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May 13, 2024

Jeff Chesher
Buckhorn Sand and Gravel

Re: Development on existing lot
14 William Street
Municipality of Trent Lakes

Scoped Environmental Impact Study

1. Introduction

The proposed development includes the construction of a triplex structure on this 0.5 acre property at 14 William Street. However access to the proposed triplex will be from William Street from the north, just west of the medical centre. Planning approvals are also being requested for this development.

The Municipality of Trent Lakes requires a scoped EIS as part of the development application. The key issue being an unevaluated wetland that available GIS mapping shows on the southeast corner of this site.

In accordance with the 2020 Growth Plan and the Municipality of Trent Lakes Official Plan, a scoped EIS is required to evaluate the development proposal in relation to potential impacts on the wetland feature specifically and its ecological functions, and any other natural heritage features/key hydrologic features.

As such, a site visit was necessary to confirm the boundary of the wetland and identify if any other natural features or Species at Risk are located on or adjacent to the subject property.

2. Approach

2.1 General Approach

Our approach to preparation of the scoped EIS consisted of four distinct phases.

In the first phase we collected and reviewed available information on the site including recent air photography, key natural features GIS mapping, MNRF/Trent Lakes wetland mapping, Municipality of Trent Lakes Official Plan schedules and other correspondence or files available from the Municipality, Ministry of Natural Resources and Forestry and ORCA.

The second phase consisted of a site visit on April 30, 2024 by our terrestrial and wetland biologist to confirm the data collected in the literature review, the wetland and any other natural features on the property. Surveys included Ecological Land Classification (ELC) mapping, vegetation community boundaries, wildlife corridors and linkages, and presence of significant Speciesand Risk (SAR).

The presence of possible SAR on or adjacent to the property was determined during our field visit and from background literature. The significance of the features and ecological functions of the natural features was determined during our field surveys.

The third phase was the preparation of a scoped EIS report with specific mitigation measures for protecting the wetland, and other natural features on or adjacent to the subject property. Recommendations regarding the wetland, including buffers and setbacks are included.

The report was written to satisfy the requirements for the construction of a triplex with a driveway and septic beds, as well as for the building permit for the construction. The report follows the sections of the Municipality of Trent Lakes Official Plan for an EIS report.

2.2 Site Study Methodology

2.2.1 Physical Site Characteristics

Site characteristics were assessed during our field visits. This included general documentation of existing disturbances, age of vegetation cover, topography and natural features.

2.2.2 Biophysical Inventory

2.2.2.1 Vegetation

ELC Survey Method

All vegetation encountered in the study area was inventoried during the site visit. Delineation and classification of the vegetation Community types was based on the Ecological Land Classification for Southern Ontario (Lee et al., 1998). General notes on disturbance, topography, soil types, soil moisture and state of each Community were also compiled.

Rare, significant or unusual species were searched for. Species significance or rarity on a national, provincial, regional and local level was based on published literature and standard status lists. These included SARA (2019), COSEWIC (2021), COSSARO (2021), Ontario Endangered Species Act (2008), Gartner Lee (1978) and Varga et al. (2000)

2.2.2.2 Birds and Other Wildlife

Area Searches and Incidental Observations

Incidental observations of birds and other wildlife (e.g., amphibians, reptiles and mammals) encountered while surveyors were on site were recorded. Documentation included notes about the species, location and type of observation (e.g., direct sightings and indirect evidence such as calls, tracks, scat, burrows, dens and browse).

2.2.2.3 Wetlands

Biologists first reviewed recent aerial photographs and available wetland mapping, including MNRF GIS database layers in search of potential wetlands on or near the property. Subsequently, they walked the entire property, checking plant species, soil type, and soil moisture to ground truth digital research. The boundary of any wetlands found were then delineated in the field using a handheld GPS unit by staff certified to conduct wetland evaluations under the Ontario Wetland Evaluation System for Southern Ontario, Third Edition, version 3.3 (OMNR, 2014)

3. Survey Results

3.1 Physical Site Characteristics

3.1.1 General Site Characteristics

The site was located off of William Street on a rectangular shaped lot. The lot is bordered to the west by residential houses and a medical building and parking lot on the east side. The lot contained typical conditions for Buckhorn, with small patches of bare rock at the surface, shallow soils and scattered pockets of vegetation. The site was occupied by a house up until 2015 but that has been removed. A low area on the southeastern corner contained a patch of red-osier dogwood, cattails and fowl meadow grass. To the southwest and behind the building at 18 William St was a narrow channel that drained water to the east. A small remnant woodland was present to the southeast of that manmade channel. The site had been disturbed from the house demolition with some tree clearing and grading evident in the footprint and early successional vegetation across the lot with some natural and some ornamental trees.

3.2 Biological Inventories

3.2.1 Vegetation

3.2.1.1 Level of Effort

Vegetation communities within the study area were delineated by GHD biologists following the methodologies described in Section 2.2.2.1. The level of effort and environmental conditions have been summarized in Table 3.1

Table 0.1 Vegetation Surveys – Level of Effort

Survey Date	Survey Type	Weather	Start Time	Effort (person hrs)
April 30, 2024	ELC, wetland, breeding birds, SAR	16 C, wind 1, cloudy	1500	1.0

3.2.1.2 ELC Code Descriptions

Three vegetation communities were identified within the study area.

Community 1 disturbed upland area (ELC Code: no applicable code)

Community 1 was an upland area in the proposed footprint. The area was an upland early successional meadow with some exposed granite bedrock. This community included open field along the edges with, common blackberry *(Rubus alleghaniensis)*, field hawkweed *(Pilosella caespitosa*) awnless brome grass *(Bromus inermis)*, poverty grass *(Danthonia spicata)*, red clover *(Trifolium pratense)*, orchard grass *(Dactylis glomerata)*, Viper's bugloss *(Origanum vulgare)*, mossy stonescrop sedum *(Sedum acre)*, white bedstraw *(Galium album)*, and a few curled dock *(Rumex crispus)*.

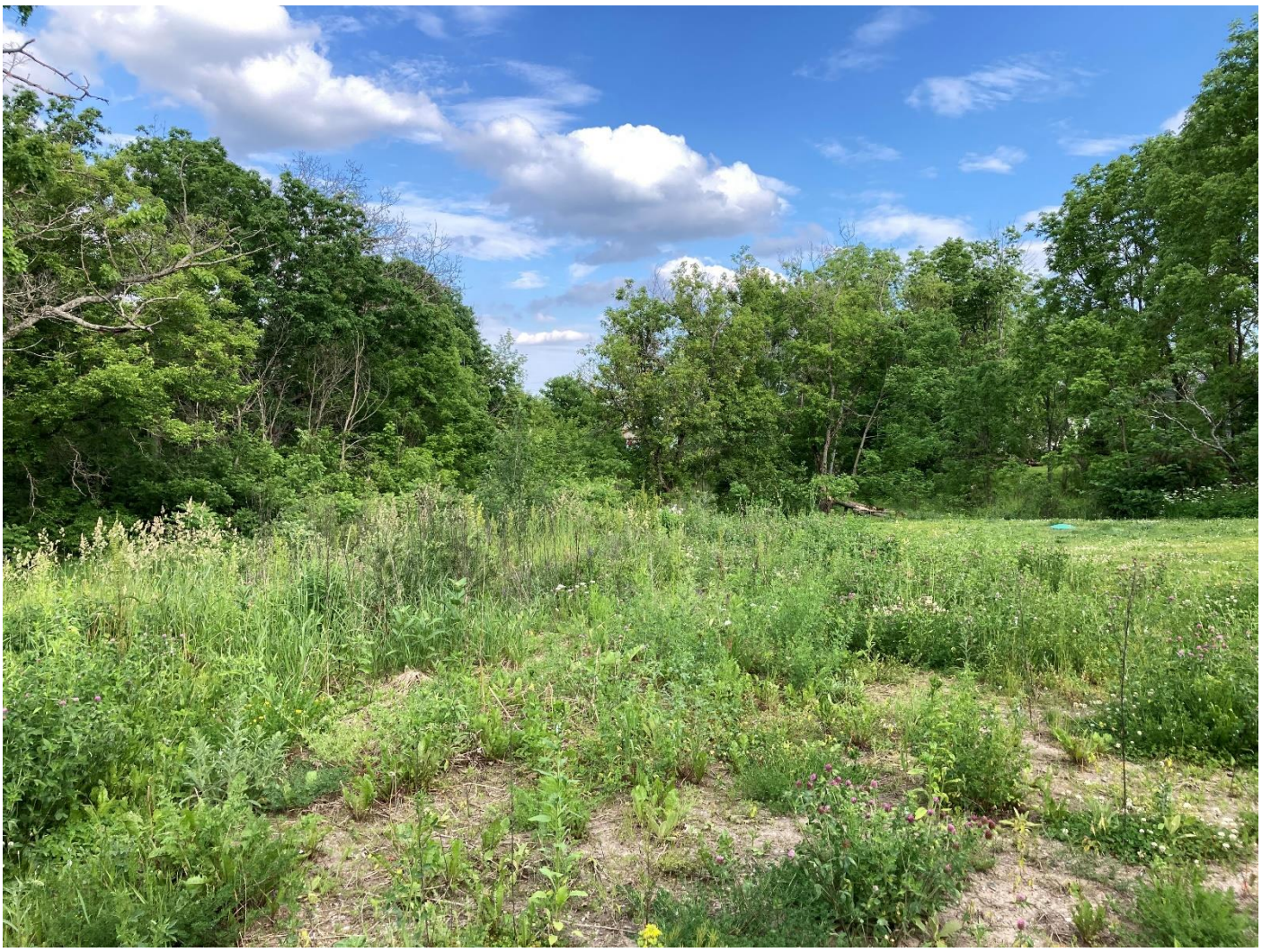


Photo 1. Upland area of site (Photo date: April 30 2024-facing south.

Community 2 thicket swamp (ELC Code: SWT)

To the south east, there was a dip in the bedrock that created a low swale. Drainage from the adjacent lots created a moist low lying pocket (60 square metres). Species included red-osier dogwood *(cornus stolonifera)*, willow species that was dominant, balsam poplar *(Populus balsamifera)* saplings and narrow-leaved cattail *Typha angustifolia)*. The low area is associated with the drainage ditch downstream to the east.

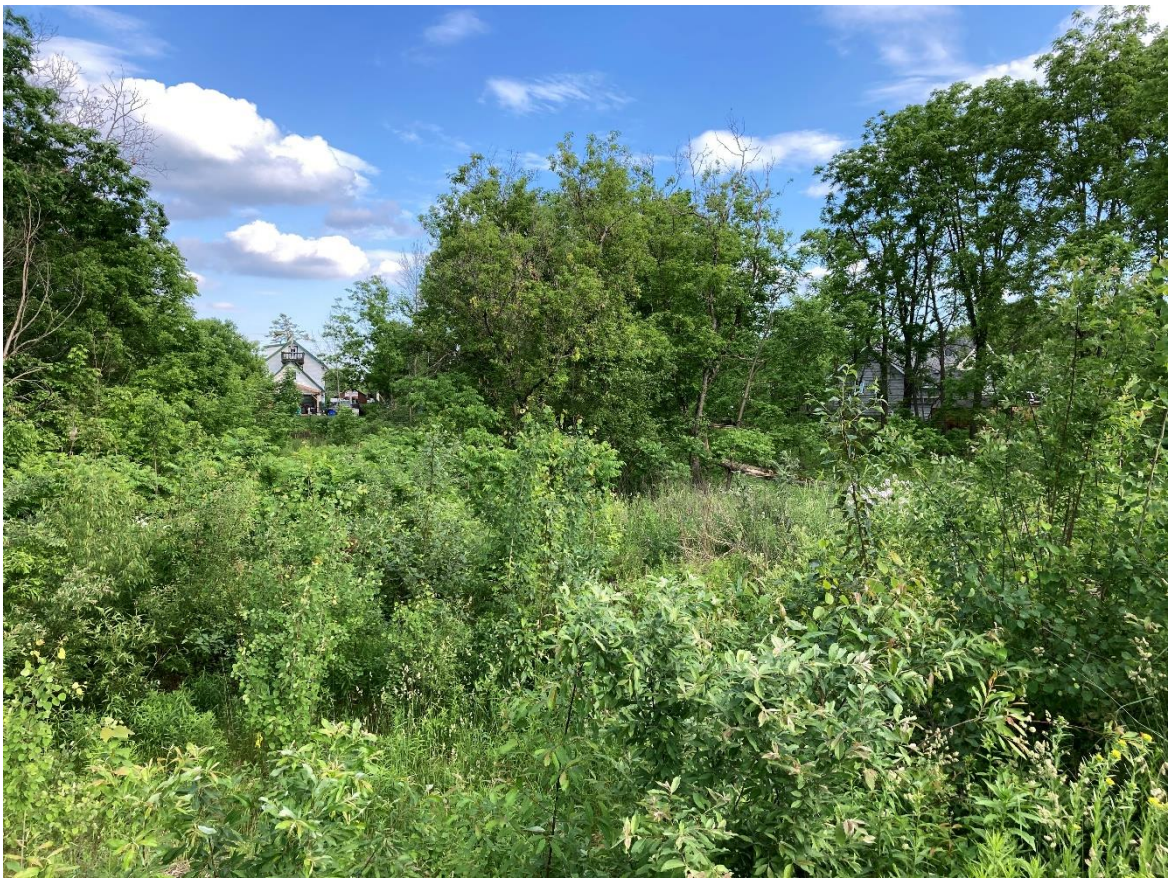


Photo 2. Swamp and drainage area at south end of property.

Community 3 mixed forest and channel (ELC Code: FOM)

The area to the southeast and off property a dug channel and edge of field stone. The low part of the channel was wet with red-osier dogwood, balsam poplar and willow. The upland areas were a mix of a mixed forest with eastern white pine *(Pinus strobus)*, trembling aspen *(Populus tremuloides)*, balsam poplar and red oak *(Quercus rubra)*. Understory plants included prickly gooseberry *(Ribes cysosbati)*, herb Robert *(Geranium robertianum)*, barren strawberry *(Waldsteinia fragarioildes)*, trout lily *(Erythronium Americanum)* and yellow avens *(Geum allepicum)*.

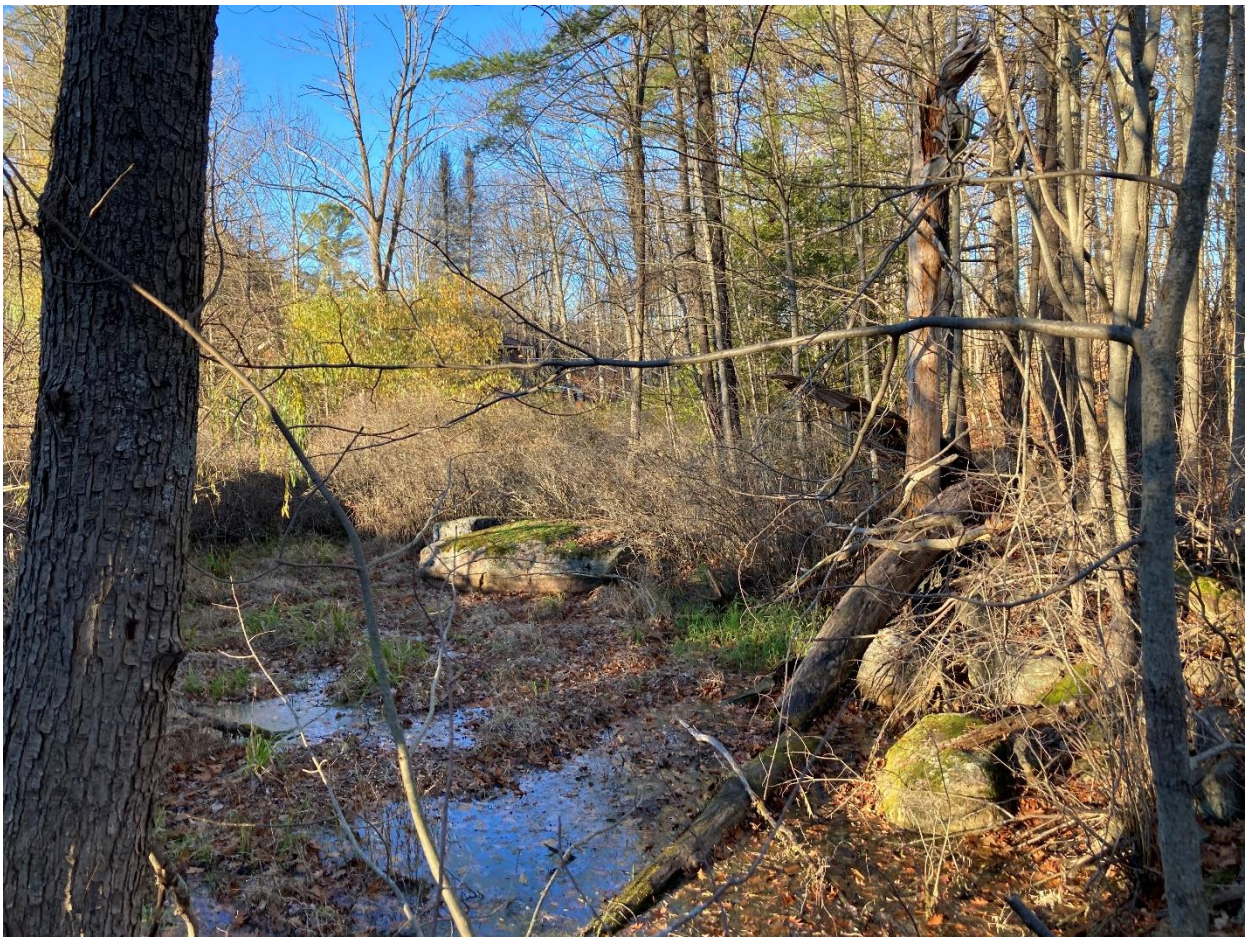


Photo 3. View of dug channel lined with field stone and wetland, mostly off site to east and southeast.

3.2.2 Birds and Other Wildlife

3.2.2.1 Incidental Observations

A total of 12 bird species were identified during the site walk. All were incidental observations by site or sound. This included late spring migrants and resident species. Species included white- breasted nuthatch, downy woodpecker, red-winged blackbird, common raven, common grackle, northern cardinal, European starling, American crow, American robin, American goldfinch, and black-capped chickadee.

Wildlife species included eastern chipmunk, eastern gray squirrel and red squirrel.

3.2.3 Wetlands

The existing MNRF GIS wetland mapping shows the wetland extending onto the extreme southern corner of the property. This is associated with the intermittent drainage feature.

3.2.4 Vegetation

The property was a former residential lot and contains a few large red oak and white oak trees near the frontage on William Street. There were several regenerating trembling aspen, black walnut saplings, one cedar, a red pine and Manitoba maple.

Preservation of the two large oak trees is recommended as they are near the front and outside of the driveway and proposed building envelope.

3.2.5 Species at Risk

A review of the on-line data sources including NHIC, MECP and Ontario Breeding Bird Atlas, found that although a few bird species and turtle species are found in the larger landscape, the location and previous use of this lot preclude any habitat for those species.
One butternut tree was found in the northeast corner of the site. Butternut is listed as endangered provincially. It was a small diameter multi-stem tree but heavily infected with butternut canker and classified as Category 1 tree.

4. Discussion and Analysis

4.1 Species and Communities

4.1.1 Vegetation

One of the trees identified on site, butternut is listed as endangered in Ontario (SARA, 2023; COSSARO, 2032; Riley, 1989) .

4.1.2 Birds and Other Wildlife

None of the bird species detected during GHD's breeding bird surveys were considered to be significant on a national (COSEWIC, 2023) and provincial level (COSSARO, 2023).

A review of existing trees on site, did not find any of the trees were suitable size as bat cavity trees.

5. Impact Assessment and Recommendations

The following section provides a description of the predicted impacts that may result from the proposed development. It also identifies mitigation measures to be implemented to avoid and/or minimize adverse effects to the natural environment features within or near the project. A full list of mitigation measures has been provided in Section 7.0. A summary of the impact assessment and recommendations is depicted in Table 5.1.

5.1 Wetland

Wetlands were identified on the edge and adjacent to the subject property. The wetland boundary was distinct with a distinct change in elevation, presence of standing water and tree, shrub and herbaceous species that are hydrophytic (water loving) and typical of swamps in this area. The wetland is only located on the southeastern portion and approximately 60 sq. m. in area. The wetland is a small isolated feature and not directly connected to wetlands to the east. The drainage ditch that was created does drain runoff from the adjacent elevated residential lots, through this wetland and offsite to the east.

The presence of exposed bedrock at the surface indicates that drainage on this lot is confined by the impermeable layer. The small stand of cattail and dogwood, that prefer moist soils, is the reason for their presence.

As the wetland is an isolated feature in the settlement area of the Village of Buckhorn and surrounded by development, the wetland has very limited functions. The wetland would provide habitat for a few bird species such as red-winged blackbird. No habitat suitable on site or adjacent lands for amphibian breeding or reptiles.

No impacts on the ecological functions of the unevaluated wetland is anticipated as the footprint of the triplex and septic is outside of this feature. The function is very limited on the small wetland pocket and as such retention is not recommended. A minimum 5 m buffer is recommended from this feature.

5.2 Vegetation

The construction of the triplex, driveway and septic beds will remove the regenerating trees on this site. This included dead green ash, live trembling aspen saplings, Manitoba maple and eastern cedar. Preservation of two large diameter (45 cm plus) white oak and red oak at the front, as oak and native trees that provide a seed source for local wildlife.

The one butternut tree was a Category 1 and as such is considered non-retainable. However registration of that tree and sending in the MECP Butternut Health Assessment form is recommended to allow MECP to sign off. This does provide the agencies with a sign off to cover off presence of species protected under the Ontario Endangered Species Act. Category 1 tree removal does not require an ESA permit or compensation trees to be planted.

Additionally, no rare vegetation or sensitive communities were identified on the property. here will be no impacts on any sensitive vegetation communities or rare tree species due to the construction.

6. Summary of Recommendations

1. Prior to any site preparation activities (tree clearing, soil removal, grading, placement of fill) erosion and sediment control measures must be installed along all edges of the construction envelope to ensure sediment laden runoff does not enter interfere with retained adjacent woodlot. The silt fence should be inspected and maintained throughout the construction phase and remain in place until the exposed soils are stabilized and re-vegetated.
2. Obtain relevant permits from the Municipality of Trent Lakes.
3. Tree clearing occur outside of the breeding bird timing window (April 15th -August 15th) unless a nest search by a qualified biologist is conducted.
4. As the site has been disturbed and soils unvegetated in parts, relandscaping of the site post-construction, and other disturbed areas shall be revegetated where possible and trees planted to increase diversity.
5. The construction envelopes must be clearly defined and delineated and a line staked and clearly marked in the field prior to any construction activities occurring on the site.
6. A 5 m buffer from the wetland be delineated.

7. Conclusion

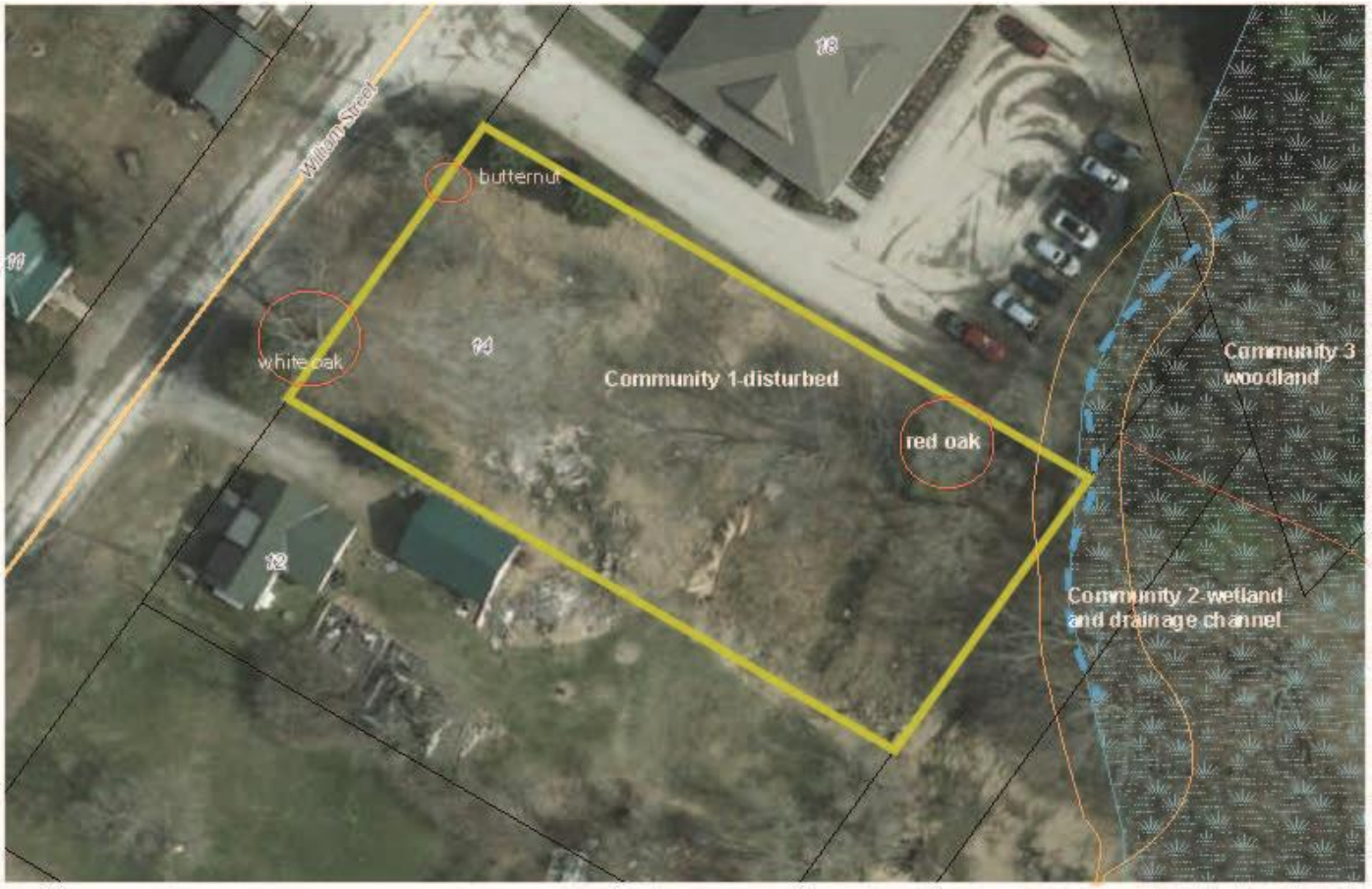
GHD has prepared this Environmental Impact Study to address potential environmental issues associated with an application to develop this property

Based on our analysis, there will be no significant impacts on the natural features identified on the site, including the natural features. Negative impact on the functions of identified natural heritage features can be minimized by following the recommendations in sections 6. GHD's recommendationshave been made to address potential impacts to natural heritage features and/or their functions.

Yours very truly

Chris Ellingwood
Sr. Biologist
GHD

Photo 4. Image of lot and wetland boundary.



Blue shaded area is GIS wetland layer-not correct-orange outline iis our GHD confirmed line
Red circles are large diameter trees and the butternut tree.
Yellow line is the property boundary