 11, Concessions 3, 4 & 5 (Methuen)
Township of Havelock-Belmont-Methuen

- East Gabbro Claim Group
- Claim Boundary
- Unevaluated Wetland
- Provincially Significant Wetland
- Watercourse
- Waterbody
- Wooded Area
- Spot Height
- Contour
- Building (symbol)
- Building (to scale)
- Road
- Trail
- Active Aggregate Site
- Lot Fabric

Notes: Base maps provided by Land Information Ontario (2021).

Claim boundaries provided by the Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNR, 2021)

AST - Astronomical North Arrow
Optimized for Oakridge Environmental Ltd. printing

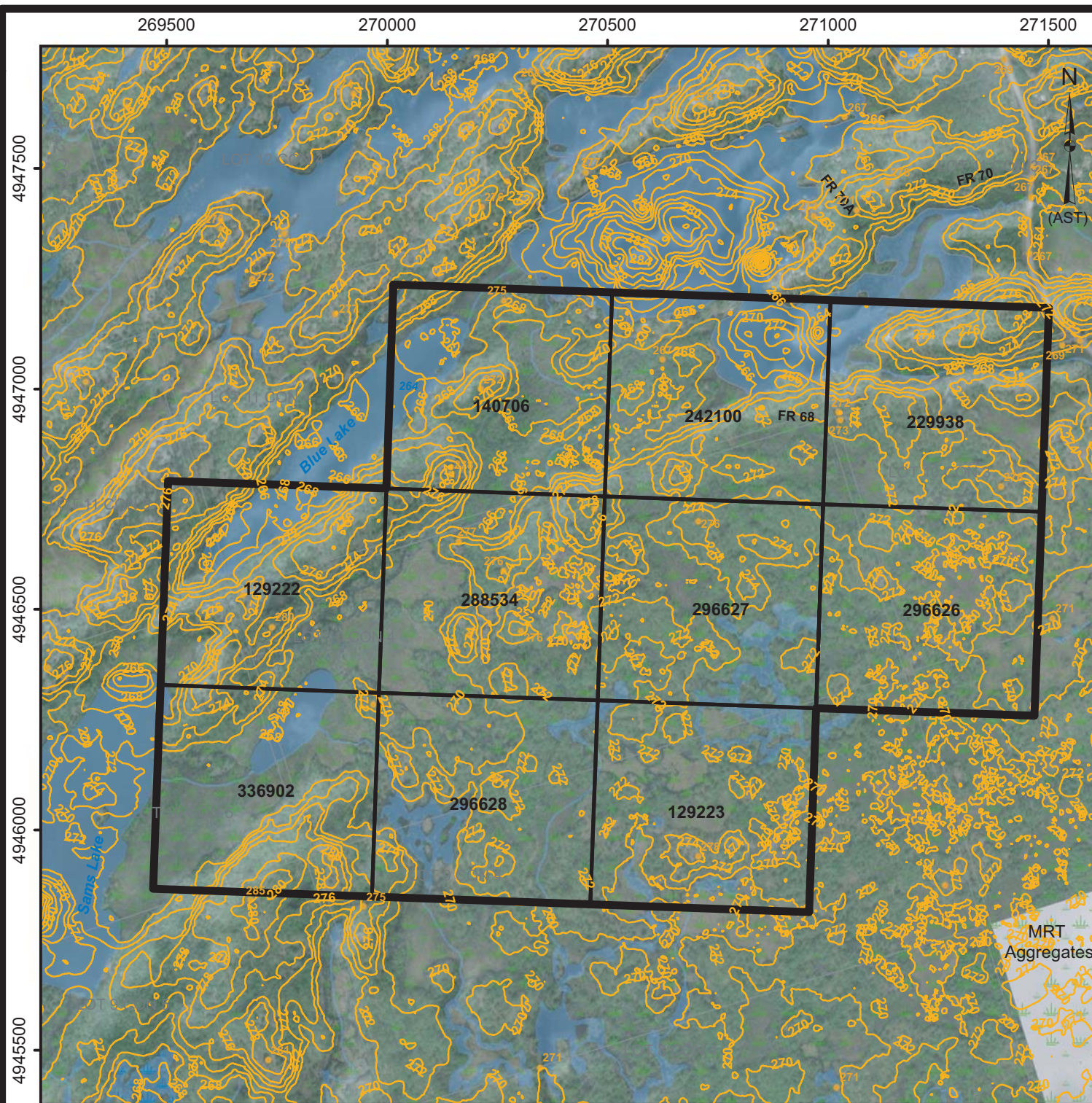
TITLE
Topography and Drainage



PROJECT #
21-3004

FIGURE NO.
3

DATE
January 2022



North American Datum 1983 UTM Zone 18

**Environmental Baseline Study (EBS)
Update, Work Performed on
Claim Nos. 140706, 242100, 229938, 129222,
288534, 296627, 296626, 336902,
296628 & 129223 (East Gabbro Project)**
Part Lots 9, 10, & 11, Concessions 3, 4 & 5 (Methuen)
Township of Havelock-Belmont-Methuen

LEGEND

- DEM Contours
- East Gabbro Claim Group
- Claim Boundary
- Unevaluated Wetland
- Provincially Significant Wetland
- Watercourse
- Waterbody
- Spot Height

Scale: 1:12,500

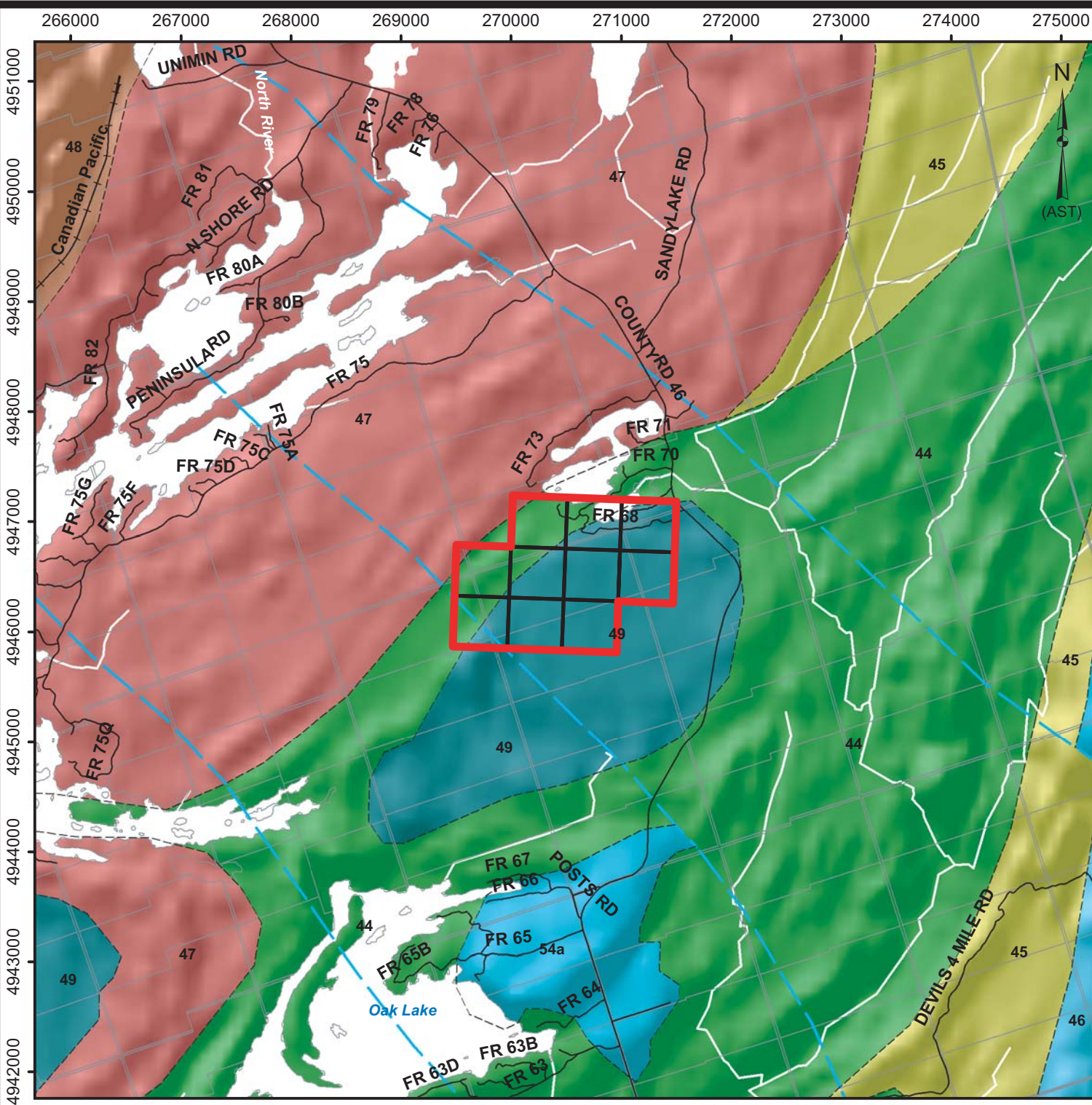
Contour Interval: 2 m
Elevations in m asl

Notes: Base maps provided by Land Information Ontario (2021).
Digital Elevation Model (DEM) contours generated from the South Central Ontario Orthophoto Project (SCOOP, 2013)
Claim boundaries provided by the Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNR, 2021)
AST - Astronomical North Arrow
Optimized for Oakridge Environmental Ltd. printing

TITLE
Digital Elevation Model








PROJECT # 21-3004	FIGURE NO. 4
DATE January 2022	



North American Datum 1983 UTM Zone 18

Environmental Baseline Study (EBS)
Update, Work Performed on
Claim Nos. 140706, 242100, 229938, 129222,
288534, 296627, 296626, 336902,
296628 & 129223 (East Gabbro Project)
 Part Lots 9, 10, & 11, Concessions 3, 4 & 5 (Methuen)
 Township of Havelock-Belmont-Methuen

-  East Gabbro Claim Group
-  Claim Boundary
-  Geological Contact
-  Fault
- 



Note
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 (MNI
 AST
 Optir

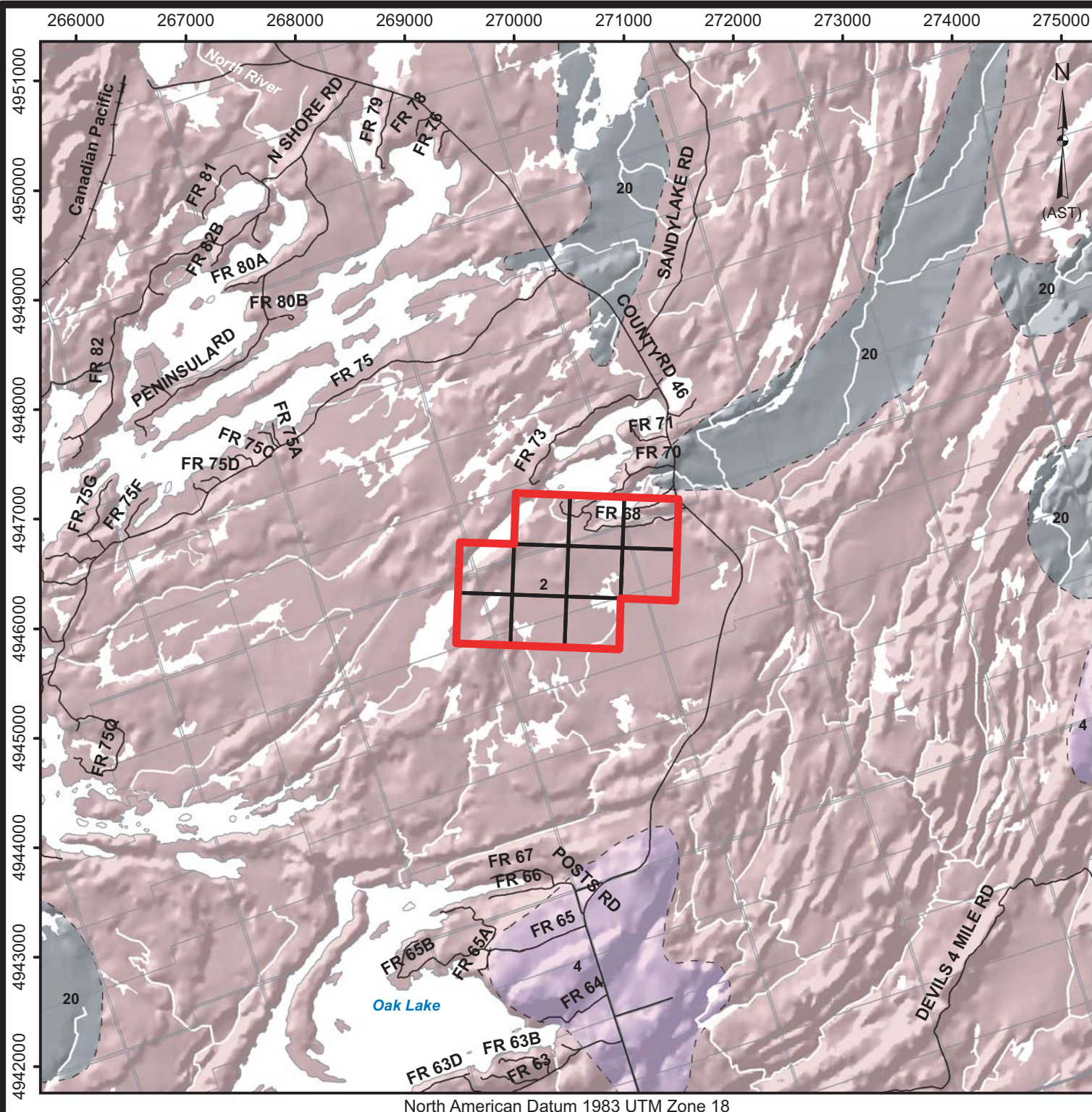
TITLE



PROJECT #

FIGURE NO.

DATE









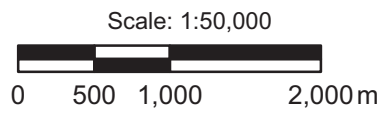
North American Datum 1983 UTM Zone 18

**Environmental Baseline Study (EBS)
Update, Work Performed on
Claim Nos. 140706, 242100, 229938, 129222,
288534, 296627, 296626, 336902,
296628 & 129223 (East Gabbro Project)**

Part Lots 9, 10, & 11, Concessions 3, 4 & 5 (Methuen)
Township of Havelock-Belmont-Methuen

LEGEND

-  Claim Boundary
-  East Gabbro Claim Group
-  Geological Contact
-  Precambrian bedrock-drift complex
-  Paleozoic bedrock-drift complex
-  Organic deposits



Notes: Base map provided by the Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNR, 2021)

AST - Astronomical North Arrow

Optimized for Oakridge Environmental Ltd. printing.

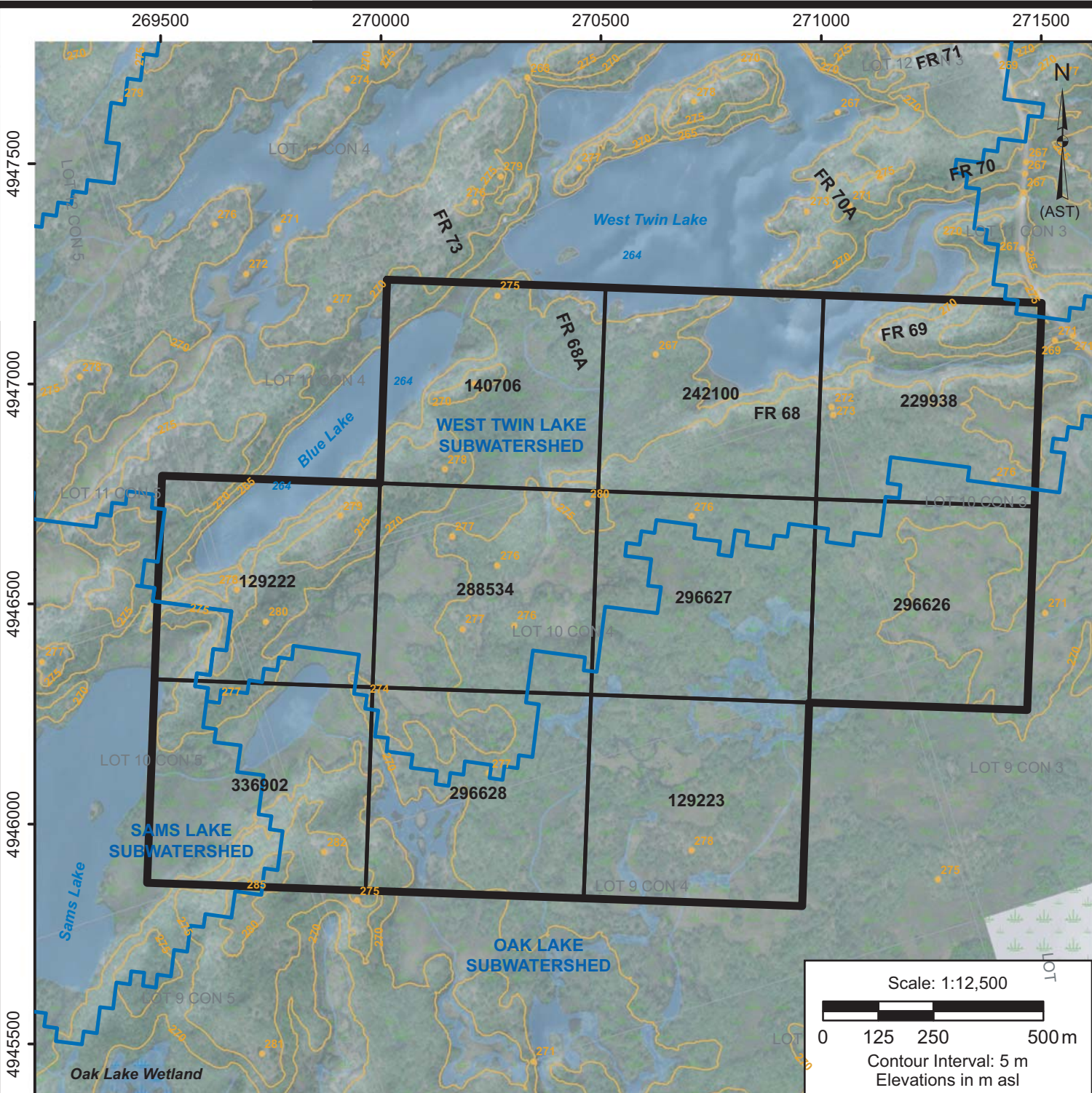
TITLE
Surficial Geology



PROJECT #
21-3004

FIGURE NO.
6

DATE
January 2022



North American Datum 1983 UTM Zone 18

**Environmental Baseline Study (EBS)
Update, Work Performed on
Claim Nos. 140706, 242100, 229938, 129222,
288534, 296627, 296626, 336902,
296628 & 129223 (East Gabbro Project)**

Part Lots 9, 10, & 11, Concessions 3, 4 & 5 (Methuen)
Township of Havelock-Belmont-Methuen

LEGEND

- Subwatershed
- East Gabbro Claim Group
- Claim Boundary
- Wetland
- Provincially Significant Wetland
- Watercourse
- Waterbody
- Spot Height
- Contour
- Active Aggregate Site
- Lot Fabric

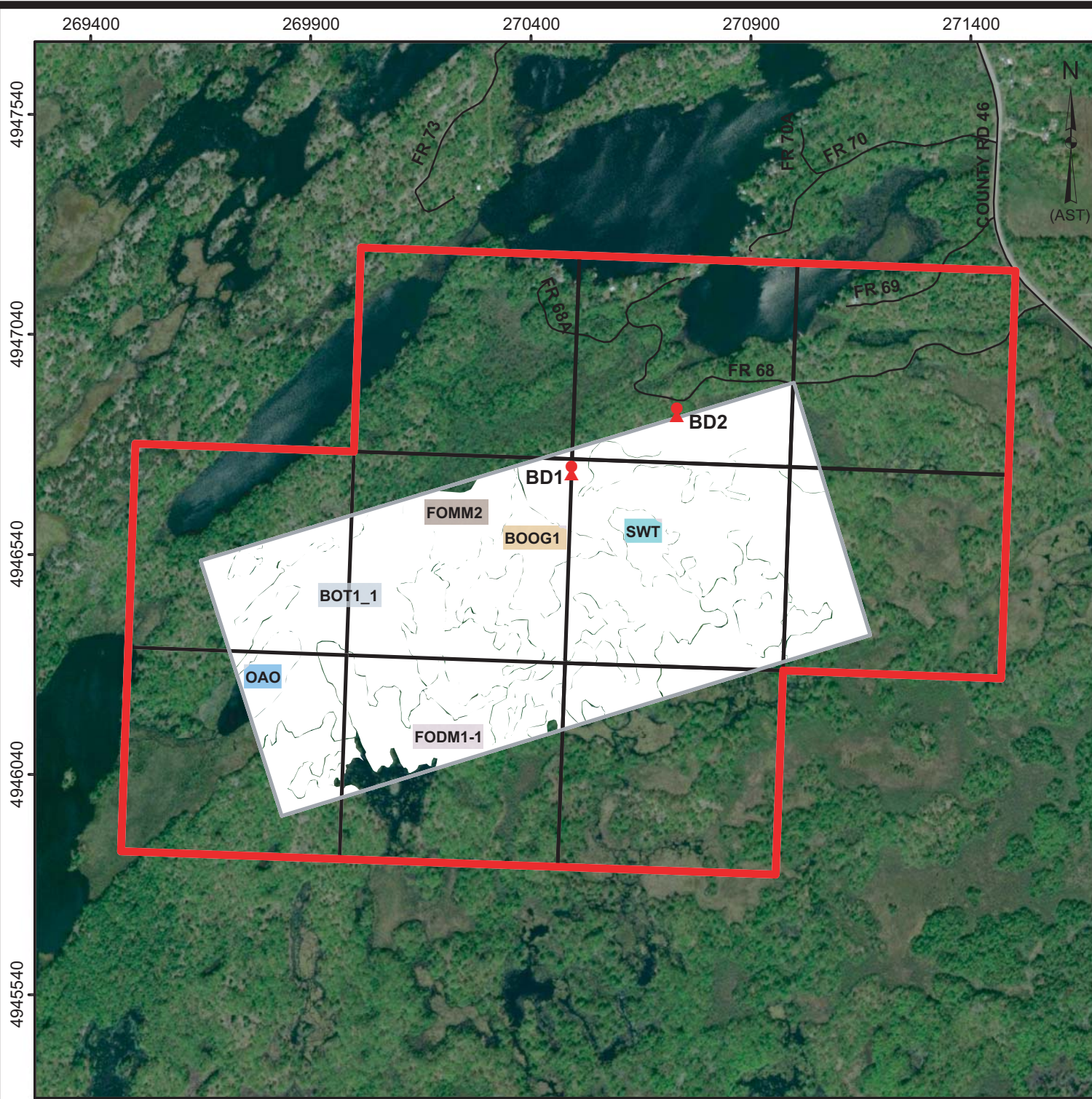
*Notes: Imagery provided by ESRI, Maxar (2016)
Base map provided by Land Information Ontario (2021)
Claim boundaries provided by the Ministry of Northern
Development, Mines, Natural Resources and Forestry
(MNDMNR, 2021)
AST - Astronomical North Arrow
Optimized for Oakridge Environmental Ltd. printing.*

TITLE
Ontario Flow Assessment Tool



PROJECT #
21-3004
DATE
January 2022

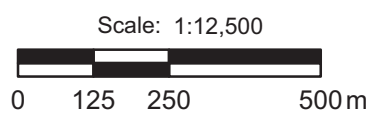
FIGURE NO.
7



**Environmental Baseline Study (EBS)
Update, Work Performed on
Claim Nos. 140706, 242100, 229938, 129222,
288534, 296627, 296626, 336902,
296628 & 129223 (East Gabbro Project)**
Part Lots 9, 10, & 11, Concessions 3, 4 & 5 (Methuen)
Township of Havelock-Belmont-Methuen

LEGEND

- East Gabbro Claim Group
- Claim Boundary
- Legacy Claim Boundary
- Red Oak Deciduous Forest (FODM1-1)
- White Pine-Hardwood Mixed Forest (FOMM2)
- Thicket Swamp-Speckled Alder Winterberry (SWT)
- Black Spruce Bog (BOT1_1)
- Graminoid Open Bog (BOOG1)
- Open Water (OAO)
- Acoustic (Bat) Detector Location



Notes: Imagery provided by ESRI, Maxar (2016)
Claim boundaries provided by the Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNR, 2021)
Feature locations determined by mapping-grade differential GPS (+/- 1.5 m)
AST - Astronomical North Arrow
Optimized for Oakridge Environmental Ltd. printing.

TITLE
Vegetation Plan



PROJECT #
21-3004
DATE
January 2022

FIGURE NO.
8



Photo A (left): Potential hibernacula along bedrock ridge targeted with Bat Detector #1 (BD1) within Red Oak Deciduous Forest (FODM1_1)

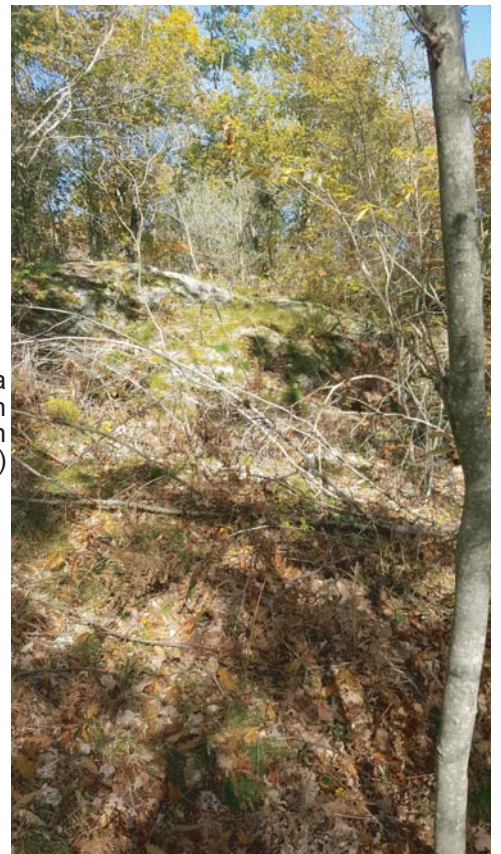


Photo B (right): Potential hibernacula along bedrock ridge targeted with Bat Detector #2 (BD2) within Red Oak Deciduous Forest (FODM1_1)



Photo C (left): Access to claims using ATV trails

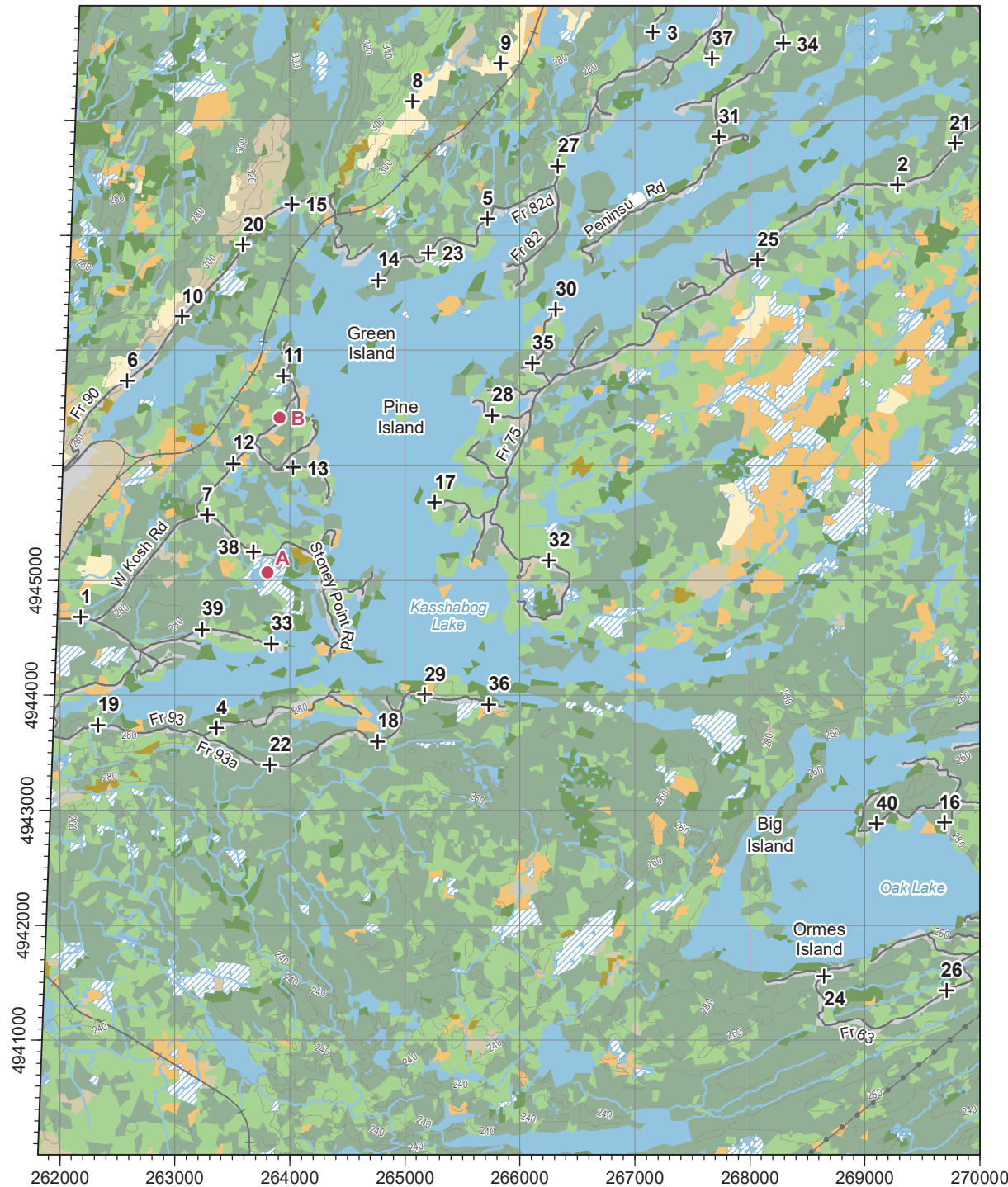


Photo D (right): Exposed gabbro outcrop



Appendix A

OBBA Data



POINT +	EASTING UTM Est	NORTHING UTM Nord
1	262180	4944678
2	269285	4948438
3	267156	4949764
4	263362	4943714
5	265716	4948144
6	262583	4946734
7	263281	4945565
8	265065	4949163
9	265831	4949493
10	263063	4947293
11	263943	4946777
12	263509	4946013
13	264029	4945979
14	264766	4947609
15	264016	4948270
16	269693	4942892
17	265257	4945677
18	264763	4943597
19	262329	4943740
20	263591	4947918
21	269785	4948800
22	263827	4943391
23	265205	4947848
24	268643	4941558
25	268067	4947785
26	269712	4941433
27	266331	4948600
28	265759	4946432
29	265171	4944005
30	266312	4947355
31	267731	4948856
32	266249	4945170
33	263837	4944447
34	268289	4949668
35	266108	4946886
36	265729	4943918
37	267670	4949536
38	263684	4945243
39	263235	4944571
40	269099	4942882

Legend	Légende
Expressway or highway	Autoroute ou route nationale (asphaltée)
Regional or local road	Route régionale ou locale (asphaltée ou non)
Resource / Recreation	Ressource / route récréative
Rail line	Chemin de fer
Utility corridor	Ligne de transport d'énergie
Watercourse	Rivière ou ruisseau
Protected or conserved area	Zone protégée ou conservée
Fire disturbance since 2000	Incendie perturbé depuis 2000
Broadleaf forest	Forêt de feuillus
Coniferous forest	Forêt de conifères
Mixed forest	Forêt mixte
Shrubland	Milieu arbustif
Grassland	Prairie
Barren	Dénuqué
Wetland	Milieu humide
Agriculture	Milieu agricole
Water	Eau
Developed area	Zone développée
Unclassified	Non classifié

The approximate percent coverage of each habitat type is indicated by the numbered box in the legend.

La couverture approximative est indiquée en pourcentage dans le rectangle coloré de la légende.

Cartographic production by Birds Canada
Production cartographique par oiseaux Canada

Note: The project partners are in no way responsible for any inaccuracies, mistakes or omissions in the information that appears on this map.

Avis : Les responsables du projet d'atlas ne peuvent être tenus responsables de toute inexactitude, erreur ou omission concernant les informations apparaissant sur cette carte.

6° Universal Transverse Mercator (UTM) Projection; Zone 18, Central Meridian -75°; North American Datum 1983 (NAD 83)

Projection universelle transverse de Mercator (UTM) 6° Zone 18, méridien central -75°; Système de référence géodésique nord-américain 1983 (NAD 83)



March 2021 / mars 2021

<https://www.birdsontario.org/>

**Number of off-road point counts
Nombre de points d'écoute hors route**

Broadleaf forest:	2	Grassland:	0
Coniferous forest:	0	Wetland:	0
Mixed forest:	3	Shrubland:	0

**Predefined / Prédéterminés: 20
Off-road / Hors route: 5**

Atlas-2 off-road point Point hors route Atlas-2



0 1 km



Square Summar Q64) [change]

	#species	#h urs	#pc d ne
	p ss	pr b	c n f t tal
	t tal	peak	r ad o ffrd
Curr.	13	0	0 13 0.6 0.3 0 0 o
Prev.	34	26	35 95 42.2 — 32

Reg summar # 6:

Peterborough, ON)				
#squares	#sq with data	#species	#squares pc)	target c mpl. o
60	57	181	60	5
60	60	185	0	60

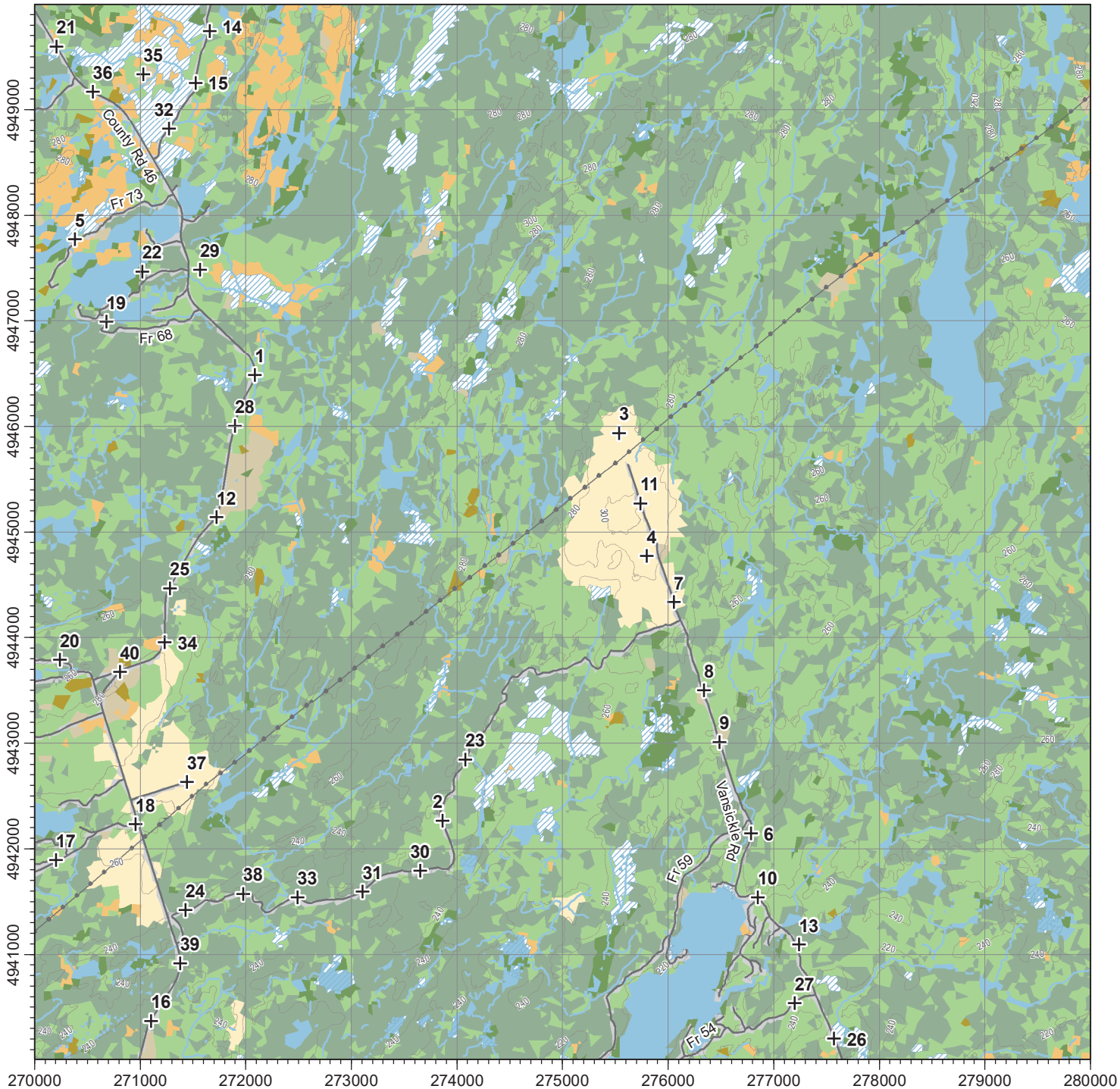
target number f p int c unts in this square: 25 in total: 20 road side, 5 off road (Broadleaf Forest in 2, Mixed Forest in 3). Please try to ensure that each off-road station is located such that the entire 100m radius circle is within the prescribed habitat.

SPECIES	Prev.	C de %	SPECIES	Prev.	C de %	SPECIES	Prev.	C de %	
<u>Canada Goose</u>	FY		71	American Coot ‡ o		1	Northern Saw-whet Owl		1 o
Mute Swan ‡ o			3	Sandhill Crane ‡ o		22	<u>Belted Kingfisher</u>	A	78
Trumpeter Swan o			19o	Killdeer § o	A o	47	<u>Yell w-bellied Sapsucker o</u>	A o S	89 o
<u>Wood Duck</u>	FYoo		71o	<u>Upland Sandpiper †</u>	o	7	<u>Red-headed Woodpecker †</u>		5
<u>Blue-winged Teal ‡ o</u>			8	<u>American Woodcock</u>	H o	40	<u>Red-bellied Woodpecker</u>		33
<u>Northern Shoveler ‡ o</u>			0	<u>Wilson's Snipe</u>	V o	40o	<u>Black-backed Woodpecker ‡ o</u>	o	1
<u>Gadwall ‡ o</u>			0	<u>Spotted Sandpiper</u>	P o	31	<u>Down Woodpecker o</u>	FYoo S o	71
<u>American Wigeon ‡</u>	o		0	<u>Ring-billed Gull ‡ ‡ o</u>	H o	1	<u>Hairy Woodpecker o</u>	NYoo o	78o
<u>Mallard o</u>	FYoo o		68o	<u>Herring Gull §</u>	NYoo o	19oo	<u>Pileated Woodpecker</u>	T o S o	78o
<u>American Black Duck</u>	H o		3	<u>Caspian Tern ‡ o</u>		0	<u>Northern Flicker o</u>	T o	78
<u>Northern Pintail ‡ o</u>			0	<u>Black Tern † o</u>		1	<u>American Kestrel §</u>		40
<u>Green-winged Teal ‡ o</u>			0	<u>Common Tern § ‡ o</u>		0	<u>Merlin o</u>	P	31
<u>Redhead † o</u>			0	<u>Common Loon</u>	FYoo	61o	<u>Peregrine Falcon ‡ o</u>		0
<u>Ring-necked Duck</u>			19oo	<u>Double-crested Cormorant ‡ ‡ o</u>		3	<u>Olive-sided Flycatcher ‡ o</u>	o	7
<u>Lesser Scaup ‡ o</u>	o		0	<u>American Bittern</u>	o	38	<u>Eastern Wood Pewee § o</u>	S o	78o
<u>Hooded Merganser o</u>	H o		45oo	<u>Least Bittern † o</u>	AYoo o	22oo	<u>Yellow-bellied Flycatcher †</u>	P o o	0
<u>Common Merganser ‡ o</u>	H o		21o	<u>Great Blue Heron § o</u>	NYoo	50o	<u>Alder Flycatcher</u>	S o	78
<u>Ruddy Duck ‡</u>			0	<u>Green Heron §</u>	o	36	<u>Willow Flycatcher</u>	o	31
<u>Wild Turkey</u>			66oo	<u>Turkey Vulture</u>	P o	71o	<u>Least Flycatcher o</u>	S o o	68o
<u>Ruffed Grouse</u>	S o S o		73o	<u>Osprey o</u>	AYoo	47oo	<u>Eastern Phoebe</u>	NYoo	84o
<u>Ring-necked Pheasant ‡ o</u>			0	<u>Northern Oriole</u>		22o	<u>Great Crested Flycatcher</u>	FY H o	82o
<u>Pied-billed Grebe</u>	S o		7	<u>Sharp-shinned Hawk</u>		7	<u>Eastern Kingbird o</u>	FYoo	77
<u>Rock Pigeon (Feral Pigeon) o</u>	o		40o	<u>Cooper's Hawk o</u>	o o	14o	<u>Yellowthroated Vireo o</u>	o	22
<u>Mourning Dove</u>	P o		71o	<u>Northern Goshawk ‡ o</u>	NYoo	1	<u>Blue-headed Vireo</u>		45o
<u>Yellow-billed Cuckoo</u>	o		45o	<u>Bald Eagle ‡ o</u>		5	<u>Philadelphia Vireo ‡</u>	o	0
<u>Black-billed Cuckoo</u>	S o		66oo	<u>Red-shouldered Hawk</u>	o	17o	<u>Warbling Vireo o</u>	S o	57
<u>Common Nighthawk §</u>	P o		21o	<u>Broad-winged Hawk</u>	P o	63o	<u>Red-eyed Viree</u>	Y o S o	92
<u>Eastern Whip-poor-will § o</u>	T o		33	<u>Red-tailed Hawk</u>	H o	42o	<u>Loggerhead Shrike †</u>		0
<u>Chimney Swift ‡</u>	o o		7	<u>Eastern Screech-Owl</u>	o o	8	<u>Canada Jay ‡</u>	o	0
<u>Ruby-throated Hummingbird o</u>	FYoo		56oo	<u>Great Horned Owl ‡ o</u>	H	14o	<u>Blue Jay o</u>	P o	94
<u>Virginia Rail</u>	A o		43o	<u>Barn Owl o</u>	H o	33	<u>American Crow o</u>	CF	84o
<u>Scaup</u>			14	<u>Long-eared Owl ‡ o</u>		3	<u>Common Raven</u>	D o o	91
<u>Common Gallinule ‡ o</u>	o o		10oo	<u>Short-eared Owl † o</u>	o o	0	<u>Black-capped Chickadee o</u>	CFo S o	98

Breeding Bird - Summary Shee for Squ re 18TTQ64 (ge 2 of 2

SPECIES	Prev.	Code	%	SPECIES	Prev.	Code	%	SPECIES	Prev.	Code	%
Bore Chick dee ‡)			0	<u>Purpe Finch</u>	FY		73	Hooded Warber ‡)			0
Horned L rk ‡)			5	Red Cro bi ‡)			5	<u>meric n Red) r</u>			82
Nor hern Rough-winged Sw ow	H		15	Whi e-winged Cro bi ‡)			3	C pe May Warber ‡)			0
Purpe Mar in ‡)			0	Pine Si kin ‡)			5	Ceru e n Warber †			3
<u>Tree Sw ow</u>)	P		59	<u>meric n Go dfinch</u>	P		78	Nor hern P ru ‡ )	)		10
B nk Sw ow § )	)		10	Gr hopper Sp rrow § )	)	)	21	<u>Magno i Warber</u>	S	)	57
<u>B rn Sw ow</u> §)	NU	)	63	<u>Chipping Sp rrow</u>)	FY	)	82	B y-bre ed Warber ‡)			0
C iff Sw ow §			14	C y-co ored Sp rrow ‡)			15	B ckburni n Warber)			35
Ruby-crowned King e ‡)			0	<u>Fie d Sp rrow</u> §)	S		57	<u>Ye ow Warber</u>	FY		78
Go den-crowned King e)			19	D rk-eyed Junco ‡)	S		3	<u>Che nu - ided Warber A</u>			73
<u>Red-bre ed Nu h ch</u>)	FY		82	<u>Whi e- hro ed Sp rrow</u>)	S		80	B ck- hro ed B ue Warber	S		40
White-breasted Nuthatch)	P	S	73	Ve per Sp rrow )	)	)	19	<u>Pine Warber</u>	FY	)	82
Brown Creeper	S		42	<u>S v nn h Sp rrow</u>)			52	<u>Ye ow-rumped Warber</u>	FY		64
B ue-gr y Gn c cher ‡)			3	Song Sparrow A)	E	S	96	Pr irie Warber †	NE		0
<u>Hou e Wren</u>	S		59	Linco n' Sp rrow ‡)			5	<u>B ck- hro ed Green Warber)</u>	CF	)	68
<u>Win er Wren</u>)			77	<u>Sw mp Sp rrow</u>)	CF	)	87	C n d Warber §			40
Sedge Wren ‡)			8	E ern Towhee §)	S		43	<u>Sc re T n ger</u>)	S		75
Mar h Wren)	S		40	Bobo ink §			45	Nor hern C rdin)			42
C ro in Wren ‡)			5	<u>E ern Me dow rk</u> § )	)	)	50	<u>Ro e-bre ed Gro be k</u>)	P	)	82
<u>Europe n S ring</u> )	)		70	Orch rd Orio e ‡ )	)		3	Indigo Bunting)	FY	S	73
<u>Gr y C bird</u>	T		73	<u>B imore Orio e</u>	S		64				
<u>Brown Thr her</u>)	H		61	Red-winged Blackbird A)	E	S	94				
Nor hern Mockingbird ‡			1	Brown- he ded Cowbird)	S		47				
E ern B uebird)			40	<u>Common Gr cke</u>)	CF	)	92				
Veery)	CF	S	89	<u>Ovenbird A</u>)			87				
Sw in on' Thru h			7	<u>Nor hern Wa er hru h</u>)	S	)	73				
<u>Hermi Thru h</u>)	S	)	57	Go den-winged Warber †)			14				
<u>Wood Thru h</u> §)			66	B ue-winged Warber ‡			8				
American Robin)	CF	S	98	<u>B ck- nd-whi e Warber</u>)	S	)	80				
<u>Ced r Waxwing</u>)	P		66	Tenne ee Warber ‡			0				
Hou e Sp rrow )	)		33	<u>N hvi e Warber</u>)	H		73				
Evening Gro be k ‡)	S		0	<u>Mourning Warber</u> )	)	)	50				
Hou e Finch)			15	<u>Common Ye ow hro</u>	E	)	89				

This include breeding specie expected in the region #16 (Pe erborough . Underlined specie re ho e h you hou d ry o dd o hi qu re (18TTQ64 . They h ve no ye bepn repor ed in hi qu re, bu h ve been repor ed in more h n 50% of he qu re in hi region o f r. "Prev." i he code for he high breeding evidence for h specie in qu re 18TTQ64 in he previ . "Code" i he code for he high breeding evidence for h specie in qu re 18TTQ64 over he 5 ye r . The % co umn give he percen ge of qu re in h region where h specie w repor ed (hi give n ide of he expect ch nce of finding h specie in region #16 . R re/Co oni Specie Repor Form s hou d be comp eed for specie marked: § (Specie of in ere , ‡ (region y r re , † (provinci y r re . n up- o- d e ver ion of hi hee i v i be from [h_p :/www.bird.c.n.d.org/h_urecoun / / ummaryform.j_p?](http://www.bird.c.n.d.org/h_urecoun / / ummaryform.j_p?))
 _qu relD=18TTQ64& ng=EN D curren of 4/01/2022 07:16.



POINT	EASTING UTM Est	NORTHING UTM Nord
1	272085	4946486
2	273865	4942263
3	275536	4945935
4	275798	4944771
5	270382	4947771
6	276783	4942147
7	276055	4944335
8	276340	4943501
9	276488	4943010
10	276847	4941540
11	275736	4945271
12	271721	4945138
13	277238	4941091
14	271658	4949743
15	271525	4949252
16	271100	4940369
17	270204	4941892
18	270956	4942232
19	270680	4946991
20	270241	4943789
21	270208	4949598
22	271019	4947466
23	274081	4942843
24	271430	4941418
25	271280	4944465
26	277572	4940200
27	277198	4940536
28	271897	4946003
29	271567	4947483
30	273653	4941792
31	273107	4941592
32	271273	4948818
33	272489	4941539
34	271232	4943954
35	271027	4949332
36	270552	4949170
37	271441	4942633
38	271975	4941573
39	271380	4940915
40	270810	4943673

Legend	Légende
Expressway or highway	Autoroute ou route nationale (asphaltée)
Regional or local road	Route régionale ou locale (asphaltée ou non)
Resource / Recreation	Ressource / route récréative
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Utility corridor	Ligne de transport d'énergie
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Fire disturbance since 2000	Incendie perturbé depuis 2000
Broadleaf forest	Forêt de feuillus
Coniferous forest	Forêt de conifères
Mixed forest	Forêt mixte
Shrubland	Milieu arbustif
Grassland	Prairie
Barren	Dénudé
Wetland	Milieu humide
Agriculture	Milieu agricole
Water	Eau
Developed area	Zone développée
Unclassified	Non classifié

**Number of off-road point counts
Nombre de points d'écoute hors route**

Broadleaf forest:	2	Grassland:	0
Coniferous forest:	0	Wetland:	0
Mixed forest:	3	Shrubland:	0

**Predefined / Prédéterminés: 20
Off-road / Hors route: 5**

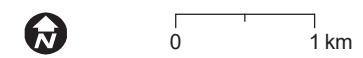
Atlas-2 off-road point Point hors route Atlas-2

The approximate percent coverage of each habitat type is indicated by the numbered box in the legend.
La couverture approximative est indiquée en pourcentage dans le rectangle coloré de la légende.

Cartographic production by Birds Canada
Production cartographique par oiseaux Canada

Note: The project partners are in no way responsible for any inaccuracies, mistakes or omissions in the information that appears on this map.
Avis : Les responsables du projet d'atlas ne peuvent être tenus responsables de toute inexactitude, erreur ou omission concernant les informations apparaissant sur cette carte.

6° Universal Transverse Mercator (UTM) Projection; Zone 18, Central Meridian -75°; North American Datum 1983 (NAD 83)
Projection universelle transverse de Mercator (UTM) 6° Zone 18, méridien central -75°; Système de référence géodésique nord-américain 1983 (NAD 83)





Square Summar

Q74) [\[change\]](#)

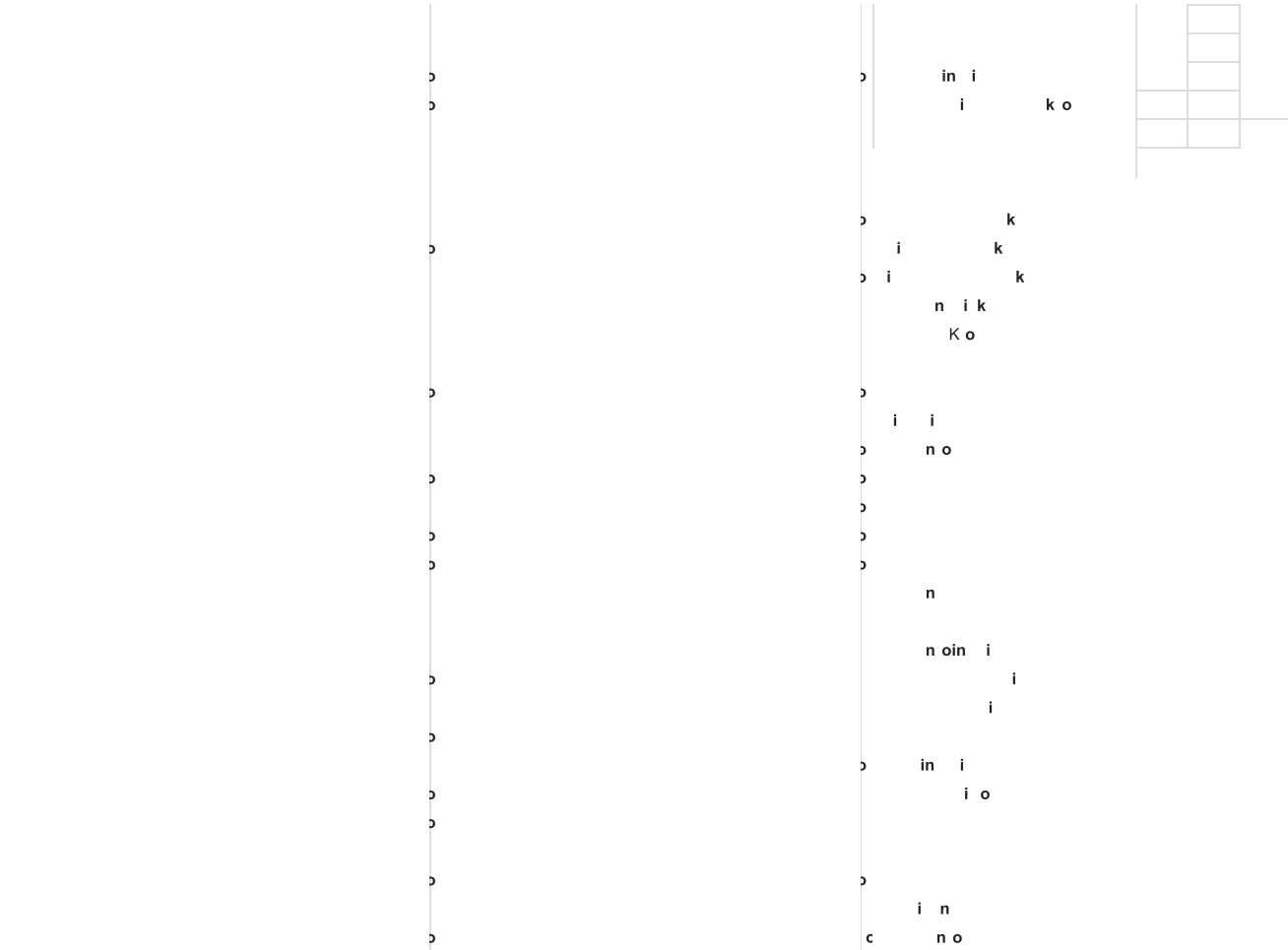
	#species				#h urs	#pc d ne		
	p ss	pr b	c nf	t tal	t tal	peak	r ad	o ffrd
Curr.	24	32	47	103	42.5	34.7	0	0 o
Prev.	38	43	49	130	135.7	—	33	

Reg summar # 6:

Peterborough, ON)

#squares	#sq with data	#species	#squares pc)	target c mpl. o
60	57	181	60	5
60	60	185	0	60

arget number f p int c unts 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. c mpleted:** [09, 10]



SPECIES	Prev.	Code	%	SPECIES	Prev.	Code	%	SPECIES	Prev.	Code	%
Black-capped Chickadee	CF	FY	98	Hou e Finch			15	Common Yellowthroat	CF	CF	89
Bore Chick dee ‡)			0	Purple Finch	T	T	73	Hooded Warb er ‡)			0
Horned L rk ‡)			5	Red Cro bi ‡)			5	American Redstart	T	T	82
Nor hern Rough-winged Sw ow A	E		15	Whi e-winged Cro bi ‡ )	)		3	C pe May W rber ‡)			0
Purp e Mar in ‡)	S		0	Pine Si kin ‡)	H		5	Ceru e n Warb er †)			3
Tree Swallow A	E	FY	59	American Goldfinch	FY	P	78	Nor hern P ru ‡)			10
B nk Sw ow §)			10	Gr hopper Sp rrow §)	T		21	Magnolia Warbler)	S	S	57
Barn Swallow § A)	E A	E	63	Chipping Sparrow)	CF	CF	82	B y-bre ed W rber ‡ )	)		0
Cliff Swallow §	P	FY	14	C y-co ored Sp rrow ‡)	S		15	B ckburni n Warber	T		35
Ruby-crowned King e ‡ )	)		0	Field Sparrow §)	CF)	T	57	Yellow Warbler)	FY	T	78
Go den-crowned King e)			19	D rk-eyed Junco ‡)			3	Chestnut-sided Warbler)	FY	T	73
Red-breasted Nuthatch)	T	T	82	White-throated Sparrow)	FY)	T	80	B ck-hro ed B ue Warber)	T		40
White-breasted Nuthatch)	T)	T	73	Ve per Sp rrow	S		19	Pine Warbler)	T	FY	82
Brown Creeper)	S	CF	42	Savannah Sparrow)	S	S	52	Yellow-rumped Warbler)	CF	T	64
B ue-gr y Gn c cher ‡)			3	Song Sparrow	CF)	FS	96	Pr irie Warb er †)			0
House Wren	FY A)	E	59	Lincoln's Sparrow ‡)		S	5	Black-throated Green Warbler	T	T	68
Winter Wren)	T	T	77	Swamp Sparrow	FY)	FY	87	Canada Warbler §)	S	S	40
Sedge Wren ‡)	S)		8	Eastern Towhee §)	T	FY	43	Scarlet Tanager)	S	CF	75
Mar h Wren A)			40	Bobolink §)	T	T	45	Northern Cardinal)	P	H	42
C ro in Wren ‡)			5	Eastern Meadowlark §)	FY	FY	50	Rose-breasted Grosbeak	CF	CF	82
European Starling)	CF	FY	70	Orch rd Orio e ‡)			3	Indigo Bunting)	T	FY	73
Gray Catbird A)		T	73	Baltimore Oriole	T	T	64				
Brown Thrasher)	T)	FY	61	Red-winged Blackbird	FY	CF	94				
Nor hern Mockingbird ‡)			1	Brown-headed Cowbird)	FY	H	47				
Eastern Bluebird	CF	FY	40	Common Grackle)	CF	FY	92				
Veery)	T	FY	89	Ovenbird)	T)	T	87				
Sw in on' Thru h)	S		7	Northern Waterthrush)	T	CF	73				
Hermit Thrush	CF)	T	57	Go den-winged Warb er †)	T		14				
Wood Thrush §)	T	T	66	B ue-winged Warb er ‡)			8				
American Robin)	NE)	CF	98	Black-and-white Warbler	T	FY	80				
Cedar Waxwing)	P	H	66	Tenne ee Warb er ‡)			0				
House Sparrow)	FY	FY	33	Nashville rbler)	FY	T	73				
Even ng Gro be k ‡)	T		0	Mourning Warbler)	S	S	50				

This include breeding specie expected in the region #16 (Pe erborough . Under ined specie re ho e h you hou d ry o dd o hi qu re (18TTQ74 .) They h ve no ye been repor ed in hi qu re, bu h ve been repor ed in more h n 50% of he qu re in hi region o f r. "Prev." i he code for he highe breeding evidence for h specie in qu re 18TTQ74 in he previ . "Code" i he code for he highe breeding evidence for h specie in qu re 18TTQ74 over he 5 ye r . The % co umn give he percen ge of qu re in h region where h specie w repor ed (hi give n ide of he expect ed ch nce of finding h specie in region #16 . R re/Co oni Specie Repor Form s hou d be comp eed for specie marked: § (Specie of in ere , ‡ (region y r re , † (provinci y r re . n up- o-d e ver ion of hi hee i v i be from http://www.bird.c.n.d.org/h_urecoun / / ummaryform.j_p?_qu_relD=18TTQ74&_ng=EN D curren of 4/01/2022 07:16.

Appendix B

Species Descriptions

Barn Swallow is listed as “Threatened” by *Species at Risk Ontario* (SARO) and is protected under the *Endangered Species Act* (ESA). The Barn Swallow inhabits open-rural and urban sites where buildings are situated near watercourses. Nesting is typically within loose colonies on building structures, bridges and other suitable overhanging structures. Structures are chosen because they keep the half “cup-like” mud nest dry and have edges that the nest can adhere to. The Barn Swallow feeds on insects by catching them on its wing.

Black Tern is listed as “Special Concern” by SARO and is protected under the ESA. The Black Tern prefers shallow, freshwater cattail marshes, wetlands, lake edges and sewage ponds with emergent vegetation. Nesting occurs on dead plant material piled upon aquatic floating vegetation. The Black Tern hunts small insects and minnows along the surface of lakes or ponds.

Bobolink is listed as “Threatened” by SARO and is protected under the ESA. The Bobolink prefers large tracts of tallgrass areas, either true prairies or hay fields, as it forages low to the ground in search of larvae and seeds.

Canada Warbler is listed as “Special Concern” by SARO and is protected under the ESA. It prefers large tracts of mixed forests on bottomlands within wetlands or drainage courses. The species nests within the upper extremities of the canopy in deciduous and coniferous trees. The Canada Warbler feeds on beetles, caterpillars and common insects. Typically, this species prefers creeks and mixed forests with a coniferous edge along a moving creek, tributary or river system.

Chimney Swift is listed as “Threatened” by SARO and is protected under the ESA. The Chimney Swift is a somewhat generalist species. It will utilize empty cavity nests found in dead trees within fencerows or may utilize unused chimneys as suggested by its common name. This species is most active in early morning and early evening (i.e., dawn and dusk). It will venture outside of the nesting area and feast on insects during those times. It then flies back to the nesting site, entering the nest one after another in an orderly funnel-shaped sequence.

Common Nighthawk is listed as “Special Concern” by SARO and is protected under the ESA. The Common Nighthawk is part of the Nightjar family and prefers forest openings, bogs and sometimes open field/meadow areas. Nesting is on bare ground where both adults feed the young. Feeding can take place during day or night, while the species constantly forages for all types of insects.

Eastern Meadowlark is listed as “Threatened” by SARO and is protected under the ESA. The Eastern Meadowlark is similar to Bobolink, as this species also prefers large tracts of agricultural fields or tall grass prairies to nest within. Eastern Meadowlark is a ground nester, and utilizes the tall grass to conceal its nest and eggs. Feeding includes beetles, crickets, and

spiders.

Eastern Whip-poor-will is listed as “Threatened” by SARO and is protected under the ESA. The Whip-poor-will prefers a combination of large natural tracts of forest, watercourses and edge habitat consisting of meadow areas with open, deciduous and pine woodlands. The Whip-poor-will does not construct a nest, but rather utilizes the soft leaf litter on the ground to form a nest and lay the eggs directly on the ground. The Whip-poor-will is a nighttime hunter, calling it’s own name while searching for large flying insects, beetles, moths, mosquitos and sometimes grasshoppers. The Whip-poor-will often choose pine species adjacent to waterways from which to call.

Eastern Wood-pewee is listed as “Special Concern” by SARO and is protected under the ESA. This species prefers mixed deciduous and coniferous woodlands which are open or considered edge-habitat. Nesting occurs on a tree branch as the species catches insects from a perch.

Evening Grosbeak (*Coccothraustes vespertinus*) is listed as “Special Concern” by SARO and is not protected under the ESA. During the breeding season, Evening Grosbeak is generally found in open, mature mixed-wood forests dominated by fir species, White Spruce and/or Trembling Aspen. Its abundance is strongly linked to the cycle of its primary prey, the Spruce Budworm. Outside the breeding season, the species depends mostly on seed crops.

Golden-winged Warbler is listed as “Special Concern” by SARO and is protected under the ESA. The Golden-winged Warbler prefers woodland edge habitat with young secessional tree species and moist shrubby fields. This species gleans insects on shrubs and the forest floor and nesting occurs on the ground.

Least Bittern is listed as “Threatened” by SARO and is protected under the ESA. The Least Bittern inhabits freshwater marshes where tall, impenetrable stands of emergent vegetation are utilized for coverage. The Least Bittern may build up a hunting platform in search of small fish, insects, and amphibians.

Olive-sided Flycatcher (*Contopus cooperi*) is listed as “Special Concern” by SARO and is not protected under the ESA. This species is typically found within natural forest edges and openings. Its preferred habitat is within coniferous or mixed forests adjacent to rivers or wetlands. It likes to inhabit conifers such as White/Black Spruce, Jack Pine, and Balsam Fir.

Red-headed Woodpecker is listed as “Special Concern” by SARO and is protected under the ESA. It prefers a combination of deciduous forests and rural development areas, similar to a park-like setting. The deciduous species can be oak or maple, however, the understoreys must be meadow-like or a maintained lawn space. The species will nest within cavities that it constructs or it will take over cavity nests that other woodpeckers have

constructed. The Red-headed Woodpecker feeds on beetles, caterpillars and common insects that are found within the bark of trees.

Red-shouldered Hawk no longer possesses a status in Ontario, although is still considered to be a “sensitive” species with respect to development. It prefers mature deciduous dominated forests, often nesting within hundreds of metres of the edge of wetlands or waterways. The nest will often occur in the crotch of deciduous trees. It prefers slopes where it can easily fly to the tree-tops and overlook the waterway for foraging purposes, hunting for small mammals, birds, reptiles and amphibians.

Wood Thrush is listed as “Special Concern” by SARO and is protected under the ESA. The Wood Thrush enjoys relatively undisturbed, mature woodlands. Nesting occurs low in the fork of a tree, as this species forages for berries and insects at ground level. Similar to the Eastern Wood-Pewee, this species prefers large tracts of woodland.

Blanding’s Turtle (*Emydoidea blandingii*) is listed as “Threatened” by SARO and is protected under the ESA. It tends to inhabit shallow waters within large wetlands or shallow lakes that have lots of aquatic plants. However, they have been known to travel hundreds of metres from a main body of water for nesting or mating. This species is most easily identified by its bright yellow throat and chin.

Common Five-lined Skink (Southern Shield Population) (*Plestiodon fasciatus*) is listed as “Special Concern” by SARO and is not protected under the ESA. This species of lizard basks on sunny rocks and logs to maintain a preferred body temperature (28 - 36°C). During the winter, they hibernate in crevices among rocks or buried in the soil. The Southern Shield population can be found underneath rocks on open bedrock in forests.











Eastern Ribbon Snake (*Thamnophis sauritus*) is listed as “Special Concern” by SARO, and is not protected under the ESA. This species occurs mainly within large marshlands that have an open water content. This species uses the lily-pads and other vegetation within the wetland to bask in the sun. It also utilizes the deeper sections of the marsh to dive beneath the water when threatened by predators.

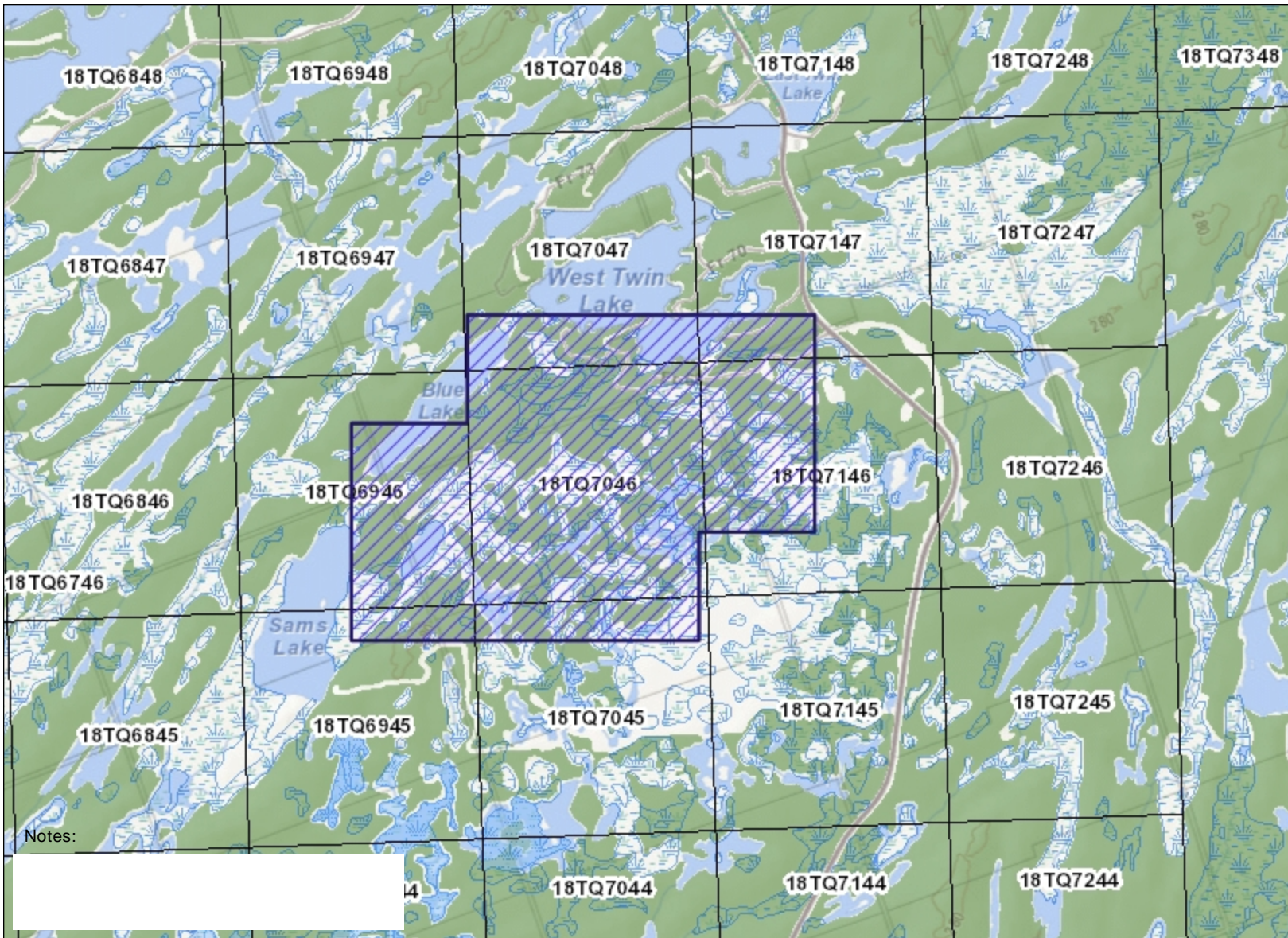
Snapping Turtle (*Chelydra serpentina*) is listed as “Special Concern” by SARO and is not protected under the ESA. Snapping Turtles spend most of their lives in water. They prefer shallow waters so they can hide under the soft mud and leaf litter, with only their noses exposed to the surface to breathe. During the nesting season, from early to mid summer, females travel overland in search of a suitable nesting site, usually gravelly or sandy areas along streams. Snapping Turtles often take advantage of man-made structures for nest sites, including roads (especially gravel shoulders), dam and aggregate pits.

Appendix C

NHIC Data

Legend

-  NHIC 1 Km Grid
-  ANSI
-  Earth Science Provincially Significant/sciences de la terre d'importance provinciale
-  Earth Science Regionally Significant/sciences de la terre d'importance régionale
-  Life Science Provincially Significant/sciences de la vie d'importance provinciale
-  Life Science Regionally Significant/sciences de la vie d'importance régionale
-  Evaluated Wetland
-  Provincially Significant/considérée d'importance provinciale
-  Non-Provincially Significant/non considérée d'importance provinciale
-  Unevaluated Wetland
-  Woodland



Notes:

[Redacted area]



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

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Natural Resources and Forestry(OMNRF) shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.
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NHIC Data

fu the ith this data select the c ntent and c py it int y u n d excel d cuments.

OGF ID	Element Type	G	Common Name	Scientific Name	SRank	SARO Status	COSEWIC Status	ATLAS NAD83 IDENT	COMMENTS
1067563	WILDLIFE CONCEN RA ION AREA		C l nial Wate bi d Nesting A ea G		SNR			18 Q6947	
1067563	SPECIES		H ught n's Flatsedge	Cype us h ught nii				18 Q6947	
1067563	SPECIES		W d h ush	Hyl cichla mustelina		SC T	HR	18 Q6947	
1067562	WILDLIFE CONCEN RA ION AREA		C l nial Wate bi d Nesting A ea		SNR			18 Q6946	
1067561	NA URAL AREA		Oa La e Wetland					18 Q6945	
1067561	WILDLIFE CONCEN RA ION AREA		C l nial Wate bi d Nesting A ea G		SNR G			18 Q6945	
1067561	WILDLIFE CONCEN RA ION AREA		Mixed Wade Nesting C l ny		SNR			18 Q6945	G
1069573	WILDLIFE CONCEN RA ION AREA		C l nial Wate bi d Nesting A ea G		SNR G			18 Q7047	
1069573	SPECIES		C mmon Nightha G	h deiles min G		C	SC	18 Q7047	
1069573	SPECIES		W d h ush	Hyl cichla mustelina		SC T	HR	18 Q7047	
1069573	SPECIES G		Weste n Ch us F g - G eat La es - St. La ence - Canadian Shield p pulati	Pseudac is maculata p p. 1		NAR T	HR	18 Q7047	
1069573	SPECIES		Snapping u tle G	Chelyd a G se pentina		SC G	SC	18 Q7047	
1069573	SPECIES		Easte n Whip-p - ill	Ant st mus v cife us		HR T	HR	18 Q7047	
1069572	WILDLIFE CONCEN RA ION AREA		C l nial Wate bi d Nesting A ea G		SNR			18 Q7046	
1069572	SPECIES		W d h ush	Hyl cichla mustelina		SC T	HR	18 Q7046	
1069571	NA URAL AREA G		Oa La e WetlandG					18 Q7045	G
1069571	WILDLIFE CONCEN RA ION AREA		C l nial Wate bi d Nesting A ea		SNR			18 Q7045	
1069583	WILDLIFE CONCEN RA ION AREA		C l nial Wate bi d Nesting A ea G		SNR G			18 Q7147	
1069583	SPECIES		W d h ush	Hyl cichla G mustelina		SC T	HR	18 Q7147	
1069583	SPECIES		Weste n Ch us F g - G eat La es - St. La ence - Canadian Shield p pulati	Pseudac is maculata p p. 1 G		NAR T	HR	18 Q7147	
1069583	SPECIES		C mmon Five-lined S in (S uthe n Shield p pulati n)	Plesti d n fasciatus p p. 2		SC	SC	18 Q7147	
1069583	SPECIES G		Easte n Whip-p - ill	Ant st mus v cife us		HR T	HR G	18 Q7147	
1069583	RES RIC ED SPECIES		Rest icted Species	Rest icted Species				18 Q7147	
1069583	RES RIC ED SPECIES		RES RIC ED SPECIES G	RES RIC ED SPECIES		HR T	HR	18 Q7147	
1069582	WILDLIFE CONCEN RA ION AREA		C l nial Wate bi d Nesting A ea G		SNR			18 Q7146	
1069582	SPECIES		Midland Painted u tle G	Ch ysemys picta G ma ginata			SC	18 Q7146	
1069582	SPECIES		Easte n Ribb nsna e	hamn phis sau itus		SC	SC G	18 Q7146	
1069582	SPECIES G		W d h ush	Hyl cichla mustelina		SC T G	HR	18 Q7146	
1069582	SPECIES G		Weste n Ch us F g - G eat La es - St. La ence - Canadian Shield p pulati	Pseudac is maculata p p. 1 G		NAR T G	HR	18 Q7146	
1069582	SPECIES		Canada Wa ble	Ca dellina canadensis		SC T	HR	18 Q7146	
1069582	SPECIES G		Easte n Whip-p - ill G	Ant st mus v cife us G		HR T G	HR G	18 Q7146	
1069582	SPECIES G		Blanding's u tle G	Emyd idea G blandingii		HR	END G	18 Q7146	
1069581	WILDLIFE CONCEN RA ION AREA		C l nial Wate bi d Nesting A ea G		SNR G			18 Q7145	
1069581	SPECIES		Midland Painted u tle	Ch ysemys picta ma ginata			SC G	18 Q7145	G
1069581	SPECIES		Easte n Ribb nsna e G	hamn phis sau itus		SC	SC	18 Q7145	
1069581	SPECIES G		Blanding's u tle	Emyd idea blandingii		HR	END	18 Q7145	G

Appendix D

eBird Data

Nephton (no public access)

Peterborough County (region/CA-ON-PB? r=all&m=), Ontario (region/CA-ON? r=all&m=), CA (region/CA? r=all&m=)

Map (/hotspots?hs=L1812260&yr=all&m=)

Direct links https://www.oo.le.com/maps/search/?ap=1&query=A4.62896Z.-78.004646)

Hotspot navigation

Overview (/hotspot/L1812260?yr=all&m=)

Illustrate Checklist (/hotspot/L1812260/me_a?yr=all&m=)

VIEW MY...

My eBird (/mebird/L1812260)

Life List (/lifelist/L1812260)

Target Species (/targets?r1=L1812260&bmo=1&emo=12)

Checklists (/m_checklists/L1812260)

EXPLORE...

Hotspot Map (/hotspots?hs=L1812260& r=all&m=)

Bar Charts (/barchart?r=L1812260& r=all&m=)

Media (https://ebird.org/media/catalog?regionCode=L1812260)

Printable Checklist (/printableList?regionCode=L1812260& r=all&m=)

130

Species observed

(/hotspot/L1812260? r=all&m=)

92

Complete checklists

(/hotspot/L1812260/activities? r=all&m=)

Species






























































































Updated 10 sec ago




















































































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





























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























SPECIES NAME (/HOTSPOT/L1812260?YR=ALL&M=&RANK=MREC&HS_SORTBY=TAXON_ORDER&HS_O=ASC) COUNT (/HOTSPOT/L1812260?YR=ALL&M=&RANK=MREC&HS_SORTBY=DATE&HS_O=ASC) DATE (/HOTSPOT/L1812260?YR=ALL&M=&RANK=MREC&HS_SORTBY=DATE&HS_O=ASC) OBSERVER

1. Pileated Woodpecker <i>Dryocopus pileatus</i> /spec/es/pwoo/L1812260	# 2	4 Jan 2022	Scott McKinlay
2. Common Raven <i>Corvus corax</i> /spec/es/comrav/L1812260	# 2	4 Jan 2022	Scott McKinlay
3. Black-capped Chickadee <i>Parus atricapillus</i> /spec/es/bkcch/L1812260	# 6	4 Jan 2022	Scott McKinlay
4. Red-breasted Nuthatch <i>Sitta canadensis</i> /spec/es/rebnut/L1812260	# 1	4 Jan 2022	Scott McKinlay
5. White-breasted Nuthatch <i>Sitta carolinensis</i> /spec/es/whbnut/L1812260	# 2	4 Jan 2022	Scott McKinlay
6. Rufous Grouse <i>Bonasa umbellus</i> /spec/es/rufro/L1812260	# 1	3 Jan 2022	Luke Berg
7. Bald Eagle <i>Haliaeetus leucocephalus</i> /spec/es/balea/L1812260	# 3	3 Jan 2022	Luke Berg
8. Red-tailed Hawk <i>Buteo jamaicensis</i> /spec/es/rethaw/L1812260	# 2	3 Jan 2022	Luke Berg
9. Downy Woodpecker <i>Dryobates pubescens</i> /spec/es/owwoo/L1812260	# 1	3 Jan 2022	Luke Berg
10. Hairy Woodpecker <i>Dryobates villosus</i> /spec/es/hawoo/L1812260	# 4	3 Jan 2022	Luke Berg
11. Blue Jay <i>Cyanocitta cristata</i> /spec/es/blujay/L1812260	# 3	3 Jan 2022	Luke Berg
12. Pine Grosbeak <i>Pinicola enucleator</i> /spec/es/pnro/L1812260	# 14	3 Jan 2022	Luke Berg
13. Purple Finch <i>Haemorhous purpureus</i> /spec/es/purfn/L1812260	# 4 y	3 Jan 2022	Luke Berg
14. Common Goldfinch <i>Acanthis flammea</i> /spec/es/comre/L1812260	# 6	3 Jan 2022	Luke Berg
15. Red Crossbill <i>Loxia curvirostra</i> /spec/es/re_cro/L1812260	# 3	3 Jan 2022	Luke Berg
16. Pine Siskin <i>Spinus pinus</i> /spec/es/pns/L1812260	# 3	3 Jan 2022	Luke Berg
17. American Goldfinch <i>Spinus tristis</i> /spec/es/amef/L1812260	# 16	3 Jan 2022	Luke Berg
18. American Tree Sparrow <i>Spizelloides arborea</i> /spec/es/amtspa/L1812260	# 2	3 Jan 2022	Luke Berg
19. Northern Shrike <i>Lanius borealis</i> /spec/es/norshr/L1812260	# 1	1 Jan 2022	Luke Berg
20. Brown Creeper <i>Certhia americana</i> /spec/es/brncr/L1812260	# 1	1 Jan 2022	Luke Berg

21.	Wi rkey <i>Meleagris gallopavo</i> (s ecies/wit r L181 60)		
# 1	 30 Dec 2021 /(checklist/S99708700)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
22.	Go en-crowne King et <i>Regulus satrapa</i> (s ecies/goekin/L1812260) p		
# 1	 30 Dec 2021 /(checklist/S99708700)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
23.	Bohemian Waxwing <i>Bombycilla garrulus</i> (s ecies/bohwx/L1812260)		
# 1	 30 Dec 2021 /(checklist/S99708700)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
24.	White-wing Crossbi <i>Loxia leucoptera</i> (s ecies/whwcro/L1812260)		
# 85	 30 Dec 2021 /(checklist/S99708700)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
25.	Snow B nting <i>Plectrophenax nivalis</i> (s ecies/snob n/L1812260)		
# 3	 5 Dec 2021 /(checklist/S98506455)	 Amy Semple	
26.	Go en Eag e <i>Aquila chrysaetos</i> (s ecies/go eag/L1812260)		
# 1	 29 Nov 2021 /(checklist/S98245958)	 Chris Risley /(profile/MTFwMjQ1/L1812260)	
27.	Common Merganser <i>Mergus merganser</i> (s ecies/commer/L1812260)		
# 10	 27 Nov 2021 /(checklist/S98151893)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
duck sp. <i>Anatinae</i> sp.			
# 5	 27 Nov 2021 /(checklist/S98151893)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
28.	Herring G <i>Larus argentatus</i> (s ecies/herg /L1812260)		
# 3	 27 Nov 2021 /(checklist/S98151893)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
29.	Shar -shinne Hawk <i>Accipiter striatus</i> (s ecies/shshaw/L1812260)		
# 1	 27 Nov 2021 /(checklist/S98151893)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
30.	Northern Goshawk <i>Accipiter gentilis</i> (s ecies/norgos/L1812260)		 
# 1	 27 Nov 2021 /(checklist/S98151893)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
31.	Re -sho ere Hawk <i>Buteo lineatus</i> (s ecies/reshaw/L1812260)		
# 1	 27 Nov 2021 /(checklist/S98151893)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
32.	Ro gh-egge Hawk <i>Buteo lagopus</i> (s ecies/ro haw/L1812260) p		
# 1	 27 Nov 2021 /(checklist/S98151893)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
33.	Cana a Goose <i>Branta canadensis</i> (s ecies/cangoo/L1812260)		
# 7	 19 Nov 2021 /(checklist/S97793552)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
34.	Hoo e Merganser <i>Lophodytes cucullatus</i> (s ecies/hoomer/L1812260)		
# 1	 19 Nov 2021 /(checklist/S97793552)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
35.	Common Loon <i>Gavia immer</i> (s ecies/comloo/L1812260)		
# 1	 19 Nov 2021 /(checklist/S97793552)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
36.	Ce ar Waxwing <i>Bombycilla cedrorum</i> (s ecies/ce wax/L1812260)		
# 9	 19 Nov 2021 /(checklist/S97793552)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
37.	Ma ar <i>Anas platyrhynchos</i> (s ecies/ma ar3/L1812260)		
# 18	 16 Nov 2021 /(checklist/S97675738)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
38.	Ring-necke D ck <i>Aythya collaris</i> (s ecies/rin c/L1812260)		
# 1	 16 Nov 2021 /(checklist/S97675738)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
39.	Common Go eneye <i>Bucephala clangula</i> (s ecies/comgo /L1812260)		
# 1	 16 Nov 2021 /(checklist/S97675738)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
40.	San hi Crane <i>Antigone canadensis</i> (s ecies/sancra/L1812260)		
# 18	 16 Nov 2021 /(checklist/S97675738)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
eagle sp. <i>Accipitridae</i> sp. (eagle sp.)			
# 3	 16 Nov 2021 /(checklist/S97675738)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
41.	American Crow <i>Corvus brachyrhynchos</i> (s ecies/amecro/L1812260)		
# 1	 16 Nov 2021 /(checklist/S97675738)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
finch sp. <i>Fringillidae</i> sp.			
# 30	 16 Nov 2021 /(checklist/S97675738)	 Luke Berg /(profile/MzQxNjc2/L1812260)	
42.	Northern F icker <i>Colaptes auratus</i> (s ecies/norf i/L1812260)		
# 1	 5 Nov 2021 /(checklist/S97168505)	 Dave Milsom p	
43.	American Robin <i>Turdus migratorius</i> (s ecies/amerob/L1812260)		
# 1	 5 Nov 2021 /(checklist/S97168505)	 Dave Milsom p	
44.	Dark-eye J nco <i>Junco hyemalis</i> (s ecies/ aej n/L1812260)		
# 1	 5 Nov 2021 /(checklist/S97168505)	 Dave Milsom	
45.	Re -winge B ackbir <i>Agelaius phoeniceus</i> (s ecies/rewb a/L1812260)		
# 2	 5 Nov 2021 /(checklist/S97168505)	 Dave Milsom	
46.	Northern Harrier <i>Circus hudsonius</i> (s ecies/norhar2/L1812260)		
# 1	 4 Nov 2021 /(checklist/S97119928)	 C Douglas /(profile/NDA5NjMy/L1812260)	
47.	Coo er's Hawk <i>Accipiter cooperii</i> (s ecies/coohaw/L1812260)		
# 1	 4 Nov 2021 /(checklist/S97119928)	 C Douglas /(profile/NDA5NjMy/L1812260)	
48.	E ro ean Star ing <i>Sturnus vulgaris</i> (s ecies/e rsta/L1812260)		
# 4	 4 Nov 2021 /(checklist/S97119928)	 C Douglas /(profile/NDA5NjMy/L1812260)	
49.	Common Grack e <i>Quiscalus quiscula</i> (s ecies/comgra/L1812260)		
# 1	 4 Nov 2021 /(checklist/S97119928)	 C Douglas /(profile/NDA5NjMy/L1812260)	
50.	Be te Kingfisher <i>Megaceryle alcyon</i> (s ecies/be kin/L1812260)		
# 1	 27 Oct 2021 /(checklist/S96778800)	 Dave Milsom	
51.	Ring-bi e G <i>Larus delawarensis</i> (s ecies/ribg /L1812260)		
# 1	 24 Oct 2021 /(checklist/S96646629)	 C Douglas /(profile/NDA5NjMy/L1812260)	

52.	Great Green Heron <i>Ardea herodias</i> (/species/gr_her /L1812260)		
# 1	 22 Oct 2021 (/checklist/S96554355)	b	 C Douglas (/profile/NDA5NjMy/L1812260)
53.	Turkey Vulture <i>Cathartes aura</i> (/species/t_vr /L1812260)		
# 5	 22 Oct 2021 (/checklist/S96554355)		 C Douglas (/profile/NDA5NjMy/L1812260)
	Buteo sp. <i>Buteo</i> sp.		
# 5	 22 Oct 2021 (/checklist/S96554355)	b	 C Douglas (/profile/NDA5NjMy/L1812260) b
54.	Ruby-crowned Kinglet <i>Corthylus calendula</i> (/species/r_ckin/L1812260)		
# 2	 22 Oct 2021 (/checklist/S96554355)	b	 C Douglas (/profile/NDA5NjMy/L1812260) b
55.	Rock Pigeon <i>Columba livia</i> (/species/rocpig/L1812260)		
# 10	 9 Jan 2021 (/checklist/S78940408)		 Luke Berg (/profile/MzQxNjc2/L1812260)
56.	Evening Grosbeak <i>Coccothraustes vespertinus</i> (/species/evegro/L1812260)		
# 1	 29 Dec 2020 (/checklist/S78220629)	b	 Luke Berg (/profile/MzQxNjc2/L1812260) b
	woodpecker sp. <i>Picidae</i> sp.		
# 1	 29 Dec 2020 (/checklist/S78201771)	b	 Luke Berg (/profile/MzQxNjc2/L1812260)
57.	Wood Duck <i>Aix sponsa</i> (/species/wood_c/L1812260)		
# 4	 29 Oct 2020 (/checklist/S75567969)		 Matthew Tobey (/profile/MjcdMTE2/L1812260)
58.	Greater Yellowlegs <i>Tringa melanoleuca</i> (/species/greyle/L1812260)		
# 1	 29 Oct 2020 (/checklist/S75567969)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
59.	Lapland Longspur <i>Calcarius lapponicus</i> (/species/lap on/L1812260)		 
# 1	 29 Oct 2020 (/checklist/S75567969)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
60.	Marbled Murrelet <i>Branta bernicla</i> (/species/ marbled/L1812260)		 
# 528	 24 Oct 2020 (/checklist/S75361676)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
61.	American Black Duck <i>Anas rubripes</i> (/species/am_d_c/L1812260)		
# 7	 24 Oct 2020 (/checklist/S75361676)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
62.	Northern Pintail <i>Anas acuta</i> (/species/norpin/L1812260)		
# 37	 24 Oct 2020 (/checklist/S75361676)		 Matthew Tobey (/profile/MjcdMTE2/L1812260)
63.	White-winged Scoter <i>Melanitta deglandi</i> (/species/whwsc2/L1812260)		 
# 17	 24 Oct 2020 (/checklist/S75361676)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260) b
	Common/Red-breasted Merganser <i>Mergus merganser/serrator</i>		
# 1	 24 Oct 2020 (/checklist/S75361676)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260) b
64.	American Golden-Plover <i>Pluvialis dominica</i> (/species/amgp_o/L1812260)		 
# 5	 24 Oct 2020 (/checklist/S75361676)		 Matthew Tobey (/profile/MjcdMTE2/L1812260)
65.	Double-crested Cormorant <i>Nannopterum auritum</i> (/species/doccor/L1812260)		 
# 9	 24 Oct 2020 (/checklist/S75361676)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
66.	Red-winged Blackbird <i>Eremophila alpestris</i> (/species/hor ar/L1812260)		
# 28	 24 Oct 2020 (/checklist/S75361676)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
67.	White-crowned Sparrow <i>Zonotrichia leucophrys</i> (/species/whcspa/L1812260)		
# 4	 24 Oct 2020 (/checklist/S75361676)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
68.	Yellow-rumped Warbler <i>Setophaga coronata</i> (/species/yerwar/L1812260)		
# 2	 24 Oct 2020 (/checklist/S75361676)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
69.	White-throated Sparrow <i>Zonotrichia albicollis</i> (/species/whtspa/L1812260)		
# 2	 18 Oct 2020 (/checklist/S75058724)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
70.	Song Sparrow <i>Melospiza melodia</i> (/species/sonspa/L1812260)		
# 1	 18 Oct 2020 (/checklist/S75058724)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
71.	Swamp Sparrow <i>Melospiza georgiana</i> (/species/swaspa/L1812260)		
# 1	 18 Oct 2020 (/checklist/S75058724)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
72.	Eastern Tanager <i>Sialia sialis</i> (/species/eas /L1812260)		
# 1	 11 Oct 2020 (/checklist/S74705222)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260) b
73.	Chipping Sparrow <i>Spizella passerina</i> (/species/chispa/L1812260)		
# 1	 11 Oct 2020 (/checklist/S74705222)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260) b
74.	Eastern Phoebe <i>Sayornis phoebe</i> (/species/easpho/L1812260)		
# 2	 9 Jun 2020 (/checklist/S70242204)	b	 Allen Stewart b
75.	Warbling Vireo <i>Vireo gilvus</i> (/species/warvir/L1812260)		
# 1	 9 Jun 2020 (/checklist/S70242204)		 Allen Stewart
76.	Screech Owl <i>Strix varia</i> (/species/ rdow VL1812260)		
# 1	 12 Jan 2020 (/checklist/S63328073)	b	 Luke Berg (/profile/MzQxNjc2/L1812260)
77.	American Woodcock <i>Scolopax minor</i> (/species/amewoo/L1812260)		
# 1	 30 Oct 2019 (/checklist/S61046590)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
78.	Rusty Blackbird <i>Euphagus carolinus</i> (/species/r_s_a/L1812260)		
# 2	 30 Oct 2019 (/checklist/S61046590)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
79.	Eastern Kingbird <i>Tyrannus tyrannus</i> (/species/easkin/L1812260)		
# 1	 9 Aug 2019 (/checklist/S58863184)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
80.	Worm-eating Warbler <i>Hirundo rustica</i> (/species/ arswa/L1812260)		
# 1	 9 Aug 2019 (/checklist/S58863184)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
81.	Least Flycatcher <i>Empidonax minimus</i> (/species/ eaf y/L1812260)		
# 1	 30 Jun 2019 (/checklist/S57823716)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260)
82.	Red-eyed Vireo <i>Vireo olivaceus</i> (/species/reevir1/L1812260)		
# 2	 30 Jun 2019 (/checklist/S57823716)	b	 Matthew Tobey (/profile/MjcdMTE2/L1812260) b

83.	Balti O i l <i>Icterus galbula</i> (/sp i s/bal i/ 1 12260)		
# 1	 30 Jun 2019 (/checklist/S57823716)	L	 Matthew Tobey (/profile/Mjcd4MTE2/L1812260)
84.	Black-and-whit Wa bl <i>Mniotilta varia</i> (/sp ci s/bawwa / 1812260)		
# 1	 30 Jun 2019 (/checklist/S57823716)	L	 Matthew Tobey (/profile/Mjcd4MTE2/L1812260)
85.	C n Y ll wrth at <i>Geothlypis trichas</i> (/sp ci s/wy _ / 1812260)		
# 3	 30 Jun 2019 (/checklist/S57823716)	L	 Matthew Tobey (/profile/Mjcd4MTE2/L1812260)
86.	Y ll w Wa bl <i>Setophaga petechia</i> (/sp ci s/y lwa / 1812260)		
# 1	 30 Jun 2019 (/checklist/S57823716)	L	 Matthew Tobey (/profile/Mjcd4MTE2/L1812260)
87.	Ch stnut-sid d Wa bl <i>Setophaga pennsylvanica</i> (/sp ci s/chswa / 1812260)		
# 1	 30 Jun 2019 (/checklist/S57823716)	L	 Matthew Tobey (/profile/Mjcd4MTE2/L1812260)
88.	B ad-wing d Hawk <i>Buteo platyterus</i> (/sp ci s/b whaw/ 1812260)		
# 1	 27 Apr 2019 (/checklist/S55521023)	L	 Matthew Tobey (/profile/Mjcd4MTE2/L1812260)
89.	Pi d-bill d G b <i>Podilymbus podiceps</i> (/sp ci s/pibg / 1812260)		
# 1	 24 Apr 2019 (/checklist/S55368484)	L	 Matthew Tobey (/profile/Mjcd4MTE2/L1812260)
90.	Y ll w-b lli d Sapsuck <i>Sphyrapicus varius</i> (/sp ci s/y bsap/ 1812260)		
# 2	 24 Apr 2019 (/checklist/S55368484)	L	 Matthew Tobey (/profile/Mjcd4MTE2/L1812260)
91.	B wn Th ash <i>Toxostoma rufum</i> (/sp ci s/b nth / 1812260)		
# 1	 24 Apr 2019 (/checklist/S55368484)	L	 Matthew Tobey (/profile/Mjcd4MTE2/L1812260)
92.	Mou ning D v <i>Zenaid macroura</i> (/sp ci s/ ud v/ 1812260)		
# 2	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
93.	Wils n's Snip <i>Gallinago delicata</i> (/sp ci s/wiln1/ 1812260)		
# 3	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
94.	East n W d-P w e <i>Contopus virens</i> (/sp ci s/ awp w/ 1812260)		
# 7	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
95.	Ald Flycatch <i>Empidonax alnorum</i> (/sp ci s/aldfly/ 1812260) L		
# 1	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
96.	G at C st d Flycatch <i>Myiarchus crinitus</i> (/sp ci s/g cfly/ 1812260)		
# 3	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
97.	Blu -h ad d Vi <i>Vireo solitarius</i> (/sp ci s/buhvi / 1812260)		
# 1	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
98.	T Swall w <i>Tachycineta bicolor</i> (/sp ci s/t swa/ 1812260)		
# 2	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
99.	V _y <i>Catharus fuscescens</i> (/sp ci s/v _y/ 1812260)		
# 7	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
100.	H e t Th ush l <i>Catharus guttatus</i> (/sp ci s/h th / 1812260)		
# 5	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
101.	Fi ld Spa w <i>Spizella pusilla</i> (/sp ci s/fi spa/ 1812260)		
# 3	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
102.	B wn-h ad d C wbi d <i>Malathrus ater</i> (/sp ci s/bnhc w/ 1812260)		
# 1	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
103.	Ov nbi d <i>Seiurus aurocapilla</i> (/sp ci s/ v nbi1/ 1812260)		
# 6	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
104.	Nashvill Wa bl <i>Leiothlypis ruficapilla</i> (/sp ci s/naswa / 1812260)		
# 1	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
105.	A ican R dsta t <i>Setophaga ruticilla</i> (/sp ci s/a _d/ 1812260)		
# 2	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
106.	Magn lia Wa bl <i>Setophaga magna</i> (/sp ci s/ gwa / a1812260)		
# 1	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
107.	Black-th at d Blu Wa bl <i>Setophaga caerulescens</i> (/sp ci s/btbwa / 1812260)		
# 2	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
108.	Pin Wa bl <i>Setophaga pinus</i> (/sp ci s/pinwa / 1812260)		
# 5	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
109.	Black-th at d G n Wa bl <i>Setophaga virens</i> (/sp ci s/btnwa / 1812260)		
# 4	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
110.	Sca l t Tanag <i>Piranga olivacea</i> (/sp ci s/scatan/ 1812260)		
# 2	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
111.	R s -b ast d G sb ak <i>Pheucticus ludovicianus</i> (/sp ci s/ bg / 1812260)		
# 1	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
112.	Indig Bunting <i>Passerina cyanea</i> (/sp ci s/indbun/ 1812260)		
# 1	 24 Jun 2015 (/checklist/S24056310)	L	 Donald A. Sutherland
113.	Vi ginia Rail <i>Rallus limicola</i> (/sp ci s/vi aj/ 1812260)		
# 1	 28 Jun 1996 (/checklist/S12887265)	L	 Geoff Carpentier (/profile/MTk1ODMz/L1812260)
114.	Y ll w-th at d Vi <i>Vireo flavifrons</i> (/sp ci s/y tvi / 1812260)		
# 2	 28 Jun 1996 (/checklist/S12886467)	L	 Geoff Carpentier (/profile/MTk1ODMz/L1812260)
115.	No th n Wat th ush <i>Parkesia noveboracensis</i> (/sp ci s/n wat/ 1812260)		
# 1	 28 Jun 1996 (/checklist/S12887265)	L	 Geoff Carpentier (/profile/MTk1ODMz/L1812260)
116.	G ld n-wing d Wa bl <i>Vermivora chrysoptera</i> (/sp ci s/g wwa / 1812260)		
# 1	 28 Jun 1996 (/checklist/S12886467)	L	 Geoff Carpentier (/profile/MTk1ODMz/L1812260)

117.	Mourn n rbler <i>Geothlypis philadelphia</i> (<i>s ec es mouw</i> L181260)		
# 1	 28 Jun 1996 /(checklist/S12886467) p	 Geoff Carpenter /(profile/MTk1ODMz/L1812260)	
118.	Common Nighthawk <i>Chordeiles minor</i> (<i>s ec es/comm</i> /L1812260)		
# 5	 13 Jun 1993 /(checklist/S12885907) p	 Geoff Carpenter /(profile/MTk1ODMz/L1812260)	
119.	Eastern House Wren <i>Antrostomus vociferus</i> (<i>s ec es/e sw w1</i> /L1812260)		
# 1	 13 Jun 1993 /(checklist/S12885907) p	 Geoff Carpenter /(profile/MTk1ODMz/L1812260)	
120.	Spotted Sandpiper <i>Actitis macularia</i> (<i>s ec es/s os n</i> /L1812260)		
# 1	 13 Jun 1993 /(checklist/S12885907) p	 Geoff Carpenter /(profile/MTk1ODMz/L1812260)	
121.	American Bittern <i>Bataurus lentiginosus</i> (<i>s ec es/ mebb</i> /L1812260) p		
# 1	 13 Jun 1993 /(checklist/S12885907) p	 Geoff Carpenter /(profile/MTk1ODMz/L1812260) p	
122.	Olive-sided Flycatcher <i>Contopus cooperi</i> (<i>s ec es/olsfly</i> /L1812260)		
# 1	 13 Jun 1993 /(checklist/S12885907) p	 Geoff Carpenter /(profile/MTk1ODMz/L1812260) p	
123.	Cliff Swallow <i>Petrochelidon pyrrhonota</i> (<i>s ec es/cl sw a</i> /L1812260)		
# 3	 13 Jun 1993 /(checklist/S12885907) p	 Geoff Carpenter /(profile/MTk1ODMz/L1812260) p	
124.	House Wren <i>Troglodytes aedon</i> (<i>s ec es/houwre</i> /L1812260)		
# 2	 13 Jun 1993 /(checklist/S12885907) p	 Geoff Carpenter /(profile/MTk1ODMz/L1812260) p	
125.	Winter Wren <i>Troglodytes hiemalis</i> (<i>s ec es/w hwre3</i> /L1812260)		
# 2	 13 Jun 1993 /(checklist/S12885907) p	 Geoff Carpenter /(profile/MTk1ODMz/L1812260) p	
126.	Gray Catbird <i>Dumetella carolinensis</i> (<i>s ec es/ ryc t</i> /L1812260)		
# 5	 13 Jun 1993 /(checklist/S12885907) p	 Geoff Carpenter /(profile/MTk1ODMz/L1812260) p	
127.	Wood Thrush <i>Hylocichla mustelina</i> (<i>s ec es/woothr</i> /L1812260)		
# 2	 13 Jun 1993 /(checklist/S12885907) p	 Geoff Carpenter /(profile/MTk1ODMz/L1812260) p	
128.	Townsend's Solitaire <i>Myadestes townsendi</i> (<i>s ec es/towsol</i> /L1812260)		
# 1	 10 Feb 1991 /(checklist/S12118038) p	 Published Ontario Bird Records Data p	
129.	Sedge Wren <i>Cistothorus stellaris</i> (<i>s ec es/sedwre1</i> /L1812260)		
# 1	 7 Jun 1983 /(checklist/S12884352)	 Geoff Carpenter /(profile/MTk1ODMz/L1812260)	
130.	Eastern Towhee <i>Pipilo erythrophthalmus</i> (<i>s ec es/e stow</i> /L1812260)		
# 2	 7 Jun 1983 /(checklist/S12884352) p	 Geoff Carpenter /(profile/MTk1ODMz/L1812260) p	

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To media UPLOADED IN LAST 30 DAYS **p**

No media submitted

[Link to media for this species](#) **p**

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OBSERVER p	DATE p	SPECIES
Scott McKinlay /(profile/MTEwODIv/L1812260) p	4 Jan 2022 /(checklist/S100110718)	5
Lynn Smith /(profile/MzQ4OTEv/L1812260)	4 Jan 2022 /(checklist/S100124448) p	5
Luke Berg /(profile/MzQxNjc2/L1812260)	3 Jan 2022 /(checklist/S100025657)	20
Luke Berg /(profile/MzQxNjc2/L1812260)	1 Jan 2022 /(checklist/S99861358)	10
Luke Berg /(profile/MzQxNjc2/L1812260) p	30 Dec 2021 /(checklist/S99708700) p	19
Amy Semple	5 Dec 2021 /(checklist/S98506455)	4
Chris Risley /(profile/MTEwMjQ1/L1812260) p	29 Nov 2021 /(checklist/S98245958)	8
Drew Monkman /(profile/MTY1OTQ4/L1812260) p	29 Nov 2021 /(checklist/S98254173) p	8
Ben Taylor p	29 Nov 2021 /(checklist/S98250896) p	8
Luke Berg /(profile/MzQxNjc2/L1812260) p	27 Nov 2021 /(checklist/S98151893)	21

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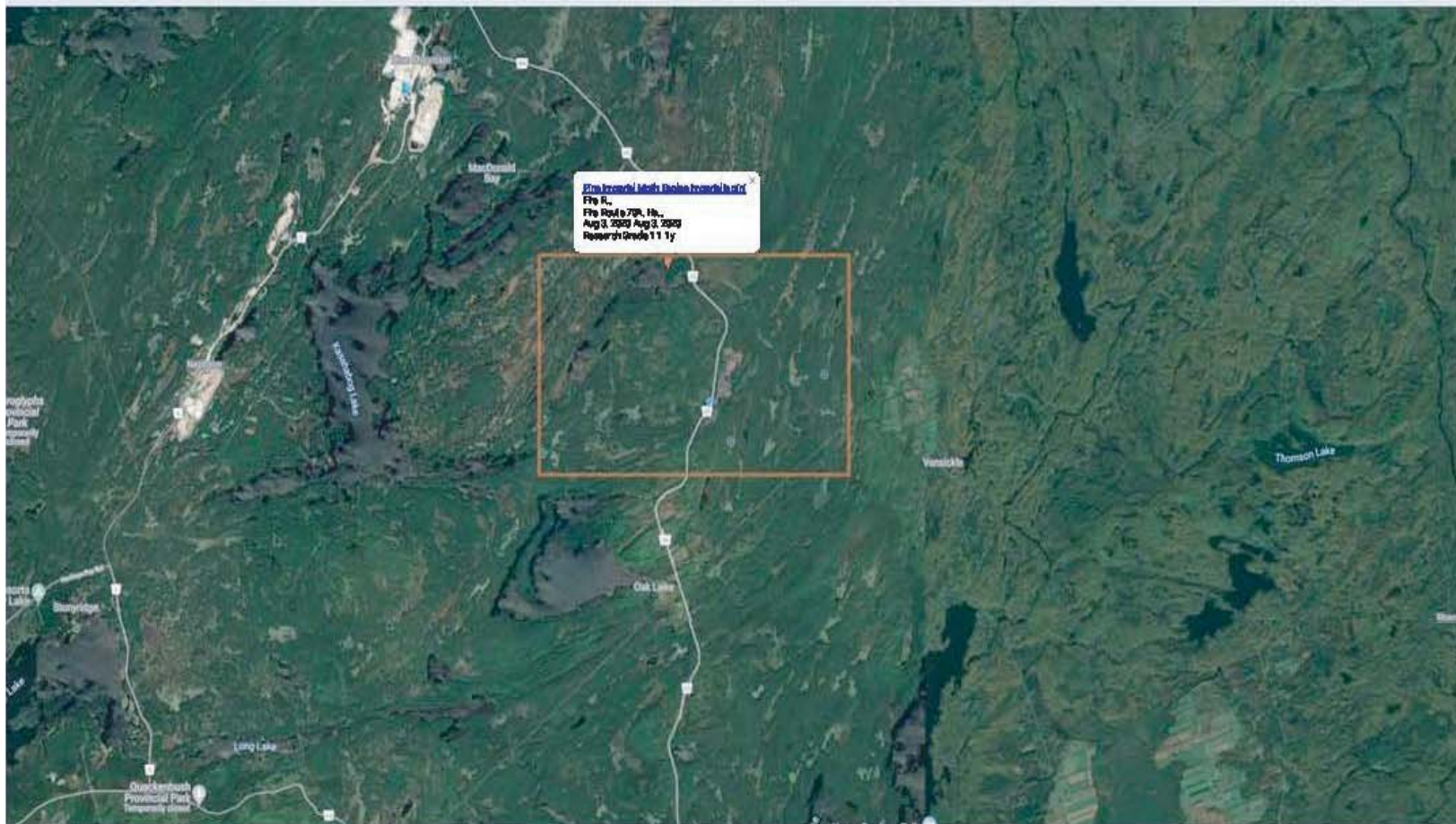
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1	Matthew Tobey /(profile/Mjc4MTE2/L1812260)	87
2	Dave Milsom	83
3	Geoff Carpenter /(profile/MTk1ODMz/L1812260) p	69
4	Brian Wales	63
4	Donald A. Sutherland p	63
6	Tanya Taylor p	59
6	Rob Craig	59 p
8	C Douglas /(profile/NDA5NjMv/L1812260) p	47 p
9	Luke Berg /(profile/MzQxNjc2/L1812260)	44
10	Ben Taylor	37 p
	You /(profile/L1812260)	0 p

Appendix E

iNaturalist Data



iNaturalist Database Search

Common Name	Scientific Name	Latitude	Longitude	Accuracy	Agree	Disagree	Position Method	Coordinates Obscured
Southern Flying Squirrel	<i>Glaucomys volans</i>	44.646264	-77.89264	52	2	0		FALSE
Common Five-lined Skink	<i>Plestiodon fasciatus</i>	44.617895	-77.87258	9	3	0		TRUE
Common Nighthawk	<i>Chordeiles minor</i>	44.646216	-77.89335	70	2	0		FALSE
Black Stone Flower	<i>Parmotrema perlatum</i>	44.629611	-77.87256	12	1	0		TRUE
Common Snapping Turtle	<i>Chelydra serpentina</i>	44.622976	-77.87779	244	1	0		FALSE
Blanding's Turtle	<i>Emydoidea blandingii</i>	44.628316	-77.85002	10	3	0		TRUE
Blanding's Turtle	<i>Emydoidea blandingii</i>	44.616115	-77.91778	10	6	0		TRUE
Pine Imperial Moth	<i>Eacles imperialis pini</i>	44.644279	-77.8877	40	1	0		FALSE

Appendix F

Ecological Land Classification (ELC) Descriptions

Dry-Fresh Red Oak Deciduous Forest (FODM1-1)

The Dry-Fresh Red Oak Deciduous Forest possesses a moderately dry (0) to fresh (1, 2, 3) moisture regime and is dominated by Red Oak (*Quercus rubra*) and has a number of associate species that include Red Maple (*Acer rubrum*), White Pine (*Pinus strobus*) and Black Cherry (*Prunus serotina*) among others. Typical ground species in this ecosite include Bracken Fern (*Pteridium aquilinum*), Wintergreen (*Gaultheria procumbens*), and Starflower (*Trientalis borealis*). The ELC characterizes the community as possessing 75% or more canopy cover.

This tract of forest is approximately (39.9 ha) and comprises a large portion of the subject site (47%). It is dominated by Red Oak with minor patches of other deciduous species. This forest tract is relatively mature with a closed canopy and is almost exclusively dominated by deciduous species. Other tree species include Ironwood (*Ostrya virginiana*), Red Maple, Sugar Maple (*Acer saccharum*) and Trembling Aspen (*Populus tremuloides*). In areas where the canopy has opened, young deciduous saplings are growing in thicket-like conditions beneath the overstorey.

The understorey throughout the ecosite is dominated by young Oak species, European Buckthorn (*Rhamnus cathartica*), various Fern species, Wintergreen and White Grained Mountain Rice Grass (*Oryzopsis asperifolia*). Open Bedrock Outcrops are exposed throughout this ecosite. Vegetation in the outcrops is minimal given the lack of available substrate, however some species persist within the crevasses of the rock.

The soils were penetrated to a total depth of 75 cm utilizing a hand auger where it was refused, presumably on bedrock. An initial organic soil horizon was observed to a depth of 5 cm. The rest of the sample was comprised of a silty sand with sand content increasing with depth. A small (<5 cm) gravel seam was observed at 30 cm deep. An oxidized reddish brown sandy silt was observed near the surface. A representative sample (Sample #7) was collected in the southwestern area of the FODM1-1 ecosite (Figure 6).

Dry-Fresh White Pine-Hardwood Mixed Forest (FOMM2)

The ELC describes a Dry-Fresh White Pine-Hardwood Mixed Forest (FOMM2) as having greater than 25% coniferous species and greater than 25% deciduous species. This ecosite can contain both White Ash (*Fraxinus americana*) and Yellow Birch (*Betula alleghaniensis*) species, but is primarily comprised of Eastern White Pine and a combination of deciduous species. The deciduous species include American Basswood (*Tilia americana*), Ironwood (*Ostrya virginiana*), and Red Maple. This ecosite will likely possess dry-fresh shallow soils over bedrock.

This ecosite is generally contained within the northwestern portion of the site. Although two (2) separate ecosites are shown, they are part of one

continuous tract that extends beyond the Claim boundary and circles back onto the Claim. This mature ecosite is dominated by Eastern White Pine with a secondary presence of Ironwood and Red Oak. Yellow and White Birch can be found in minor amounts throughout this ecosite. Ground cover is moderately vegetated and is comprised of Bracken Fern, European Buckthorn and young tree species that are reflective of the overall composition of the treed community. Bedrock outcrops are also exposed throughout the ecosite. Vegetation in the outcrops is minimal given the lack of available substrate materials.

A hand auger was sunk into the soils to a total depth of 35 cm where presumably bedrock refused further sampling. An initial organic soil horizon was observed to a depth of 3 cm. The 35 cm sample was comprised of a highly oxidized, reddish brown sandy silt with minor presence of fine gravel. The sample was determined to be damp at 34 cm, immediately prior to presumed bedrock. A representative sample (Sample #8) was collected in the southern area of the north eastern FOMM2 ecosite (Figure 6).

Thicket Swamp (SWT)

The Thicket Swamp (SWT) ecosite typically occurs in wet areas possessing variable flooding regimes with standing water typically less than 2 m in depth. Vegetation can vary in this ecosite but will be dominated by dense trees and/or shrubs. To be considered a wetland community, the substrate has to possess a 20 cm to 40 cm deep organic layer.

A number of isolated and/or connected Thicket Swamps were identified on-site. Dense deciduous shrubs and young trees dominate these ecosites. Although a variety of species are found throughout these ecosites, the dominant shrub and tree species were revealed to be Speckled Alder (*Alnus incana*), Winterberry (*Ilex verticillata*), and Red-osier Dogwood (*Cornus sericea*).

The dominant species varied throughout each wetland. Vegetation rarely exceeded 2.5 m with the exception of infrequent tall (>2.5 m) trees. Ground vegetation was dominated by young thicket species and various fern and sedge species. The small isolated pockets of Thicket Swamp are typically “bowl-type” depression features in the bedrock where periodic pooling occurs. These bedrock depressions support a variety of hydrophytic thicket species. Pockets of standing water and saturated soil conditions are apparent throughout these Thicket Swamps.

A hand auger was utilized to sample the soils to a maximum depth of 110 cm (i.e., limit of capability). An initial organic horizon was observed to a depth of 25 cm. Heavy mottling and gleys were observed from 35 cm to 110 cm. The sample was determined to be a silty sand with increasing sand content and particle size with depth. A representative sample (Sample #9) was collected at the northern shoreline of the northeastern most SWT ecosite (Figure 6).

Graminoid Open Bog (BOOG1)

The ELC describes a Graminoid Open Bog as having less than 25% tree cover as well as an organic layer exceeding depths of 40 cm. Precipitation and snowmelt are the primary water sources for the vegetation within a bog as they are typically characterized by a vegetation community that lies above groundwater level. Bogs also tend to be quite acidic and therefore can only support vegetation that can survive in acidic environments. This ecosite will likely be dominated by sphagnum species and/or a variety of sedge species.

Three (3) main Graminoid Open Bog ecosites were observed on-site. These ecosites were dominated by sedge species, primarily Cotton-grass (*Eriophorum*), and Few-seeded Sedge (*Carex oligosperma*). A ring of open water (<1 m depth) that separates the bedrock outcrops from the floating mat was a common characteristic of the on-site BOOG1 communities. Scattered bushes and young thicket species (e.g., Red-osier Dogwood) are found along the edge and atop some of the tufts in the floating mats in middle of the bog, although all three (3) BOOG1 ecosites contain less than 25% tree over. A soil probe was completed to a depth of 15 cm where presumed bedrock refused any further sampling. The 15 cm sample was comprised of a highly fibrous, root matt with a dark mucky organic substrate. Saturated conditions were met at 8 cm depth, although the rest of the sample was noted as being moist. A representative sample (Sample #3) of the materials was collected at the south eastern shoreline of northern most BOOG1 ecosite (Figure 6).

Black Spruce Treed Bog (BOTC1-1)

The Black Spruce Treed Bog is described by the ELC manual as having between 10% and 25% tree cover. A thick layer of Sphagnum species are typical in this ecosite. The dominant tree species is Black Spruce (*Picea mariana*), also known as Bog Spruce, and can contain other hydrophytic coniferous species. This ecosite is commonly found throughout the Canadian Shield.

One (1) large (12.4 ha) BOTC1-1 ecosite was identified in the northwest area of the property and continues west beyond the property boundary. The ecosite is dominated by Black Spruce, which is commonly found in wet, poorly drained sites. Black Spruce is an adaptable species that can live in a variety of habitats, including acidic bogs. Associate tree species included Tamarack (*Larix laricina*) and Balsam Fir (*Abies balsamea*). Trees within the community ranged from 0.5 m - 10 m in height.

The BOTC1-1 on-site community grows on a thick mat of sphagnum species. Similar to the BOOG1 ecosite, a ring of open water (<1 m depth) that separates the bedrock outcrops from the sphagnum species was apparent throughout the ecosite. Aerial photographs illustrate some small, lightly vegetated bedrock outcrops occurring within these bog communities. The

outcrops are not large enough (>0.5 ha) to be included as their own ecosite and have thus been included within the BOTC1-1 community. An Open Aquatic habitat is also located within the BOTC1-1 ecosite. This community is described in the following section.

A soil analysis was not completed at this ecosite. However, the presence of a peaty organic matt was confirmed.

Open Aquatic (OAO)

Two (2) Open Aquatic ecosites were delineated on the subject property. The larger (1.6 ha, as measured within the Claim) is situated along the western boundary, while the other (0.9 ha as measured within the Claim) is located along the southern boundary, near the southwest corner. These water bodies are hydrologically connected to each other and provide extensive habitat for wildlife.

The body of water along the western property boundary is surrounded by a floating Black Spruce Treed Bog described above. OFAT data suggests this feature drains into the smaller southern body of water. However, field investigations have determined that the smaller southern body of water is blocked by a beaver dam at the north end of the lake, ultimately draining northward through the BOTC1-1 ecosite and into the western Open Aquatic ecosite. The maximum length of the larger body of water (including any off-site portion) is approximately 286 m, while its maximum width is approximately 100 m. The depth of the water body is unknown. Minor floating vegetation occurs within this Open aquatic habitat. Specific species could not be identified as ORE staff were unable to access the floating bog due to the natural moat around the edge.

The southern Open Aquatic ecosite is surrounded by a deciduous Red Oak forest and exposed bedrock outcrops. The lake bottom was dominated by Common Bladderwort (*Utricularia vulgaris*). Pockets of floating vegetation are seen throughout the open water and are typically dominated by Floating-leaved Pondweed (*Potamogeton natans*). An outcrop in the middle of the open area contains minor vegetation. Basking logs are also present along the shoreline suggesting good habitat for herpetiles. Contradictory to data obtained using the MNRF's OFAT, this body of water drains northward into the larger body of water via a stream. Two (2) beaver dams were observed along this drainage channel.

Appendix G

Bat Detector Summary

Bat Detection Summary Brief						
Location ID:		BD1		BD2		Occurrence
Common Name	Scientific Name	Confirmed	Probable	Confirmed	Probable	% of Identifiable Calls
Eastern Small-Footed Myotis	<i>Myotis leibii</i>	0	0	0	0	0.00%
Northern Long-eared Myotis	<i>Myotis septentrionalis</i>	0	0	0	0	0.00%
Little Brown Myotis (Bat)	<i>Myotis lucifugus</i>	0	0	0	0	0.00%
Tri-coloured Bat	<i>Perimyotis subflavus</i>	0	0	0	0	0.00%
Eastern Red Bat	<i>Lasiurus borealis</i>	0	0	0	0	0.00%
Big Brown Bat	<i>Eptesicus fuscus</i>	0	0	0	0	0.00%
Silver-haired Bat	<i>Lasionycteris noctivagans</i>	0	0	0	0	0.00%
Hoary Bat	<i>Lasiurus cinereus</i>	0	0	0	0	0.00%
Number of Files:		67		1049		
Files with Identifiable Calls:		0		1		
High Frequency:		0		0		
Low Frequency:		0		1		
High/Low Frequency		0		0		

DETAILED BAT DETECTOR SUMMARY DATA													
Location	File Name	High Frequency	Low Frequency	Confirmed Species	Probable Species	1st Order	2nd Order	3rd Order	4th Order	Probable ID	Manual Check	Scientific Name	Common Name
BD1	2021-10-28 19-23-46.wav									Signal Interference			
BD1	2021-10-28 19-23-51.wav									Signal Interference			
BD1	2021-10-28 19-24-07.wav									Signal Interference			
BD1	2021-10-28 19-24-27.wav									Signal Interference			
BD1	2021-10-29 20-50-07.wav									Signal Interference			
BD1	2021-10-29 20-50-35.wav									Signal Interference			
BD1	2021-10-29 20-51-26.wav									Signal Interference			
BD1	2021-10-30 02-36-40.wav									Signal Interference			
BD1	2021-10-30 02-38-11.wav									Signal Interference			
BD1	2021-10-30 03-13-39.wav									Signal Interference			
BD1	2021-10-30 03-23-42.wav									Signal Interference			
BD1	2021-10-30 04-09-38.wav									Signal Interference			
BD1	2021-10-30 04-13-21.wav									Signal Interference			
BD1	2021-10-30 17-48-45.wav									Signal Interference			
BD1	2021-10-30 18-16-48.wav									Signal Interference			
BD1	2021-10-30 18-54-14.wav									Signal Interference			
BD1	2021-10-30 18-57-37.wav									Signal Interference			
BD1	2021-10-30 19-05-49.wav									Signal Interference			
BD1	2021-10-30 19-09-04.wav									Signal Interference			
BD1	2021-10-30 20-30-20.wav									Signal Interference			
BD1	2021-10-30 20-31-32.wav									Signal Interference			
BD1	2021-10-30 20-49-51.wav									Signal Interference			
BD1	2021-10-30 20-55-11.wav									Signal Interference			
BD1	2021-10-30 21-07-26.wav									Signal Interference			
BD1	2021-10-30 21-28-41.wav									Signal Interference			
BD1	2021-10-30 21-30-38.wav									Signal Interference			
BD1	2021-10-30 21-31-04.wav									Signal Interference			
BD1	2021-10-30 21-33-05.wav									Signal Interference			
BD1	2021-10-30 21-34-11.wav									Signal Interference			
BD1	2021-10-30 21-34-46.wav									Signal Interference			
BD1	2021-10-30 21-34-59.wav									Signal Interference			
BD1	2021-10-30 21-38-23.wav									Signal Interference			
BD1	2021-10-30 21-39-23.wav									Signal Interference			
BD1	2021-10-30 21-40-48.wav									Signal Interference			
BD1	2021-10-30 21-41-00.wav									Signal Interference			
BD1	2021-10-30 21-41-06.wav									Signal Interference			
BD1	2021-10-30 21-41-52.wav									Signal Interference			
BD1	2021-10-30 21-42-26.wav									Signal Interference			
BD1	2021-10-30 21-43-10.wav									Signal Interference			
BD1	2021-10-30 21-43-41.wav									Signal Interference			
BD1	2021-10-30 21-44-18.wav									Signal Interference			
BD1	2021-10-30 21-44-52.wav									Signal Interference			
BD1	2021-10-30 21-45-25.wav									Signal Interference			
BD1	2021-10-30 21-45-37.wav									Signal Interference			
BD1	2021-10-30 21-45-56.wav									Signal Interference			
BD1	2021-10-30 21-48-16.wav									Signal Interference			
BD1	2021-10-30 21-52-16.wav									Signal Interference			
BD1	2021-10-30 21-52-32.wav									Signal Interference			
BD1	2021-10-30 21-55-58.wav									Signal Interference			
BD1	2021-10-30 21-59-46.wav									Signal Interference			
BD1	2021-10-30 22-00-17.wav									Signal Interference			
BD1	2021-10-30 22-02-52.wav									Signal Interference			
BD1	2021-10-30 22-03-02.wav									Signal Interference			
BD1	2021-10-30 22-04-07.wav									Signal Interference			
BD1	2021-10-30 22-07-29.wav									Signal Interference			
BD1	2021-10-30 22-08-14.wav									Signal Interference			
BD1	2021-10-30 22-09-10.wav									Signal Interference			
BD1	2021-10-30 22-32-49.wav									Signal Interference			
BD1	2021-10-31 02-42-33.wav									Signal Interference			
BD1	2021-10-31 03-26-56.wav									Signal Interference			
BD1	2021-10-31 03-42-28.wav									Signal Interference			
BD1	2021-10-31 03-48-43.wav									Signal Interference			
BD1	2021-10-31 04-06-00.wav									Signal Interference			
BD1	2021-10-31 04-20-05.wav									Signal Interference			
BD1	2021-10-31 04-36-33.wav									Signal Interference			
BD1	2021-10-31 04-55-28.wav									Signal Interference			
BD1	2021-10-31 06-34-21.wav									Signal Interference			
BD2	2021-10-28 19-11-40.wav									Signal Interference			
BD2	2021-10-28 19-40-08.wav		1							Unknown			
BD2	2021-10-28 19-40-19.wav									Signal Interference			
BD2	2021-10-28 19-41-05.wav									Signal Interference			
BD2	2021-10-28 19-54-56.wav									Signal Interference			

Location	File Name	High Frequency	Low Frequency	Confirmed Species	Probable Species	1st Order	2nd Order	3rd Order	4th Order	Probable ID	Manual Check	Scientific Name	Common Name
BD2	2021-10-29 17-35-36.wav									Signal Interference			
BD2	2021-10-29 18-11-32.wav									Signal Interference			
BD2	2021-10-29 19-01-04.wav									Signal Interference			
BD2	2021-10-29 19-34-35.wav									Signal Interference			
BD2	2021-10-29 21-45-38.wav									Signal Interference			
BD2	2021-10-29 21-45-49.wav									Signal Interference			
BD2	2021-10-29 21-45-56.wav									Signal Interference			
BD2	2021-10-29 21-46-03.wav									Signal Interference			
BD2	2021-10-29 21-46-09.wav									Signal Interference			
BD2	2021-10-29 21-46-18.wav									Signal Interference			
BD2	2021-10-29 21-46-30.wav									Signal Interference			
BD2	2021-10-29 21-46-36.wav									Signal Interference			
BD2	2021-10-29 21-46-41.wav									Signal Interference			
BD2	2021-10-29 21-46-52.wav									Signal Interference			
BD2	2021-10-29 21-46-58.wav									Signal Interference			
BD2	2021-10-29 21-59-50.wav									Signal Interference			
BD2	2021-10-29 22-00-03.wav									Signal Interference			
BD2	2021-10-29 22-00-46.wav									Signal Interference			
BD2	2021-10-29 22-01-22.wav									Signal Interference			
BD2	2021-10-29 22-11-40.wav									Signal Interference			
BD2	2021-10-29 22-15-10.wav									Signal Interference			
BD2	2021-10-29 22-15-24.wav									Signal Interference			
BD2	2021-10-29 22-15-34.wav									Signal Interference			
BD2	2021-10-29 22-15-44.wav									Signal Interference			
BD2	2021-10-29 22-15-53.wav									Signal Interference			
BD2	2021-10-29 22-16-18.wav									Signal Interference			
BD2	2021-10-29 22-16-29.wav									Signal Interference			
BD2	2021-10-29 22-20-28.wav									Signal Interference			
BD2	2021-10-29 22-21-46.wav									Signal Interference			
BD2	2021-10-29 22-22-47.wav									Signal Interference			
BD2	2021-10-29 22-22-54.wav									Signal Interference			
BD2	2021-10-29 22-25-30.wav									Signal Interference			
BD2	2021-10-29 22-26-42.wav									Signal Interference			
BD2	2021-10-29 22-27-08.wav									Signal Interference			
BD2	2021-10-29 22-27-12.wav									Signal Interference			
BD2	2021-10-29 22-28-00.wav									Signal Interference			
BD2	2021-10-29 22-30-33.wav									Signal Interference			
BD2	2021-10-29 22-33-43.wav									Signal Interference			
BD2	2021-10-29 22-37-20.wav									Signal Interference			
BD2	2021-10-29 22-39-50.wav									Signal Interference			
BD2	2021-10-29 22-49-11.wav									Signal Interference			
BD2	2021-10-29 23-36-19.wav									Signal Interference			
BD2	2021-10-30 00-18-24.wav									Signal Interference			
BD2	2021-10-30 00-26-50.wav									Signal Interference			
BD2	2021-10-30 00-40-06.wav									Signal Interference			
BD2	2021-10-30 00-40-52.wav									Signal Interference			
BD2	2021-10-30 00-41-05.wav									Signal Interference			
BD2	2021-10-30 01-16-29.wav									Signal Interference			
BD2	2021-10-30 01-18-33.wav									Signal Interference			
BD2	2021-10-30 01-18-44.wav									Signal Interference			
BD2	2021-10-30 01-18-57.wav									Signal Interference			
BD2	2021-10-30 01-29-34.wav									Signal Interference			
BD2	2021-10-30 01-29-41.wav									Signal Interference			
BD2	2021-10-30 01-30-27.wav									Signal Interference			
BD2	2021-10-30 01-35-30.wav									Signal Interference			
BD2	2021-10-30 01-57-05.wav									Signal Interference			
BD2	2021-10-30 01-57-25.wav									Signal Interference			
BD2	2021-10-30 01-57-30.wav									Signal Interference			
BD2	2021-10-30 01-57-37.wav									Signal Interference			
BD2	2021-10-30 01-57-51.wav									Signal Interference			
BD2	2021-10-30 01-57-59.wav									Signal Interference			
BD2	2021-10-30 01-58-08.wav									Signal Interference			
BD2	2021-10-30 01-58-13.wav									Signal Interference			
BD2	2021-10-30 01-58-31.wav									Signal Interference			
BD2	2021-10-30 01-58-34.wav									Signal Interference			
BD2	2021-10-30 01-58-39.wav									Signal Interference			
BD2	2021-10-30 01-58-42.wav									Signal Interference			
BD2	2021-10-30 01-58-48.wav									Signal Interference			
BD2	2021-10-30 01-58-52.wav									Signal Interference			
BD2	2021-10-30 01-59-17.wav									Signal Interference			
BD2	2021-10-30 01-59-25.wav									Signal Interference			
BD2	2021-10-30 01-59-29.wav									Signal Interference			
BD2	2021-10-30 01-59-44.wav									Signal Interference			

Location	File Name	High Frequency	Low Frequency	Confirmed Species	Probable Species	1st Order	2nd Order	3rd Order	4th Order	Probable ID	Manual Check	Scientific Name	Common Name
BD2	2021-10-30 01-59-49.wav									Signal Interference			
BD2	2021-10-30 02-00-13.wav									Signal Interference			
BD2	2021-10-30 02-00-20.wav									Signal Interference			
BD2	2021-10-30 02-00-58.wav									Signal Interference			
BD2	2021-10-30 02-01-01.wav									Signal Interference			
BD2	2021-10-30 02-02-22.wav									Signal Interference			
BD2	2021-10-30 02-02-25.wav									Signal Interference			
BD2	2021-10-30 02-02-44.wav									Signal Interference			
BD2	2021-10-30 02-02-53.wav									Signal Interference			
BD2	2021-10-30 02-02-58.wav									Signal Interference			
BD2	2021-10-30 02-03-00.wav									Signal Interference			
BD2	2021-10-30 02-03-14.wav									Signal Interference			
BD2	2021-10-30 02-03-16.wav									Signal Interference			
BD2	2021-10-30 02-04-00.wav									Signal Interference			
BD2	2021-10-30 02-04-03.wav									Signal Interference			
BD2	2021-10-30 02-04-17.wav									Signal Interference			
BD2	2021-10-30 02-04-23.wav									Signal Interference			
BD2	2021-10-30 02-04-34.wav									Signal Interference			
BD2	2021-10-30 02-05-12.wav									Signal Interference			
BD2	2021-10-30 02-05-31.wav									Signal Interference			
BD2	2021-10-30 02-05-39.wav									Signal Interference			
BD2	2021-10-30 02-05-46.wav									Signal Interference			
BD2	2021-10-30 02-05-48.wav									Signal Interference			
BD2	2021-10-30 02-05-51.wav									Signal Interference			
BD2	2021-10-30 02-05-56.wav									Signal Interference			
BD2	2021-10-30 02-06-02.wav									Signal Interference			
BD2	2021-10-30 02-06-15.wav									Signal Interference			
BD2	2021-10-30 02-06-29.wav									Signal Interference			
BD2	2021-10-30 02-06-39.wav									Signal Interference			
BD2	2021-10-30 02-06-42.wav									Signal Interference			
BD2	2021-10-30 02-06-48.wav									Signal Interference			
BD2	2021-10-30 02-06-51.wav									Signal Interference			
BD2	2021-10-30 02-06-57.wav									Signal Interference			
BD2	2021-10-30 02-07-03.wav									Signal Interference			
BD2	2021-10-30 02-07-10.wav									Signal Interference			
BD2	2021-10-30 02-07-19.wav									Signal Interference			
BD2	2021-10-30 02-07-23.wav									Signal Interference			
BD2	2021-10-30 02-07-29.wav									Signal Interference			
BD2	2021-10-30 02-08-10.wav									Signal Interference			
BD2	2021-10-30 02-08-22.wav									Signal Interference			
BD2	2021-10-30 02-08-25.wav									Signal Interference			
BD2	2021-10-30 02-08-43.wav									Signal Interference			
BD2	2021-10-30 02-09-20.wav									Signal Interference			
BD2	2021-10-30 02-09-33.wav									Signal Interference			
BD2	2021-10-30 02-09-41.wav									Signal Interference			
BD2	2021-10-30 02-09-46.wav									Signal Interference			
BD2	2021-10-30 02-09-54.wav									Signal Interference			
BD2	2021-10-30 02-10-22.wav									Signal Interference			
BD2	2021-10-30 02-10-38.wav									Signal Interference			
BD2	2021-10-30 02-10-56.wav									Signal Interference			
BD2	2021-10-30 02-11-02.wav									Signal Interference			
BD2	2021-10-30 02-11-09.wav									Signal Interference			
BD2	2021-10-30 02-11-25.wav									Signal Interference			
BD2	2021-10-30 02-11-29.wav									Signal Interference			
BD2	2021-10-30 02-11-43.wav									Signal Interference			
BD2	2021-10-30 02-11-59.wav									Signal Interference			
BD2	2021-10-30 02-12-38.wav									Signal Interference			
BD2	2021-10-30 02-13-58.wav									Signal Interference			
BD2	2021-10-30 02-14-27.wav									Signal Interference			
BD2	2021-10-30 02-14-30.wav									Signal Interference			
BD2	2021-10-30 02-14-40.wav									Signal Interference			
BD2	2021-10-30 02-14-49.wav									Signal Interference			
BD2	2021-10-30 02-15-31.wav									Signal Interference			
BD2	2021-10-30 02-15-40.wav									Signal Interference			
BD2	2021-10-30 02-15-43.wav									Signal Interference			
BD2	2021-10-30 02-15-49.wav									Signal Interference			
BD2	2021-10-30 02-16-03.wav									Signal Interference			
BD2	2021-10-30 02-16-16.wav									Signal Interference			
BD2	2021-10-30 02-16-31.wav									Signal Interference			
BD2	2021-10-30 02-16-46.wav									Signal Interference			
BD2	2021-10-30 02-16-52.wav									Signal Interference			
BD2	2021-10-30 02-18-17.wav									Signal Interference			
BD2	2021-10-30 02-18-22.wav									Signal Interference			

Location	File Name	High Frequency	Low Frequency	Confirmed Species	Probable Species	1st Order	2nd Order	3rd Order	4th Order	Probable ID	Manual Check	Scientific Name	Common Name
BD2	2021-10-30 02-19-05.wav									Signal Interference			
BD2	2021-10-30 02-19-56.wav									Signal Interference			
BD2	2021-10-30 02-20-23.wav									Signal Interference			
BD2	2021-10-30 02-20-37.wav									Signal Interference			
BD2	2021-10-30 02-21-06.wav									Signal Interference			
BD2	2021-10-30 02-21-30.wav									Signal Interference			
BD2	2021-10-30 02-21-39.wav									Signal Interference			
BD2	2021-10-30 02-21-47.wav									Signal Interference			
BD2	2021-10-30 02-22-15.wav									Signal Interference			
BD2	2021-10-30 02-22-20.wav									Signal Interference			
BD2	2021-10-30 02-22-41.wav									Signal Interference			
BD2	2021-10-30 02-22-53.wav									Signal Interference			
BD2	2021-10-30 02-22-59.wav									Signal Interference			
BD2	2021-10-30 02-23-45.wav									Signal Interference			
BD2	2021-10-30 02-23-59.wav									Signal Interference			
BD2	2021-10-30 02-24-16.wav									Signal Interference			
BD2	2021-10-30 02-24-21.wav									Signal Interference			
BD2	2021-10-30 02-25-01.wav									Signal Interference			
BD2	2021-10-30 02-25-08.wav									Signal Interference			
BD2	2021-10-30 02-25-10.wav									Signal Interference			
BD2	2021-10-30 02-25-25.wav									Signal Interference			
BD2	2021-10-30 02-25-28.wav									Signal Interference			
BD2	2021-10-30 02-25-37.wav									Signal Interference			
BD2	2021-10-30 02-25-40.wav									Signal Interference			
BD2	2021-10-30 02-25-45.wav									Signal Interference			
BD2	2021-10-30 02-26-17.wav									Signal Interference			
BD2	2021-10-30 02-26-31.wav									Signal Interference			
BD2	2021-10-30 02-26-38.wav									Signal Interference			
BD2	2021-10-30 02-26-56.wav									Signal Interference			
BD2	2021-10-30 02-27-17.wav									Signal Interference			
BD2	2021-10-30 02-27-25.wav									Signal Interference			
BD2	2021-10-30 02-27-35.wav									Signal Interference			
BD2	2021-10-30 02-27-42.wav									Signal Interference			
BD2	2021-10-30 02-27-46.wav									Signal Interference			
BD2	2021-10-30 02-28-00.wav									Signal Interference			
BD2	2021-10-30 02-28-09.wav									Signal Interference			
BD2	2021-10-30 02-28-30.wav									Signal Interference			
BD2	2021-10-30 02-28-37.wav									Signal Interference			
BD2	2021-10-30 02-28-39.wav									Signal Interference			
BD2	2021-10-30 02-28-46.wav									Signal Interference			
BD2	2021-10-30 02-28-51.wav									Signal Interference			
BD2	2021-10-30 02-28-53.wav									Signal Interference			
BD2	2021-10-30 02-28-57.wav									Signal Interference			
BD2	2021-10-30 02-29-00.wav									Signal Interference			
BD2	2021-10-30 02-29-02.wav									Signal Interference			
BD2	2021-10-30 02-29-18.wav									Signal Interference			
BD2	2021-10-30 02-29-31.wav									Signal Interference			
BD2	2021-10-30 02-29-34.wav									Signal Interference			
BD2	2021-10-30 02-29-42.wav									Signal Interference			
BD2	2021-10-30 02-29-48.wav									Signal Interference			
BD2	2021-10-30 02-30-07.wav									Signal Interference			
BD2	2021-10-30 02-30-11.wav									Signal Interference			
BD2	2021-10-30 02-30-16.wav									Signal Interference			
BD2	2021-10-30 02-30-27.wav									Signal Interference			
BD2	2021-10-30 02-30-32.wav									Signal Interference			
BD2	2021-10-30 02-30-35.wav									Signal Interference			
BD2	2021-10-30 02-30-39.wav									Signal Interference			
BD2	2021-10-30 02-30-44.wav									Signal Interference			
BD2	2021-10-30 02-30-47.wav									Signal Interference			
BD2	2021-10-30 02-30-51.wav									Signal Interference			
BD2	2021-10-30 02-30-54.wav									Signal Interference			
BD2	2021-10-30 02-31-03.wav									Signal Interference			
BD2	2021-10-30 02-31-10.wav									Signal Interference			
BD2	2021-10-30 02-31-14.wav									Signal Interference			
BD2	2021-10-30 02-31-18.wav									Signal Interference			
BD2	2021-10-30 02-31-27.wav									Signal Interference			
BD2	2021-10-30 02-31-45.wav									Signal Interference			
BD2	2021-10-30 02-32-09.wav									Signal Interference			
BD2	2021-10-30 02-32-12.wav									Signal Interference			
BD2	2021-10-30 02-32-15.wav									Signal Interference			
BD2	2021-10-30 02-32-27.wav									Signal Interference			
BD2	2021-10-30 02-32-39.wav									Signal Interference			
BD2	2021-10-30 02-32-54.wav									Signal Interference			

Location	File Name	High Frequency	Low Frequency	Confirmed Species	Probable Species	1st Order	2nd Order	3rd Order	4th Order	Probable ID	Manual Check	Scientific Name	Common Name
BD2	2021-10-30 02-32-57.wav									Signal Interference			
BD2	2021-10-30 02-33-10.wav									Signal Interference			
BD2	2021-10-30 02-33-12.wav									Signal Interference			
BD2	2021-10-30 02-33-17.wav									Signal Interference			
BD2	2021-10-30 02-33-22.wav									Signal Interference			
BD2	2021-10-30 02-33-33.wav									Signal Interference			
BD2	2021-10-30 02-33-42.wav									Signal Interference			
BD2	2021-10-30 02-33-53.wav									Signal Interference			
BD2	2021-10-30 02-34-07.wav									Signal Interference			
BD2	2021-10-30 02-34-09.wav									Signal Interference			
BD2	2021-10-30 02-34-28.wav									Signal Interference			
BD2	2021-10-30 02-34-36.wav									Signal Interference			
BD2	2021-10-30 02-34-42.wav									Signal Interference			
BD2	2021-10-30 02-34-44.wav									Signal Interference			
BD2	2021-10-30 02-34-51.wav									Signal Interference			
BD2	2021-10-30 02-34-53.wav									Signal Interference			
BD2	2021-10-30 02-34-56.wav									Signal Interference			
BD2	2021-10-30 02-34-59.wav									Signal Interference			
BD2	2021-10-30 02-35-02.wav									Signal Interference			
BD2	2021-10-30 02-35-09.wav									Signal Interference			
BD2	2021-10-30 02-35-11.wav									Signal Interference			
BD2	2021-10-30 02-35-18.wav									Signal Interference			
BD2	2021-10-30 02-35-22.wav									Signal Interference			
BD2	2021-10-30 02-35-25.wav									Signal Interference			
BD2	2021-10-30 02-35-32.wav									Signal Interference			
BD2	2021-10-30 02-35-48.wav									Signal Interference			
BD2	2021-10-30 02-35-56.wav									Signal Interference			
BD2	2021-10-30 02-35-59.wav									Signal Interference			
BD2	2021-10-30 02-36-04.wav									Signal Interference			
BD2	2021-10-30 02-36-11.wav									Signal Interference			
BD2	2021-10-30 02-36-17.wav									Signal Interference			
BD2	2021-10-30 02-36-26.wav									Signal Interference			
BD2	2021-10-30 02-36-30.wav									Signal Interference			
BD2	2021-10-30 02-36-33.wav									Signal Interference			
BD2	2021-10-30 02-36-46.wav									Signal Interference			
BD2	2021-10-30 02-36-49.wav									Signal Interference			
BD2	2021-10-30 02-36-53.wav									Signal Interference			
BD2	2021-10-30 02-36-56.wav									Signal Interference			
BD2	2021-10-30 02-37-04.wav									Signal Interference			
BD2	2021-10-30 02-37-08.wav									Signal Interference			
BD2	2021-10-30 02-37-15.wav									Signal Interference			
BD2	2021-10-30 02-37-17.wav									Signal Interference			
BD2	2021-10-30 02-37-32.wav									Signal Interference			
BD2	2021-10-30 02-37-37.wav									Signal Interference			
BD2	2021-10-30 02-37-41.wav									Signal Interference			
BD2	2021-10-30 02-37-47.wav									Signal Interference			
BD2	2021-10-30 02-37-54.wav									Signal Interference			
BD2	2021-10-30 02-37-59.wav									Signal Interference			
BD2	2021-10-30 02-38-15.wav									Signal Interference			
BD2	2021-10-30 02-38-20.wav									Signal Interference			
BD2	2021-10-30 02-38-22.wav									Signal Interference			
BD2	2021-10-30 02-38-33.wav									Signal Interference			
BD2	2021-10-30 02-38-52.wav									Signal Interference			
BD2	2021-10-30 02-38-55.wav									Signal Interference			
BD2	2021-10-30 02-38-59.wav									Signal Interference			
BD2	2021-10-30 02-39-09.wav									Signal Interference			
BD2	2021-10-30 02-39-26.wav									Signal Interference			
BD2	2021-10-30 02-39-36.wav									Signal Interference			
BD2	2021-10-30 02-39-38.wav									Signal Interference			
BD2	2021-10-30 02-39-56.wav									Signal Interference			
BD2	2021-10-30 02-40-04.wav									Signal Interference			
BD2	2021-10-30 02-40-09.wav									Signal Interference			
BD2	2021-10-30 02-40-12.wav									Signal Interference			
BD2	2021-10-30 02-40-20.wav									Signal Interference			
BD2	2021-10-30 02-40-27.wav									Signal Interference			
BD2	2021-10-30 02-40-33.wav									Signal Interference			
BD2	2021-10-30 02-40-41.wav									Signal Interference			
BD2	2021-10-30 02-40-59.wav									Signal Interference			
BD2	2021-10-30 02-41-11.wav									Signal Interference			
BD2	2021-10-30 02-41-15.wav									Signal Interference			
BD2	2021-10-30 02-41-18.wav									Signal Interference			
BD2	2021-10-30 02-41-22.wav									Signal Interference			
BD2	2021-10-30 02-41-24.wav									Signal Interference			

Location	File Name	High Frequency	Low Frequency	Confirmed Species	Probable Species	1st Order	2nd Order	3rd Order	4th Order	Probable ID	Manual Check	Scientific Name	Common Name
BD2	2021-10-30 02-41-27.wav									Signal Interference			
BD2	2021-10-30 02-41-32.wav									Signal Interference			
BD2	2021-10-30 02-41-37.wav									Signal Interference			
BD2	2021-10-30 02-41-52.wav									Signal Interference			
BD2	2021-10-30 02-42-02.wav									Signal Interference			
BD2	2021-10-30 02-42-08.wav									Signal Interference			
BD2	2021-10-30 02-42-12.wav									Signal Interference			
BD2	2021-10-30 02-42-21.wav									Signal Interference			
BD2	2021-10-30 02-42-24.wav									Signal Interference			
BD2	2021-10-30 02-42-29.wav									Signal Interference			
BD2	2021-10-30 02-42-34.wav									Signal Interference			
BD2	2021-10-30 02-42-40.wav									Signal Interference			
BD2	2021-10-30 02-42-46.wav									Signal Interference			
BD2	2021-10-30 02-42-53.wav									Signal Interference			
BD2	2021-10-30 02-42-59.wav									Signal Interference			
BD2	2021-10-30 02-43-12.wav									Signal Interference			
BD2	2021-10-30 02-43-17.wav									Signal Interference			
BD2	2021-10-30 02-43-22.wav									Signal Interference			
BD2	2021-10-30 02-43-26.wav									Signal Interference			
BD2	2021-10-30 02-43-28.wav									Signal Interference			
BD2	2021-10-30 02-43-32.wav									Signal Interference			
BD2	2021-10-30 02-43-37.wav									Signal Interference			
BD2	2021-10-30 02-43-41.wav									Signal Interference			
BD2	2021-10-30 02-43-43.wav									Signal Interference			
BD2	2021-10-30 02-43-52.wav									Signal Interference			
BD2	2021-10-30 02-43-57.wav									Signal Interference			
BD2	2021-10-30 02-44-12.wav									Signal Interference			
BD2	2021-10-30 02-44-16.wav									Signal Interference			
BD2	2021-10-30 02-44-20.wav									Signal Interference			
BD2	2021-10-30 02-44-30.wav									Signal Interference			
BD2	2021-10-30 02-44-33.wav									Signal Interference			
BD2	2021-10-30 02-44-37.wav									Signal Interference			
BD2	2021-10-30 02-44-42.wav									Signal Interference			
BD2	2021-10-30 02-44-45.wav									Signal Interference			
BD2	2021-10-30 02-44-51.wav									Signal Interference			
BD2	2021-10-30 02-45-03.wav									Signal Interference			
BD2	2021-10-30 02-45-16.wav									Signal Interference			
BD2	2021-10-30 02-45-18.wav									Signal Interference			
BD2	2021-10-30 02-45-20.wav									Signal Interference			
BD2	2021-10-30 02-45-24.wav									Signal Interference			
BD2	2021-10-30 02-45-35.wav									Signal Interference			
BD2	2021-10-30 02-45-39.wav									Signal Interference			
BD2	2021-10-30 02-45-43.wav									Signal Interference			
BD2	2021-10-30 02-45-58.wav									Signal Interference			
BD2	2021-10-30 02-46-00.wav									Signal Interference			
BD2	2021-10-30 02-46-15.wav									Signal Interference			
BD2	2021-10-30 02-46-18.wav									Signal Interference			
BD2	2021-10-30 02-46-22.wav									Signal Interference			
BD2	2021-10-30 02-46-34.wav									Signal Interference			
BD2	2021-10-30 02-46-36.wav									Signal Interference			
BD2	2021-10-30 02-46-39.wav									Signal Interference			
BD2	2021-10-30 02-46-43.wav									Signal Interference			
BD2	2021-10-30 02-47-01.wav									Signal Interference			
BD2	2021-10-30 02-47-10.wav									Signal Interference			
BD2	2021-10-30 02-47-16.wav									Signal Interference			
BD2	2021-10-30 02-47-21.wav									Signal Interference			
BD2	2021-10-30 02-47-25.wav									Signal Interference			
BD2	2021-10-30 02-47-30.wav									Signal Interference			
BD2	2021-10-30 02-47-35.wav									Signal Interference			
BD2	2021-10-30 02-47-48.wav									Signal Interference			
BD2	2021-10-30 02-48-01.wav									Signal Interference			
BD2	2021-10-30 02-48-11.wav									Signal Interference			
BD2	2021-10-30 02-48-14.wav									Signal Interference			
BD2	2021-10-30 02-48-29.wav									Signal Interference			
BD2	2021-10-30 02-48-43.wav									Signal Interference			
BD2	2021-10-30 02-48-55.wav									Signal Interference			
BD2	2021-10-30 02-48-58.wav									Signal Interference			
BD2	2021-10-30 02-49-00.wav									Signal Interference			
BD2	2021-10-30 02-49-04.wav									Signal Interference			
BD2	2021-10-30 02-49-25.wav									Signal Interference			
BD2	2021-10-30 02-49-35.wav									Signal Interference			
BD2	2021-10-30 02-49-42.wav									Signal Interference			
BD2	2021-10-30 02-49-47.wav									Signal Interference			

Location	File Name	High Frequency	Low Frequency	Confirmed Species	Probable Species	1st Order	2nd Order	3rd Order	4th Order	Probable ID	Manual Check	Scientific Name	Common Name
BD2	2021-10-30 02-49-52.wav									Signal Interference			
BD2	2021-10-30 02-50-06.wav									Signal Interference			
BD2	2021-10-30 02-50-12.wav									Signal Interference			
BD2	2021-10-30 02-50-27.wav									Signal Interference			
BD2	2021-10-30 02-50-40.wav									Signal Interference			
BD2	2021-10-30 02-50-56.wav									Signal Interference			
BD2	2021-10-30 02-51-13.wav									Signal Interference			
BD2	2021-10-30 02-51-29.wav									Signal Interference			
BD2	2021-10-30 02-51-34.wav									Signal Interference			
BD2	2021-10-30 02-51-38.wav									Signal Interference			
BD2	2021-10-30 02-51-46.wav									Signal Interference			
BD2	2021-10-30 02-51-49.wav									Signal Interference			
BD2	2021-10-30 02-51-54.wav									Signal Interference			
BD2	2021-10-30 02-52-12.wav									Signal Interference			
BD2	2021-10-30 02-52-25.wav									Signal Interference			
BD2	2021-10-30 02-52-35.wav									Signal Interference			
BD2	2021-10-30 02-52-41.wav									Signal Interference			
BD2	2021-10-30 02-52-44.wav									Signal Interference			
BD2	2021-10-30 02-53-02.wav									Signal Interference			
BD2	2021-10-30 02-53-10.wav									Signal Interference			
BD2	2021-10-30 02-53-28.wav									Signal Interference			
BD2	2021-10-30 02-53-34.wav									Signal Interference			
BD2	2021-10-30 02-53-51.wav									Signal Interference			
BD2	2021-10-30 02-54-09.wav									Signal Interference			
BD2	2021-10-30 02-54-14.wav									Signal Interference			

Appendix H

Species List

Species Occurrences

Amphibians

COMMON NAME	SCIENTIFIC NAME	RANK
Blue-spotted Salamander	Ambystoma laterale	S4
Eastern Red-backed Salamander	Plethodon cinereus	S5

Birds

COMMON NAME	SCIENTIFIC NAME	RANK
Blue-winged Teal	Anas discors	S4
Ruffed Grouse	Bonasa umbellus	S4
Purple Finch	Carpodacus purpureus	S4B
Northern Flicker	Colaptes auratus	S4B
Ovenbird	Seiurus aurocapilla	S4B
Wood Duck	Aix sponsa	S5
Blue Jay	Cyanocitta cristata	S5
Common Raven	Corvus corax	S5
Downy Woodpecker	Picoides pubescens	S5
Canada Goose	Branta canadensis	S5
White-breasted Nuthatch	Sitta carolinensis	S5
Red-breasted Nuthatch	Sitta canadensis	S5
Black-capped Chickadee	Poecile atricapillus	S5
Wild Turkey	Meleagris gallopavo	S5
Ring-necked Duck	Aythya collaris	S5
Mallard	Anas platyrhynchos	S5
Pileated Woodpecker	Dryocopus pileatus	S5
American Goldfinch	Carduelis tristis	S5B
White-throated Sparrow	Zonotrichia albicollis	S5B
Dark-eyed Junco	Junco hyemalis	S5B
Common Grackle	Quiscalus quiscula	S5B
Song Sparrow	Melospiza melodia	S5B
Hooded Merganser	Lophodytes cucullatus	S5B,S5N
Common Loon	Gavia immer	S5B,S5N
European Starling	Sturnus vulgaris	SNA
Snow Bunting	Plectrophenax nivalis	SNA

Mammals

COMMON NAME	SCIENTIFIC NAME	RANK
American Mink	Mustela vison	S4
Northern Raccoon	Procyon lotor	S5
Red Squirrel	Tamiasciurus hudsonicus	S5
Muskrat	Ondatra zibethicus	S5
Meadow Vole	Microtus pennsylvanicus	S5
Beaver	Castor canadensis	S5
Red Fox	Vulpes vulpes	S5

Coyote	<i>Canis latrans</i>	S5
Eastern Chipmunk	<i>Tamias striatus</i>	S5
Eastern Cottontail	<i>Sylvilagus floridanus</i>	S5
White-tailed Deer	<i>Odocoileus virginianus</i>	S5

Vascular Plants

COMMON NAME	SCIENTIFIC NAME	RANK
Smooth Scouring-rush	<i>Equisetum laevigatum</i>	S4
New Jersey Tea	<i>Ceanothus americanus</i>	S4
American Beech	<i>Fagus grandifolia</i>	S4
Beach Pea	<i>Lathyrus japonicus</i>	S4
Few-seeded Sedge	<i>Carex oligosperma</i>	S4
Virginia Creeper	<i>Parthenocissus quinquefolia</i>	S4?
Squaw-root	<i>Conopholis americana</i>	S4?
White Ash	<i>Fraxinus americana</i>	S4?
Eastern Hop-hornbeam	<i>Ostrya virginiana</i>	S5
Paper Birch	<i>Betula papyrifera</i>	S5
Dudley's Rush	<i>Juncus dudleyi</i>	S5
Mossy-cup Oak	<i>Quercus macrocarpa</i>	S5
Jack-in-the-pulpit	<i>Arisaema triphyllum</i>	S5
Peach-leaved Willow	<i>Salix amygdaloides</i>	S5
Tussock Sedge	<i>Carex stricta</i>	S5
Speckled Alder	<i>Alnus incana</i>	S5
White Oak	<i>Quercus alba</i>	S5
Wild Columbine	<i>Aquilegia canadensis</i>	S5
Trembling Aspen	<i>Populus tremuloides</i>	S5
White-grained Mountain-ricegrass	<i>Oryzopsis asperifolia</i>	S5
Pussy Willow	<i>Salix discolor</i>	S5
Yellow Trout-lily	<i>Erythronium americanum</i>	S5
White Trillium	<i>Trillium grandiflorum</i>	S5
Balsam Poplar	<i>Populus balsamifera</i>	S5
Sweet Fern	<i>Comptonia peregrina</i>	S5
Sweet Bayberry	<i>Myrica gale</i>	S5
American Elm	<i>Ulmus americana</i>	S5
Partridge-berry	<i>Mitchella repens</i>	S5
False Solomon's-seal	<i>Maianthemum racemosum</i>	S5
Creeping Juniper	<i>Juniperus horizontalis</i>	S5
Ostrich Fern	<i>Matteuccia struthiopteris</i>	S5
Sensitive Fern	<i>Onoclea sensibilis</i>	S5
Field Horsetail	<i>Equisetum arvense</i>	S5
Floating Pondweed	<i>Potamogeton natans</i>	S5
White Baneberry	<i>Actaea pachypoda</i>	S5
Bracken Fern	<i>Pteridium aquilinum</i>	S5
Red Baneberry	<i>Actaea rubra</i>	S5
Balsam Fir	<i>Abies balsamea</i>	S5

Black Spruce	<i>Picea mariana</i>	S5
Rock Polypody	<i>Polypodium virginianum</i>	S5
Eastern Hemlock	<i>Tsuga canadensis</i>	S5
Common Hornwort	<i>Ceratophyllum demersum</i>	S5
Eastern White Cedar	<i>Thuja occidentalis</i>	S5
Broad-leaf Cattail	<i>Typha latifolia</i>	S5
Porcupine Sedge	<i>Carex hystericina</i>	S5
Bladder Sedge	<i>Carex intumescens</i>	S5
Lake-bank Sedge	<i>Carex lacustris</i>	S5
Longstalk Sedge	<i>Carex pedunculata</i>	S5
Slender Cotton-grass	<i>Eriophorum gracile</i>	S5
Dark-green Bulrush	<i>Scirpus atrovirens</i>	S5
Rufous Bulrush	<i>Scirpus pendulus</i>	S5
Pointed Broom Sedge	<i>Carex scoparia</i>	S5
Eastern White Pine	<i>Pinus strobus</i>	S5
New England Aster	<i>Symphyotrichum novae-angliae</i>	S5
Fringed Loosestrife	<i>Lysimachia ciliata</i>	S5
Spotted Joe-pye Weed	<i>Eutrochium maculatum</i> var. <i>maculatum</i>	S5
Canada Goldenrod	<i>Solidago canadensis</i> var. <i>canadensis</i>	S5
Yarrow	<i>Achillea millefolium</i>	S5
Starved Aster	<i>Symphyotrichum lateriflorum</i>	S5
Northern Bush-honeysuckle	<i>Diervilla lonicera</i>	S5
Small Bedstraw	<i>Galium trifidum</i>	S5
Fleabane	<i>Conyza canadensis</i>	S5
White Heath Aster	<i>Symphyotrichum pilosum</i> var. <i>pilosum</i>	S5
Virginia Saxifrage	<i>Micranthes virginiensis</i>	S5
Tall Rattlesnake-root	<i>Nabalus altissimus</i>	S5
Wild Mock-cucumber	<i>Echinocystis lobata</i>	S5
Northern Red Oak	<i>Quercus rubra</i>	S5
Downy Arrowwood	<i>Viburnum rafinesquianum</i>	S5
Maple-leaf Viburnum	<i>Viburnum acerifolium</i>	S5
Mountain Fly-honeysuckle	<i>Lonicera villosa</i>	S5
Spreading Dogbane	<i>Apocynum androsaemifolium</i>	S5
Flat-top White Aster	<i>Doellingeria umbellata</i> var. <i>pubens</i>	S5
Bulb-bearing Water-hemlock	<i>Cicuta bulbifera</i>	S5
Pearly Everlasting	<i>Anaphalis margaritacea</i>	S5
Nannyberry	<i>Viburnum lentago</i>	S5
Yellow Birch	<i>Betula alleghaniensis</i>	S5
Downy Yellow Violet	<i>Viola pubescens</i> var. <i>pubescens</i>	S5
Flat-top White Aster	<i>Doellingeria umbellata</i> var. <i>umbellata</i>	S5
Woolly Blue Violet	<i>Viola sororia</i>	S5
American Larch	<i>Larix laricina</i>	S5
Narrow-leaved Cotton-grass	<i>Eriophorum angustifolium</i>	S5
Reed Canary Grass	<i>Phalaris arundinacea</i>	S5

Greater Bladderwort	<i>Utricularia vulgaris</i>	S5
Striped Maple	<i>Acer pensylvanicum</i>	S5
Large-tooth Aspen	<i>Populus grandidentata</i>	S5
Panicled Aster	<i>Symphotrichum lanceolatum</i> ssp. <i>lanceolatum</i>	S5
Teaberry	<i>Gaultheria procumbens</i>	S5
Narrow-leaved Meadow-sweet	<i>Spiraea alba</i>	S5
Pickereel Weed	<i>Pontederia cordata</i>	S5
Common St. John's-wort	<i>Hypericum punctatum</i>	S5
Northern Wild-raisin	<i>Viburnum nudum</i> var. <i>cassinoides</i>	S5
Northern Bedstraw	<i>Galium boreale</i>	S5
American Mountain-ash	<i>Sorbus americana</i>	S5
Sugar Maple	<i>Acer saccharum</i> var. <i>saccharum</i>	S5
Red Maple	<i>Acer rubrum</i>	S5
Blue Vervain	<i>Verbena hastata</i>	S5
Staghorn Sumac	<i>Rhus typhina</i>	S5
Choke Cherry	<i>Prunus virginiana</i>	S5
Riverbank Grape	<i>Vitis riparia</i>	S5
Northern Prickley Ash	<i>Zanthoxylum americanum</i>	S5
Mountain Holly	<i>Ilex mucronata</i>	S5
Black Raspberry	<i>Rubus occidentalis</i>	S5
White Avens	<i>Geum canadense</i>	S5
Northern Starflower	<i>Trientalis borealis</i>	S5
May Apple	<i>Podophyllum peltatum</i>	S5
Canada Anemone	<i>Anemone canadensis</i>	S5
American Witch-hazel	<i>Hamamelis virginiana</i>	S5
Wild Black Cherry	<i>Prunus serotina</i>	S5
Bunchberry	<i>Cornus canadensis</i>	S5
Wild Sarsaparilla	<i>Aralia nudicaulis</i>	S5
Common Water-milfoil	<i>Myriophyllum sibiricum</i>	S5
Red-osier Dogwood	<i>Cornus sericea</i>	S5
American Basswood	<i>Tilia americana</i>	S5
White Water-lily	<i>Nymphaea odorata</i> ssp. <i>odorata</i>	S5?
Black Ash	<i>Fraxinus nigra</i>	S5?
Butter-and-eggs	<i>Linaria vulgaris</i>	SNA
Creeping Cinquefoil	<i>Potentilla reptans</i>	SNA
White Sweet Clover	<i>Melilotus albus</i>	SNA
Canada Bluegrass	<i>Poa compressa</i>	SNA
Garden Asparagus-fern	<i>Asparagus officinalis</i>	SNA
Scotch Pine	<i>Pinus sylvestris</i>	SNA
Common Red Raspberry	<i>Rubus idaeus</i> ssp. <i>idaeus</i>	SNA
Lady's Thumb	<i>Persicaria maculosa</i>	SNA
Hard Fescue	<i>Festuca trachyphylla</i>	SNA
Colt's Foot	<i>Tussilago farfara</i>	SNA
Yellow Evening Primrose	<i>Oenothera serrulata</i>	SNA

Narrow-leaved Cattail	<i>Typha angustifolia</i>	SNA
Sheep Sorrel	<i>Rumex acetosella</i>	SNA
Tall Butter-cup	<i>Ranunculus acris</i>	SNA
Common Mother-wort	<i>Leonurus cardiaca</i>	SNA
Smooth Crabgrass	<i>Digitaria ischaemum</i>	SNA
Chicory	<i>Cichorium intybus</i>	SNA
A St. John's-wort	<i>Hypericum perforatum</i>	SNA
Tartarian Honeysuckle	<i>Lonicera tatarica</i>	SNA
Mayweed	<i>Anthemis cotula</i>	SNA
Common Canary Grass	<i>Phalaris canariensis</i>	SNA
Creeping Bellflower	<i>Campanula rapunculoides</i>	SNA
Meadow Timothy	<i>Phleum pratense</i>	SNA
Mouseear	<i>Pilosella officinarum</i>	SNA
Brown-seed Dandelion	<i>Taraxacum officinale</i>	SNA
Herb-robert	<i>Geranium robertianum</i>	SNA
English Plantain	<i>Plantago lanceolata</i>	SNA
Buckthorn	<i>Rhamnus cathartica</i>	SNA
Field Brome	<i>Bromus arvensis</i>	SNA
Thyme-leaved Speedwell	<i>Veronica serpyllifolia</i>	SNA
Red Clover	<i>Trifolium pratense</i>	SNA
Low Hop Clover	<i>Trifolium campestre</i>	SNA
Creeping Jennie	<i>Lysimachia nummularia</i>	SNA
Wild Carrot	<i>Daucus carota</i>	SNA
Brown-eyed Susan	<i>Rudbeckia triloba</i>	SNA
Lesser Chickweed	<i>Stellaria pallida</i>	SNA
Duckweed	<i>Lemna turionifera</i>	SNR