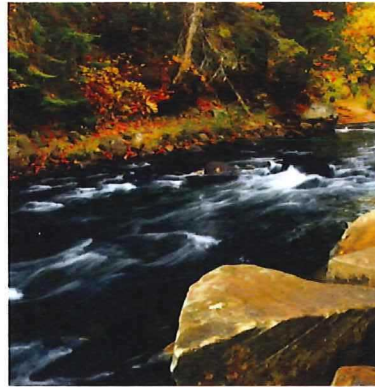




Preliminary Environmental Impact Assessment

Lot 9 Southview Drive - Canadian Builders Inc.
Project # 175332

September 2017



01 September 2017

Canadian Builders Inc.
2354 Long Lake Road
Sudbury, ON
P3E 5H5

Re: Desktop Natural Heritage Review and Preliminary Environmental Impact Assessment (EIA) for Southview Drive Multiple Dwelling Zoning Bylaw Amendment - Canadian Builders Inc.

1. BACKGROUND

1.1 General

Tulloch Environmental, a division of Tulloch Engineering (Tulloch), was retained by the Canadian Builders Inc. to perform a Desktop Natural Heritage Review and preliminary Environmental Impact Assessment (EC/EIA) in support of a Southview Drive Multiple Dwelling Zoning Bylaw Amendment proposed by Canadian Builders Inc. This letter report outlines the results of the Natural Heritage Review, provides a preliminary / speculative impact assessment, and provides high-level and generalized avoidance and mitigations strategies to alleviate any anticipated impacts.

1.2 Project Description

The proposed project is located on Lot 9 (henceforth the Property) of Southview Drive in Greater Sudbury, Ontario, approximately 350m west of Janmar Court; UTM (NAD83) 17T 497389 5144835. The lot area measures approximately 0.9ha (167m x 55m, irregular); Figure 1. The proposed project includes two multiple dwelling structures (totaling 64 dwelling units), lot grading, swale/ ditch construction and connection of utilities (water sewer, hydro). The property abuts Robinson Lake.

2. NATURAL HERITAGE DESKTOP REVIEW

2.1 Sources Reviewed

A background natural heritage review was conducted to determine which natural heritage features exist, or have the potential to exist, within 1000m of the defined Study Area. Records and resources searched as part of the background review are listed in Table 1. Communications with regulatory authorities are provided in Appendix A.

2.2 Protected Areas

A review of data provided by LIO in conjunction with communications with the MNRF have identified no protected areas (including Parks, Conservation Reserves or Enhanced Management Areas) within 1000m of the Property. No Areas of Natural and Scientific Interest (ANSI) were found within 1000m of the structure.

2.3 Species at Risk

Species at Risk (SAR) include species identified federally under the *Committee on the Status of Endangered Wildlife in Canada* (COSEWIC) and provincially under the *Committee on the Status of Species at Risk in Ontario* (COSSARO). Species and their habitat listed as endangered or threatened are regulated federally under the *Canadian Species at Risk Act* (SARA S.C. 2002 c.29) and provincially under the *Ontario Endangered Species Act* (ESA S.O. 2007 c.6). In some instances, species listed as special concern may also receive habitat protection under the 2014 *Provincial Policy Statement* (PPS; MMAH 2014); see Section 2.5 *Significant Wildlife Habitat*, below.

Information obtained from the review of provincial databases and species atlases in combination with consultation with the Ministry of Natural Resources and Forestry (MNRF) identified 43 SAR associated with the region (Appendix A).

The MNRF has indicated a recent (2016) record of Blanding's Turtle (Threatened) approximately 550m southwest of the Property within the outlet of Robinson Lake. As a result, the MNR advises the property be considered Blanding's Turtle habitat and that an Information Gathering Form be submitted to evaluate the need for any additional permitting under the Endangered Species Act.

The NHIC indicates a historical (1993) record of Snapping Turtle (Special Concern) within vicinity of the property.

ABBO records show 8 SAR bird species have been observed within the vicinity of the Study Area:

- Bank Swallow (*Riparia riparia*; Threatened)
- Barn Swallow (*Hirundo rustica*; Threatened)
- Bobolink (*Dolichonyx oryzivorus*; Threatened)
- Chimney Swift (*Chaetura pelagica*; Threatened)
- Canada Warbler (*Cardellina Canadensis*; Special Concern)
- Common Nighthawk (*Chordeiles minor*; Special Concern)
- Eastern Meadowlark (*Sturnella magna*; Threatened)
- Peregrine Falcon (*Falco peregrinus*; Special Concern)

The OBAO confirmed the presence of Monarch Butterfly (*Danaus plexippus*; Special Concern) observations within vicinity of the study area.

2.4 Locally Rare Species

The NHIC identifies two locally rare (provincially tracked) species that are associated with the study area: Pepper and Salt Skipper (*Amblyscirtes hegon*) and Purplish Copper (*Lycaena helloides*).

2.5 Significant Wildlife Habitat

Significant Wildlife Habitats (SWH) are outlined in the Significant Wildlife Habitat Technical Guide (OMNR 2000) as natural heritage areas that are “ecologically important in terms of features, functions, representation and amount and contributing to the quality and diversity of an identifiable geographic area or Natural Heritage System”. The alteration and development of SWH is prohibited under the 2014 Provincial Policy Statement (PPS). Habitat may be considered to be SWH according to four broad categories:

- Seasonal concentration areas (i.e., winter deer yards, colonial bird nesting sites, reptile hibernacula);
- Rare vegetation communities or specialized habitat for wildlife (i.e., alvars, rare forest types, moose aquatic feeding areas, amphibian woodland breeding ponds, turtle nesting habitat);
- Habitat of species of conservation concern (i.e., species identified as special concern federally or provincially, and species listed as rare or historical in Ontario based on records kept by the NHIC (i.e. S1- Critically Imperiled, S2- Imperiled, S3- Vulnerable and SH - Historic ranks); These ranks are not legal designations but are assigned in a manner to set protection priorities); and,
- Animal movement corridors (i.e., naturally vegetated corridors or man-made features such as power transmission and pipeline corridors that provide animal movement from one habitat to another).

No known SWH were found to exist within 1000m of the Property.

2.6 Migratory Birds

The *Migratory Birds Convention Act* (MBCA S.C. 1994, C.22) and the Ontario Fish and Wildlife Conservation Act (FWCA S.O. 1997, C.41) prohibits the disturbance and destruction of most birds, their nests and eggs. Environment and Climate Change Canada has developed a number of tools, including the general nesting calendars (<http://www.ec.gc.ca/paom-itmb/default.asp?lang=En&n=4F39A78F-1>) and avoidance guidelines (<http://ec.gc.ca/paom-itmb/default.asp?lang=En&n=AB36A082-1>) to support compliance with the Act.

The General Nesting Period for this area is April 8 to August 16 according to Environment and Climate Change Canada (Nesting Zone C3 - Forest).

2.7 Fisheries and Fish Management Objectives

The Property abuts Robinson Lake which drains westward into nearby Kelly Lake. The MNRF has indicated that Kelly Lake is considered a warm water fishery that is known to support Northern Pike, Walleye, Yellow Perch, Pumpkinseed, Brown Bullhead, White Sucker, Rock Bass, Golden Shiner, Creek Chub, Fathead Minnow, Iowa Darter, Brook Stickleback, and Emerald Shiner.

Robinson Lake is also considered a warm water fishery and, as there are no barriers to fish passage between Robinson and Kelly Lakes, it is assumed to have a similar fish community composition as Kelly Lake.

In-water work within Robinson Lake must be performed from June 15 to April 1 and would likely require consultation with the MNRF Sudbury District Office / Sudbury District Conservation Authority. The current fishery management objective for Robinson Lake is to maintain the existing populations.

Figure 1

Southview Drive Lot 9 (Approx.)
Tulloch Project #: 175332

Legend

 Lot 9 (Approx.)



Table 1 - Records and resources searched in background review.

Record Source		Records Requested and/or Reviewed
Ministry of Natural Resources and Forestry (MNRF) Sault Ste. Marie District	Date of Request: 29 June 2017 Date of Data Receipt: 14 August 2017	Greg Cull Management Biologist Existing environmental values information, including any sensitivities and environmental constraints.
Natural Heritage Information Centre (NHIC)	Accessed: 29 June 2017	Natural Heritage Mapping Tool SQUARE #s Searched: 17MM9643, 17MM9644, 17MM9645, 17MM9743, 17MM9744, 17MM9745, 17MM9843, 17MM9844, 17MM9845 <ul style="list-style-type: none"> • Rare species • Rare plant communities • Natural Heritage Areas • Invasive species • Wildlife concentration area
MNRF Species at Risk in Ontario (SARO) List	Accessed: 29 June 2017	Determine SAR within range and their status.
MNRF Fish ON-line	Accessed: 29 June 2017	Reviewed known fish species present in Lake Huron.
Atlas of the Breeding Birds of Ontario (Ontario Nature; ABBO)	Accessed: 29 June 2017	Determine migratory birds, including SAR within block #s: 17MM94, 17NM04
Ontario Butterfly Atlas Online (Toronto Entomologists' Association; OBAO)	Accessed: 29 June 2017	Determine SAR within range and their status.
Bat Conservation International (BCI) – Species Profiles	Accessed: 29 June 2017	Bat species range maps.
Land Information Ontario (LIO)	Accessed: 29 June 2017	Accessed GIS spatial data regarding known significant habitats including: <ul style="list-style-type: none"> • Significant Wildlife Habitats • Wildlife Nesting Areas • Provincially Significant Wetlands • Areas protected federally, provincially or municipally.

3. REGULATORY / POLICY FRAMEWORK

It is the responsibility of the proponent to ensure they are meeting the requirements of all federal, provincial, and municipal regulations and policies. The following regulators have, or may have, jurisdiction over the proposed development.

3.1 City of Greater Sudbury Official Plan

The City of Greater Sudbury (CGS) requires that a proposed development be reviewed for adherence to the CGS Official Plan. If the proposed development does not adhere to the stipulations of the Official Plan, the proponent may seek an official plan amendment to permit the development. As part of the Official Plan Amendment, the proponent is required to demonstrate that the proposed development does not negatively impact Natural Heritage Features and Functions.

At a minimum, the following policies from the CGS Official Plan apply to potential impacts of the Proposed Development:

Policy 8.5.1.2: *"New development that fronts on a lake or watercourse which has recognized environmental constraints is prohibited unless detailed studies demonstrate that the problems associated with development in these situations can and will be mitigated. The onus for demonstrating that environmental constraints will be mitigated shall lie with the proponent of the development."*

Policy 8.5.1.3: *"Recognized environmental constraints include, among others, some lake trout lakes, sensitive fish spawning areas, unique natural features, and lakes under 50 ha (120 acres) in size."*

3.2 Conservation Sudbury

Among other duties, Conservation Sudbury is responsible for ensuring that homes and people are protected from the threats of flooding and erosion. Plans for new homes and developments are reviewed and criteria set to ensure people, property, and natural features, are properly protected from the potentially life-threatening impacts of these natural hazards.

Conservation Sudbury will review the proposed development site plan to ensure the project will not impact the flood plain or water quality in the receiving or downstream waterbodies.

3.3 Ministry of Natural Resources and Forestry

Among other duties, the MNRF administers the Ontario Public Lands Act (PLA) and the Ontario Lakes and Rivers Improvement Act (LRIA) for work on all non-federal crown lands, which includes the beds of most lakes and rivers, and the adjacent shorelines. The PLA and LRIA stipulates various activities which require approval through the MNRF, including alterations to

shorelines and installation of structures below the high water mark within waters and shorelines managed by the Acts. It is the responsibility of the proponent to ensure that all activities and developments adhere to the requirements of the Acts.

The MNR administers the Endangered Species Act (ESA) and the Fish and Wildlife Conservation Act (FWCA). The ESA lists and protects Threatened, Endangered and Extirpated species as well as their habitats. The ESA also establishes regulatory and permitting options for developing within or near the habitat of protected species. The FWCA protects the nests and eggs of all birds species that are wild by nature. It also names and affords protections to specially protected bird, reptile, amphibian, mammal and invertebrate species.

3.4 Ontario Provincial Policy Statement

Under the Ontario Provincial Policy Statement, development which may negatively impact fish habitat will not be permitted except in accordance with provincial and federal requirements. Site alteration is also prohibited within or adjacent Significant Wildlife Habitats and Provincial Significant Wetlands and Coastal Wetlands unless the proponent can demonstrate that no negative impacts will be incurred on the natural features or their ecological functions.

3.5 Fisheries and Oceans Canada (DFO)

Under the Federal *Fisheries Act*, the DFO approval process requires all proponents to submit a detailed application to undertake work that may impact fish and fish habitat. DFO will review the project (unless the project falls under those where a self-assessment is appropriate) to ensure the project will not have a negative impact on fish or fish habitat, or recommend additional measures, mitigations or controls, as required.

3.6 Ministry of the Environment and Climate Change (MOECC)

Among other duties, the MOECC administers the Migratory Birds Convention Act (MBCA) which prohibits the distribution and harm of any migratory bird species as well as their eggs and nest.

4. PRELIMINARY IMPACT ASSESSMENT AND MITIGATION

Lot 9 of Southview Drive, in Greater Sudbury, measures approximately 0.9ha (167m x 55m, irregular) and abuts Robinson Lake. The proposed project includes two multiple dwelling structures (totaling 64 dwelling units), lot grading, swale/ ditch construction and connection of utilities (water sewer, hydro).

A preliminary impact assessment is provided below based on the above Natural Heritage Review and interpretation of recent aerial imagery. **No site investigations were performed; existing conditions are therefore considered preliminary and no habitat or species can be confirmed present or absent.**

4.1 SAR and Migratory Birds

Recent aerial imagery suggest the existing conditions of the Property includes a variety of forested, forest opening, forest-edge and rocky knoll habitat. Much the tree canopy within wooded areas on site appears to be low; likely stunted by shallow soils over consolidated bedrock. These habitat types are likely to support the nesting of a variety of migratory bird species. They may also be suitable for supporting SAR bird species including Eastern Whip-poor-will (Threatened), Canada Warbler (Special Concern), Common Nighthawk (Special Concern), Golden-winger Warbler (Special Concern), Eastern Wood-pewee (Special Concern) and Olive-sided Flycatcher (Special Concern). On-site investigations would be required to confirm and fully describe bird habitat on site and to assess its suitability to support migratory and SAR bird species. As such, the following potential impacts and considered general and preliminary.

4.1.1 Potential Impacts

- The potential for Migratory Bird species to be nesting on site is considered high. The clearing of vegetation could result in the direct mortality of these birds, their offspring or nests. This would contravene the federal Migratory Bird Convention Act.
- The potential for suitable nesting habitat for Eastern Whip-poor-will (Threatened) on site is considered high. If habitat is present, and if the species is occupying that habitat, then the clearing of vegetation could result in the direct mortality of these birds, their offspring or nests. This would contravene the Ontario Endangered Species Act.
- The potential for suitable nesting habitat for up to four Special Concern SAR birds (Canada Warbler, Golden-winger Warbler, Eastern Wood-pewee and Olive-sided Flycatcher) on site is considered high. If habitat is present, and if one or more of these species breeding within that habitat, then the clearing of vegetation could result in the destruction of Significant Wildlife Habitat for species of conservation concern. This could contravene the Provincial Policy Statement.

4.1.2 Mitigation

- Prior to development, field assessments should be performed to characterize the habitat on site and evaluate its suitability to support migratory and SAR bird species.
- The presence or absence of any SAR bird species that could occupy habitat on site should be confirmed through targeted species-specific surveys that conform to MNRF protocols.
- The clearing of vegetation on site should be performed outside of the General Nesting Period for this area, which is considered April 8 to August 16 according to Environment and Climate Change Canada (Nesting Zone C3 - Wooded).
- A mitigation plan should be prepared that reflects the nature of the development, the existing conditions of the site and any species of conservation concern that are confirmed to be using the site.
- It is the proponent's responsibility to report any SAR species observed on site to the MNRF and to avoid all actions that would risk harming or harassing the species or damaging its habitat.

4.2 SAR Reptiles

As per MNRF directions, the entire Property must be considered potential habitat for Blanding's Turtle (Threatened). Wetland habitat within Robinson Lake may provide suitable wintering habitat for the species. Shorelines may support basking. Upland areas across the site could support Blanding's Turtle nesting should appropriate sandy microhabitats exist. The property may be suitable as a migratory corridor for Blanding's Turtle; connecting wetlands within Robinson Lake to those in the North, East and West. Habitat on site may also be suitable for Snapping Turtle (Special Concern) and other turtle species. On-site investigations would be required to confirm and fully describe reptile habitat on site and to assess its suitability to support SAR species. As such, the following potential impacts and considered general and preliminary.

4.2.1 Potential Impacts

- The potential for suitable habitat for Blanding's Turtle on site is considered high. If habitat is present, the species must be considered as inhabiting the habitat and the alteration of the site (e.g. clearing vegetation, lot grading) could result in the direct mortality of Threatened Blanding's Turtle, their offspring or nests. This would contravene the Ontario Endangered Species Act.
- The potential for suitable basking / nesting habitat for Snapping Turtle on site is considered high. If habitat is present and if the species is using the site to support key life functions, then the alteration of the site (e.g. clearing vegetation, lot grading) could result in the destruction of Significant Wildlife Habitat for species of conservation concern. This could contravene the Provincial Policy Statement.

- The potential for lakeside marshes along the Robinson Lake shoreline to support suitable habitat for turtle overwintering is considered moderate. Should this habitat support significant quantities of wintering turtles (include non-SAR species), then it may qualify as Significant Wildlife Habitat and receive protection under the Provincial Policy Statement. Activities that negatively impact the ecological function of that habitat would be prohibited.
- Should significant quantities of turtles (including Non-SAR species) utilized sandy microhabitats within the property for nesting, these areas could qualify as Significant Wildlife Habitat and receive protection under the Provincial Policy Statement. Activities that negatively impact the ecological function of that habitat would be prohibited.

4.2.2 Mitigation

- Prior to development, field assessments should be performed to characterize the habitat on site and evaluate its suitability to support SAR and non-SAR turtle species.
- The MNRF advises the property be considered Blanding's Turtle habitat and that an Information Gathering Form be submitted to evaluate the need for any additional permitting under the Endangered Species Act. Completion of this form would require detailed field studies to be conducted on site in order to establish existing conditions and detail anticipated impacts, if any, to Threatened or Endangered species. This form can be downloaded at:
<http://www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/MinistryResults?Openform&SRT=T&MAX=5&ENV=WWE&STR=1&TAB=PROFILE&MIN=018&BRN=21&PRG=31>
- A mitigation plan should be prepared that reflects the nature of the development, the existing conditions of the site and any species of conservation concern that are confirmed to be using the site.
- It is the proponent's responsibility to report any SAR species observed on site to the MNRF and to avoid all actions that would risk harming or harassing the species or damaging its habitat.

4.3 SAR Bats

Four species of endangered bat are known to occur in Sudbury District: Little Brown Myotis (*Myotis lucifugus*), Eastern Small-footed Myotis (*Myotis leibii*), Northern Myotis (*Myotis septentrionalis*) and Tri-colored Bat (*Perimyotis subflavus*). Of greatest conservation concern for SAR bats are large (>25cm diameter) living and dead standing cavity trees that can support Bat Maternity Roosting (BMR) and caves that can serve as bat hibernacula (MNR 2000, MNR 2011). Any tall canopied forest on site could harbor cavity trees able to support maternity roosting by endangered bats. Recent areal imagery of the property suggests that most / all of the wooded vegetation on site may be stunted due to shallow soil substrates over consolidated

bedrock. Stunted tree canopies rarely produce trees with large enough diameter or sufficient height to support maternity roosting by endangered bats.

Stunted wooded areas adjacent open water are suitable for foraging by endangered bat species. Male bats and non-gravid females will also rest during the day singularly (or in small groups) in temporary roosts that are transient and quickly abandoned (i.e. "day roosts"). With exception to the Tri-coloured Bat, Day roosts will generally occur in small crevices and cavities located in trees and rocks of various sizes (Harvey *et al* 2011, Thorne 2017). Tri-coloured bat will also day roost in the canopy of trees (Harvey *et al* 2011). The potential for endangered bat foraging and temporary roosting within the Study Area is considered moderate.

As endangered bats have the potential to occur on site in some capacity, their potential presence must be accommodated to avoid potential contraventions of the Ontario Endangered Species Act. On-site investigations would be required to confirm and fully describe bat habitat on site and to assess its suitability to support SAR bat species. As such, the following potential impacts and considered general and preliminary.

4.3.1 *Potential Impacts*

- Prior to development, field assessments should be performed to characterize the habitat on site and evaluate its suitability to support the maternity roosting of Endangered bat species as well as other bat life functions (i.e. foraging and day roosting).
- If the site is occupied by Endangered bat species, the clearing of woody vegetation (trees and shrubs) could result in the direct mortality or harassment of the bats or their offspring which would contravene the Ontario Endangered Species Act.

4.3.2 *Mitigation*

- No large (>25cm DBH) cavity trees (trees with open cracks, holes or sloughing bark), whether living or dead standing, should be cleared within the bat active period (between April 16th and September 31st) to ensure the cavities are free of endangered bats.
- A mitigation plan should be prepared that reflects the nature of the development, the existing conditions of the site and any species of conservation concern that are confirmed to be using the site.
- It is the proponent's responsibility to report any SAR species observed on site to the MNRF and to avoid all actions that would risk harming or harassing the species or damaging its habitat.

4.4 Monarch Butterfly and Other Pollinators

As a species of special concern, Monarch Butterfly (*Danaus plexippus*) and their habitat should be safeguarded wherever possible. Any wildflowers within the property have the potential to support foraging by Monarch Butterfly and other pollinators. Should Milkweed (*Asclepias* spp.; the larval host plant for Monarch Butterfly) be present on site, then the reproduction of Monarch Butterfly on site should be considered possible. The following potential impacts and mitigation measures have been identified for this project:

4.4.1 Potential Impacts

- The removal of wildflowers from the site may destroy forage habitat for adult Monarchs and other pollinators.
- If present, the removal of Milkweed, as the larval host plant for Monarch Butterfly, presents a direct threat or mortality to Monarch larva utilizing the plants.
- If present, the removal of Milkweed, as the larval host plant for Monarch Butterfly, may reduce the amount of locally available breeding habitat for the species.

4.4.2 Mitigation

- Where possible, vegetation clearing should only be conducted outside of the Monarch Butterfly active period (May 1 to October 1) to ensure the species is not present on site. Alternatively, if the clearing of vegetation is required during the active period, areas should be checked for Monarch adults and larva prior to work each day and clearing should only proceed if the vegetation is devoid of the species.
- Vegetation loss should be minimized where possible.
- Flowering plants should be incorporated into the landscaping of the new facility in support of Monarch Butterflies and other pollinators. Preference should be given to native flowering species. A *Guide to Creating Monarch Friendly Habitat* is provided by the Monarch Teacher Network of Canada at:
<http://monarchteacher.ca/workshops/creating-monarch-habitat.dot>.

4.5 Amphibian Breeding

Amphibians, including frogs and salamanders, require aquatic habitat in which to reproduce. Some species could utilize lakeside marshes present with Robinson Lake. If sufficient quantities of amphibians (include non-SAR species) are reproducing within these lakeside marshes, and if the marshes are of sufficient size, they could qualify as Significant Wildlife Habitat and receive protection under the Provincial Policy Statement.

Some amphibian species require woodland vernal (temporary) pools that form in upland wooded areas in vicinity to open water. If sufficient quantities of amphibians (include non-SAR species) are reproducing within these woodland pools, and if the marshes are of sufficient size,

they could also qualify as Significant Wildlife Habitat and receive similar protection. Based on aerial imagery, it is unclear if the site supports vernal pooling capable of harboring significant levels of woodland amphibian breeding.

Should Significant Wildlife Habitat for amphibian breeding be observed on / adjacent the site, any developments on site would need to demonstrate no negative impacts to the feature or its ecological functions. Significant Wildlife Habitats and criteria defining the habitats are provided in the Significant Wildlife Habitat Technical Guide (OMNR 2000) and the Significant Wildlife Habitat Criteria Schedules for Ecoregion 5E (OMNRF 2015).

4.5.1 Potential Impacts

- The potential for wetland habitat in Robinson Lake to support suitable habitat for amphibian breeding is considered moderate. Should this habitat support large quantities of amphibian breeding (including Non-SAR species) then it may qualify as Significant Wildlife Habitat.
- The potential for vernal pool microhabitats within the property is unknown. Should vernal pool habitat exist on site and should significant quantities of amphibians (including Non-SAR species) breed within the habitat, these areas could qualify as Significant Wildlife Habitat.

4.5.2 Mitigation

- Prior to development, field assessments should be performed to characterize the habitat on site and evaluate its suitability to support amphibians. If suitable, searches targeting breeding evidence (egg-masses, calling) should be performed to assess habitat significance.

4.6 Aquatic Habitat

No observable drainage features leading from the proposed development to Robinson Lake were observed during desktop review. The MNRF did not identify any sensitive fish habitat adjacent the project, however this should be confirmed through a site visit. The presence / absence of groundwater features in the area could not be confirmed through a desktop assessment.

Adherence to the existing development constraints outlined in the CGS Official Plan, as well as applicable federal and provincial guidelines / processes, should be sufficient to mitigate any impacts on fish and fish habitat adjacent the proposed development. These measures would ensure appropriate vegetated buffers, appropriate setbacks for installation of any drainage or residential sewage systems, and restrict development / alteration activities / structures in or near Robinson Lake.

In the absence of proposed designs / physical construction plans and site visits / assessments, the follow section highlights measures that should be adopted for any in-water or shoreline activities, or activities with the potential to impact fish and fish habitat. The following mitigation measures are general and preliminary in nature and do not take into account and surface water features, groundwater seeps / inputs, or sensitive fish habitat which may be present in the area but could not be confirmed present / absent from a desktop assessment.

4.6.1 Mitigation impacts from general nearshore development activities.

- Any works involving shoreline or in-water disturbance must be distributed to the appropriate regulatory agencies for approval prior to undertaking any works. This includes, at a minimum:
 - Conservation Sudbury;
 - DFO (self-assessment or DFO request for review); and,
 - The MNRF (work permit process, application under the Lakes and Rivers Improvement Act).
- Any shoreline or in-water development should include a detailed sediment and erosion control plan developed specifically to address any works that have the potential to impact the nearshore habitat.
- If the proposed development would involve approved land disturbance adjacent the shoreline, a detailed restoration plan should be developed for this work prior to construction activities.
- All work below the regular high water mark should be conducted in low-water conditions **outside** the timing window, April 1 to June 15. All in-water works areas must be isolated from flowing water.

4.7 General Mitigation – Best Practices

4.7.1 Species at Risk

- In the event that a SAR is encountered within the proposed development area, work shall be suspended and the MNRF shall be contacted immediately for direction.

4.7.2 Vegetation Removal

- Adhere to the timing windows identified in Table 3.
- Minimize vegetation removal within the proposed development area. Where vegetation removal is necessary, minimize clearing, protect adjacent vegetation and

use proper clearing techniques. Clearly delineate the boundaries of areas to be cleared using flagging or stakes. Where possible, use techniques that allow the root system to stay intact; this helps bind the soil and encourages rapid recolonization of low-growing plant species.

- Restore native vegetation: Restorative plantings and seed mixes of species common to the region should be used for erosion control and rehabilitation of disturbed areas.
- Use original site vegetation: Where possible, retain and reuse original vegetation and topsoil for restorative planting.

4.7.3 Stockpiling and Erosion Control

- Work site containment: Design and implement a plan to isolate all work thereby preventing entry of potentially deleterious materials (e.g. dust, fuel, eroded soils, etc.) into the watercourse and associated wetland areas. The design should include the regular inspection, removal and timely disposal of materials generated.
- Excess materials and stockpiles: Store, handle and dispose of all materials used or generated (e.g., rock, organics, soils, woody debris, temporary stockpiles, construction debris, etc.) in a manner that prevents erosion and eventual entry to the watercourse. Temporary storage and stockpiling of materials should take place at a safe distance from any water body (not within 30 m); Isolation fencing should be placed around stockpiled materials during sensitive species' active periods to prevent species entry and use; these materials must be stabilized or otherwise contained. If stored long term, these areas will be sloped appropriately and vegetated.
- Avoid use of erosion control products with plastic netting: The "gillnet-like" mesh associated with some erosion control products can pose an entanglement hazard to wildlife such as snakes, turtles, birds and other wildlife. The use of erosion control products containing any type of plastic mesh will be avoided. Rock, rip rap, various mulches, and polyethylene sheeting may be effective alternatives. Alternative rolled erosion control products are available without plastic mesh.
- Remove temporary erosion control measures: When work is completed and areas are deemed stable, all temporary erosion control measures (silt fencing, straw bales, etc.) will be removed from the work site. These devices can act as a barrier to wildlife and impede their movement.

4.7.4 Daily Operation – Best Practices

- Clearly define work areas: Access and activity will be limited to the designated work areas in order to minimize disturbance to adjacent wildlife habitat. These areas will be clearly marked within the site using fencing, stakes, flagging tape, signs etc.
- Check work area each day: Snakes and turtles are attracted to roadways, embankments, temporary stockpiles and machinery, as these surfaces absorb heat from the sun and are suitable for reptile basking. Work areas should be checked for reptiles prior to work each day. If there is immediate danger (such as collision with

traffic/construction equipment), reptiles, including SAR species, can be moved to adjacent habitat without harm (to worker or reptile) by carefully using a shovel or stick and bucket. SAR species observed on / near the work site must be reported to the MNRF. In the absence of immediate danger, SAR reptiles may not be moved or harassed; stop work and consultation with the MNRF.

- Equipment: Operate, store and maintain (e.g., re-fuel, lubricate) all equipment and associated materials in a manner that prevents the entry of any deleterious substance to a water body.
- Spills: A Spills Management Plan (including materials, instructions regarding their use, education of contract personnel, emergency contact numbers, etc.) is to be on site at all times for implementation in the event of a spill. All spills must be immediately reported by phone to the Ontario Ministry of the Environment Spills Action Centre (24-hours a day) at 1-800-268-6060.
- Chemicals: Use only specified amounts and types of fertilizer in areas draining to water bodies. Avoid use of chemical dust suppressants and pesticides/herbicides in areas near or draining to water bodies.

5. SUMMARY AND CLOSING

Tulloch Environmental, a division of Tulloch Engineering (Tulloch), was retained by the Canadian Builders Inc. to perform a Desktop Natural Heritage Review and preliminary Environmental Impact Assessment (EC/EIA) in support of a Southview Drive Multiple Dwelling Zoning Bylaw Amendment proposed by Canadian Builders Inc. No field studies were performed as part of this assessment and therefore all observations and opinions expressed in this report should be considered preliminary pending further study.

The Natural Heritage Review, communications with the MNRF and interpretation of recent aerial imagery of the property have identified a potential for several Natural Heritage Features to exist on site. These features are summarized in Table 3.

The proponent should expect responsibilities under the Ontario Endangered Species Act to evaluate the property for use by Blanding's Turtle and Eastern Whip-poor-will. Regarding Blanding's Turtle, the MNRF has requested submission of an Information Gathering Form which will permit the Ministry to review impacts of the proposed development on this Threatened species and its habitat and to determine if additional permitting under the Endangered Species Act is required. Completion of the Information Gathering Form would necessitate detailed existing conditions and impact assessments be performed for the site.

Habitat suitable for supporting life functions of Endangered bats, Special Concern birds, and Special Concern insects are all possible on site and field studies would be required to assess habitat suitability and provide appropriate mitigation or permitting requirements.

The proponent should expect responsibilities under the Migratory Bird Convention Act, and the clearing of vegetation on site will likely be restricted to periods outside the General Nesting Period.

The proponent should expect responsibilities under Section 2.1 of the Provincial Policy Statement as a potential for Significant Wildlife Habitat has been identified on / adjacent the site; Turtle Wintering, Turtle Nesting, Amphibian Breeding. Field studies identifying the candidacy and significance level of any such habitat is warranted.

The MNRF did not identify any sensitive fish habitat adjacent the proposed development, and no surface water drainage features were evident from desktop assessments. Sensitive nearshore habitat, surface drainage features or groundwater inputs could not be confirmed absent from a desktop review, and should be considered during site / development planning. Assuming the above features are absent from the Site, impacts to fish and fish habitat should be able to be mitigated through adherence to applicable federal, provincial and municipal regulations / policies.

Table 2 – Summary of Natural Heritage Features discussed in Section 3.

Sensitivity	Likelihood of Suitable Habitat on Site	Likelihood of SAR Presence / Habitat Significance	Selected Mitigations*
Migratory Birds	High	High	<ul style="list-style-type: none"> Clear vegetation outside the General Nesting Period: April 8 to August 16.
Threatened SAR Birds (Whip-poor-will)	High	Moderate	<ul style="list-style-type: none"> Field studies to confirm habitat suitability. Field studies to confirm presence/absence (if suitable habitat).
Special Concern SAR Birds	High	Moderate	<ul style="list-style-type: none"> Field studies to confirm habitat suitability. Field studies to confirm presence/absence (if suitable habitat).
Threatened SAR Turtle (Blanding's Turtle)	MNRF Confirmed		<ul style="list-style-type: none"> Field studies to confirm how the site may be used by the species. Complete and submit an "Information Gathering Form" to the MNRF
Special Concern SAR Turtle (Snapping Turtle)	High	Moderate	<ul style="list-style-type: none"> Field studies to confirm how the site may be used by the species.
SWH for Nesting or Overwintering Turtles (including non-SAR species)	Moderate	Moderate	<ul style="list-style-type: none"> Field studies to confirm habitat suitability and level of significance.
Maternity Roosting by Endangered SAR Bats	Low	Moderate (see below)	<ul style="list-style-type: none"> Field studies to confirm habitat suitability. Field studies to confirm presence/absence (if suitable habitat).
Foraging or Day Roosting by Endangered SAR Bats	High	Moderate	<ul style="list-style-type: none"> Field studies to confirm habitat suitability.
SAR Insects (Monarch Butterfly)	High	Moderate	<ul style="list-style-type: none"> Clear vegetation outside of May 1 to October 1 or inspect for adults/larva before clearing.
SWH Wetland Amphibian Breeding (Robinson Lake)	High	Moderate	<ul style="list-style-type: none"> Field studies to confirm habitat suitability and level of significance.
SWH Woodland Amphibian Breeding (On Site)	Moderate	Moderate	<ul style="list-style-type: none"> Field studies to confirm habitat suitability and level of significance.
Fish Habitat	MNRF Confirmed		<ul style="list-style-type: none"> All work below the regular high water mark of the watercourse must be performed from June 15 to April 1 and would likely require a work permit issued by the MNRF Sudbury District Office.

*More complete mitigation strategies provided in Section 3 of this report.

We the undersigned are pleased to provide this report as a record of our services and findings. If you have any questions or if we can be of further assistance in this matter please do not hesitate to contact us.

Sincerely,

Tulloch ENVIRONMENTAL

A handwritten signature in blue ink, appearing to read 'K. Major'.

Kelly Major, M.Sc. EP
Terrestrial Ecologist

A handwritten signature in blue ink, appearing to read 'B. Tibble'.

Bill Tibble, M. Sc.
Environmental Team Lead

REFERENCES

Government of Canada. 2010. Canada Wildlife Act. R.S.C. 1985, c. W-9. Available from <http://laws-lois.justice.gc.ca/eng/acts/W-9/> [cited June 2017]

Government of Canada. 2010. Migratory Birds Convention Act (MBCA). S.C. 1994, c. 22. Available from <http://laws-lois.justice.gc.ca/eng/acts/M-7.01/> [cited June 2017]

Government of Canada. 2011a. Environment Canada, Federal Policy on Wetland Conservation: Implementation Guide for Federal Land Managers CW-9702-E, 1996 [online]. Available from <https://www.ec.gc.ca/tho-wlo/default.asp?lang=En&n=5CD88C2D-1> [cited June 2017].

Government of Canada. 2011c. Species at Risk Public Registry, Species at Risk Act (2002) [online]. Available from <http://www.sararegistry.gc.ca/default.asp?lang=En&n=24F7211B-1> [cited June 2017].

Government of Canada. 2015. Species at Risk Act (SARA). S.C. 2002, c 29. Available from <http://laws-lois.justice.gc.ca/eng/acts/S-15.3/> [cited June 2017]

Government of Ontario. 2008. Endangered Species Act (ESA). S.O. 2007, c. 6. Available from <https://www.ontario.ca/laws/statute/07e06> [cited June 2017]

Government of Ontario. 2009. Forestry Act. R.S.O. 1990, c.F. 26. Available from <https://www.ontario.ca/laws/statute/90f26> [cited June 2017]

Government of Ontario. 2015. Fish and Wildlife Conservation Act. S.O. 1997, c. 41. Available from <https://www.ontario.ca/laws/statute/97f41> [cited June 2017]

Harvey, M.J., J.S. Altenbach and T.L. Best. 2011. Bats of the United States and Canada. The John Hopkins University Press, Baltimore. xiii + 201pp.

Land Information Ontario. 2016. Discovering Ontario Data. GeoNetwork. Available from <https://www.javacoeapp.lrc.gov.on.ca/geonetwork/srv/en/main.home> [accessed June 2017]

Ontario Ministry of Municipal Affairs and Housing (MMAH). 2014. Provincial Policy Statement under the Planning Act. Available from <http://www.mah.gov.on.ca/AssetFactory.aspx?did=10463>

Ontario Ministry of Natural Resources (MNR). 2000. Significant Wildlife Habitat Technical Guide. Ontario Ministry of Natural Resources, Ontario; Queen's Printer for Ontario, Toronto, Ontario.

Ontario Ministry of Natural Resources and Forestry (MNRF). 2013. Reptile and Amphibian Exclusion Fencing. Species at Risk Branch Best Practices Technical Note. Version 1.1. Available from http://files.ontario.ca/environment-and-energy/species-at-risk/mnr_sar_tx_rptl_amp_fnc_en.pdf

Ontario Ministry of Natural Resources and Forestry, 2014. Fish ON-Line web application. Available at http://www.web2.mnr.gov.on.ca/fish_online/fishing/fishingExplorer_en.html

Ontario Ministry of Natural Resources (MNR). 2016. Natural Heritage Information Centre (NHIC) Make-a-map web application. Available from http://www.giscoeapp.lrc.gov.on.ca/Mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US [accessed June 2017].

Cadman, M.D., D.A. Sutherland, G.G. Beck, D. Lepage, and A.R. Couturier (eds.). 2007. Atlas of the Breeding Birds of Ontario, 2001-2005. Bird Studies Canada, Environment Canada, Ontario Field Ornithologists, Ontario Ministry of Natural Resources, and Ontario Nature, Toronto, xxii + 706 pp.

Ontario Ministry of Natural Resources and Forestry (MNRF). 2009. Great Lakes – St. Lawrence: Ecosites of Ontario Operational Working Draft of Ecosites of Ontario Field Manual. Ontario Ministry of Natural Resources and Forestry. 2 +383 pp.

Ontario Ministry of Natural Resources and Forestry (MNRF). 2016. Species at Risk by Area Web Application. Accessed from: <https://www.ontario.ca/environment-and-energy/species-risk-area>.

Ontario Ministry of Environment and Climate Change (MOECC). 2016. Water Well Information System Accessed from: <https://www.ontario.ca/page/well-records>.

Ontario Ministry of Northern Development and Mines (MNDM). 2016. Northern Ontario Engineering Geology Terrain Study (NOEGTS). Accessed from: http://www.geologyontario.mndmf.gov.on.ca/gosportal/GeologyOntarioFAST/pubs/M5/m5_index.html

Sandilands, A. 2010. Birds of Ontario Nonpasserines: Shorebirds through Woodpeckers. UBC Press, Vancouver, British Columbia.

Thorne, T.J. 2017. Bats of Ontario. Hawk Owl Publishing Inc. Newcastle, ON. 40 pp.

APPENDIX A

Natural Heritage Review and Communications with Regulators

Data Obtained and Searched from Land Information Ontario

Data File	Last Revision Date	Date Acquired
Aggregate Site Authorized Active	03/06/2016	28/06/2016
Aggregate Sites MTO	03/06/2015	28/06/2016
Airport Official	02/06/2016	14/07/2016
Airport Other	13/07/2016	14/07/2016
Areas of Natural and Scientific Interest	02/06/2016	28/06/2016
Conservation Reserve Regulated	01/06/2016	28/06/2016
Constructed Drains	28/10/2015	11/11/2015
Crown Game Preserves	18/05/2016	28/06/2016
Ecodistrict	19/06/2015	11/11/2015
Federal Protected Areas	28/09/2015	28/06/2016
Fish Feeding Area	21/04/2016	28/06/2016
Fish Nursery Area	10/11/2015	28/06/2016
Fish Spawning Area	27/06/2016	28/06/2016
Fish Staging Area	05/11/2015	28/06/2016
Fish Travel Corridor	05/11/2015	28/06/2016
Fishing Access Point	23/06/2016	28/06/2016
MNR Road Segments	06/08/2015	28/06/2016
Municipal Parks	17/05/2016	29/06/2016
National Wildlife Area	17/05/2016	28/06/2016
Natural Heritage Values Area	27/06/2016	28/06/2016
NGO Nature Reserve	17/05/2016	28/06/2016
OHN - Waterbodies	06/08/2015	28/06/2016
OHN - Watercourses	14/09/2015	28/06/2016
Ontario Dam Inventory	31/05/2016	28/06/2016
Ontario Trail Network Trailhead	07/06/2016	28/06/2016
ORWN Tracks	03/11/2015	14/04/2016
OWES Evaluated Wetlands	30/01/2015	11/11/2015
Patent Land External	27/06/2016	28/06/2016
Provincial Park Regulated Areas	26/10/2015	28/06/2016
Recreation Point	04/11/2015	28/06/2016
Research Plots	27/06/2016	28/06/2016
Significant Ecological Areas	2015-11-04	28/06/2016
Tourism Establishment Area	12/05/2016	14/07/2016
Trail Segment	07/06/2016	28/06/2016
Utility Lines	30/03/2016	14/04/2016
Waste Management Attenuation Zone	29/06/2016	14/07/2016
Waste Management Site	29/06/2016	14/07/2016
Water Well Information System (WWIS)	30/06/2015	14/07/2016

Watersheds - Primary	31/05/2016	28/06/2016
Watersheds - Quarternary	16/07/2015	28/06/2016
Watersheds - Secondary	31/05/2016	28/06/2016
Watersheds - Tertiary	16/07/2015	28/06/2016
Wildlife - Aquatic Feeding Areas	02/10/2015	28/06/2016
Wildlife - Breeding Areas	29/09/2015	28/06/2016
Wildlife - Calving Fawning Sites	01/10/2015	28/06/2016
Wildlife - Den Sites	21/04/2016	28/06/2016
Wildlife - Feeding Areas	03/11/2015	28/06/2016
Wildlife - Nesting Sites	27/06/2016	28/06/2016
Wildlife - Nursery Areas	10/11/2015	28/06/2016
Wildlife - Resting Area	04/11/2015	28/06/2016
Wildlife - Staging Areas	05/11/2015	28/06/2016
Wildlife - Travel Corridors	05/11/2015	28/06/2016
Wildlife - Wintering Area	27/06/2016	28/06/2016
Wooded Areas	30/05/2016	28/06/2016

29 June 2017

Ontario Ministry of Natural Resources and Forestry
Sudbury District
Suite 5, 3767 Hwy 69 S, Sudbury, ON P3G 1E7

Tel: 705 564 7872

Dear Ross Hart,

Re: Natural Heritage Background Information Request: Southview Drive Multiple Dwellings Zoning Bylaw Amendment and Site Plan Control, City of Greater Sudbury, Sudbury, ON (Tulloch Project 175332)

Tulloch Environmental (TULLOCH) has been retained by Canadian Builders Inc. to conduct an assessment of Natural Heritage background information for the proposed construction of 2 multi-unit dwellings and development of adjacent landscape.

The proposed project is located on Southview Drive. UTM coordinates for the work site (NAD 83) are 17T 497389m E 5144835m N. This review includes the property in question (see attached pdf map for property boundaries) plus a 1km buffer. The proposed project includes lot grading, building construction, swale/ ditch construction, connection of utilities (water sewer, hydro) to building.

TULLOCH reviewed natural heritage information provided by the Ministry of Natural Resources and Forestry via the Natural Heritage Information Centre (NHIC) Make-a-map, Crown Land Use Atlas, Fish ON-Line and the Ontario Species At Risk by Area web applications. This information was supplemented with records obtained from the Ontario Breeding Bird Atlas and other authoritative atlases. A summary of notable information is provided below:

- A total of 21 SAR species were identified in the region; Appendix 2.
- Records of Pepper and Salt Skipper, Purplish Copper and Snapping Turtle were returned from NHIC within 1 km of the work site.
- The General Nesting Period for Nesting Zone C3 (Forest) is April 8 to August 16 according to Environment and Climate Change Canada.
- Nearby lands around this project site are privately owned
- Kelly Lake and Robinson Lake are adjacent this project site. Fish OnLine was consulted for any fisheries information. No fish community data, bathymetry or other metrics were available at the time of this review.

TULLOCH is requesting the following information and guidance from the OMNRF:

- A SAR list for the district.
- Terrestrial data pertaining to the site and areas within 1km, such as:
 - Records of provincially tracked species associate with the project site
 - Known Significant Wildlife Habitat and other areas of critical habitat associate with the project site

- The General Nesting Period for the area (if different from that recommended by Environment and Climate Change Canada, above)
 - Other terrestrial timing windows and restrictions
- Fishery data for water bodies adjacent to the project area (Robinson Lake and Kelly Lake) including:
 - Known fish community species
 - Thermal regimes
 - Areas of known critical habitat (spawning, etc.)
 - Aquatic species at risk (records, local knowledge)
 - Barriers to passage
- OMNRF fishery management information:
 - In-water work timing window
 - Areas of concern (e.g. known sources of sediment and erosion, sources of pollution)
 - Fishery management objectives (e.g. rehabilitation or protection goals, etc.)
 - Known commercial fishing licenses (i.e. commercial baitfish licenses) in the area
- Adjacent areas of protection not listed above (ANSI, Parks, Conservation Reserves, etc.)
- The Identity of any or all restricted species. If sensitivity training is required for medium sensitive data please send that information to Kelly Major at kelly.major@tulloch.ca

If you have any questions or require additional information please do not hesitate to contact the undersigned at (705) 522-6303.

Thank you for your time and assistance.

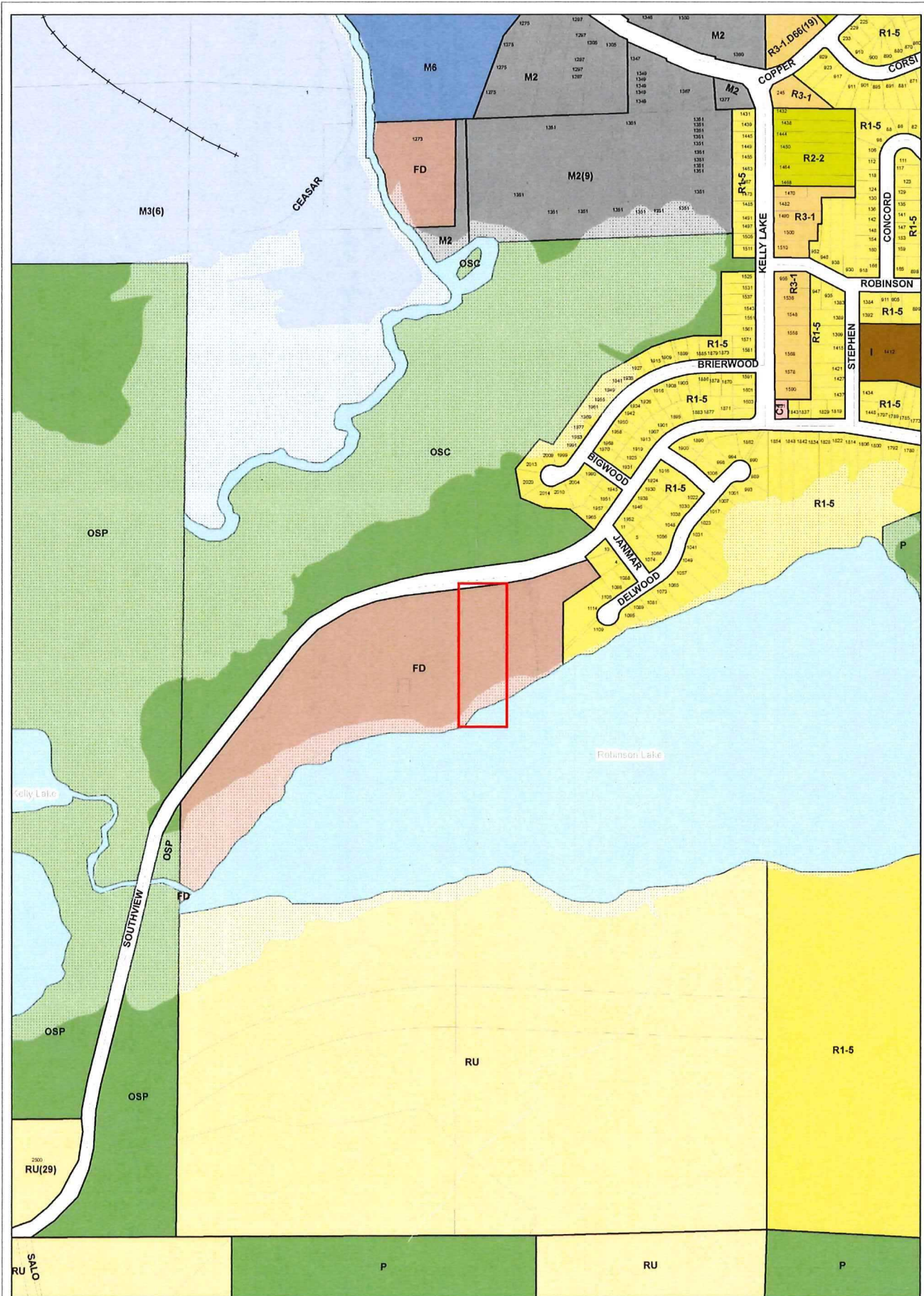
Sincerely,



Christian Standring
Environmental Technician
Tulloch Environmental, a division of Tulloch Engineering
Christian.standring@tulloch.ca
(705) 522-6303 ext: 627

Appendix 1

Maps of the Study Area

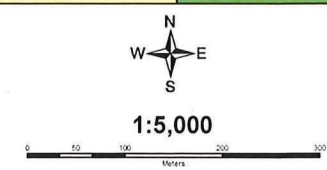


- Zone Overlays**
- Flood Fringe (FF)
 - Flood Plain (FP)
 - CGS Boundary
 - Zone Boundaries
 - Well Head Protection Overlay (WPA)

MCKIM TWP - LOT 9 CON 1

Schedule A - Zone Maps
By-law 2010-100Z

City of Greater Sudbury



Appendix 2

SAR List of the Study Area

Species at Risk Associate with the Study Area.

Species	SARA	ESA
Bald Eagle	-	SPC
Bank Swallow	-	THR
Barn Swallow	-	THR
Black Tern	-	SPC
Bobolink	-	THR
Canada Warbler	THR	SPC
Chimney Swift	THR	THR
Common Nighthawk	THR	SPC
Eastern Meadowlark	-	THR
Eastern Whip-poor-will	THR	THR
Eastern Wood-pewee	-	SPC
Olive-sided Flycatcher	THR	SPC
Peregrine Falcon	-	SPC
Wood Thrush	-	SPC
Little Brown Myotis	END	END
Small-footed Myotis	END	END
Northern Myotis	END	END
Tri-colored Bat	END	END
Blanding's Turtle	THR	THR
Snapping Turtle	SPC	THR
Monarch Butterfly	-	SPC

From: [Hall, Mike \(MNRF\)](#)
To: [Christian Standring \(Christian.Standring@TULLOCH.ca\)](#)
Cc: [kelly.major@tulloch.ca](#); [Leale, Paul \(MNRF\)](#); ["Bill Tibble" \(bill.tibble@tulloch.ca\)](#)
Subject: FW: Natural Heritage Information Request
Date: August-14-17 11:45:32 AM
Attachments: [image001.png](#)
[oledata.mso](#)
[Background Data Review 175332 Southview CS Final.pdf](#)
[Sudbury District SAR - Public List \(updated 2017-06-15\).xlsx](#)

Hello Mr. Standring,

Attached, per your request, is the SAR list for Sudbury District.

Also,

- the area identified (Appendix 1) is habitat for Blanding's Turtle (thr) (based on a 2016 observation where the outflow passes under Southview Drive), an ESA authorization may be required – submission of an Information Gathering Form (IGF) is recommended. You can find the IGF on our website:
<http://www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/MinistryResults?Openform&SRT=T&MAX=5&ENV=VWE&STR=1&TAB=PROFILE&MIN=018&BRN=21&PRG=31>
- the general nesting period identified (by ECCC) is acceptable,
- fish species documented in Kelly Lake: Northern Pike, Walleye, Yellow Perch, Pumpkinseed, Brown Bullhead, White Sucker, Rock Bass, Golden Shiner, Creek Chub, Fathead Minnow, Iowa Darter, Brook Stickleback, and Emerald Shiner,
- no fish species list has been compiled for Robinson Lake but, given proximity and the lack of a barrier to movement, it is likely that it's composition is similar to Kelly Lake,
- both Robinson Lake and Kelly Lake are considered to be warm water fisheries,
- no current critical habitat mapping of fish habitat is available
- in-water work, typically subject to a work permit issued by this office, is permitted from June 15th till April 1st,
- neither Robinson Lake or Kelly Lake has been assessed with respect to sources of sedimentation, erosion or pollution,
- the current fishery management objective is to maintain the existing populations in either lake,
- baitfish licencing is done on a township basis and to this extent both lakes could potentially be fished for this purpose (but operators prefer waterbodies with simpler species compositions i.e. less sorting)
- there are no known Provincial areas of protection; ANSI's, Parks, or Conservation Reserves, within 1 km of the subject property.

Regards,

Mike

Mike Hall

Management Biologist
Sudbury District
(705) 564-7862
mike.hall@ontario.ca

From: Christian Standring [<mailto:christian.standring@tulloch.ca>]
Sent: June-29-17 5:16 PM
To: Hart, Ross (MNRF)
Cc: [kelly.major@tulloch.ca](#); Bill Tibble

Subject: Natural Heritage Information Request

Good Afternoon Mr. Hart,

In support of a proposed amendment to Sudbury Zoning Bylaw, and subsequent construction on the study site, Tulloch Environmental has been retained to conduct a Natural Heritage investigation for the site in question. Attached to this email is a PDF document detailing all natural heritage information available publicly online for the study site. At this time, I would request that the MNRF review this document and respond with any supplementary information that is relevant to this project. I appreciate you taking the time to review this request. Please don't hesitate to contact me with any questions. I look forward to your response.

Sincerely,

Christian Standing

Environmental Technician



Tel: 705 522 6303 x627

Fax: 705 671 9477

Cell: 705 928 3855

TULLOCH Engineering Inc

1942 Regent Street – Unit L, Sudbury, ON P3E 5V5

christian.standing@TULLOCH.ca | TULLOCH.ca

Sudbury District Provincial Species at Risk

END = Endangered; THR = Threatened; SC = Special Concern; EXT = Extirpated

= found on Manitoulin Island only

BIRDS

American White Pelican (migrant only)	THR
Bald Eagle	SC
Bank Swallow	THR
Barn Swallow	THR
Black Tern	SC
Bobolink	THR
Canada Warbler	SC
Cerulean Warbler (migrant only)	THR
Chimney Swift	THR
Common Nighthawk	SC
Eastern Meadowlark	THR
Eastern Whip-poor-will	THR
Eastern Wood-Pewee	SC
Golden Eagle (migrant only)	END
Golden Winged Warbler	SC
Greater Prairie Chicken	EXT
Henslow's Sparrow	END
Horned Grebe	SC
Kirtland's Warbler (migrant only)	END
Least Bittern	THR
Loggerhead Shrike	END
Olive-sided Flycatcher	SC
Peregrine Falcon	SC
Piping Plover	END
Red Headed Woodpecker	SC
Red Knot (migrant only)	END
Short Eared Owl	SC
Wood Thrush	SC
Yellow Rail	SC

REPTILES

Blanding's Turtle	THR
Eastern Foxsnake	THR
Eastern Hog-nosed Snake	THR
Eastern Massasauga Rattlesnake (Great Lakes/St. Lawrence Population)	THR
Eastern Musk Turtle (or Stinkpot)	SC
Eastern Ribbonsnake	SC
Northern Map Turtle	SC
Snapping Turtle	SC
Timber Rattlesnake	EXT

VASCULAR PLANTS

Butternut	END
Dwarf Lake Iris	SC
Gattinger's Agalinis	END
Hill's Pondweed	SC
Hill's Thistle	THR
Houghton's Goldenrod	THR
Lakeside Daisy	THR
Pitcher's Thistle	THR

MAMMALS

Eastern Cougar	END
Eastern Small-footed Myotis	END
Algonquin (Eastern) Wolf	THR
Little Brown Myotis	END
Northern Myotis	END
Tri-coloured Bat	END

FISH

Lake Sturgeon	THR
Northern Brook Lamprey	SC
River Redhorse	SC
Shortjaw Cisco	THR
Shortnose Cisco	END

INVERTEBRATES

Aweme Borer	END
Lake Huron Grasshopper	THR
Monarch Butterfly	SC
Mottled Duskywing (historic observation)	END
West Virginia White	SC

From: [Stephen Monet](#)
To: kelly.major@tulloch.ca
Cc: [Glen Ferguson](#); [Jonathan Clark](#)
Subject: Re: Southview Drive (PC2017-032) - Scoped EIS
Date: April-07-17 8:16:47 AM

Hello Kelly:

The request for an Environmental Impact Study (EIS) is based on Policy 8.5.1.2 of the City's Official Plan that states:

"New development that fronts on a lake or watercourse which has recognized environmental constraints is prohibited unless detailed studies demonstrate that the problems associated with development in these situations can and will be mitigated. The onus for demonstrating that environmental constraints will be mitigated shall lie with the proponent of the development."

Policy 8.5.1.3 states "Recognized environmental constraints include, among others, some lake trout lakes, sensitive fish spawning areas, unique natural features, and lakes under 50 ha (120 acres) in size."

Robinson Lake measures about 34 hectares and thus development on its shoreline would be subject to the two policies above.

Although an EIS is not explicitly stated as a requirement in the policies, it is usually the type of study that best addresses the intent.

Considerable flexibility is offered to the environmental professional preparing the EIS but given the policy intent I would expect the EIS to include an assessment of the development in the context of the site characteristics with a focus on shoreline vegetation, fish spawning areas, water quality, stormwater, and erosion. We do not have information specifically on either Blanding's turtle habitat or Eastern Whip-poor-will habitat relative to the site but I am of the opinion that the habitat potential is low for either species. Perhaps your opinion differs, in which case you will want to investigate this matter since property owners have responsibilities under the Endangered Species Act.

I trust that this information is sufficient for your needs.

Please do not hesitate to contact me at 705-674-4455 ext. 4297 should you have any additional questions.

I've copied the City staff that are assigned to this file.

Best regards,
Stephen

>>> "Kelly Major" <kelly.major@tulloch.ca> 4/6/2017 1:48 PM >>>
Hi Stephen,

I'm emailing with regard to Consult File PC2017-032 (Southview Dr. Sudbury) on behalf of the proponent Canadian Group Inc. I understand the project will require a scoped Environmental Impact Study (EIS) in support of pre-consultation. I've been asked to contact you for direction regarding the scope of this EIS. Please let me know what environmental considerations you and your office would like addressed.

Thanks,

Kelly Major M.Sc. EP

Terrestrial Ecologist



Tel: 705 522 6303

Fax: 705 671 9477

TULLOCH Engineering Inc

1942 Regent Street – Unit L, Sudbury, ON P3E 5V5

kelly.major@TULLOCH.ca | TULLOCH.ca

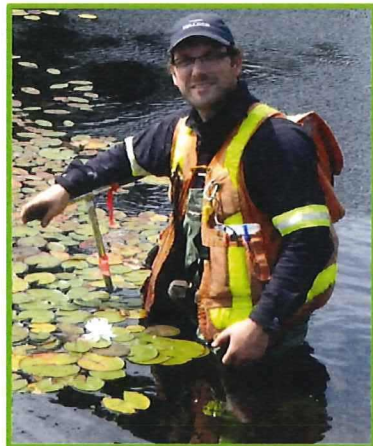
APPENDIX B

Project Staff

PROJECT STAFF



Bill Tibble, M.Sc. is the Environmental Department Lead at Tulloch Engineering. He has worked professionally throughout Canada for 12 years as an Aquatic Biologist/Ecologist in the environmental consulting, government and academic sectors. His areas of specialization include environmental effects monitoring, environmental assessment, environmental baseline studies, and aquatic habitat characterization. He has taken part in each stage of project development, including study design, data collections and interpretation, permitting, reporting and post-construction monitoring. Bill has acted as the principle investigator for various projects requiring liaising with regulators such as Fisheries and Oceans Canada and the Ministry of Natural Resources and has obtained the required advice, authorizations and permits for numerous projects involving in-water work.



Kelly Major, M.Sc. EP is a Terrestrial Ecologist at Tulloch Engineering. He has worked professionally throughout Ontario for five years in consulting, government and academic sectors. His areas of specialization include species at risk, habitat assessment, wetland evaluation and biostatistics. As an academic, Kelly has acted as principal investigator for various studies in community ecology, plant invasion and silviculture. His research has been peer-reviewed and published. With the Ministry of Natural Resources and Forestry (MNRF), he surveyed wildlife biodiversity across the province and built statistical models forecasting forest succession for Boreal Ontario. As a consultant with Tulloch, Kelly leads species at risk surveys, wetland evaluations (Ontario Wetland Evaluation Systems) and terrestrial habitat description (e.g. Ecological Land Classification). He performs impact assessments at sites of

proposed development and prepares site specific mitigation strategies appropriate to the nature of the habitat alteration and the sensitivities present. He also serves as data analyst for Tulloch's environmental department; managing and mapping spatial data in ArcGIS and modeling quantitative data using univariate and multivariate statistical techniques.