| # | Report/ Drawing | Section | Pg# | LSRCA COMMENT (May 6, 2021) | Applicant Response (June 29, 2021) |
|---|---|---|---|---|---|
| NH1 | SEIS | Figure 6<br>Figure 7<br>4.2.2 | <br><br>29 | **ADDRESSED** | |
| NH2 | SEIS | | 21<br>28 | **NOT ADDRESSED**<br><br>See previous comments.<br><br>Please provide copies of ELC data collection field sheets. If these are not available, a full vascular plant inventory for the property should be redone, recorded as requested and provided for review. | **Revised Plant List:** Four columns have been added to **Appendix E – List of Vascular Plants Observed in the Proposed Development Area Features on the 521 Huronia Road Property**, one column for each of the ELC units to be removed. Plant species to be removed are identified (Attachment 1). **Table 1** from the **SEIS** was amended (Attachment 2). For example, Black Ash (*Fraxinus nigra*) and Long Sedge (*Carex folliculate*) were found in ELC units SWMO1-1/MASO2-1/SWTO2-6 and MASO1-1/MASO2-1/SWTO2-1. Both are NHIC SRank S3 (i.e., vulnerable); neither are rare in the State of the Lake Simcoe Watershed Report (Lake Simcoe Region Conservation Authority 2003). In fact, Long Sedge is not listed in this document. |
| NH3 | SEIS | Appendix E | | **PARTIALLY ADDRESSED**<br><br>See previous comments.<br><br>In the absence of all requested information being provided, and as some of this information is unknown, a full vascular plant inventory for the property should be redone, recorded as requested and provided for review.<br><br>Note that transplanting rare species to ensure local populations persist on the landscape is standard practice in the Lake Simcoe watershed and is required to mitigate impacts to the ecological integrity of key natural heritage and hydrologic features. | **Watershed – Rare Plants:** Erin Donkers, Ecologist and Arborist with Palmer conducted field investigations on June 8th and 9th, 2021 for Old Field Cinquefoil (*Potentilla simplex*) and Rough Avens (*Geum laciniatum*) throughout the proposed development footprint on the Subject Property. The weather conditions at the time of the investigations are summarized below.<br><br>• **June 8, 2021:** 26°C, humid, low winds, overcast, rainfall earlier in the day.<br>• **June 9, 2021:** 26°C, humid, low winds, 25% cloud cover.<br><br>**Methodology:** The screening was conducted via walking transects through the footprint, with particular attention within suitable vegetation communities. As *P. simplex* was identified within the WOCM1-2 (Dry-Fresh White Cedar Coniferous Woodland) community in 2006, particular focus was applied throughout this area. Due to the low-growth form of the target species and the full leaf-on conditions of the vegetation communities, considerable effort was also made to inspect the groundcover by pushing aside taller vegetation and understory.<br><br>*Results Summary:* Erin Donkers did not identify either *P. simplex* or *G. laciniatum* within the limits of the proposed development footprint during the June 2021 surveys. Although several observations of a single cinquefoil species was noted throughout the WOCM1-2 community, through consultation with reputable identification guides (i.e., *Newcomb's Wildflower Guide*, 1977), this species was confidently determined to be that of the common Rough-fruited (or Sulphur) Cinquefoil (*Potentilla recta*) as shown in **Photograph 1**. Although these plants were not flowering at the time of the assessment, key identifying features included coarsely toothed, lance-shaped compound leaves (*P. simplex* exhibits wider leaves that are toothed for only ¾ of their length) and bristly/hair stems. It is suspected that the originally recorded *P. simplex* is either no longer present (as it has been 15 years since it was identified), or it was initially mis-identified, and it was actually *P. recta* that has always been present. It should be noted that *P. recta* was identified on-site during the previous botanical inventories.<br><br>Likewise, several individuals of a single avens species were also encountered during the June 2021 screening surveys. However, the yellow petals of the flowers indicated that these were not of the rare *G. laciniatum* variety (which has white flowers), but likely the more common Yellow Avens (*Geum alappicum*), as shown in **Photograph 2**. It was observed in several locations within the WOCM-1 community. Rough Avens was not recorded during the 2021 site investigations, and is not expected to exist within the proposed development limits. It should be noted that *G. aleppicum* was identified on-site during the previous botanical inventories.<br><br>Based on the results of these field investigations coupled with revisions to **Appendix E** and **Table 1** of the **SEIS**, our conclusion stands that, "No vegetation communities or individual species of conservation interest were observed in any of the ELC communities associated with that part of the property to be developed". |
| NH4 | SEIS | Figure 6<br>Figure 7 | | - | |
| NH5 | SEIS | Figure 6<br>Figure 7 | | - | |

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| | | Table 1 | | | |
| NH6 | SEIS | 4.3<br>5.3<br>Table 2? | | **ADDRESSED** | |
| NH7 | SEIS | 4.3.1 | | **NOT ADDRESSED**<br><br>See previous comments.<br><br>Note that the codes you've assigned do not align with protocols of the Marsh Monitoring Program. There is no such code as just a 1. There should be two numbers. The first number represents the Call Level Code. The second number represents the Abundance Count. I.e, if only one frog was calling, then the code would be 1-1. The only code with just one number would be 3 because an Abundance Count is not possible at that Call Level Code. | **Amphibian Breeding Surveys: Table 4** from the **SEIS** was revised to include data from the May 22, 2014 breeding survey undertaken by Melissa Fuller, then with Azimuth Environmental (Attachment 3); all amphibian call surveys were from wetland ELC units SWMO1-1 and MASO1-1. All calling amphibians were heard in SWMO1-1 and/or MASO1-1, regardless of which evening call station (i.e., 1 or 2), and on both survey dates, May 5 and June 28, 2018. There were no calls at Station 3. No site development or alteration is proposed within these wetlands; accordingly, no negative impacts from the proposed development are anticipated. |
| NH8 | SEIS | 5.3 | 40 | **ADDRESSED** | |
| NH9 | SEIS | 5.4 | | **PARTIALLY ADDRESSED**<br><br>**Bat Maternity Colonies** Provide the results of the snag survey. Show the location of each snag tree recorded on a figure.<br>You've stated: "Lands south of the proposed<br>Development likely constitute Candidate SWH." The area of the habitat includes the entire<br>woodland or a forest stand ELC Ecosite. Demonstrate no negative impact. | **Bat Maternity Colonies:** ***Methodology:*** A bat maternity roost survey was undertaken by Erin Donkers based on assessing tree cavities following an approach generally using methods outlined the *Survey Protocol for Species at Risk Bats within Treed Habitats* (Ministry of Natural Resources and Forestry, 2017). Given the dominance of forest cover on the Subject Property, it can be assumed that habitat opportunities may be available; therefore, the objective of the assessment was to identify the extent and quality of potential habitat opportunities for bats not at risk, more specifically Big Brown Bat and Silver-haired Bat. Habitat for such species could be considered Candidate SWH.<br><br>A total of four survey plots were placed throughout the treed communities within the proposed development footprint, north of the wetland limits (i.e., Plots 1-4). For comparison, a total of four plots were also placed within treed communities immediately south of the established wetland limits (i.e., Plots 5-8) (see Attachment 4). As per the *Survey Protocol*, plot radii were 12.6 m in length. Incidental observations of potentially suitable snag trees were also recorded during the screening transects described above. Potential roosting-suitable snags for each tree were described via the recording of parameters such as the following: tree species, diameter at breast height (dbh); snag attributes (i.e., cavities); snag location; height class; and decay class. In general, the *Survey Protocol* criteria as provided below was used as a guide for determination of "best" suitable roost trees.<br><br>**Criteria for Determining Best Suitable Maternity Roost Trees**<br><br>• Tallest snag<br>• Snag exhibits cavities/crevices often originating as cracks, scars, knot holes or woodpecker cavities<br>• Snag has the largest dbh (>25 cm)<br>• Snag is within the highest density of snags (e.g., cluster of snags)<br>• Snag has a large amount of loose, peeling bark (naturally occurring or due to decay)<br>• Cavity or crevice is high on the tree (>10 m) or is "chimney like" with a low entrance<br>• Tree is a species known to be rot resistant (e.g., black cherry, black locust)<br>• Tree species provides good cavity habitat (e.g., white pine, maple, aspen, ash, oak)<br>• Snag is located within an area where the canopy is more open<br>• Snag exhibits early stages of decay (Decay Class 1-3) |

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| | | | | | ***Results Summary**:* Two potentially suitable maternal roosting trees were recorded from the plots established within the proposed building footprint, and a single tree was deemed suitable within the wetland limits immediately south of the footprint. A summary of the survey results are provided as Attachment 5.<br><br>The SWH Criteria for Candidate Bat Maternity Colonies according to Ministry of Natural Resources and Forestry schedules for Ecoregion 6E (2015) are >10 snags/hectare for trees >25 cm dbh. The snag survey substantiates that the treed communities within the development footprint provide limited opportunity for roosting bats. Although several standing snags were identified, these were observed as either young (i.e., with dbhs <25 cm), or did not exhibit relevant characteristics (i.e., trunk cavities, peeling bark) that would be deemed suitable for roosting bat use. It is expected that impacts to minor resident roosting bat habitat can be mitigated though compliance with timing windows of October 15th to April 15th for tree removals. This window was earlier acknowledged by Megan Eplett of the Ministry of Environmental Conservation and Parks (see NH8). Refer to **Photographs 3 and 4** for representative snag conditions. Accordingly, there will be no negative impacts from the development proposal on maternity colonies of Big Brown Bat and Silver-haired Bat. |
| | | | | **Amphibian Breeding Habitat (wetland)**<br>Cannot be determined without the full results of amphibian breeding surveys. Assumed to be present. Demonstrate no negative impact. | **Amphibian Breeding Habitat (Wetland):** As shown in Table 4 (see Attachment 3), all amphibian call surveys were from wetland ELC units SWMO1-1 and MASO1-1. No site development or alteration is proposed within these wetlands; accordingly, no negative impacts from the proposed development are anticipated. |
| | | | | **Amphibian Breeding Habitat (woodland)**<br>Cannot be determined without the full results of amphibian breeding surveys. Assumed to be present. Demonstrate no negative impact. | **Amphibian Breeding Habitat (Woodland):** No amphibian breeding habitat was found in the four woodland ELC units proposed for development (e.g., troughs or vernal pools). As noted above, all calls were from wetland ELC units to the south that will not be developed or otherwise altered. Accordingly, no negative impacts from the proposed development are anticipated. |
| | | | | **Seeps and Springs**<br>ADDRESSED | |
| | | | | **Turtle Nesting Areas**<br>You've stated: "A few signs of turtle nesting (e.g, Snapping Turtle broken eggshells) were found along the existing west-east trail in 2016."<br>One or more Northern Map Turtle or Snapping Turtle nesting is a SWH. Demonstrate no negative impact. | **Turtle Nesting Areas:** We acknowledge that for determination of Turtle Nesting Area as Candidate SWH, lands adjacent (within 100 m) to wetlands should be considered. However, no further evidence of turtle nesting (including shells) was recorded during the June investigations. As nesting is typically associated with exposed mineral substrates (i.e., sand, gravel), the only potential location within the prosed building footprint would be along the access trail into the Subject Property from Huronia Road. Along this route is also where the original broken turtle shells were identified. Erin Donkers walked the subject access trail a minimum of six times over the two day field investigations. Based on our observations, we are of the opinion that this alignment in fact does not currently support turtle nesting activities. Consequently, there will be no negative impacts from the proposed development on turtle nesting. |
| | | | | **Amphibian Movement Corridors**<br>Cannot be determined until SWH amphibian breeding habitat (woodland and wetland) is appropriately assessed. Assumed to be present. Demonstrate no negative impact. | **Amphibian Movement Corridors:** No corridors were identified during field investigations. It is our opinion there will be no negative impacts on this function given the extensive area of wetlands/forests remaining on the Subject Property, as well as off-site. Of some importance in this regard is that with approval of an Official Plan Amendment to enable the proposed residential development, there will be an increase in the area designated Environmental Protection Area within the Subject Property. At present, 2.82 ha are designated Environmental Protection Area; in future, 4.95 ha will be designated Environmental Protection Area, resulting in a relatively substantial net increase of 2.13 ha. In our opinion, this is clearly a benefit insofar as long term protection of natural heritage features and functions, particularly amphibian movement corridors, is concerned. Accordingly, no negative impacts are anticipated on amphibian movement corridors. |

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| | | | | **Special Concern and Rare Wildlife Species**<br>You've stated: "…habitat south of the area to be developed constitutes Candidate SWH." This is based on the presence of Eastern wood-peewee and wood thrush. Note that the area of the habitat to the finest ELC scale that protects the habitat form and function is the SWH. Please clarify which ELC units these species were recorded in.<br><br>Your assessment does not speak to the habitat supporting snapping turtle (SC) and long sedge (S3). | **Special Concern and Rare Wildlife Species:** Two Special Concern species were heard calling south of the proposed development area including Eastern Wood-pewee and Wood Thrush. These were heard in other features far to the south of the development envelope. While no Snapping Turtles (i.e., also a Special Concern species) or evidence of nesting were observed, egg shells were found along the existing east/west trail in 2016. As noted for **NH9-Turtle Nesting Areas**, the existing access trail into the Subject Property does not now support turtle nesting activities. Long Sedge (S3) was found in wetland units SWMO1-1/MASO2-1/SETO2-6 and MASO1-1/MASO2-1/SWTO2-1. All of these features which constitute Candidate SWHs occur south of the lands to be developed, in a designated Environmental Protection Area. Accordingly, there will be no negative impacts on these habitats, thereby complying with Section 2.1.5d of the 2020 Provincial Policy Statement. |
| NH10 | SEIS | 6.4 | | **PARTIALLY ADDRESSED**<br><br>Comments NH2, NH3, NH7, NH9 and NH20 must first be addressed to confirm that there will be no negative impact to significant natural heritage features or their ecological function.<br><br>See NH20 for additional details regarding ecological offsetting requirements. | **Demonstration of No Negative Impacts on Significant Natural Features:** Refer to NH2, NH3, NH7 and NH9, all of which confirm no negative impacts to significant natural heritage features or their ecological functions. Further evaluation of NH20 is presently underway. |
| NH11 | SEIS | 6.4 | | **ADDRESSED** | |
| NH12 | SEIS | 6.4 | | To be addressed at Site Plan. An Erosion and Sediment Control Plan will be required. | |
| NH13 | SEIS | 6.4 | | To be addressed at Site Plan. A drawing showing the location and specifications for the fence or other barrier will be required. | |
| NH14 | SEIS | 6.4 | | To be addressed at Site Plan. Drawings showing the lighting for the proposed development will be required. | |
| NH15 | SEIS | 6.4 | | **ADDRESSED**<br><br>It is understood that no trails will be constructed within the retained natural heritage features as part of this development proposal. | |
| NH16 | SEIS | 6.4 | | - | |
| NH17 | SEIS | 6.4 | | Acknowledged.<br><br>To be addressed at Site Plan. All plant material and topsoil from areas that will be disturbed must be removed from the site and disposed of appropriately to prevent any further spread of this species. Only clean topsoil may be used for fine grading and in landscaped areas.<br><br>Note that dog-strangling vine is listed as a restricted species under Ontario's *Invasive Species Act*. All provisions of the *Act* as they relate to this species must be adhered to. | |
| NH18 | SEIS | 6.4 | | To be addressed at Site Plan. Detailed planting plans will be required. | |
| NH19 | SEIS | 6.4.2 | | To be addressed at Site Plan. A detailed Edge Management Plan will be required. | |
| NH20 | SEIS | 6.4.2 | | **PARTIALLY ADDRESSED**<br><br>It is noted that Huronia Barrie Land Inc. is considering cash-in-lieu. As such, an Ecological Offsetting Strategy Calculation Form has been prepared for you. Please see attached. | **Lake Simcoe Region Conservation Authority's Ecological Offsetting Policy:** At this time, the landowner is presently evaluating a hybrid of two options, feature replacement and cash in lieu. Further details will be provided at a later date. |

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| | | | | Payment of $153,994.52 will be required at the time of clearing or prior to Site Plan approval, whichever occurs first. Please acknowledge. | |
| NH21 | SEIS | 6.5 | | **ADDRESSED** | |
| NH22 | SEIS | 6.4<br>7.2 | | To be addressed at Site Plan. | |
| NH23 | SEIS | Table 5 | | - | |
| | | | | | |

**ATTACHMENT 1 – REVISED APPENDIX E FROM SCOPED ENVIRONMENTAL IMPACT STUDY**

**Appendix E. List of Vascular Plants Observed in the Proposed Development Area Features on the 521 Huronia Road Property**

| SCIENTIFIC NAME | COMMON NAME | MEMM3 | WOCM1-2 & CUT1-1 | FOMM4-2 | FOCM2-2 | G-RANK | S-RANK | *SARA, 2002* | *ESA, 2007* |
|---|---|---|---|---|---|---|---|---|---|
| *Abies balsamea* | balsam fir | | | | X | G5 | S5 | | |
| *Acer negundo* | Manitoba maple | | X | X | | G5 | S5 | | |
| *Acer rubrum ** | red maple | | | | | G5 | S5 | | |
| *Acer saccharum* | sugar maple | | | | | G5 | S5 | | |
| *Acer saccharinum ** | silver maple | | | | | G5 | S5 | | |
| *Achillea millefolium* | common yarrow | | | | | G5 | SNA | | |
| *Acorus calamus ** | sweet flag | | | | | G4? | SNA | | |
| *Actaea rubra* | red baneberry | | | | | G5 | S5 | | |
| *Agalinis gerardia* | common gerardia | X | | | | G5 | S4S5 | | |
| *Agrimony gryposepala* | hooked agrimony | | | | | G5 | S5 | | |
| *Agrostis gigantea ** | redtop | | | | | G5 | S5 | | |
| *Agrostis stolonifera ** | creeping bent grass | | | | | G5 | SNA | | |
| *Alisma triviale** | water plantain | | | | | G5 | S5 | | |
| *Alliaria petiolata* | garlic mustard | | | | | GNR | SNA | | |
| *Alnus rugosa ** | speckled alder | | | | | G5 | S5 | | |
| *Ambrosia artemisiifolia* | annual ragweed | X | X | | | G5 | S5 | | |
| *Amphicarpa bracteata ** | hog-peanut | | | | | G5 | S5 | | |
| *Amelanchier arborea* | downy serviceberry | | | | | G5 | S5 | | |
| *Anaphalis margaritacea* | pearly everlasting | | | | | G5 | S5 | | |
| *Anemone canadensis* | Canada anemone | | | | X | G5 | S5 | | |
| *Apocynum androsaemifolium* | spreading dogbane | | | | | G5 | S5 | | |
| *Aralia nudicaulis* | wild sarsaparilla | | | | X | G5 | S5 | | |
| *Arctium minus* | common burdock | | X | | | GNR | SNA | | |
| *Argentina anserina* | silverweed | | | | | GNR | S5 | | |
| *Arisaema triphyllum* | Jack-in-the-pulpit | | | | X | G5 | S5 | | |
| *Asclepias incarnata ** | swamp milkweed | | | | | G5 | S5 | | |
| *Asclepias syriaca* | common milkweed | | | | | G5 | S5 | | |
| *Athyrium filix-femina ** | northeastern lady fern | | | | X | G5T5 | S5 | | |
| *Barbarea vulgaris ** | yellow rocket | | | | | GNR | SNA | | |
| *Betula alleghaniensis* | yellow birch | | | | X | G5 | S5 | | |
| *Betula papyrifera* | white birch | | | X | X | G5 | S5 | | |
| *Bidens frondosa ** | beggar-ticks | | | | | G5 | S5 | | |
| *Boehmeria cylindrica* | false wood-nettle | | | | | G5 | S5 | | |
| *Betula alleghaniensis* | yellow birch | | | | X | G5 | S5 | | |
| *Betula papyrifera* | white birch | | | X | X | G5 | S5 | | |
| *Bidens frondosa ** | beggar-ticks | | | | | G5 | S5 | | |
| *Boehmeria cylindrica* | false wood-nettle | | | | | G5 | S5 | | |
| *Brassica kaber* | field mustard | | | | | GNR | SNA | | |
| *Bromus inermis* | awnless brome brass | X | X | | | G5TNR | SNA | | |
| *Calamagrostis canadensis* | Canada bluejoint grass | | | | | G5 | S5 | | |
| *Caltha palustris ** | marsh marigold | | | | | G5 | S5 | | |

**Appendix E. List of Vascular Plants Observed in the Proposed Development Area Features on the 521 Huronia Road Property**

| SCIENTIFIC NAME | COMMON NAME | MEMM3 | WOCM1-2 & CUT1-1 | FOMM4-2 | FOCM2-2 | G-RANK | S-RANK | *SARA, 2002* | *ESA, 2007* |
|---|---|---|---|---|---|---|---|---|---|
| *Cardamine diphylla* | two-leaved toothwort | | | | | G5 | S5 | | |
| *Carex bebbii ** | Bebb's sedge | | | | | G5 | S5 | | |
| *Carex comosa ** | bristly sedge | | | | | G5 | S5 | | |
| *Carex crinita ** | fringed sedge | | | | | G5 | S5 | | |
| *Carex deweyana* | Dewey's sedge | | | | | G5 | S5 | | |
| *Carex flava* | yellow sedge | | | | | G5 | S5 | | |
| *Cares folliculata ** | long sedge | | | | | G4G5 | S3 | | |
| *Carex gracilescens ** | slender sedge | | | | | G5? | S4 | | |
| *Carex gracillima* | graceful sedge | | | X | | G5 | S5 | | |
| *Carex granularis ** | meadow sedge | | | | | G5 | S5 | | |
| *Carex hystericina ** | porcupine sedge | | | | | G5 | S5 | | |
| *Carex intumescens ** | bladder sedge | | | | | G5 | S5 | | |
| *Carex lacustris ** | lake-bank sedge | | | | | G5 | S5 | | |
| *Carex laxiflora* | loose-flowered sedge | | | | | G5 | S5 | | |
| *Carex lupulina ** | hop sedge | | | | | G5 | S5 | | |
| *Carex pedunculata* | longstalk sedge | | | | | G5 | S5 | | |
| *Carex rosea* | rosy sedge | | | | | G5 | S5 | | |
| *Carex stipata ** | awl-fruited sedge | | | | | G5 | S5 | | |
| *Carex stricta ** | tussock sedge | | | | | G5 | S5 | | |
| *Carex vulpinoidea ** | foxtail sedge | | | | | G5 | S5 | | |
| *Caulophyllum thalictroides* | blue cohosh | | | | | G4G5 | S5 | | |
| *Centaurea maculosa* | spotted knapweed | X | X | | | GNR | SNA | | |
| *Cerastium vulgare* | mouse-eared chickweed | | | | | GNR | SNA | | |
| *Chenopodium album* | lamb's quarters | | | | | G5 | SNA | | |
| *Chrysanthemum leucanthemum* | ox-eye daisy | | | | | GNR | SNA | | |
| *Cichorium intybus* | chicory | | | | | GNR | SNA | | |
| *Cicuta bulbifera ** | water hemlock | | | | | G5 | S5 | | |
| *Cicuta maculata** | spotted water hemlock | | | | | G5 | S5 | | |
| *Circaea lutetiana ** | enchanters' nightshade | | | | | G5T5 | S5 | | |
| *Cirsium arvense* | Canada thistle | X | | | | GNR | SNA | | |
| *Cirsium vulgare* | bull thistle | X | | X | | GNR | SNA | | |
| *Clematis virginiana* | virgin's-bower | | | | | G5 | S5 | | |
| *Clinopodium vulgare* | wild basil | | X | | | G5 | S5 | | |
| *Comarum palustre ** | marsh cinquefoil | | | | | G5 | S5 | | |
| *Convolvulus arvensis* | field bindweed | | | | | GNR | SNA | | |
| *Cornus alternifolia *** | alternate-leaved dogwood | | | | | G5 | S5 | | |
| *Cornus stolonifera *** | red-osier dogwood | | | | | G5 | S5 | | |
| *Coronilla varia* | common crown-vetch | | | | | GNR | SNA | | |
| *Corylus cornuta* | beaked hazel | | | | | G5 | S5 | | |
| *Crataegus spp.* | hawthorn | | | | X | GNRTNR | SU | | |
| *Cynanchum rossicum* | black swallowwort | | | | | GNR | SNA | | |
| *Cystopteris bulbifera* | bulblet fern | | | | | G5 | S5 | | |

**Appendix E. List of Vascular Plants Observed in the Proposed Development Area Features on the 521 Huronia Road Property**

| SCIENTIFIC NAME | COMMON NAME | MEMM3 | WOCM1-2 & CUT1-1 | FOMM4-2 | FOCM2-2 | G-RANK | S-RANK | *SARA, 2002* | *ESA, 2007* |
|---|---|---|---|---|---|---|---|---|---|
| *Cystopteris tenuis* | fragile fern | | | | | G5 | S5 | | |
| *Dactylis glomerata* | orchard grass | X | X | | | GNR | SNA | | |
| *Daucus carota* | wild carrot | X | X | | | GNR | SNA | | |
| *Dryopteris carthusiana* | spinulose wood-fern | | | X | | G5 | S5 | | |
| *Dryopteris intermedia* | evergreen wood-fern | | | | | G5 | S5 | | |
| *Dryopteris marginalis* | marginal wood-fern | | | | | G5 | S5 | | |
| *Echinocystis lobata* ** | wild cucumber | | | X | | G5 | S5 | | |
| *Echium vulgare* | common vIper's-bugloss | X | X | | | GNR | SNA | | |
| *Eleocharis erythropoda* * | red-stemmed spike-rush | | | | | G5 | S5 | | |
| *Elymus repens* | quackgrass | X | X | | | GNR | SNA | | |
| *Epilobium hirsutum* * | hairy willowherb | | | | | GNR | SNA | | |
| *Epilobium parviflorum* * | small-flowered willowherb | | | | | GNR | SNA | | |
| *Epipactis helleborine* | helleborine | | | X | | GNR | SNA | | |
| *Equisetum arvense* | field horsetail | | X | | | G5 | S5 | | |
| *Equisetum fluviatile* * | water horsetail | | | | | G5 | S5 | | |
| *Equisetum hyemale* ** | common scouring-rush | X | | | | G5 | S5 | | |
| *Equisetum palustre* | marsh horsetail | | | | | G5 | S5 | | |
| *Equisetum pratense* * | meadow horsetail | | | | | G5 | S5 | | |
| *Equisetum variegatum* | variegated horsetail | | | | | G5 | S5 | | |
| *Erigeron canadensis* | Canada horseweed | | | | | G5 | S5 | | |
| *Erigeron hyssopifolius* | daisy fleabane | X | X | | | G5 | S5 | | |
| *Erigeron philadelphicus* | Philadelphia fleabane | | | | X | G5 | S5 | | |
| *Erysimum cheiranthoides* | wormseed mustard | | | | | G5 | SNA | | |
| *Erythronium albidum* | white trout-lily | | | | | G5 | S4 | | |
| *Erythronium americanum* | yellow trout-lily | | | | | G5 | S5 | | |
| *Eupatorium perfoliatum* * | common boneset | | | | | G5 | S5 | | |
| *Eurybia macrophylla* | large-leaved aster | | | | | G5 | S5 | | |
| *Euthamia graminifolia* ** | grass-leaved goldenrod | | | | | G5 | S5 | | |
| *Eutrochium maculatum* * | spotted Joe-pye weed | | | | | G5T5 | S5 | | |
| *Fagus grandifolia* | beech | | | | X | G5 | S5 | | |
| *Festuca rubra* | red fescue | | | | | G5TNR | SNA | | |
| *Fragaria vesca* | woodland strawberry | | | | X | G5 | S5 | | |
| *Fragaria virginiana* | common strawberry | | | | | G5 | S5 | | |
| *Fraxinus americana* | white ash | | | | X | G5 | S4 | | |
| *Fraxinus nigra* * | black ash | | | | | G5 | S3 | | |
| *Fraxinus pennsylvanica* * | green ash | | | | | G5 | S4 | | |
| *Galium aparine* * | cleavers | | | | | G5 | S5 | | |
| *Galium triflorum* ** | fragrant bedstraw | | | | | G5 | S5 | | |
| *Geranium robertianum* | herb-robert | | | | | G5 | S5 | | |
| *Geum aleppicum* | yellow avens | | | | X | G5 | S5 | | |
| *Geum canadense* | white avens | | | | | G5 | S5 | | |
| *Geum laciniatum* | rough avens | | | | | G5 | S4 | | |

**Appendix E. List of Vascular Plants Observed in the Proposed Development Area Features on the 521 Huronia Road Property**

| SCIENTIFIC NAME | COMMON NAME | MEMM3 | WOCM1-2 & CUT1-1 | FOMM4-2 | FOCM2-2 | G-RANK | S-RANK | *SARA, 2002* | *ESA, 2007* |
|---|---|---|---|---|---|---|---|---|---|
| *Glyceria striata ** | fowl mannagrass | | | | | G5 | S5 | | |
| *Gymnocarpium dryopteris* | oak fern | | | | | G5 | S5 | | |
| *Helianthus tuberosus* | Jerusalem artichoke | X | | | | GNR | SNA | | |
| *Hesperis matronalis* | dame's rocket | | | | | G4G5 | SNA | | |
| *Hieracium lachenalii* | common hawkweed | | | | | GNR | SNA | | |
| *Hypericum perforatum* | common St. John's-wort | | | | | GNR | SNA | | |
| *Ilex verticiallata ** | winterberry | | | | | G5 | S5 | | |
| *Impatiens capensis *** | spotted jewelweed | | | | | G5 | S5 | | |
| *Inula helenium ** | elecampane | | | | | GNR | SNA | | |
| *Iris versicolor ** | blue flag | | | | | G5 | S5 | | |
| *Juncus effusus ** | soft rush | | | | | G5 | S5 | | |
| *Juncus tenuis* | path rush | X | | | | G5 | S5 | | |
| *Lactuca serriola* | prickly lettuce | | | | | GNR | SNA | | |
| *Laportea canadensis* | wood nettle | | | | | G5 | S5 | | |
| *Larix laricina *** | tamarack | | | | | G5 | S5 | | |
| *Leerzia oryzoides ** | rice cut grass | | | | | G5 | S5 | | |
| *Lemna minor ** | common duckweed | | | | | G5 | S5 | | |
| *Leonurus cardiaca* | motherwort | | | | | GNR | SNA | | |
| *Lepidium campestre* | field peppergrass | | | | | GNR | SNA | | |
| *Lithospermum officinale* | European gromwell | | | | | GNR | SNA | | |
| *Lonicera morrowii* | Morrow's honeysuckle | | X | | | GNR | SNA | | |
| *Lonicera tatarica* | tartarian honeysuckle | | X | | | GNR | SNA | | |
| *Lotus corniculatus* | bird's-foot trefoil | X | X | | | GNR | SNA | | |
| *Lycopus americanus ** | water horehound | | | | | G5 | S5 | | |
| *Lysimachia ciliata* | fringed loosestrife | | | | | G5 | S5 | | |
| *Lysimachia nummularia* | moneywort | | | | | GNR | SNR | | |
| *Lysimachia terrestris ** | swamp candles | | | | | G5 | S5 | | |
| *Lythrum salicaria ** | purple loosestrife | | | | | G5 | SNA | | |
| *Maianthemum canadense* | wild lily-of-the-valley | | | | X | G5 | S5 | | |
| *Maianthemum racemosum* | false Solomon's-seal | | | | | G5 | S5 | | |
| *Malus coronaria* | sweet crabapple | | | | | G5 | SNA | | |
| *Malus domesticus* | common apple | | | X | | G5 | SNA | | |
| *Malva neglecta* | cheeses | | | | | GNR | SNA | | |
| *Matricaria discoidea* | pineapple-weed | X | X | | | G5 | SNA | | |
| *Matteuccia struthiopteris ** | ostrich fern | | | | | G5 | S5 | | |
| *Melilotus albus* | white sweet-clover | X | X | | | G5 | SNA | | |
| *Mentha arvensis* | field mint | | X | | | G5 | S5 | | |
| *Mentha piperita ** | hybrid peppermint | | | | | GNA | SNA | | |
| *Mitchella repens* | partridge-berry | | | | | G5 | S5 | | |
| *Myosotis laxa* | small forget-me-not | | | | | G5 | S5 | | |
| *Nastursium officinale ** | watercress | | | | | GNR | SNA | | |
| *Nepeta cataria* | catnip | | | | | GNR | SNA | | |

**Appendix E. List of Vascular Plants Observed in the Proposed Development Area Features on the 521 Huronia Road Property**

| SCIENTIFIC NAME | COMMON NAME | MEMM3 | WOCM1-2 & CUT1-1 | FOMM4-2 | FOCM2-2 | G-RANK | S-RANK | *SARA, 2002* | *ESA, 2007* |
|---|---|---|---|---|---|---|---|---|---|
| *Oenothera biennis* | common evening primrose | | | | | G5 | S5 | | |
| *Onoclea sensibilis* ** | sensitive fern | | | X | | G5 | S5 | | |
| *Osmunda regalis* * | royal fern | | | | | G5 | S5 | | |
| *Ostrya virginiana* | hop hornbeam | | | | | G5 | S5 | | |
| *Oxalis montana* | common wood-sorrel | | X | | | G5 | S5 | | |
| *Panicum capillare* | common panic grass | | | | | G5 | S5 | | |
| *Parthenocissus inserta* ** | Virginia creeper | X | | | X | G5 | S4? | | |
| *Persicaria maculosa* | lady's-thumb | | | | | G3G5 | SNA | | |
| *Petasties frigidus* ** | sweet coltsfoot | X | X | | X | GNR | SNA | | |
| *Phalaris arundinacea* ** | reed canary grass | | | | | G5 | S5 | | |
| *Physalis heterophylla* | clammy ground-cherry | X | X | | | GNR | SNA | | |
| *Phleum pratense* | timothy | | X | | | GNR | SNA | | |
| *Picea glauca* | white spruce | | | X | X | G5 | S5 | | |
| *Pinus strobus* | white pine | | X | X | | G5 | S5 | | |
| *Pinus sylvestris* | Scots pine | | X | X | | GNR | SNA | | |
| *Plantago lanceolata* | English plantain | X | X | | | G5 | SNA | | |
| *Plantago major* | common plantain | X | X | | | G5 | S5 | | |
| *Poa annua* | annual bluegrass | | | | | GNR | SNA | | |
| *Poa compressa* | Canada bluegrass | X | X | | | GNR | SNA | | |
| *Poa palustris* * | fowl bluegrass | | | | | G5 | S5 | | |
| *Poa pratensis* | Kentucky bluegrass | X | X | | | G5T5 | S5 | | |
| *Podophyllum peltatum* | may-apple | | | | | G5 | S5 | | |
| *Populus balsamifera* ** | balsam poplar | | X | | | G5 | S5 | | |
| *Populus grandidentata* | large-tooth aspen | | | X | | G5 | S5 | | |
| *Populus tremuloides* ** | trembling aspen | | X | X | X | G5 | S5 | | |
| *Potentilla recta* | common cinquefoil | | | | | GNR | SNA | | |
| *Potentilla simplex* | old-field cinquefoil | | | | | G5 | S5 | | |
| *Prunella vulgaris* | self-heal | X | | | | G5TU | SNA | | |
| *Prunus serotina* | black cherry | | X | X | X | G5 | S5 | | |
| *Prunus virginiana* | choke cherry | | X | X | X | G5 | S5 | | |
| *Pteridium aquilinum* | eastern bracken fern | | | X | | G5 | S5 | | |
| *Quercus rubra* | red oak | | | | | G5 | S5 | | |
| *Ranunculus acris* | common buttercup | X | | | X | G5 | SNA | | |
| *Ranunculus repens* ** | creeping buttercup | X | | | | GNR | SNA | | |
| *Rhamnus cathartica* | common buckthorn | | X | | X | GNR | SNA | | |
| *Rhus radicans* | poison ivy | | | | X | G5 | S5 | | |
| *Rhus typhina* | staghorn sumac | | X | X | | G5 | S5 | | |
| *Ribes cynosbati* | pasture gooseberry | | | | | G5 | S5 | | |
| *Ribes hirtellum* | smooth gooseberry | | | | | G5 | S5 | | |
| *Rosa multiflora* | multiflora rose | | | | | GNR | SNA | | |
| *Rubus idaeus* | wild red raspberry | | X | | | G5T5 | SNA | | |
| *Rubus allleghaniensis* | common blackberry | | | | | G5 | S5 | | |

**Appendix E. List of Vascular Plants Observed in the Proposed Development Area Features on the 521 Huronia Road Property**

| SCIENTIFIC NAME | COMMON NAME | MEMM3 | WOCM1-2 & CUT1-1 | FOMM4-2 | FOCM2-2 | G-RANK | S-RANK | *SARA, 2002* | *ESA, 2007* |
|---|---|---|---|---|---|---|---|---|---|
| *Rudbeckia hirta* | black-eyed Susan | X | | | | GNR | SNA | | |
| *Rumex crispus* | curly dock | | | | | GNR | SNA | | |
| *Rumex orbiculatus ** | water dock | | | | | G5 | S4S5 | | |
| *Sagittaria latifolia ** | broad-leaved arrowhead | | | | | G5 | S5 | | |
| *Salix bebbianna ** | Bebb's willow | | | | | G5 | S5 | | |
| *Salix discolor ** | pussy willow | | | | | G5 | S5 | | |
| *Salix eriocephala ** | Missouri river willow | | | | | G5 | S5 | | |
| *Salix fragilis ** | crack willow | | | | | GNR | SNA | | |
| *Salix petiolaris ** | slender willow | | | | | G5 | S5 | | |
| *Salix x rubens ** | hybrid willow | | | | | GNR | SNA | | |
| *Sambucus canadensis *** | common elderberry | | | | | G5T5 | S5 | | |
| *Sambucus pubens *** | red-berried elder | | | | | G5 | S5 | | |
| *Saponaria officinalis* | bouncing bet | X | X | | | GNR | SNR | | |
| *Schizachne purpurascens* | purple false melic | | | | | G5 | S5 | | |
| *Scirpus atrovirens ** | dark-green bulrush | | | | | G5? | S5 | | |
| *Scirpus cyperinus ** | wool-grass | | | | | G5 | S5 | | |
| *Scirpus microcarpus ** | panicled bulrush | | | | | G5 | S5 | | |
| *Scirpus validus ** | soft-stemmed bulrush | | | | | G5 | S5 | | |
| *Scutellaria galericulata ** | marsh skullcap | | | | | G5 | S5 | | |
| *Scutellaria laterifolia ** | mad dog skullcap | | | | | G5 | S5 | | |
| *Setaria viridis* | green foxtail | | | | | GNR | SNA | | |
| *Silene cucubalus* | baldder campion | | | | | GNR | SNA | | |
| *Silene noctiflora* | night-flowering catchfly | | | | | GNR | SNA | | |
| *Sisyrhinchium montanum* | blue-eyed grass | | | | | G5T4T5 | S5 | | |
| *Solanum dulcamara *** | deadly nightshade | | | X | | GNR | SNA | | |
| *Solidago altissima* | tall goldenrod | | X | | X | GNR | S5 | | |
| *Solidago canadensis* | Canada goldenrod | | X | | | G5T5 | S5 | | |
| *Solidago flexicaulis* | zig-zag goldenrod | | | | | G5 | S5 | | |
| *Solidago gigantea* | smooth goldenrod | | | | | G5 | S5 | | |
| *Solidago nemoralis* | gray-stemmed goldenrod | | | | | G5T5 | S5 | | |
| *Solidago rugosa* | rough-leaved goldenrod | | | | | G5T5 | S5 | | |
| *Sonchus oleraceus* | common sow-thistle | | | X | | GNR | SNA | | |
| *Sparganium eurycarpum ** | broad-leaved burreed | | | | | G5 | S5 | | |
| *Spiraea alba ** | meadowsweet | | | | | G5 | S5 | | |
| *Spiranthes cernua* | nodding ladies'-tresses | X | | | | G5 | S5 | | |
| *Stellaria graminifolia* | grass-leaved stitchwort | | | | | GNR | SNA | | |
| *Symphyotrichum cordifolium* | heart-leaved aster | | | X | | G5 | S5 | | |
| *Symphyotrichum ericoides* | heath aster | X | | | | G5 | S5 | | |
| *Symphytrichum lanceolatum* | panicled aster | X | | | | G5 | S5 | | |
| *Symphyotrichum lateriflorum* | calico aster | | | X | | G5 | S5 | | |
| *Symphyotrichum novae-angliae* | New England aster | | X | | | G5 | S5 | | |

**Appendix E. List of Vascular Plants Observed in the Proposed Development Area Features on the 521 Huronia Road Property**

| SCIENTIFIC NAME | COMMON NAME | MEMM3 | WOCM1-2 & CUT1-1 | FOMM4-2 | FOCM2-2 | G-RANK | S-RANK | *SARA, 2002* | *ESA, 2007* |
|---|---|---|---|---|---|---|---|---|---|
| *Symphyotrichum puniceum ** | purple-stemmed aster | | | | | G5 | S5 | | |
| *Syringa vulgaris* | common lilac | | | | | GNR | SNA | | |
| *Taraxacum officinale* | common dandelion | | X | | | G5 | SNA | | |
| *Taxus canadensis* | American yew | | | | | G5 | S4 | | |
| *Thalictrum dioicum* | early meadow-rue | | | | | G5 | S5 | | |
| *Thalictrum pubescens* | tall meadow-rue | | | | | G5 | S5 | | |
| *Thelypteris noveboracensis* | New York fern | | | | | G5 | S5 | | |
| *Thelypteris palustris ** | marsh fern | | | | | G5 | S5 | | |
| *Thuja occidentalis* | eastern white cedar | | X | X | X | G5 | S5 | | |
| *Tiarella cordifolia ** | foam flower | | | | | G5 | S5 | | |
| *Tilia americana* | basswood | | | | | G5 | S5 | | |
| *Tragopogon pratensis* | goat's-beard | | | | | GNR | SNA | | |
| *Trientalis borealis* | starflower | | | | | G5 | S5 | | |
| *Trifolium campestre* | low hop clover | X | X | | | GNR | SNA | | |
| *Trifolium pratense* | red clover | | X | | | GNR | SNA | | |
| *Trifolium repens* | white clover | | X | | | GNR | SNA | | |
| *Tsuga canadensis* | eastern hemlock | | | | X | G5 | S5 | | |
| *Tussilago farfara *** | coltsfoot | X | X | X | X | GNR | SNA | | |
| *Typha angustifolia ** | narrow-leaved cattail | | | | | GNR | SNA | | |
| *Typha latifolia ** | broad-leaved cattail | | | | | GNR | SNA | | |
| *Typha x glauca ** | hybrid cattail | | | | | GNA | SNA | | |
| *Ulmus americana *** | white elm | | | | X | G5? | S5 | | |
| *Urtica dioica *** | European stinging nettle | | | | | G5T5? | SNA | | |
| *Verbascum thapsus* | common mullein | X | | | | GNR | SNA | | |
| *Verbena hastata ** | blue vervain | | | | | G5 | S5 | | |
| *Veronica anagallis-aquatica ** | American water speedwell | | | | | G5 | SNA | | |
| *Veronica serpyllifolia* | thyme-leaved speedwell | | | | X | G5 | SNA | | |
| *Viburnum acerifolium *** | maple-leaved viburnum | | | | | G5 | S5 | | |
| *Viburnum trilobum *** | high-bush viburnum | | | | | G5 | S5 | | |
| *Viburnum lentago* | nannyberry | | | | | G5 | S5 | | |
| *Vicia cracca* | cow vetch | X | X | | | GNR | SNA | | |
| *Viola cucullata ** | marsh blue violet | | | | | G4G5 | S5 | | |
| *Viola pubescens* | downy yellow violet | | | | | G5T5 | S5 | | |
| *Viola sororia* | woolly blue violet | | | | | G5 | S5 | | |
| *Vitis riparia *** | riverbank grape | | X | | | G5 | S5 | | |
| *Woodwardia virginiana ** | Virginia chain fern | | | | | G5 | S4 | | |

***Legend***

| ***Provincial Rank (SRANK)*** | ***SARA, 2002*** | ***ESA, 2007*** |
|---|---|---|
| *S1 - Critically Imperiled* | *NAR - Not at Risk* | *NAR - Not at Risk* |
| *S2 - Imperiled* | *SC - Special Concern* | *SC - Special Concern* |
| *S3 - Vulnerable* | *T - Threatened* | *THR - Threatened* |

**Appendix E. List of Vascular Plants Observed in the Proposed Development Area Features on the 521 Huronia Road Property**

*S4 - Apparently Secure* *E - Endangered* *END - Endangered*
*S5 - Secure*
*SNA - Non Applicable or equivalent to non-native*

* plant species observed in the PSW, ** plant species observed on the tableland and in the PSW

**ATTACHMENT 2 – REVISED TABLE 1 FROM SCOPED ENVIRONMENTAL IMPACT STUDY**

**Table 1. List of Vegetation Communities (ELCs) on Huronia Barrie Land Inc. (521 Huronia Road) Property**

| ELC Code | Vegetation Type | Summary Description |
|---|---|---|
| FOCM2-2 | Dry-Fresh White Cedar Mineral Coniferous Forest | - this coniferous woodland feature is located along the southern edge of the east-west trail and to the east of the north-south trail, and comprises most of the proposed development area<br>- the dominant canopy tree is eastern white cedar, along with understorey associates of trembling aspen, white birch, black cherry, and white elm<br>- scattered white spruce, yellow birch, eastern hemlock, balsam fir, beech and white ash are also present but in small numbers<br>- shrub and vine species include choke cherry, hawthorn, and common buckthorn<br>- the eastern white cedar distribution is dense, characterized by pole-sized to early successional specimens<br>- common groundcover species include wild sarsaparilla, yellow avens, thyme-leaved speedwell, wild lily-of-the-valley, Jack-in-the-pulpit, poison ivy, sweet coltsfoot, tall goldenrod, woodland strawberry, Canada anemone, Virginia creeper, and Philadelphia fleabane<br>- there is also a small inclusion that consists of a shallow depression/trough, that is not part of the PSW as it is small, lacks aquatic plants, and standing water for breeding amphibians |
| FOMM4-2 | Dry-Fresh White Cedar – Poplar Mixed Forest | - this narrow band of upland mixed coniferous woodland along a gentle slope borders part of the PSW unit SWMO1-1<br>- dominant tree species include eastern white cedar and trembling aspen<br>- other woody associates, shrubs and vines include black cherry, choke cherry, Manitoba maple, white birch, Scots pine, white spruce, common apple, staghorn sumac and white pine<br>- typical groundflora include helleborine, sensitive fern, spinulose wood-fern, bull thistle, coltsfoot, heart-leaved aster, common aster, common sow-thistle, common cucumber, graceful sedge, eastern bracken fern and deadly nightshade |
| FOMM5-2 | Dry-Fresh Poplar Mixed Forest | - this small stand of trembling aspen with an understorey of eastern white cedar lies along the southern edge of SWDM4-5<br>- the sparse to barren groundcover is similar to that found in FOMM4-2 and FOCM2-2, along with a sparse to barren groundcover |

| | | |
|---|---|---|
| WOCM1-2/CUT1-1 | Dry – Fresh White Cedar Coniferous Woodland/Sumac Deciduous Shrub Thicket | - this narrow band of coniferous cultural woodland in combination with deciduous shrub thicket, situated along the northern edge of the east-west trail<br>- trees and shrubs in this combined wooded feature include eastern white cedar, trembling aspen, black cherry, Scots pine, staghorn sumac, Manitoba maple, wild red raspberry, tartarian honeysuckle, common buckthorn, choke cherry, white pine and balsam poplar<br>- The groundcover consists of weed, grasses and forbs such as tall goldenrod, Canada goldenrod, common dandelion, New England aster, timothy, wild grape field horsetail and common burdock |
| MEMM3 | Dry-Fresh Mixed Meadow | - the vegetation cover along the east-west trail and north-south trail and their edges consists primarily of weeds, grasses and herbaceous forbs, with other portions comprised of exposed sandy soils<br>- representative groundflora includes bouncing-bet, white sweet-clover, daisy fleabane, common ragweed, wild carrot, common plantain, quackgrass, bird's-foot trefoil, Canada bluegrass, clammy ground-cherry, sweet coltsfoot, black-eyed Susan, bull thistle, heal-all, creeping buttercup, common buttercup, heath aster, Jerusalem artichoke, common mullein, cow vetch, common scouring-rush, nodding ladies'-tresses, common gerardia, panicled aster and path rush |
| SWMO1-1/MASO2-1/SWTO2-6 | White Cedar-Hardwood Organic Mixed Swamp/Mixed Forb Organic Shallow Marsh/Mixed Organic Thicket Swamp | - this relatively large pocket of mixed treed swamp with inclusions of mixed forb shallow marsh and mixed willow thicket swamp<br>- typical trees include eastern white cedar, trembling aspen, balsam poplar, white elm, red maple, balsam fir, yellow birch, white pine, tamarack, white spruce, hybrid willow, and crack willow<br>- shrub and vine species include red-osier dogwood, winterberry, meadowsweet, Bebb's willow, Missouri willow, pussy willow, slender willow, riverbank grape, Virginia creeper, hog-peanut and wild cucumber<br>- typical groundflora includes reed canary grass, Canada bluejoint grass, narrow-leaved cattail, wild mint, spotted water hemlock, panicled bulrush, soft-stemmed bulrush, purple-stemmed aster, fringed loosestrife, sensitive fern, lady fern, ostrich fern, marsh fern, water horsetail, water horehound, smallflower hairy willowherb, hairy willowherb, elecampane, fowl manna grass, blue vervain, sweet flag, blue flag, common duckweed, marsh cinquefoil, water plantain, beggar-ticks, marsh marigold, boneset, spotted Joe pye-weed, spotted jewelweed, royal fern, Bebb's sedge, awl-fruited sedge, meadow sedge, hop sedge, dark green bulrush and common rush<br>- species of note include black ash (*Fraxinus nigra* – NHIC SRank S3) and long sedge (*Carex folliculata* – NHIC SRank S3) |

| | | |
|---|---|---|
| MASO1-1/MASO2-1/SWTO2-1 | Cattail Organic Shallow Marsh/Mixed Forb Organic Shallow Marsh/Mixed Green Willow Organic Thicket Swamp | - along the western edge of the north-south trail and contiguous with SWMO1-1 is a relatively large pocket of characterized as cattail organic shallow marsh, dominated by narrow-leaved cattail<br>- other wetland feature inclusions are MASO2-1 and SWTO2-6<br>- other cattail marsh species include broad-leaved cattail, hybrid cattail, along with various asters, goldenrods, aquatic forbs, grasses and sedges<br>- shrubs and vines include willows, winterberry, red-osier dogwood, maple-leaved viburnum, riverbank grape, Virginia creeper, hog-peanut, virgin's-bower and speckled alder<br>- species of note include black ash (*Fraxinus nigra* – NHIC SRank S3) and long sedge (*Carex folliculata* – NHIC SRank S3) |
| SWDM4-5 | Poplar Mixed Deciduous Swamp | - trembling aspen, white elm and scattered eastern white cedar dominate this shallow depression/trough which is situated along the southern edge of the main proposed development area<br>- the sparse to barren groundcover contains sensitive fern, marginal wood-fern, marsh fern, deadly nightshade, wild mint, coltsfoot, poison ivy, spotted jewelweed, Bebb's willow and field horsetail |

**ATTACHMENT 3 – REVISED TABLE 4 FROM SCOPED ENVIRONMENTAL IMPACT STUDY**

Table 4. List of Amphibian and Reptile Species 521 Huronia Road, City of Barrie

| Family | Scientific Name | Common Name | GRANK | SRANK | SARO | SARA | Tracked | Observed |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| ANURA | *Pseudacris maculata* | Western Chorus Frog * | G5TNR | S3 | NAR | THR | Y | X |
| ANURA | *Bufo americanus* | American Toad ** | G5 | S5 | | | N | X |
| ANURA | *Hyla versicolor* | Gray Treefrog ** | G5 | S4 | | | N | X |
| ANURA | *Odocoileus virginianus* | Spring Peeper +* | G5 | S5 | | | N | X |
| ANURA | *Procyon lotor* | Green Frog *** | G5 | S5 | | | N | X |
| ANURA | *Sciurus carolinensis* | Northern Leopard Frog ** | G5 | S5 | NAR | | N | X |
| ANURA | *Sylvilagus floridanus* | Wood Frog *** | G5 | S5 | | | N | X |
| CRYPTODEIRA | *Chelydra serpentina* | Snapping Turtle | G5 | S3 | SC | SC | Y | X |
| SQUAMATA | *Thamnophis sirtalis sirtalis* | Eastern Gartersnake | G5T5 | S5 | | | N | X |

+ seen or heard May 22, 2014 by Azimuth with breeding code 2-3

* seen or heard by CEA during May 5, 2018 evening amphibian call survey with breeding codes 2-3 (spring peeper and western chorus frog) in wetlands SWMO1-1 and MASO1-1

** seen or heard by CEA during June 28, 2018 evening amphibian call survey with breeding code 1-2 (northern leopard frog), with breeding code 2-3 (gray treefrog ) and with breeding code 2-2 (Amerian toad)

*** seen or heard during the day on July 29, 2018

no evening amphibian breeding calls in FOCM2-2 (proposed development area - no vernal pools) during May 5 and June 28, 2018 surveys

no evening amphibian breeding calls in SWDM4-5 (no water for breeding) during May 5 and June 28, 2018 surveys

# ATTACHMENT 4 – LOCATIONS OF SNAG SURVEY PLOTS, JUNE 8 AND 9, 2021

LEGEND:

- Snag Trees
- Snag Density Survey Plot
- Snag Density Survey Plot Radius (12.6 m)
- Subject Property
- Watercourse (MNRF)
- PSW Wetland Limits (MNRF)

Imagery (2018) provided by Esri basemap service.

0 10 20 30 40 50

metres

| | | | |
|---|---|---|---|
| PROJECT NO. | 1603387 | REVISION: | 1-1 |
| DATE: | Jun 22, 2021 | SCALE: | 1:1750 |
| DRAWN: | KG | DATUM: | NAD 1983 |
| CHECKED: | ED | PROJECTION: | UTM zone 17 |

CLIENT: Michalski Nielsen Associates Limited

PREPARED BY: Palmer™

PROJECT: 521 Huronia Road

# 2021 Snag Density Survey

**Figure 1**

Document Path: G:\Shared drives\Projects 2016\16033 - MNAL\1603387 - 521 Huronia Road, Barrie\Mapping\Figures\5_ArcGIS\1603387_Figure 1-1-1_2021 Snag Density Survey.mxd

# ATTACHMENT 5 – SNAG DENSITY SURVEY SUMMARY

### *Attachment 5. Snag Density Survey Summary*

| Plot No. | Snag Notes |
|---|---|
| 1 | None noted, dominant canopy species = Scots Pine (*Pinus syvestris*) |
| 2 | None noted, dominant canopy species = Eastern White Cedar (*Thuja occidentalis*) |
| 3 | *1 potential roost snag: Poplar species (*Populus* sp.), 46cm DBH, Crown Class: dominant, Decay Class 4 (dead), several small cavities at approximately 12m high along main trunk, large areas of peeling bark along main trunk from 10m high.<br>Several young (between 15 and 20cm DBH) cedar snags, but no potential for roosting (i.e. no cavities). |
| 4 | Several standing snags, but no potential for roosting (young, between 15 and 20cm DBH, no cavities) |
| 5 | 2 Trembling Aspen standing snags with DBH >25cm, but no roosting potential. |
| 6 | 1 Trembling Aspen standing snag with DBH approximately 30cm, but no roosting potential. |
| 7 | Several young standing cedar snags (< 15cm DBH), but no roosting potential. |
| 8 | *1 potential roost snag: White Pine (*Pinus strobus*), multistem, all stems dead, several small cavities along stems, large areas of peeling bark.<br>Several young standing cedar snags (<15 cm DBH), but no roosting potential. |
| Incidentals | *1 potential roost snags: south end of development footprint - Sugar Maple (*Acer saccharum*), DBH approximately 20cm, several small cavities along trunk between 6 and 10m height, Decay Class 4 (dead). |

## ATTACHMENT 6 – FOUR PHOTOGRAPHS

**Photographs 1 and 2. Representative photos of Rough-fruited Cinquefoil (*Potentilla recta*) and Yellow Avens (*Geum aleppicum*) on the Subject Property.**

**Photographs 3 and 4. Identified potential suitable snag for bat roosting / Young cedar snags with absence of suitable roosting characteristics.**