Site Evaluation Report

697 Baptiste Shore North
Lot 22, Concession 6
Municipality of Hastings Highlands

October 6th, 2024

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1.0 Introduction

Ann Rocchi, Ecologist, was retained by Graeme Smith (the Client) to conduct a Site Evaluation Report (SER) to determine any potential adverse impacts to the surrounding terrestrial and aquatic environment from proposed additions to their seasonal dwelling. The municipal address is 697 Baptiste Shore North, Assessment Roll Number 129027801017800, Lot 22, Concession 6, in the Municipality of Hastings Highlands, County of Hastings, Ontario.

The 1.40-acre water access property has a 212 foot south facing frontage on Baptiste Lake (Figure 1). The Study Property consists of an existing 28 x 28' main building and a small bunkie within natural surroundings and a small wooden dock on the west shore of the Study Property. Renovations were started during CoVid but were paused for consultation with the municipality prior to completion. The owner proposes two minor extensions to the existing main building, an 8 x 36 addition to the west side of the building and an 8 x 30 addition to the south side in front of the main building A Site Plan is included in Appendix A.

To address the SER requirements of Hastings County, a Study Property investigation was conducted to provide an evaluation of reasonably anticipated ecological impacts, positive or negative, that may arise as a result of the planned works to guide the planning decision-making process. The SER also includes a Species at Risk (SAR) screening to determine if the Study Property is used as habitat by any at risk species, as presented on the Species at Risk in Ontario (SARO) list and the Species at Risk Act (SARA).

1.1 Scope of Work

The SER was conducted through the following three (3) tasks. Task 1 consisted of a detailed document review of existing and readily available information related to the Subject Property. Task 2 included a Study Property visit on July 7th, 2024, to validate or revise any assumptions made in the previous task, and to add detailed Study Property specific information as observations were made. Task 3 was the evaluation of the potential impacts of the proposed development on based on the information gathered through Tasks 1 and 2.

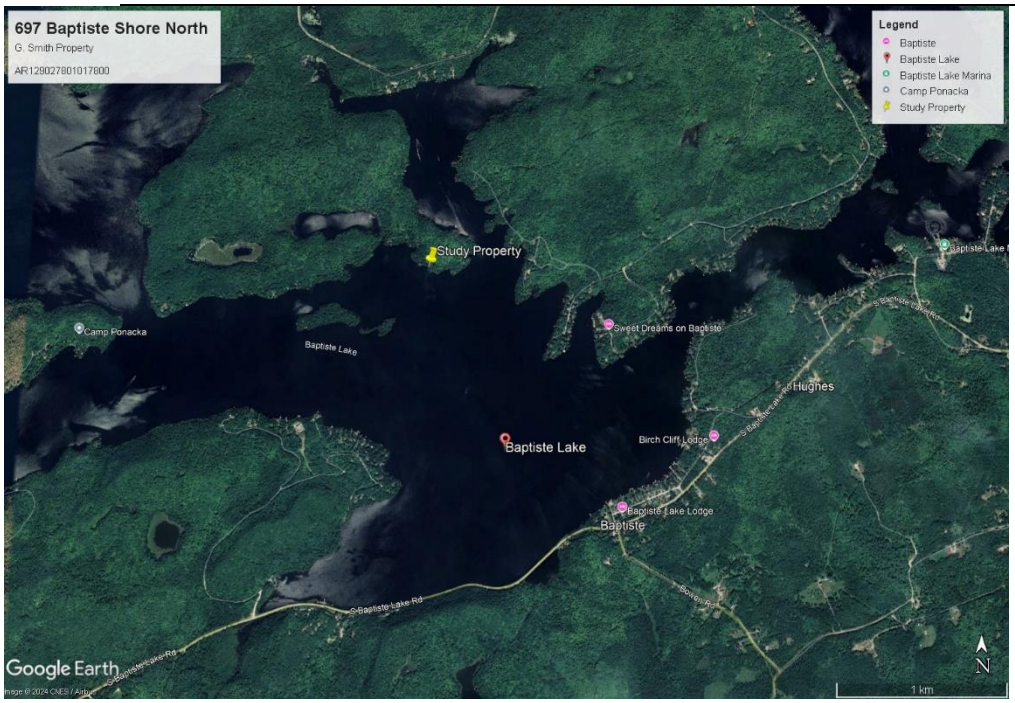

Figure 1: Location of Study Property, 697 Baptiste Shore Road, Hastings Highlands

2.0 Study Property Description

Information was gathered from provincial, municipal and private sources on current and historical land use, Study Property topography, Natural Heritage Features and SAR.

2.1 Location and Land Use

The Subject Property is located in the southern portion of Baptiste Lake. Baptiste Lake is located approximately 35 kilometers northwest of Bancroft and is water access only from the Baptiste Lake Boat Launch. The Study Property is within Ecoregion 5E of Ontario (Crins, Gray, Uhlig, & Wester, 2009).

2.2 Policy Context

2.2.1 Provincial Policy Statement

The Provincial Policy Statement (PPS; 2020) Section 2.1 protects Natural Heritage Features such as Significant Woodlands, Significant Valleylands, Significant Wildlife Habitat, Areas of Natural and Scientific Interest, Provincially Significant Wetlands and Coastal Wetlands, Fish Habitat and the Habitat of Endangered and Threatened species. Development within Natural Heritage Features and on lands adjacent to all significant Natural Heritage Features will require an EIS (or equivalent SER) to demonstrate that there will be no negative impacts on the natural features or their ecological functions (Queen's Printer for Ontario, 2020).

2.2.2 Hastings County Official Plan (2018)

The Hastings County Official Plan contains goals, objectives, and policies to manage and direct future growth in the Municipality of Hastings Highlands. The Subject Property is designated as Waterfront/Rural as per the Land Use Designations, OP Schedule A, and as Limited Services Residential (LSR) Zone under Schedule B. Deer Habitat (Stratum 1) encompasses the Study Property as seen on the Natural Features & Areas, also OP Schedule B (County of Hastings, 2018).

In Section 4.2.4, Fish Habitat, subsection 4.2.4.2, it states that the intent of the Official Plan is ensure that appropriate protection is afforded to fish habitat regardless of the land use designation that is applied.

Sub-section 4.2.4.3 states that new development and/or site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements. New development and/or site alteration shall not be permitted on adjacent lands within 120 metres of fish habitat unless it has been determined in an approved Environmental Impact Statement (EIS) (or equivalent)pursuant to Part A - Section 7.8.6 of the Official Plan that there will be no negative impacts on the natural features or its ecological functions.

Section 4.2.5 Lakes Managed for Lake Trout, the Official Plan recognizes the sensitivity of coldwater systems for salmonids such as Lake Trout *(Salvelinus namaycush)* and manage lake conditions by restricting development after a Lake Trout Lake has reached capacity for phosphorus loading. The West Basin of Baptiste Lake (i.e., west of Lot 16) is designated as a Lake Trout Lake – At Capacity (LTL-AC) as per Schedule B of the Official Plan and as such, is considered by the Ministry of Natural Resources (MNRF) and the Ministry of Environment, Climate Change and Parks (MECP) to be critical habitat for the maintenance of a healthy lake trout fishery.

Although sub-section 4.2.5.4 states that lakes managed for Lake Trout are considered to be at capacity and future development upon such lakes is generally prohibited except in accordance with the policies of this Official Plan, Sub-section 4.2.5.7 goes on to state that development of existing lots of record may occur in accordance with existing zoning.

Under Section 4.3 Natural Heritage Features and Areas, sub-section 4.3.1.2, it states that the County's Natural Heritage System is comprised of Areas of Natural and Scientific Interest (ANSIs), Significant Wildlife Habitat, Floodplains, Parks and Conservation Reserves and Areas, Local and Provincially Significant Wetlands, Significant Valleylands, and Significant Woodlands. These features are all shown conceptually on Appendix 6 – Natural Heritage System.; however, the County encourages the maintenance, restoration, or improvements of these linkage areas to promote them as natural connections between the features of the Natural Heritage System. Sub-section 4.3.1.5 adds that Natural Heritage Features include the waters supporting aquatic species at risk (fishes and mussels) listed under Schedule 1 of the federal Species at Risk Act (SARA), and residences of such species and critical habitats as well.

Section 4.3.2 Habitat of Endangered and Threatened Species, subsection 4.3.2.1 states that new development and/or site alteration shall not be permitted in habitat of Endangered or Threatened species, except in accordance with provincial and federal requirements.

Sub-section 4.3.2.6 determines that where a proposed development is deemed to have the potential to be located within or adjacent to and/or impact upon a habitat of an endangered and/or threatened species, the owner/proponent may be required to retain a qualified person to undertake a Site Evaluation Report (SER). This SER was produced to fulfill this requirement.

Lastly, the proposed extensions conform with the stipulations set out in Sub-section 5.4.5.3 to guide future development in the Rural and Waterfront designation, as appropriate for the specific use and the area:

a) Development should not take place on lands having environmental constraints and is discouraged in areas possessing important natural characteristics unless it can be demonstrated that there will be no negative impact on the feature or its ecological function in accordance with the policies of this Plan;

b) The natural landscape should prevail with built form blending into the landscape;

c) Lot lines should respect traditional features of the landscape, such as historic fencelines, treelines and topography, and generally maintain the rural character of the area

d) Natural shorelines and vegetative buffers will be retained, maintained and/or restored;

e) Native species should be used for buffers and where vegetation is being restored;

f) Measures such as changes to proposed lot lines and increased setbacks should be utilized to help address potential negative impacts to natural heritage features and the environment;

g) Structural development will maintain a low structural profile and will not create a new skyline or ridgeline above the existing tree canopy;

h) Building mass and coverage should be limited in relation to the size and frontage of the property and be in keeping with the character of the surrounding area, and;

i) Building envelopes, including the careful siting of shoreline structures, and the associated activity area should be defined and located in the most appropriate locations on the property, leaving the remainder of the property generally in its natural state.

2.3 Natural Heritage Features

Seven (7) Natural Heritage Features for the Province of Ontario are defined in the PPS as follows:

- Fish Habitat;
- Significant Wetlands;
- Significant Woodlands;
- Significant Valleylands;
- Significant Areas of Natural and Scientific Interest (ANSIs);
- Significant Wildlife Habitat, and;
- Significant Habitat of Endangered and Threatened Species.

A review of available documents and mapping identified three (3) natural heritage feature associated with the Study Property. Provincially significant Natural Heritage Features that occur in within 120 m of the Study Property include Fish Habitat, Significant Wildlife Habitat and Habitat for Endangered or Threatened Species at Risk as described below.

2.3.1 Provincially Significant Wetlands (PSW)

There are no Provincially Significant Wetlands on or within 120 metres of the Study Property.

2.3.2 Other Wetlands

The mainland surrounding Baptiste Lake contains numerous wetlands, including small pockets of wetland habitat and large, connected segments. There are no Locally Significant Wetlands on or within 30 m of the Study Property.

2.3.3 Significant Woodlands

Significant Woodlands are identified by municipal authorities. There are no Significant Woodlands identified on or within 120 metres of the Study Property.

2.3.4 Significant Valleylands

Significant Valleylands are identified by municipal authorities. There are no Significant Valleylands identified on or within 120 metres of the Study Property.

2.3.5 Significant Areas of Natural and Scientific Interest (ANSIs)

There are no Life Science ANSIs on or within 120 metres of the Study Property, and there are no Earth Science ANSIs on or within 50 metres of the Study Property.

2.3.6 Significant Wildlife Habitat

A review of existing information indicates the Study Property is within a Stratum 1 Deer Yard. A Deer Yard (Stratum 1) is often referred to as the core of a deer yard. Deer use this area when mobility is most restricted under severe winter. Development is not permitted within Stratum 1 (core) wintering areas unless it can be demonstrated that there will be no negative impacts on the feature or its ecological function.

2.3.7 Significant Habitat of Endangered and Threatened Species

A Species at Risk (SAR) screening was conducted to determine if historical records of presence or habitat use by any at risk species, as presented on the Species at Risk in Ontario (SARO) list. Species listed as endangered or threatened on the Species at Risk in Ontario (SARO) list are protected under the provincial Endangered Species Act, 2007 (ESA). Section 9(1) of the ESA prohibits a person from killing, harming, harassing, capturing or taking a member of a species listed as endangered, threatened or extirpated on the SARO list. Section 10(1) of the ESA prohibits the damage or destruction of habitat of species listed as endangered or threatened on the SARO list.

Protection of Special Concern species is achieved through designation of their habitat as Significant Wildlife Habitat (SWH) under the PPS.

The Committee on the Status of Species at Risk in Ontario (COSSARO) undertakes the assessment of species to determine the level of risk to individual species and populations.

COSSARO classifies species depending on the level of risk that individuals or populations are exposed to. Species are classified into one (1) of five (5) categories if they are determined to be at risk. These categories, in declining order from the most at risk are: Extinct, Extirpated, Endangered, Threatened, and Special Concern (Ministry of Natural Resources and Forestry, 2014). Species can also be protected on the federal level by the Species at Risk Act (SARA, 2002) using the five category classifications described above.

All species classified as Endangered or Threatened receive legal protection under the Endangered Species Act (2007) and the Species at Risk Act (2002). Levels of protection for a single species can be protected at different levels of the provincial and federal classification, however.

The MNRF on-line resource *Make a Map: Natural Heritage Areas* was consulted to identify occurrences of Species at Risk (SAR) on, or in the vicinity of the Study Property. The online tool identified records for two (2) tracked Endangered or Threatened species:

- Wood Thrush (*Hylochchia mustelina)* - listed as Special Concern provincially and Threatened federally;
- Ogden's Pondweed (*Potamogeton x ogdenii*) – listed as Endangered both provincially and federally.

Although Special Concern SAR don't receive individual or habitat protection on either the provincial or federal levels, two (2) species that are listed Special Concern by both SARO and SARA were identified within or adjacent to grid square 18TQ6499 as well, namely:

- Eastern Wood-pewee *(Contopus virens)* – listed as Special Concern provincially and federally, and;
- Snapping Turtle *(Chelydra serpentina)* - listed as Special Concern provincially and federally.

Species accounts for these four (4) documented SAR are given below:

<u>Wood Thrush</u>

The Wood Thrush is a medium-sized songbird measuring approximately 20 cm in length, characterized by a rusty-brown upper body, white underparts and prominent

blackish spots on the breast and sides. The Wood Thrush hunts for food in leaf litter or on semi-bare ground. Its diet comprises insects and plants material (MECP, 2023).

Wood Thrush inhabit mature deciduous and mixed (conifer-deciduous) forests, favoring environments with moist stands of trees exhibiting well-developed undergrowth and tall trees suitable for singing perches. When constructing their nests, they typically choose living saplings, trees, or shrubs, with a preference for Sugar Maple or American Beech (MECP, 2023).

Ogden's Pondweed

Ogden's Pondweed is a hybrid of two other pondweed species, namely, *Potamogeton hillii X Potamogeton zosteriformis*. It is a small aquatic plant of alkaline lakes and rivers. Although a historical sighting of the species was recorded in Hastings County in 1873, the only confirmed populations in Canada in recent years are at Murphys Point Provincial Park and in the Davis Lock on the Rideau Canal, recorded between 1970 and 1990.

Eastern Wood-Pewee

The Eastern Wood-Pewee is a small forest bird that grows to about 15 cm long. Adults are generally greyish-olive on their upper parts and pale on the under parts with pale bars on their wings. (MECP, 2014). The Eastern Wood-Pewee has a distinctive, clear, three-part song, usually recorded as "pee-ahwee." The Eastern Wood-Pewee lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It is most abundant in intermediate-age mature forest stands with little understory vegetation. This bird is often observed perched in an upright position. It eats mostly small, flying insects (MECP, 2014).

Snapping Turtle

Snapping Turtle prefer shallow water where they can hide under mud and leaf litter. Females travel to suitable nesting sites (gravel or sandy areas along waterways) in spring and hatchlings usually emerge the following fall (September or October.

2.3.8 Fish Habitat

Baptiste Lake provides fish habitat for a variety of fish species and is managed as a Lake Trout Lake - At Capacity by MNRF/MECP. The Department of Fisheries and Oceans (DFO) Aquatic Species at Risk Map showed no aquatic SAR or critical SAR habitat for at risk fish and/or mussel species.

Records available through the MNRF website Fish ON-Line indicate that the Baptiste Lake contains the following 15 fish species: Brown Bullhead (*Ameirus nebulosus*), Burbot (*Lota lota),* Black Crappie (*Pomoxis nigromaculatus*), Largemouth Bass *(Macropterus salmoides)*, Smallmouth Bass *(Macropterus dolomieu)*, Muskellunge (*Esox masquinongy),* Northern Pike (*Esox lucius),* Lake Trout *(Salvelinus namaycush),* Lake Whitefish *(Coregonus clupeaformis),* Cisco (*Coregonus artedi*), Pumpkinseed *(Lepomis gibbosus)*, Bluegill *(Lepomis macrochirus)*, Walleye *(Sander vitreus)*, Yellow Perch *(Perca flavescens)* and White Sucker *(Catostomus commersonii)*. This fish community is a mix of cold and warm water environments, likely due to varying lake depths and habitat types.

For development adjacent to fish habitat, development is prohibited within fish habitat areas and any development proposed on lands adjacent to identified fish habitat will demonstrate that there will be no negative impacts on the quality or capacity of the habitat lands are defined as all lands occurring within 120 m of the feature boundary, or within 300 m of a lake trout at capacity lake (Natural Heritage Reference Manual, 2005).

3.0 Field Observations

The Study Property was visited on July 7th, 2024. The purpose of the field visit was to verify information acquired through existing documentation and to gather additional Study Property-specific information. Specifically, the observation of physical and ecological relationships between the subject property and the terrestrial and aquatic habitat, documentation of additional flora and fauna, and the assessment of the Study Property for the presence of SAR and their habitat were conducted.

The Study Property consists of an existing 28 x 28' main building, a bunkie and a small shed within natural surroundings. Renovations were started during CoVid but were paused for consultation with the Municipality prior to completion (Photo 1).

3.1 Topography and Drainage

The Study Property is located on a south-facing shore of Baptiste Lake (Photo 2). Baptiste Lake is one of the larger waterbodies in the Upper Madawaska/Algonquin Highlands watershed, which contains numerous lakes & rivers within depressions of Precambrian bedrock (Table and Map A – 4.1, Hastings County Official Plan, 2018).

The Study Property has lands sloping southerly towards Baptiste Lake. The most level area is at the center where a flat area contains the current seasonal dwelling and stairs, the deck, and a small lawn area. Several rock outcrops are also present surrounding the flat central area. To the west of the dwelling, the land slopes sharply before reaching a small floating dock (Photo 3). This portion of the property has a natural shoreline. A small bunkie is set among mature trees (Photo 4). These structures are in good condition and do not interfere with the natural processes of Baptiste Lake. No drainage channels, watercourses, or areas of erosion were observed during field activities.

3.2 Wetlands

Field observations indicated that there were no areas of pooling or standing water, and there was no prevalence of species indicative of a wetland environment. As noted above, the slope of the land allows all water to drain from the Study Property with no areas to collect, and therefore no wetland community was identified on the Study Property.

3.3 Vegetation Classification

In total, one (1) distinct vegetation community exists on the Study Property. The Ecological Land Classification (ELC) System for Southern Ontario (Lee, et al., 1998) was used to classify the vegetation community on the property. Definitions of vegetation types are derived from the ELC for Southern Ontario First Approximation Field Guide (Lee, et al., 1998) and the revised tables.

3.3.1 Terrestrial Vegetation Classification

Mixed Forest EcoStudy Property Type

Mixed forest communities are characterized by tree cover of greater than 60%, with coniferous and deciduous species each making up 25% or greater of the total canopy cover. These communities succeed on a variety of substrates and exist in multiple species combinations.

Dry - Fresh White Cedar – White Birch (Paper Birch) Mixed Forest type (FOM4-1)

The canopy at the Study Property contains many mature White Birch (*Betula papyrifera),* with large-toothed aspen (*Populus grandidentata)* and Sugar maple (*Acer saccharinum)* also present. The sub-canopy is dominated by Eastern White Cedar (*Thuja occidentalis)* with many birch, and an assortment of other tree species including Eastern White Pine *(Pinus strobus),* American Basswood (*Tilia americana)*, and Eastern Hemlock (*Tsuga canadensis)*. The understory and groundcover in the area is primarily natural with some bedrock outcroppings.

3.4 Fauna

3.4.1 Fish Habitat

Fish habitat was identified around along the shoreline where Baptiste Lake consisted of water depths starting at approximately 0.5 meters dropping off to approximately two (2) meters or deeper at one (1) meter out from shore. The substrate is sand and gravel, with occasional cobble or larger boulders. No evidence of sedimentation or in-filling was noted. In-water vegetation was sparse at the time of the field investigations. There were moderate amounts overhanging vegetation from shoreline cedars and some wood cover was identified (Photo 3). No fish were observed in this area at the time of the field visit.

3.4.2 Mammals

The property is likely used by an assortment of small mammals and potentially some transiting furbearing mammals. There were no reported cases of bats using the seasonal dwelling or the outbuildings by the Client, but bats may use the shoreline or open areas for nocturnal foraging.

Due to the location of the Study Property, wildlife populations are not anticipated to be using the property as a key habitat component. There is minimal habitat available on the small property. No dens, tracks, or other evidence of wildlife was observed.

3.4.3 Amphibians and Reptiles

Suitable habitat was not found on the Study Property for amphibian breeding, although forage and cover areas were identified. No pools of standing water or wetland areas are present and there is only modest aquatic vegetation present along the shoreline. There was less available cover for turtles, although it can be assumed that they swim along the shoreline while foraging. Suitable turtle habitat exists in Baptiste Lake.

3.4.4 Birds

Eight (8) species of birds were recorded during the evening field visit, namely: Red-eyed Vireo *(Vireo olivaceus)*, Eastern Phoebe *(Sayornis phoebe)*, Song Sparrow (*Melospiza melodia*), Blue Jay *(Cyanocitta cristata)*, American Robin *(Turdus migratorius)*, Black-capped Chickadee *(Poecile atricapillus)*, Pine Warbler *(Setophaga pinus)* and Blackburnian Warbler *(Setophaga fusca)*. The subject property appears to provide suitable habitat for a selection of bird species, particularly those able to use small forest patches or lakeshore areas. Forest habitat fringes a small amount of manicured lawn, and therefore use of this area by bird species would be limited to those able to tolerate human disturbance. Existing conditions in respect to the availability of interior forest habitat are not expected to change significantly because of the development.

4.0 Evaluation of Proposed Development

The proposed development is minor in scope and consists of two extensions of the seasonal dwelling, one of 8 x 30' and another of 8 x 36' (Photos 5 and 6) for living space for the family. The existing septic will be unaffected, the current dock will continue to be used without any modification, and no mature trees exist in the footprint of the proposed additions.

4.1 Fish Habitat

Evaluation of conditions at the Study Property and available natural resources information suggest that Baptiste Lake provides habitat for an assortment of fishes. The habitat appears to be in good condition at present and capable of supporting multiple fish species.

The Study Property is currently fairly well vegetated at the water's edge with moderate tree cover between the extension areas and the water. This provides an area for any runoff to be slowed and absorbed before reaching the lake. The risk of impact can be further minimized by limiting vegetation clearing and soil disturbance as much as possible.

The extension areas are situated in the current location and there is no potential for impact due to the increase in hardened area on the Study Property. Additionally, planting native trees or shrubs along the shoreline will increase overhanging vegetation and shade for fish.

4.2 Species at Risk

The potential for the historically documented SARs recorded in the vicinity of the Study Property to be using the habitat currently available both on the Study Property and within the adjacent 120 m lands to the Study Property is summarized in Table 1.

Table 1: Potential Species at Risk Habitat Assessment in Immediate Area of the Study Property

Species at Risk	SARO	SARA	Preferred Habitat	Habitat Potential (High, Moderate, Low, None)
Wood Thrush *Hylocichla mustelina*	SC	THR	Wood Thrush live in mature deciduous and mixed forests. They seek moist stands of trees with well-developed undergrowth and tall trees for singing perches. Wood Thrush prefer large forests but will also use smaller stands of trees. They build their nests in living saplings, trees or shrubs, usually in Sugar Maple or American Beech.	**Low** on the Subject Property, as the majority is high and dry cleared space lacking mature trees or undergrowth. Use of the small amount of edge habitat present may occur
Ogden's Pondweed *Potamogeton hillii X Potamogeton zosteriformis.*.			Ogden's Pondweed has been documented from isolated alkaline lakes and rivers in Canada.	As the only confirmed populations in recent years are at Murphys Point Provincial Park and in the Davis Lock on the Rideau Canal, it is reasonable to assume that this aquatic plant is not present in the vicinity of the Study Property.
Eastern Wood-pewee *Contopus virens*	SC	SC	The Eastern Wood-Pewee lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It is abundant in intermediate-age mature forest stands with little understory.	**Low** on the Subject Property, as the majority is cleared space lacking trees, although use of the small amount of edge habitat present may occur.
Snapping Turtle *Chelydra serpentina*	SC	SC	Snapping Turtles prefer shallow water in larger bodies of lakes and ponds. Females travel overland in spring to find suitable nesting habitat (gravel or sandy areas along waterways), but will also use gravel shoulders along roads, rail lines or walkways.	**Low** for nesting habitat along the Study Property shoreline, as little gravel or sand substrate exists. Turtles may forage and rest in nearby areas of Baptiste Lake that provide more cover and food than the waters immediately adjacent to the Study Property.

*End = Endangered; THR = Threatened; SC = Special Concern

4.3 Water Resources

4.3.1 Flood Attenuation

Runoff from the Study Property may increase slightly with the expansion of impermeable surface (i.e. building roof). Measures to increase infiltration of run-off from these surfaces should be encouraged and, where possible, included for the cottage expansion. Measures may include maintaining vegetation on the adjacent slopes and increasing woody vegetation through targeted plantings. Eavestrough downspouts should be directed to grassed or vegetated areas (such as flower beds) and not onto laneways or roadways, to allow for infiltration of the run-off into the ground.

4.3.2 Water Quality

The exposure of soils during construction of the cottage expansion has the potential to result in a small amount of soil runoff to the lake. The Study Property is currently fairly well vegetated with mature tree cover between the proposed construction area and the water. This provides an area for any runoff to be slowed and absorbed before reaching the lake. The risk of impact can be further minimized by limiting vegetation clearing and soil disturbance as much as possible.

4.4 Mitigation of Anthropogenic Influences

Increases in development and human use of natural areas increase the likelihood of impacts to local ecology in a number of ways. Certain natural areas are more sensitive than others to anthropogenic pressures associated with development; dependant on area size, fragmentation and existing environmental stressors.

4.4.1 Erosion Potential

Measures should be installed between exposed soils and the lake to ensure that no soil is washed into the waterbody. Particular care should be taken to address steep slopes, potential drainage paths, and any other areas where water may channel or pool. Measures must be maintained in good working order until the area has been successfully revegetated. Any observed overland drainage channels originating from the development area, that may or may not have arisen because of erosion, should pass through a strawbale check dam and/or silt fence prior to discharge into the lake. Water entering the

lake should be clear and free of suspended sediment. Sedimentation can have severe impacts on fish habitat and spawning areas, water temperature, nutrient contributions and water clarity.

4.4.2 Noise and Artificial Lighting

Noise is not expected to significantly increase as a result of the cottage expansion. Use of this property will remain residential seasonally only and unlikely to cause additional disturbance to wildlife in the area.

Artificial lighting can have an impact on nocturnal movement of wildlife. To minimize impacts to wildlife it is recommended that outdoor lights be operated on timers, rather than by motion detection. Bulb wattage should be as low as practical while meeting the needs of the owners and intent of the lighting.

4.4.3 Invasive Species

Invasive species are becoming problematic throughout Ontario and have the ability to adversely impact our natural landscapes. Invasive species tend to spread rapidly and out compete indigenous species, resulting in the displacement of indigenous species from their ecological niche. Typically, invasive species do not have a natural predator or disease in their new environment, so populations are able to increase without significant limitation.

The species that are the most common to the area that could potentially impact this property include; dog-strangling vine (*Cynanchum rossicum*), garlic mustard (*Alliaria petiolata*), and Japanese knotweed (*Reynoutria japonica)*. The following actions are recommended to ensure that the property does not become adversely impacted by invasive species:

1. Revegetate with species native to the local area.
2. Request fill and compost from reputable sources that are conscious of the potential for the spread of invasive species via these media.
3. Get to know the most common invasive species in the area. Brush off or clean any shoes, boots and equipment that have come into contact with invasive species before returning to the property.

4. Immediately eradicate invasive species if they are observed on the property. Do not compost invasive species.
5. To avoid species introductions, do not dispose of lawn or garden clippings in the forest.
6. Use existing trails. This practice will reduce human contact with invasive species thereby reducing the potential for seeds and vegetative matter to be transported to other locations where invasive species may then become established.

Roads and trails act as conduits for the spread of invasive species and as such the spread of these species is difficult to control.

4.5 Potential Encounters with Fauna

If any future vegetation clearing on the Study Property is necessary, it should occur outside the breeding bird season, which is from May 1st to August 31st in any given year. Where feasible, construction should take place outside this period. In the event that construction is planned during the breeding season, the area should be investigated for the presence of breeding birds and nests containing eggs and/or young prior to the start of construction. Active nests should be left undisturbed until young have fledged or the nest is determined to be unsuccessful. Nesting birds are protected under the Migratory Birds Convention Act (1994).

During any future construction activities at the Study Property, the area should be checked for turtles and snakes. If any individuals are encountered, they should be photographed and allowed time to move out of harm's way. Observations should be reported to the MNRF immediately. While the Study Property does not provide ideal habitat for turtle species, the owners should be aware of the nesting season for turtles which is April 1st to October 31 of any given year.

4.6 Restoration Plantings

Plantings of woody vegetation along the shoreline of the Study Property could provide increased bank stability and infiltration of run-off, while increasing visual appeal. This will also help mitigate any resulting impacts to lake water quality from the increased cottage footprint. Plantings should occur in the spring or fall to maximize survival. The following native species are recommended as suitable for this Study Property:

- Sweet Gale (*Myrica gale*): Low shrub, 0.5 to 1.5 m tall, spreads by suckers; branches slender, ascending, brown. Leaves are firm and fragrant. It grows well on lake shores.
- Slender-leaved Meadowsweet (*Spirea alba*): This shrub produces spikes of attractive white flowers throughout the summer, attracting birds and butterflies. Meadowsweet is known to thrive on lakeshores and only reaches a maximum height of 1.0 to 1.5 meters tall preventing the obstruction of sight lines.
- Red-osier Dogwood (*Cornus stolonifera*): Damp soils, 1.5 to 2.5 m in height, full sun. Shrub has attractive red branches that are beautiful year-round. Produces clusters of white flowers in the early summer and white berries later in the summer. A very common species of shrub found along shorelines and ditches.

5.0 Recommendations

The following recommendations are applied to the proposed extensions:

1. Native vegetation surrounding the proposed building envelope should remain intact to the greatest extent possible.
2. Riparian planting of native shrubs along the lakeshore should be incorporated into the Study Property plan.
3. Machinery or construction materials should not be stored outside of the existing cleared area during the building process.
4. Recommendations to reduce the likelihood of the spread of invasive species outlined in Section 4.4.3 should be adhered to.
5. Though not identified in the field inventories, any subsequently identified Species at Risk discovered on the property will be left undisturbed as dictated by the Endangered Species Act, 2007. Be vigilant for nesting turtles as of April 1 until hatching occurs in the late fall. If any individuals are encountered, they should be photographed and allowed time to move out of harm's way. Observations should be reported to the MNRF immediately.

6.0 Closing

In conclusion, potential negative impacts to the ecological function of the Study Property associated with the proposed development as described herein, are expected to be minimal provided that the recommendations outlined in Section 4.0 are adhered to. The information presented demonstrates that the proposed expansion will not adversely affect the ecological integrity or function of the provincially significant Natural Heritage Features adjacent to the Subject Property as per guiding provincial and Municipal policies.

Respectfully submitted by:

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R4consulting@eastlink.ca

References

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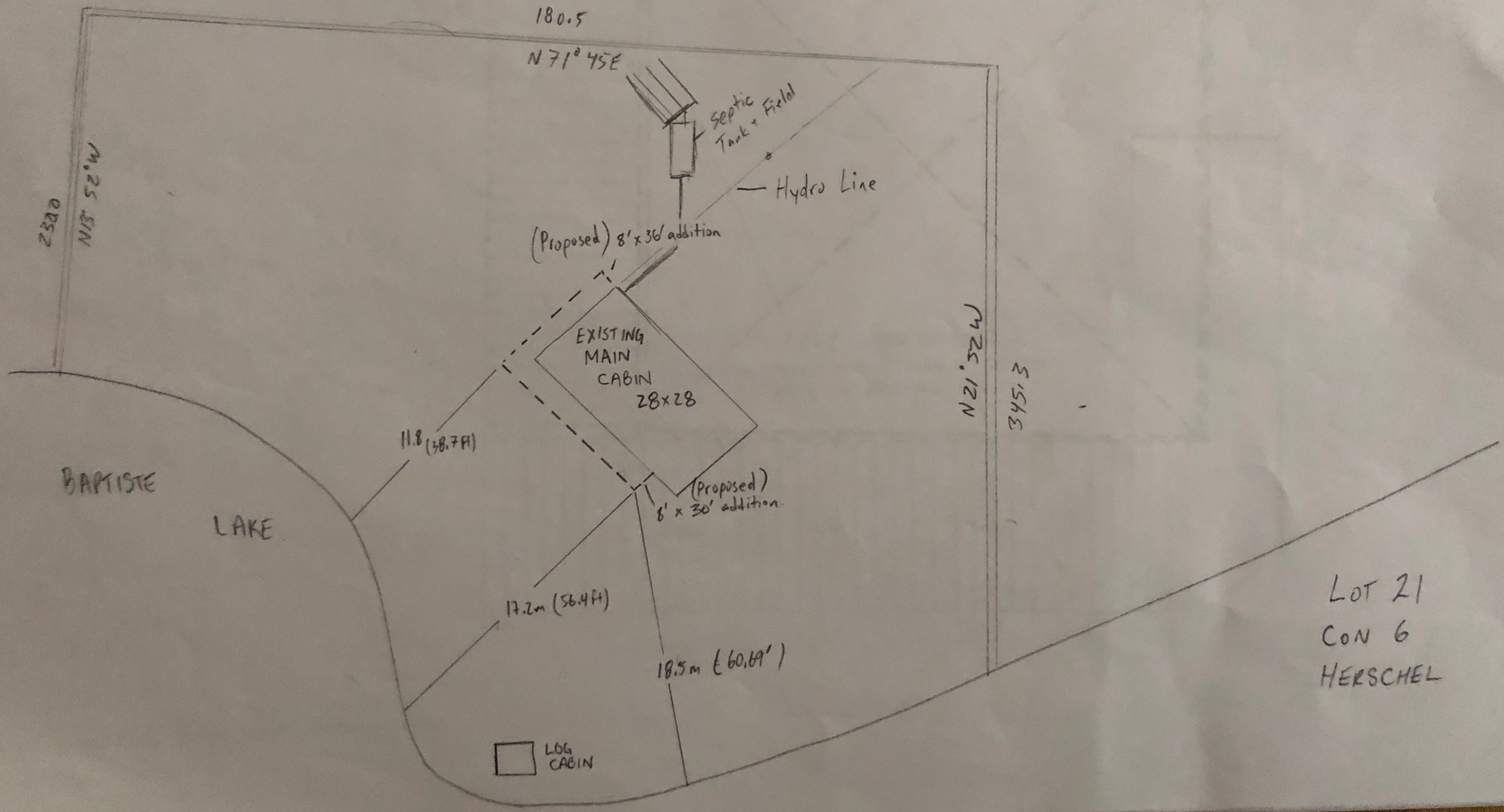
Appendix A

Site Plan, Survey Plan and Correspondence

SITE PLAN


180.5
N 71° 45E
Septic Tank + Field
Hydro Line
(Proposed) 8' x 36' addition
EXISTING MAIN CABIN 28x28
2320
N13° 52'W
11.8 (38.7 Ft)
BAPTISTE
LAKE
(Proposed) 8' x 30' addition
17.2m (56.4 Ft)
18.5m (60.69')
LOG CABIN
N21° 32W
345.3
LOT 21
CON 6
HERSCHEL

CON. VII

ALLOWANCE FOR ROAD BETWEEN CON'S VI AND VII.

CON. VI.

LOT 22

LOT 21
CON. VI
HERSCHEL

O.H.P. 3274.0

N 22°08'W

N 20°52'W

LOT LINE

IRON BAR
B.T.s.
3" Ash S.85°W 2.7
6" Pop. N.30°E 7.9

180.5

N 71°45'E

ROCKY & SANDY SOIL
LIGHT POPLAR AND BIRCH
HILLY SLOPING TO LAKE

N 13°32'W 230.0

IRON BAR
B.T.s.
5" Pop. S.70°W. 9.3
2" Pop. N.38°W. 13.4

N 21°52'W 345.3

IRON BAR
B.T.s
6" Bass S.45°E 5.4
3" Maple N.50°W 5.9

PLAN OF SURVEY
SUMMER RESORT LOCATION
PART LOT 21 CON. VI
TP. OF HERSCHEL
COUNTY OF HASTINGS
Scale: 1" = 100'

AREA 1.40 AC ±

ALLOWANCE

EXISTING HIGH WATER MARK

ORIGINAL H.W. MARK

FRONTAGE

IRON BAR
B.T.s.
8" Pop. N.68°E 3.4
6" Pop. S.30°E 3.6

FLOODED LAND

BAPTISTE LAKE

LOG CABIN 20 x 20

LOG KITCHEN 8 x 12

LOG CABIN 10 x 10

LOG CABIN 21 x 16

LOG CABIN 20 x 22

ROAD

LOG CABIN

N 21°52'W 305.0

75' 25' 25' 25' 25' 25' 25'

90' 75' 80' 88' 94'

176.0

75' 212.0

N 68°08'E

FRONTAGE 340.0 ±
AREA 1.40 AC. ±
ROCKY

PROPOSED

Ann Rocchi

From: John Jardine <jjardine@hastingshighlands.ca>
Sent: April 25, 2024 1:38 PM
To: R4consulting
Cc: Cathy Bujas
Subject: RE: CSR# 447501 - I am an environmental consultant...

Hi Ann,

As per our phone conversation:

The civic address is 697 Baptiste Shore North
Assessment Roll Number 129027801017800

Here is a link to the County GIS: Information Technology | Hastings County
I would use the Assessment Roll Number to find the property in County GIS.

Kind regards,

John Jardine
Municipal Planner
Planning Department
The Municipality of Hastings Highlands

Hastings Highlands
Beautiful By Nature

Health and Safety Excellence program Member wsib ONTARIO 2023

"Our vision is to be an enviable community, with progressive vision and financial stability, prepared for the future."

Phone: (613) 338-2811 x.244 | Fax: (613) 338-3292
W: www.hastingshighlands.ca | E: jjardine@hastingshighlands.ca

Please Note: That it is the Municipality's service target to respond to emails with an initial response within two (2) business days.

Submit a Customer Service Request

From: R4consulting <R4consulting@eastlink.ca>
Sent: Wednesday, April 24, 2024 3:54 PM

To: John Jardine <jjardine@hastingshighlands.ca>
Subject: Re: CSR# 447501 - I am an environmental consultant...

Sounds good!!

Thank you, John

Ann

- Sent from my iPhone

> On Apr 24, 2024, at 14:46, John Jardine <jjardine@hastingshighlands.ca> wrote:
>
> Hi Ann,
>
> No worries.
>
> Does 1:30pm work for you tomorrow?
>
> Kind regards,

John Jardine
Municipal Planner
Planning Department
The Municipality of Hastings Highlands

Hastings Highlands
Beautiful By Nature

Health and Safety Excellence program Member
wsib ONTARIO 2023

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Please Note: That it is the Municipality's service target to respond to emails with an initial response within two (2) business days.

Submit a Customer Service Request

From: R4consulting <R4consulting@eastlink.ca>
Sent: Wednesday, April 24, 2024 2:36 PM
To: John Jardine <jjardine@hastingshighlands.ca>
Subject: Re: CSR# 447501 - I am an environmental consultant...

Thanks, John. My daughter is having her wisdom teeth pulled tomorrow and the sedation is scheduled for 8:30.

I can't leave, so I think mid morning would be better or even in the afternoon if possible. Thank you!

Ann

- Sent from my iPhone

> On Apr 24, 2024, at 13:44, John Jardine <jjardine@hastingshighlands.ca> wrote:
>
> Hi Ann,
>
> Does tomorrow, April 25, 2024 at 9am work for you?
>
> I can call you at 705-340-3819
>
> Let me know,
>
> **John Jardine**
> Municipal Planner
> Planning Department
> The Municipality of Hastings Highlands
>
> Hastings Highlands
> Beautiful By Nature
>
> Health and Safety Excellence program Member wsib ONTARIO 2023
>
> ***"Our vision is to be an enviable community, with progressive vision and financial stability, prepared for the future."***
>
> Phone: (613) 338-2811 x.244 | Fax: (613) 338-3292

W: www.hastingshighlands.ca | E: jjardine@hastingshighlands.ca

---

From: R4consulting <r4consulting@eastlink.ca>
Sent: Monday, April 22, 2024 4:21 PM
To: John Jardine <jjardine@hastingshighlands.ca>
Subject: Fwd: Re: CSR# 447501 - I am an environmental consultant...

Good afternoon, John.

Resending the information you requested and hoping you have a window this week to address same.

Many thanks,

Ann
--
Ann Rocchi, M.Sc.
Independent Aquatic and Terrestrial Ecologist
cell: (705-340-3819)

Appendix B

Study Property Photographs

Photo 1: View of front of cottage with paused renovations. View looking north from Baptiste Lake. Photo taken July 7 2024,

Photo 2: View of Baptiste Lake from the Study Property.

View looking north. Photo taken July 7, 2024.

Photo 3: View of current wooden dock and native trees providing overhanging shade along the shoreline. View looking north. Photo taken July 7, 2024.

Photo 4: A small bunkie is situated in front of the main cottage in a stand of mature trees. View looking south towards Baptiste Lake. Photo taken July 7, 2024.

Photo 5: View of the northwest side of the main building and the partially completed 8 x 36' addition. View looking southeast. Photo taken July 7, 2024.

Photo 4: Bedrock and sparse vegetation in the area of the proposed extension to the front of the seasonal dwelling. View looking north and zoomed in. Photo taken July 7, 2024.