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ENVIRONMENTAL SITE EVALUATION

Municipality: South Frontenac Township (Storrington District)

Lots: 12

Concessions: 1-2

Municipal Address: Mowoods Lane & Davidson Side Road (no number)

Site District: 6E-9 (Madoc)

Landowner: Joe Brice

Planning Application Reference: N/A

Description of Application: The landowner is proposing to develop his property on Loughborough Lake in South Frontenac Township (see Attachment 1) with a single-family residence and associated driveway and landscaping (see Attachment 2). A boat slip, which has already been approved for development, will be installed at the edge of the lake, with an access lane from the driveway down to the slip.

The development plan has evolved through our discussions with the client. The current plan situates the residence on a leveled clearing, above the top of the slope. The slope to the north of the house, which is in poor condition, will be given native planting restoration. Any of the native trees and shrubs we list in our Ecological Land Classification have some success growing in the area, but there may be other options. A certified arborist can recommend suitable native species.

Site Description:

The landowner's property is approximately 10 ha in size. The proposed development is located on the northern end of the property (see Attachments 3 and 4), with a driveway connection to Mowoods Lane. There is a large, central cleared area, surrounded by woodlands (see Attachment 5). There is also a drainage ditch that runs south-to-north through the property, emptying into Loughborough Lake. We focused our site visit on the northern end of the property, where the development is proposed.

A. Ecological Land Classification

We evaluated the different vegetation communities on the property into Ecological Land Classification (ELC) categories (see Attachment 3), after Lee et al. (1998). The site where development is proposed is a **Cultural (CU)** site. Lee et al. describe this type of site as having vegetation communities resulting from anthropogenic-based disturbances. The clearing on the property ranges from unvegetated to sparsely vegetated, with species including Red Raspberry, Purple-flowering Raspberry, Poison Ivy, Glossy Buckthorn, Bittersweet Nightshade, Coltsfoot, and Dog-strangling Vine, among others. Many of these species are commonly associated with disturbed areas.

Loughborough Lake is an **Open Aquatic (OAO)** community, with no macrophyte vegetation along the edge of the lake and deep water (> 2 m in most places).

<p>The woodland adjacent to the proposed development is a Dry – Fresh White Cedar Coniferous Forest Type (FOC2-2). White Cedar is overwhelmingly the dominant species, but some other trees included Balsam Fir, Basswood, Sugar Maple, Red Oak, and Bitternut Hickory. Cedar forest ecosites, according to Lee et al., often represent secondary growth on disturbed sites. It can be noted (see Attachments 4 and 5) that the southern half of the property does not have enough tree cover to qualify as a forested community, but that coniferous growth is present. This may be an early stage of ecological succession of woodland forming on the south part of the property.</p>	
<p>B. <u>Slope</u></p> <p>The slope of the property varies, getting steeper closer to Loughborough Lake. The property has a gentle slope (percent slope 5-9%) around the area where the residence is proposed, and the actual cleared site proposed for the residence has been further leveled. North of the proposed residence, the property has a strong slope (percent slope 15-30%) down to the edge of the lake.</p>	
<p>C. <u>Surface Water Quality and Quantity</u></p> <p>The provincial Lake Partner Program has over a decade of data collected for a station in the west basin of Loughborough Lake. The average phosphorous level recorded over that period is 9 µg/L, with a low variance from that value. These levels of phosphorus are representative of oligotrophic (low nutrient) levels. A eutrophic or nutrient-rich lake is one that has high levels of phosphorous (35 to 100 µg/L), based on current Canadian standards (CCME 2004).</p>	
<p>D. <u>Setback Requirements</u></p> <p>There must be a minimum 30 m setback from the edge of the lake. The proposed residence is set back approximately 45 m from the lake, on leveled ground above the top of the slope. The proposed septic location is set back even further, approximately 100 m from the edge of the lake (see Attachment 2).</p>	
<p>Is the Proposed Development:</p>	
A. In a Provincially Significant Wetland or Coastal Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<p><u>Adjacent to a Provincially Significant Wetland or Coastal Wetland?</u></p> <p>The nearest PSW mapped by the Natural Heritage Information Centre (NHIC) is the Loughborough Lake South PSW, just under 2 km southwest of the property. According to the Natural Heritage Reference Manual for the Provincial Policy Statement (NHRM), adjacent land is the land located within 120 m of the proposed activity.</p>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
B. In a Regionally Significant Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<p><u>Adjacent to a Regionally Significant Wetland?</u></p> <p>The South Frontenac Township Official Plan (OP) has not identified any regionally significant wetlands.</p>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
C. <u>In/adjacent to an Unevaluated Wetland?</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<p>There is no wetland where development is proposed, and the woodlands adjacent to the proposed development are also dry. The offshore portion of Loughborough Lake is not vegetated and would not be considered wetland.</p>	

<p>There are some areas of unevaluated wetland mapped in NHIC on properties adjoining the subject property, but these are beyond 120 m of the proposed development.</p>	
<p>D. In an Area of Natural and Scientific Interest?</p>	<p>Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No</p>
<p><u>Adjacent to an Area of Natural and Scientific Interest?</u> The nearest ANSI mapped by the NHIC is the Collins Lake Upland Forest Life Science ANSI, over 6 km southeast of the subject property.</p>	<p>Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No</p>
<p>E. <u>In the habitat of Species at Risk?</u> The subject property is located primarily within one of the 1-km² UTM blocks (18UQ7714) in the NHIC grid of Ontario, and the entire area of proposed development is located within that block. There were no SAR listings within this block or within surrounding blocks. The eBird database had sightings for several SAR birds within the area of the property: Bobolink, Eastern Meadowlark, Wood Thrush, Barn Swallow. The open clearing does not fulfill the habitat requirements for any of these species, we will discuss them in the following section. No other SAR came up in our database search, and we did not observe any while on site.</p>	<p>Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No</p>
<p><u>Adjacent to habitat of Species at Risk?</u> Of the bird species listed above, not all have suitable habitat adjacent to the proposed development. Both the Eastern Meadowlark and the Bobolink use large areas of grassland, which is not present within adjacent land. We will discuss the others below:</p> <p>Barn Swallow (<i>Hirundo rustica</i>): designated as Threatened under both the <i>Species at Risk Act (SARA)</i> and Ontario’s <i>Endangered Species Act (ESA)</i>. They are so-named as they often inhabit old barns, where they build their nests in the rafters. We observed some old sheds on the property to the east, but we do not know if those structures would provide access for nesting. We did not observe any individuals. Barn Swallows are highly tolerant of human activity, and if present in the area, are unlikely to be negatively impacted by a new construction</p> <p>Wood Thrush (<i>Hylocichla mustelina</i>): designated as Threatened under the <i>SARA</i> and as Special Concern under the <i>ESA</i>. This species is found in deciduous and mixed forest, preferring moist stands with well-developed undergrowth and tall trees for singing perches. The coniferous woodland does not represent ideal habitat. Changes in wintering habitat outside Canada are considered a major factor in declining numbers (COSEWIC 2012, Stanley et al. 2015). This is consistent with our experience, as there is available habitat in the region, but untouched woodlands where we once noted them calling are no longer used. This suggests that the proposed development would not be a limiting factor to this species. In addition, these birds can live near urban areas so it does not appear that development is unfavorable. The proposed development is unlikely to have a negative</p>	<p>Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No</p>

<p>impact on this species. Nevertheless, we recommend that any removal of trees or shrubs occur should outside of the breeding season (April 1 to August 31).</p>	
<p>F. <u>In significant wildlife habitat?</u> Significant wildlife habitat (SWH) constitutes locations where species concentrate at a vulnerable point in their annual or life cycle, rare vegetation communities or specialized habitat, and areas important to migratory or non-migratory species (animal movement corridors), as well as the habitat of rare species (including any Species at Risk not covered above). The cleared area does not qualify for most of the SWH categories, but there was one we did consider potentially relevant:</p> <p><i>Turtle Nesting Areas:</i> turtles typically choose to nest in mineral soil (sand or gravel) near water. The best locations are away from human activity, which typically attracts nest predators like raccoons and skunks. The disturbed embankment (see site photos, Attachment 6) would be the most likely location for nesting to occur on the property. We did not observe any evidence of predated nests; this may indicate that there has not been recent nesting on the site, as there are likely nest predators in the area.</p> <p>We recommend a form of sediment control be installed to protect the lake from construction detritus. If this is installed near the edge of the lake, before turtle nesting season begins in May, then it can concurrently act as a deterrent (exclusion barrier) to nesting turtles.</p>	<p>Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No</p>
<p><u>Adjacent to significant wildlife habitat?</u> The criteria for most SWH categories were not met within 120 m of the property; our discussions are limited to potentially relevant SWH.</p> <p><i>Turtle Wintering Areas:</i> Loughborough Lake provides a wintering area for the turtles that live in it throughout the year. It is unlikely that the proposed activity will have any impact on this SWH.</p> <p><i>Bald Eagle and Osprey Nesting, Foraging and Perching Habitat:</i> NHIC compiles known nesting sites for these species, which were not listed for the area. A local birder has one sighting of each species listed in eBird, although no information about the nature of those sightings. We did not observe either of these species nor any stick nests when we visited the property. If these species are present, they are unlikely to be negatively impacted by the proposed development, as there is no removal of large trees proposed.</p> <p><i>Special Concern and Rare Wildlife Species:</i> the NHIC occurrence listings did not have any rare or Special concern Species listed with the relevant 1-km² UTM blocks (18UQ7714), or within adjacent</p>	<p>Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No</p>

<p>blocks. The eBird database had a Bald Eagle sighting within the area of the property. The iNaturalist database had an obscured listing for a Map Turtle in Loughborough Lake, and the Fisheries and Oceans Canada map of aquatic SAR indicated that the entire lake was habitat for Eastern Pondmussel.</p> <p>Bald Eagle (<i>Haliaeetus leucocephalus</i>): designated as a species of Special Concern under the <i>ESA</i>, although it is deemed to be Not at Risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and has no status under the <i>SARA</i>. They use a variety of habitats and forest types, almost always near a major lake or river, and have strong nest fidelity. There is a nearby eBird record of this species, but we did not encounter any nest sites on the property. The development is unlikely to negatively impact the species.</p> <p>Northern Map Turtle (<i>Graptemys geographica</i>): designated as a species of Special Concern under the <i>SARA</i> and the <i>ESA</i>. A highly aquatic turtle, it would be associated with the Loughborough Lake, with potential to emerge onto adjacent uplands during nesting season. There is a possibility that turtles may attempt to nest on the shoreline area of the subject property. The disturbed embankment where the native plant restoration is planned would be the most likely area, as discussed above.</p> <p>Eastern Pondmussel (<i>Ligumia nasuta</i>): ranked as species of Special Concern under both the <i>SARA</i> and the <i>ESA</i>. It is found in sheltered areas of lakes and in slow-moving rivers and canals with sand or mud bottoms. Threats include invasive species (e.g., Zebra and Quagga mussels) and pollution from wastewater discharge, and agricultural and industrial runoffs. The residence is proposed to be set back approximately 45 m from the lake, and the planned septic location is set further back than the residence. The planned native plant restoration is expected to provide some buffering of runoff to the lake. We also recommend that the house’s eavestroughs be positioned so that flow is directed away from the lake, maximizing the length of overland flow and absorption opportunity.</p>	
<p>G. <u>Within 120 m of a waterbody?</u> The proposed development is set approximately 45 m from the edge of Loughborough Lake. The plans place the proposed development on level ground above the embankment down to the lake edge (see Attachment 2). In our opinion, this is an appropriate setback from the lake. We are recommending that the native landscaping restoration on the embankment be monitored, to ensure that it increases the stability of the embankment. We also recommend that the eavestrough downspouts be positioned to direct flow off the house away from the embankment and the lake. During construction, a form of sediment</p>	<p>Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No</p>

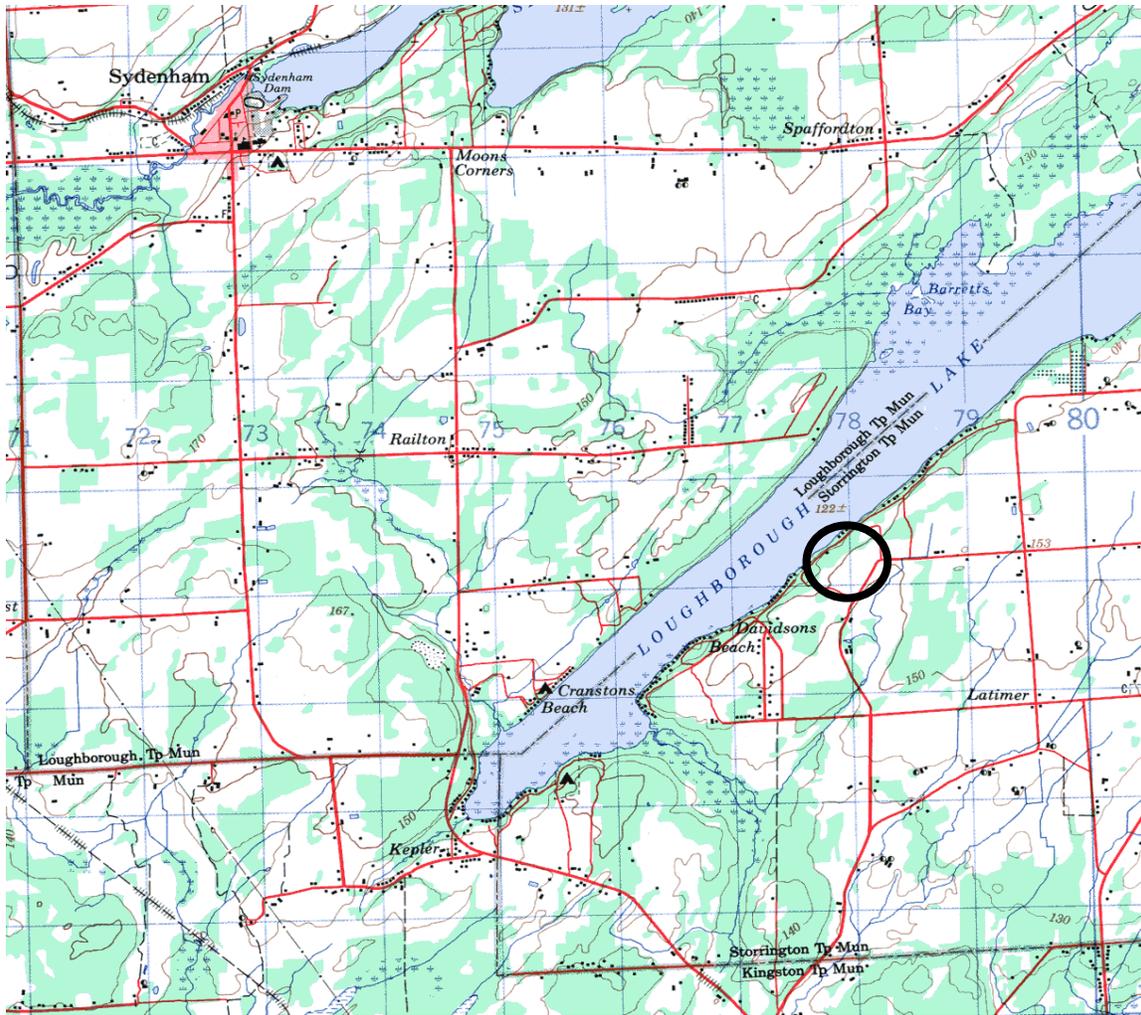
<p>control such as silt fencing, properly staked and toed in, or straw bales should be installed between the work area and the lake. The sediment control should be maintained until work is complete, including the establishment of an effective vegetation buffer.</p>	
<p>H. In fish habitat?</p>	<p>Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No</p>
<p><u>Adjacent to fish habitat?</u> Loughborough Lake is fish habitat. There are several game fish species listed in the Fish ON-Line database, including Northern Pike, Pumpkinseed, Largemouth Bass, Smallmouth Bass, and Lake Trout. The proposed development is set approximately 45 m from the lake, and located on a level area above the slope of the embankment. We are satisfied with this setback from general fish habitat.</p>	<p>Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No</p>
<p>I. <u>In or Adjacent to Highly or Moderately Sensitive Lake Trout Lake?</u> The west basin of Loughborough Lake is considered a sensitive Lake Trout lake. In the NHRM, adjacency to a Lake Trout lake applies to the lands within 300 m of the water. The proposed residence and its associated amenities are thus adjacent to the Lake Trout lake. The Provincial Policy Statement, which the NHRM supports, does not prohibit development within adjacent lands, if it can be demonstrated that there will be no negative impacts on the natural features or on their ecological functions.</p> <p>The South Frontenac Township Zoning Bylaw requires developments within 90 m of a Lake Trout lake to demonstrate that their sewage systems will not adversely impact the lake water quality. The current plan for development has the sewage system located approximately 100 m from the lake.</p> <p>Our company has experience researching the Lake Trout of Loughborough Lake. Ecological Services undertook Spring Littoral Index Netting (SLIN) for Lake Trout on behalf of the Ministry of Natural Resources (MNR) Kingston Management Area from 1997 to 1999. The purpose of the work was to provide data for SLIN FISHNET, with the intention of providing a better understanding of the Lake Trout populations in the region. We undertook Lake Trout SLIN work for several lakes in the region, including in 1998 and 1999 for Loughborough Lake. We also undertook a 1997 Creel survey for Loughborough Lake on behalf of the MNR.</p> <p>From 1955 to 1999, Loughborough Lake had been stocked with over 500,000 Lake Trout. Mark Ferguson was the fisheries biologist for the Kingston Management Area in the 90's and his recommendation had been that stocking should be greatly increased in Loughborough Lake. Consequently, stocking was increased and from 1993 to 1999, and accounted for over 350,000 Lake Trout in the lake. These were mostly the Kilalla strain from the White Lake fish hatchery, meaning they</p>	<p>Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No</p>

<p>would likely have less genetic diversity than a wild population. According to Mr. Ferguson (pers. comm.), it was understood that Loughborough Lake did not have good potential as a self-sustaining Lake Trout lake. Accordingly, it was seen as a sacrificial lake whereby the intense stocking would provide anglers a recreational trout fishery within easy travel distance to Kingston in the hopes of taking pressure away from the more valuable trout lakes further north, such as Devil Lake.</p> <p>Our highest SLIN catches were from Loughborough Lake. Of the 228 Lake Trout caught, 222 had hatchery clips identifying them as hatchery raised. All the other Lake Trout lakes we surveyed had higher proportions of non-hatchery raised trout, with Devil Lake being the highest. This lack of natural trout production in Loughborough was further exhibited in the age classes of the catch. A self-sustaining wild population would have a higher percentage of young age classes in the catch, but these age classes were absent in the Loughborough Lake catch.</p> <p>Our results further demonstrated MNR's understanding that Loughborough Lake was not a good candidate as a self-sustaining Lake Trout lake, and our recommendation was to continue stocking the lake as per the MNR angler diversion strategy.</p> <p>In our opinion, the proposed development will not adversely impact the Lake Trout population of Loughborough Lake. We have observed that the population has limited natural reproduction, and may not be as sensitive as some other Lake Trout lakes. The native plant restoration will improve the stability of the slope, and reduce runoff from the slope into the lake. The position of the house above the top of the slope will limit runoff from the house. The proposal of setting the septic tank over 90 m from the lake achieves the intent of the South Frontenac Township Bylaw.</p>	
<p><u>J. In a significant woodland?</u> The area where development has been proposed is cleared of trees, and will not be within woodland.</p>	<p>Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No</p>
<p><u>Adjacent to a significant woodland?</u> Woodlands are considered as a single unit, even if they cross several properties. We have considered this woodland with a combination of on-site evaluation on the property and assessment of satellite imagery. According to the NHRM, there are several criteria that may qualify a woodland for significance. Most do not apply to the woodland that crosses this property (e.g., woodland size, interior habitat size, significant habitat linkage, species diversity, rare species composition, and ecological/social values). There is one criterion that may confer significance:</p>	<p>Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No</p>

<p>Water protection: this woodland is located on the sloping bank down to Loughborough Lake, and may provide some water protection to the fish habitat in the lake (including the sensitive Lake Trout). The woodland may provide some buffering functions, stabilizing the shoreline slope and protecting the lake from some overland runoff.</p> <p>The placement of the proposed development within the open clearing will not negatively impact any water protection functions provided by the adjacent woodland. However, we have suggested that the slope north of the proposed development should be restored with native plant species. The intent of this recommendation is to protect the integrity of the slope, and to reduce runoff from the development by creating an effective buffer of vegetation.</p>	
<p>K. In a significant valleyland?</p>	<p>Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No</p>
<p><u>Adjacent to a significant valleyland?</u> Significant valleylands are not designated provincially, and South Frontenac Township identifies them as Environmentally Sensitive Areas on the map for the Official Plan. There are none identified adjacent to the subject property.</p>	<p>Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No</p>
<p>In our opinion, is a more detailed Environmental Impact Statement (EIS) required to demonstrate the appropriateness of the proposed development? Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No</p>	
<p>If yes, which natural feature(s) should the assessment focus on?</p>	
<p>Recommendations for Mitigation:</p> <ol style="list-style-type: none"> 1. The residence must be set back a minimum of 30 m, and must also be set above the top of the slope. The setback in the current plan is in accord with this. 2. We recommend that the eavestrough downspouts be positioned to direct flow off the house away from the embankment and from the lake. 3. Before work begins, a form of sediment control such as silt fencing, properly staked and toed in, or straw bales should be installed between the work area and the lake. The sediment control should be maintained during construction, until work is complete and shoreline stabilization through native landscaping has been established. 4. The native landscaping restoration should be planned and carried out (or directed) by a certified arborist. The arborist should monitor the plantings for survival and replace plantings that do not take. 5. Any removal of woody vegetation (trees and shrubs) should occur outside of the breeding season (April 1 to August 31) to comply with the intent of the Migratory Birds Convention Act. 	
<p><u>Environmental Impact Statement:</u> It is our opinion that the proposed undertaking will have no negative impact on the natural heritage features or on their ecological functions, and that the proposal is consistent with the intent of the Provincial Policy Statement.</p>	<p>Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No</p>

<u>Is monitoring recommended?</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<p>The arborist contracted for the native landscaping restoration should monitor the plantings for survival, and there should be replacement of plantings that did not take. The plantings should be monitored until vegetation cover is firmly established, as evaluated by the professional arborist.</p>	
<p>Contacts, References & Literature Cited:</p>	
<p>Canadian Council of Ministers of the Environment. 2004. Canadian Water Quality Guidelines for the Protection of Aquatic Life: Phosphorus: Canadian Guidance Framework for the Management of Freshwater Systems. In: Canadian Environmental Quality Guidelines, 2004, Canadian Council of Ministers of the Environment, Winnipeg. 6 pp.</p>	
<p>COSEWIC. 2012. COSEWIC assessment and status report on the Wood Thrush <i>Hylocichla mustelina</i> in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 46 pp. (www.registrelep-sararegistry.gc.ca/default_e.cfm).</p>	
<p>Denholm, K.L. and L. W. Schut (comp.). 1993. Field manual for describing soils in Ontario. 4th edition. 2009 printing. Land Resource Science, University of Guelph.</p>	
<p>Ferguson, Mark. (Retired) Biologist with the Ministry of Natural Resources (Napanee District, Frontenac Management Area) and Fish Habitat Biologist with Fisheries and Oceans Canada (Prescott Office).</p>	
<p>Fisheries and Oceans Canada: Aquatic species at risk map. Web site maintained by Fisheries and Oceans Canada, compiling critical habitat and distribution data for aquatic species. <http://www.dfo-mpo.gc.ca/species-especies/sara-lep/map-carte/index-eng.html></p>	
<p>Fish ON-Line. Web site maintained by the Ontario Ministry of Natural Resources and Forestry, with information on element occurrences. <https://www.gisapplication.lrc.gov.on.ca/FishONLine/Index.html?site=FishONLine&viewer=FishONLine&locale=en-US></p>	
<p>Henson, B.L. and K.E. Brodribb 2005. Great Lakes Conservation Blueprint for Terrestrial Biodiversity, Volume 2: Ecodistrict Summaries. Nature Conservancy of Canada.</p>	
<p>Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998. Ecological Land Classification for Southern Ontario. First Approximation and Its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Technology Transfer Branch. SCSS Field Guide FG-02. 225 pp.</p>	
<p>Natural Heritage Information Center. Make a Map: Natural Heritage Areas. Web site maintained by the Ontario Ministry of Natural Resources and Forestry, with species rarity rankings and information on element occurrences. <https://www.gisapplication.lrc.gov.on.ca/mamnh/></p>	

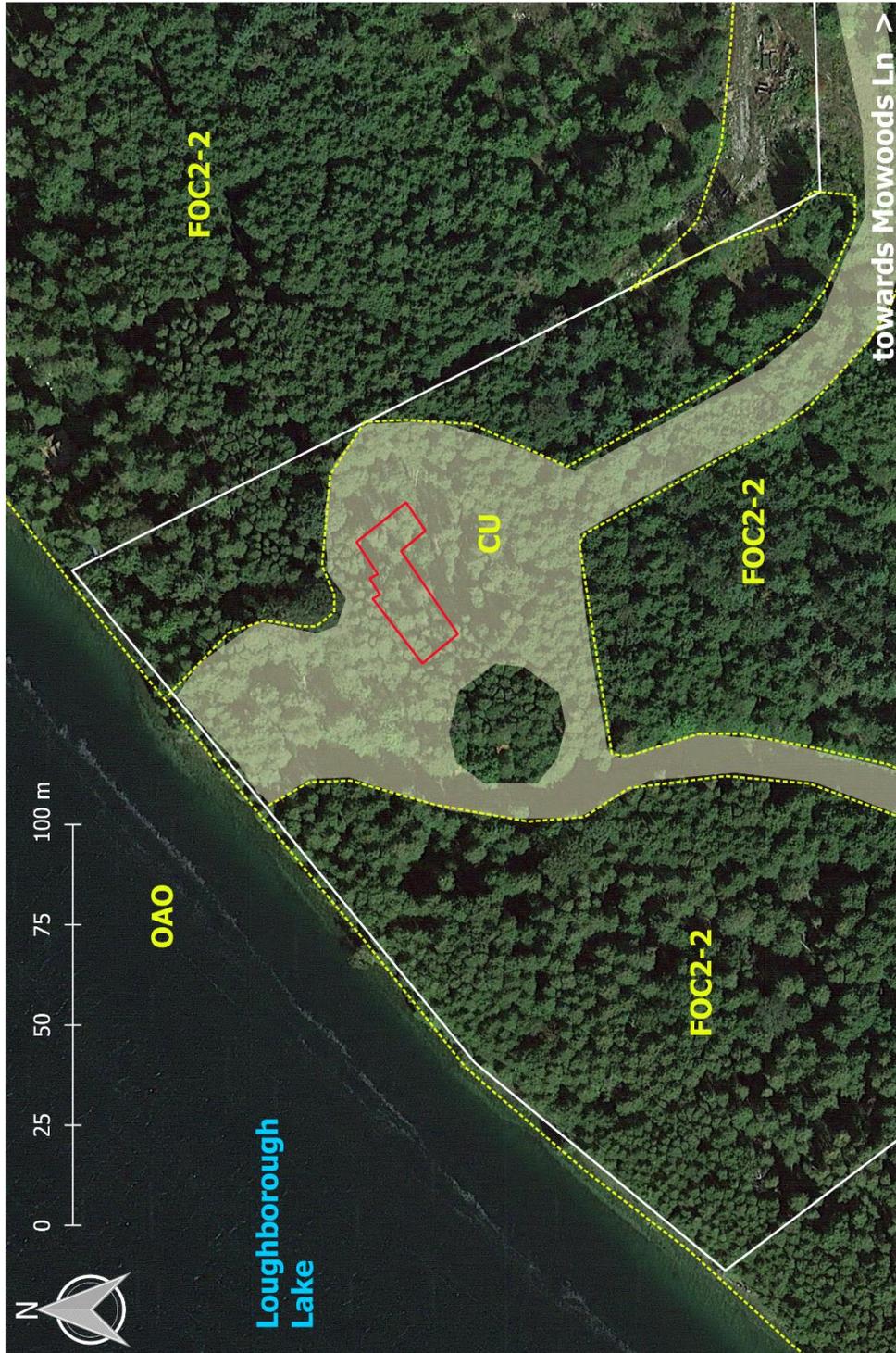
<p>Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US> .</p> <p>MNR, Ministry of Natural Resources. 2000. Significant Wildlife Habitat Technical Guide. 151 pp. Fish and Wildlife Branch, Technical Section.</p> <p>MNRF, Ministry of Natural Resources and Forestry. 2014. Ontario Wetland Evaluation System, Southern Manual, 3rd Edition, Version 3.3. 284 pp.</p> <p>OMNR, Ontario Ministry of Natural Resources. 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. 2nd edition. Toronto: Queen’s Printer for Ontario. 248 pp.</p> <p>OMNRF, Ontario Ministry of Natural Resources and Forestry. 2015. Significant Wildlife Habitat Criterion Schedules for Ecoregion 6E. OMNRF Regional Operations, Peterborough, Ontario. 38 pp.</p> <p>Provincial Policy Statement. 2020. Issued under Section 3 of the Planning Act. Province of Ontario. 53 pp.</p> <p>Stanley, C. Q., E. A. McKinnon, K. C. Fraser, M. P. MacPherson, G. Casbourn, L. Friesen, P. P. Marra, C. Studds, T. Brandt Ryder, N. E. Diggs, and B. J. M. Stutchbury. 2015. Connectivity of wood thrush breeding, wintering, and migration sites based on range-wide tracking. Conservation Biology 29: 164-174.</p> <p>Township of South Frontenac: Comprehensive Zoning By-Law. By-Law No. 2003-75. Revised June 7, 2016.</p> <p>Township of South Frontenac: Official Plan. March 2003. Text amendments May 2013.</p>
Environmental Site Evaluation Completed By: Megan Snetsinger
Field Personnel: Megan Snetsinger and Mary Alice Snetsinger
Date of Site Inspection: June 5, 2020
Date of Report: September 9, 2020
Signature: 



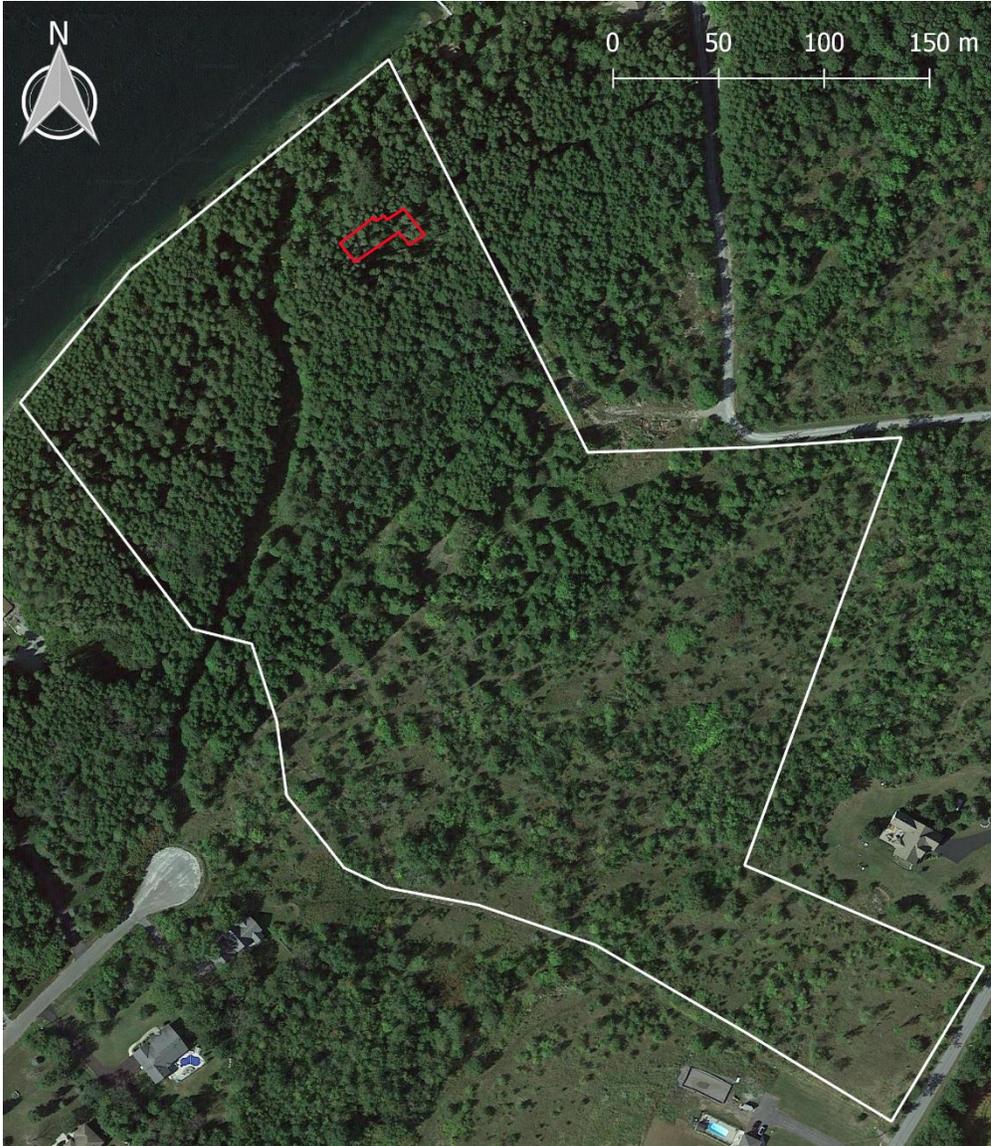
Attachment 1. Topographic key map, with the approximate location of the subject property indicated with the black circle. Annotated detail from topographic map Sydenham 31 C/7.



Attachment 2. Site plan of the proposed development, detail of plan from Forefront Engineering.



Attachment 3. The north end of the subject property (approximate boundary in white), showing the ELC community boundaries (yellow), including the cleared area (shaded). ELC codes after Lee et al. (1998). The red outline indicates the proposed residence. The map was created with QGIS, using Google Earth base imagery.



Attachment 4. The entire subject property (approximate boundary in white). The red outline indicates the proposed residence. The map was created with QGIS, using Google Earth base imagery.



Attachment 5. Imagery from April 2017 of the subject property, showing the approximate outline of the property in red. The size and position of the cleared area can be noted at the northern end of the property. Image from Google Earth.

Attachment 6. Site photos from June 5, 2020, to be included with the final report.



Photo 1. The site where development is proposed. Note the open clearing where construction will occur, and the top of the slope on the right.

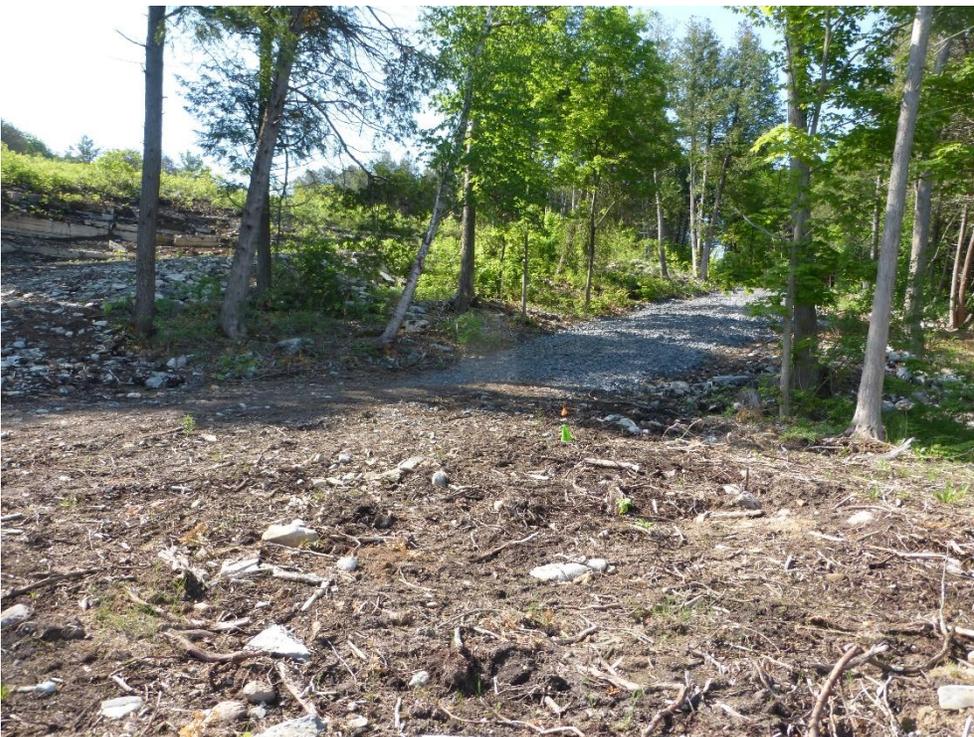


Photo 2. The access lane down to the water from the clearing.



Photo 3. The embankment north of the proposed building location, where we are recommending that landscape restoration should occur.



Photo 4. The edge of Loughborough Lake at the north end of the property, where the boat slip will be constructed.