

# Rocky Reef Road - Scoped EIS

Geographic Township of Croft, Municipality of Magnetawan

CON 5 PT LOT 15 RP 42R11082 Part 1 PCL 25621 SS

Croft Plan 181 - LOT 9

August 2024

Project ID: 24-030



## Table of Contents

Introduction .....	3
Fish Habitat .....	4
Background .....	4
Existing Conditions .....	5
General Shoreline Features.....	5
Shoreline of South-Bay Wetland.....	7
North Shoreline.....	8
Fish Habitat Description.....	10
Fish Habitat Impact Assessment .....	11
Recommended Fish Habitat Setbacks.....	13
Stratum II Deer Wintering Habitat .....	15
Background Information .....	15
Existing Conditions .....	17
Ecological Setting .....	17
Ecosites.....	18
Stratum II Deer Wintering Impact Assessment.....	21
Summary of Recommendations.....	22
Conclusion.....	24

## Introduction

FRi Ecological Services (FRi) was retained to complete a scoped Environmental Impact Study (EIS) focusing on fish habitat and Stratum II deer wintering in support of a zoning by-law amendment for a subject property located off Rocky Reef Road in the Geographic Township of Croft, Municipality of Magnetawan (**Figure 1**). The proposed development includes a single residential dwelling, access road or driveway, a dock, and accessory structure or garage.

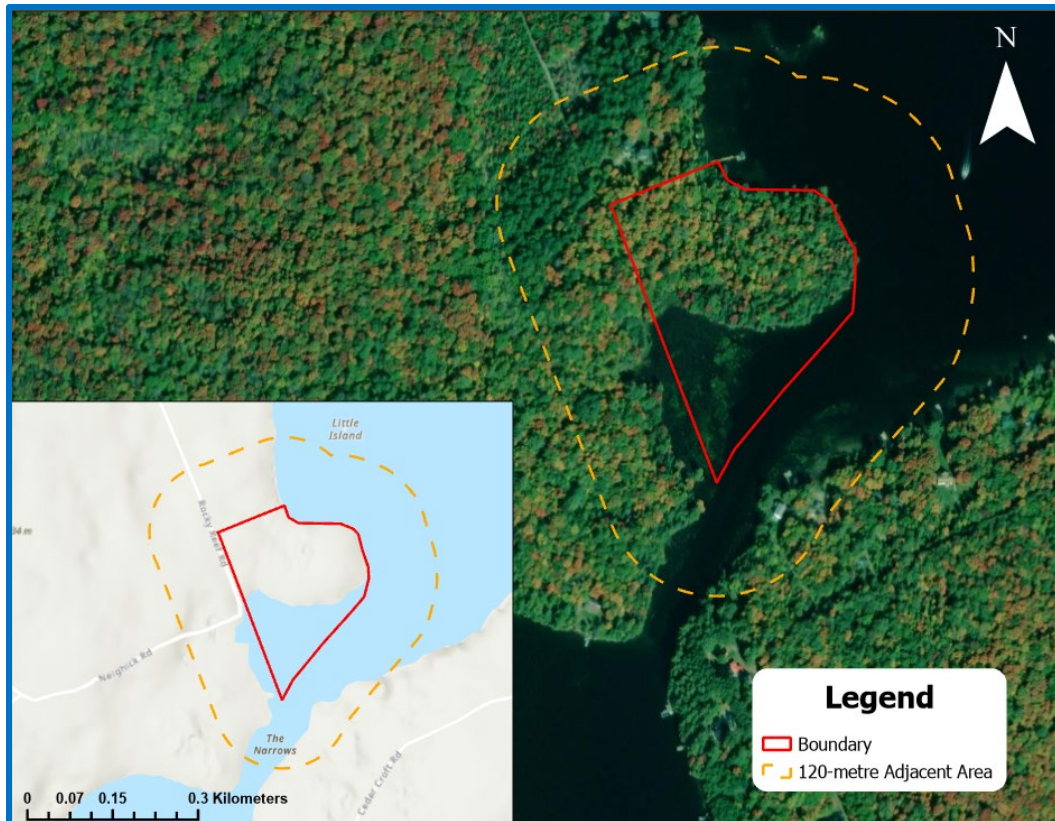


Figure 1: Location of the subject property with frontage on Ahmic Lake.

Schedule B of the Town of Magnetawan’s Official Plan (**Figure 2**) depicts a large area of Environmental Protection (EP) zoning associated with fish habitat and stratum II deer wintering habitat (**Figure 3**). This report analyzes the suitability for each habitat and provides a recommendation to refine the boundary of the EP zoning to only include the locations where habitat is present and suitable.

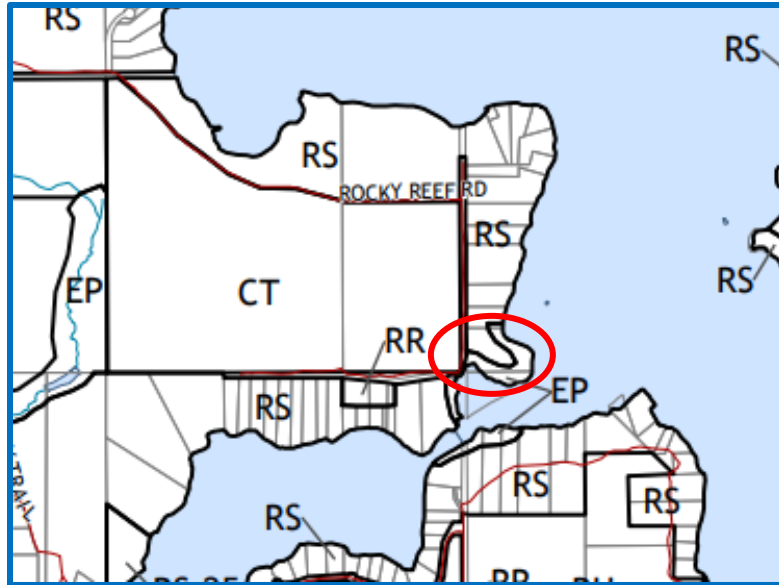


Figure 2: Schedule A of the Municipality of Magnetawan's Zoning By-law.

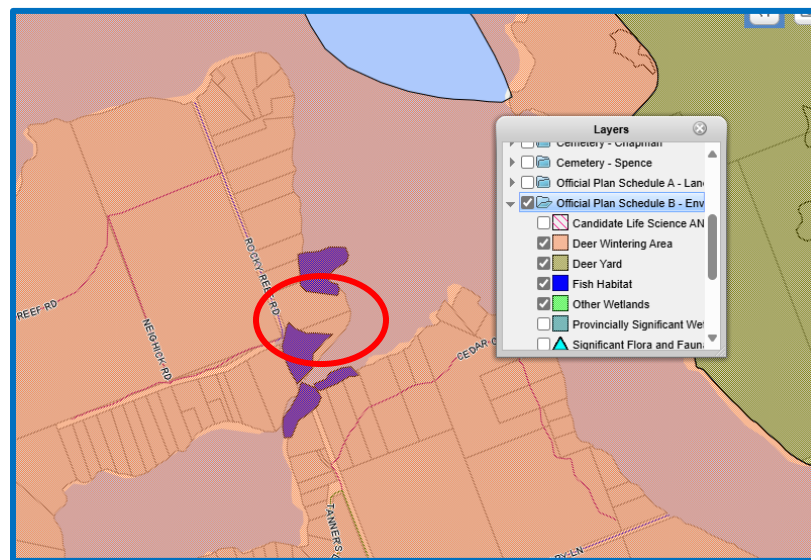


Figure 3: Overview of Schedule B of the Municipality of Magnetawan's Official Plan.

## Fish Habitat

### Background

Information obtained from the Ministry of Natural Resources and Forestry (MNR) indicates that both Type 1 and Type 2 fish habitat overlap the shoreline of the subject property (**Figure 4**). The mapped section of Type 1 fish habitat is described as follows:

*'Specialized spawning, nursery and feeding habitat.'* The habitat description describes further; *'Significant areas of emergent and submerged aquatic vegetation.'*

The Type 2 fish habitat is described as generalized habitat by the MNRF and outlined as follows:

*‘Variable; non-specialized spawning areas for centrarchids (bass), cyprinids (minnows), yellow perch, etc.; nursery areas for minnows and bass; feeding areas for pike, bass, minnows, etc.’* The habitat description describes further; *‘Highly variable; ranging from detritus substrate to small aquatic vegetation beds to rocky bedrock substrate. Generally abundant non-specific habitat utilized by a wide variety of inhabiting fish species at all or various life stages.’*

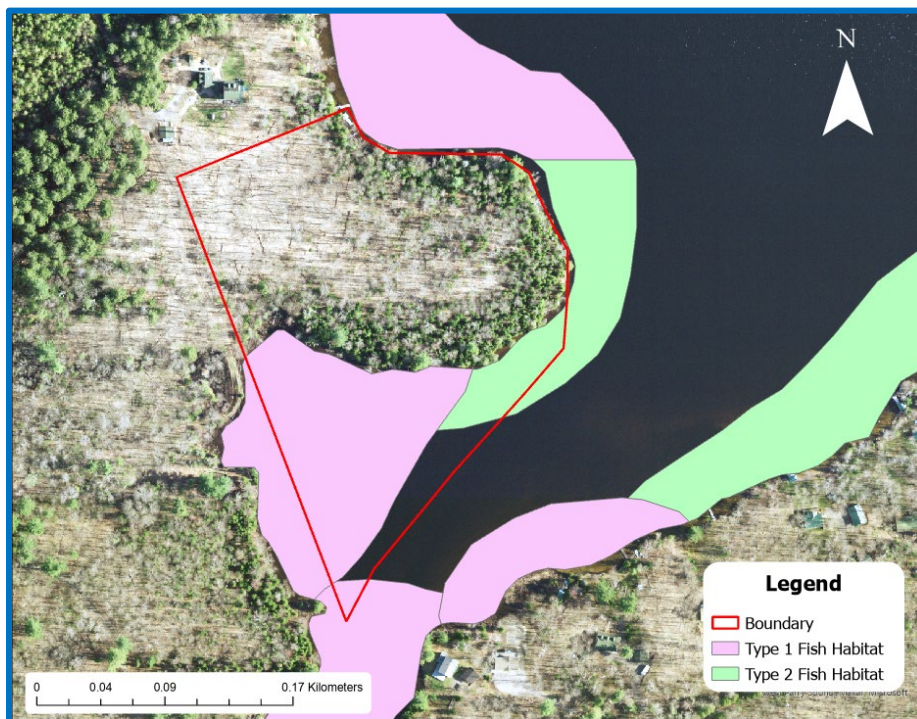


Figure 4: Overview of the fish habitat type mapped by the MNRF; subject property shown in red outline.

The extent and function of the fish habitat were evaluated by FRi field biologists during an in-person investigation that took place on June 28<sup>th</sup>, 2024. The findings of this investigation and recommendations are outlined in this report.

## Existing Conditions

### General Shoreline Features

During the in-person field investigation the shoreline area was assessed for existing conditions of the subject property. The shoreline has frontage on Ahmic Lake and consists of unconsolidated mineral material such as sand, gravel, cobble mix and sections bedrock. Moving inland from the shoreline, there is a small layer of conifer forest which transitions into a maple forest.

The substrates are variable, transitioning from a muck/detritus bottom to a fine sand, gravel, cobble mixture (**Figure 6 & 7**). Some sections of shoreline include exposed bedrock or boulder features. The majority of shoreline along the central portion of the property contains little to no emergent or submergent aquatic vegetation (**Figure 5**).



Figure 5: Overview of general fish habitat.



Figure 6 & Figure 7: Overview of the muck substrate (left) and typical shoreline composition and cobble substrates (right).

### Shoreline of South-Bay Wetland

The section of shoreline along the south end of the subject property contains an emergent marsh wetland (**Figure 8**). The bay includes dense submergent, emergent, and floating aquatic vegetation including white water lily (*Nymphaea alba*), yellow water lily (*Nuphar lutea*), pickerel weed (*Pontederia cordata*), and more. The substrates in this section include a muck/detritus bottom (**Figure 9 & 10**). Visibility to the bottom of the lake is minimal at this location due to the thick vegetative cover. Sunlight reaching the lake bottom is also likely minimized by the presence of vegetation at this location. There is a small section of upland habitat that shows evidence of seasonal flooding when water levels are higher.

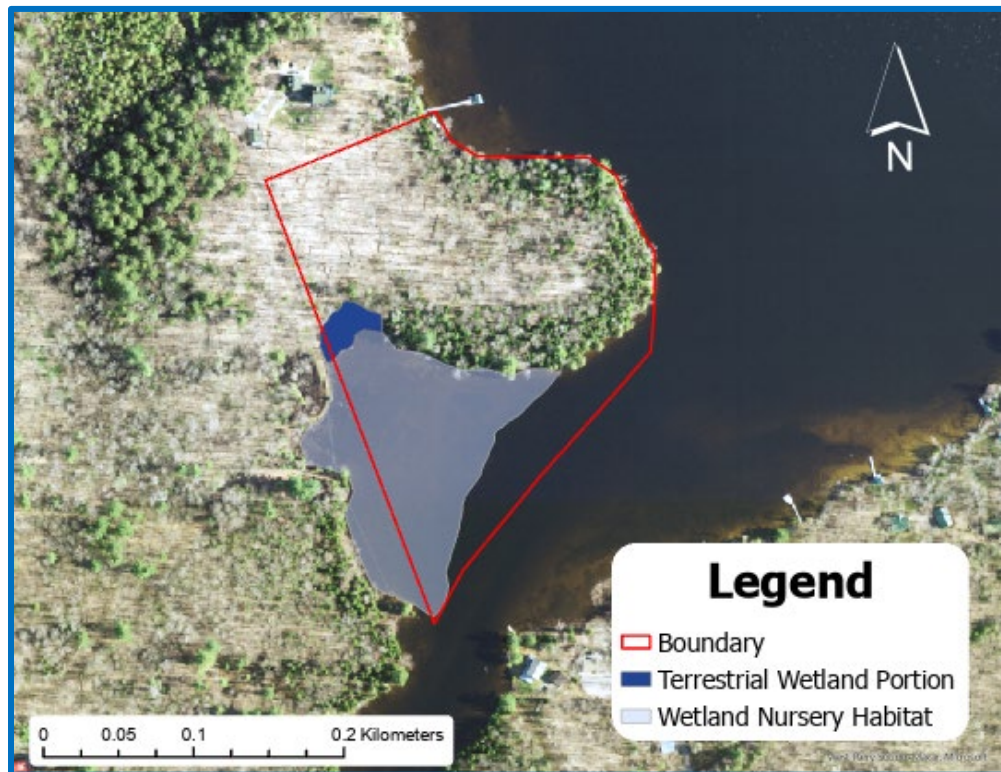


Figure 8: Overview of south-bay wetland – extent mapped by FRi field biologists.



Figure 9 & Figure 10: Representative photos of the aquatic vegetation present in the south-bay wetland.

#### North Shoreline

This north shoreline area extends towards the neighbor's existing dock (**Figure 11**). There is a small bay area which is relatively shallow with some woody debris, boulder features, and some floating aquatic vegetation (**Figure 12 & 13**). When present, vegetation was mostly composed of white-water lilies. When boulder or woody debris features were not present, the substrates were composed of a sandy – detritus mix.





Figure 11: Overview of north shoreline area referred to above.

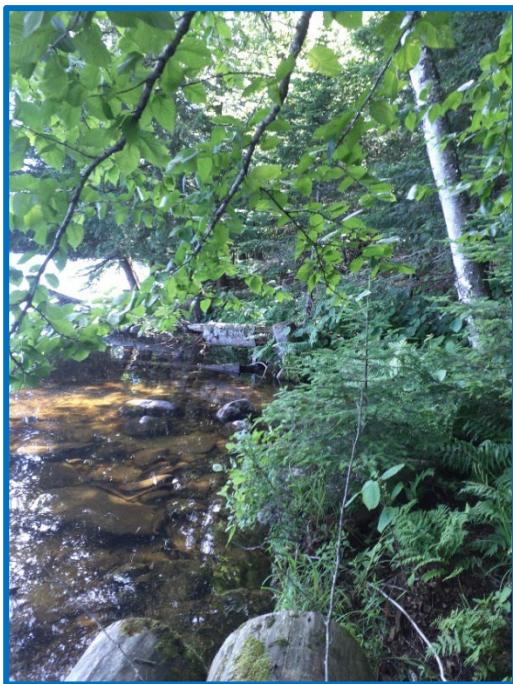


Figure 12 & Figure 13: Representative photo of the north shoreline (left) and woody debris present (right).

## Fish Habitat Description

As previously mentioned, the MNRF maps portions of the subject property's shoreline as Type 1 and Type 2 fish habitat. The Town of Magnetawan's Official Plan is concurrent with the MNRF's fish habitat mapping and indicates the same frontage area as significant fish habitat.

The Municipality of Magnetawan's Official Plan makes explicit reference to Type 1 fish habitat. The OP states:

*'Schedule B outlines areas that have been identified as Type 1 fish habitat. These areas are important feeding, spawning and nursery areas and must be protected to ensure a healthy population of sports fish in the Municipality and in the watershed.'*

*New lots fronting onto Type 1 fish habitat areas shown on Schedule B shall be sufficiently large to provide an area of at least 10 metres of frontage that is outside of the significant habitat area.'*

The Municipality's OP refers to Type 1 and Type 2 fish habitat. This classification system of fish habitat is old and no longer referenced. Fish habitat typing is an historic approach to fish habitat management dating back to the 1990's. The province has certain delegated responsibilities assigned by the federal government under the *Fisheries Act (1985)*<sup>1</sup> e.g., Fishing Regulations, but the province is not directly responsible for fish habitat protection. This falls under the purview of the federal government. The federal *Fisheries Act* is the legislation which provides protection provisions for fish and their habitat.

Sections 34.4 and 35 of the *Fisheries Act* represent the current legislative framework that protects fish and their habitat. These sections include prohibitions on activities which 'result in the death of fish' or 'result in the harmful alteration, disruption or destruction of fish habitat' (HADD). Fish habitat 'typing' is irrelevant to inform the sensitivity of a fish habitat since the *Act* prohibits both the death of fish and the harmful alteration, disruption, or destruction of fish habitat. The *Act* treats all fish and fish habitat equally – it does not differentiate or assign levels of sensitivity based on the thermal regime or species of fish present in a watercourse or waterbody.

Presently, the entire shoreline frontage of the subject property is zoned EP, however, there are two areas which provide specialized habitat for fishes (north and south shoreline/bay areas) and one which is considered general, unspecialized habitat (east-facing shoreline). For the purpose of rezoning, this report recommends the north and south shoreline, and bay areas remain zoned as EP. The east facing shoreline, the extent shown in Figure 14 below, was assessed as general fish habitat. This report recommends rezoning the east shoreline from EP to another appropriate shoreline zoning (shoreline residential) designation which permits development. This recommendation meets both the Official Plan policies related to fish habitat and

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<sup>1</sup> <https://laws.justice.gc.ca/eng/acts/f-14/index.html>

development as well as ensuring future development activities are focused away from areas of specialized habitat, consistent with the *Fisheries Act* habitat protection provisions.

The areas that offer specialized fish habitat can more appropriately be protected by providing setbacks from aquatic habitat and the shoreline. There are two areas which provide specialized habitat for fishes (north and south shoreline/bay areas) and one which is considered general, unspecialized habitat (east-facing shoreline). The north and south shoreline, and bay areas offer specialized habitat for fish. The east facing shoreline, the extent shown in Figure 14 below, was assessed as general fish habitat. This report recommends rezoning all the terrestrial lands to another appropriate shoreline zoning (Shoreline Residential) designation which permits development. Additionally, FRi recommends Schedule B of the Official Plan’s fish habitat mapping reflect the areas outlined in **Figure 14 & Figure 15**. Note that the north section of fish habitat was assessed visually from subject property as field biologists could not access neighbouring private property.

This recommendation meets both the Official Plan policies related to fish habitat and development as well as ensuring future development activities are focused away from areas of specialized habitat, consistent with the *Fisheries Act* habitat protection provisions.

### Fish Habitat Impact Assessment

As stated, Type 2 fish habitat is explained as generalized, highly variable habitat that can support multiple species of fish. In general, Type 2 fish habitat is represented in all wetted areas of lakes, rivers, and streams where fish can possibly persist. The MNRF’s description of the Type 2 habitat characterized by *detritus substrate to small aquatic vegetation beds to rocky bedrock substrate* very accurately represents what FRi observed in the field on June 28<sup>th</sup>.

A review of Land Information Ontario’s Fish ON-Line<sup>2</sup> mapping lists the following species as potentially present within Ahmic Lake:

Black Crappie	Largemouth Bass	Sauger
Brown Bullhead	Northern Pike	Smallmouth Bass
Burbot	Pumpkinseed	Walleye
Cisco	Rainbow Smelt	White Sucker
Lake Whitefish	Rock Bass	Yellow Perch

\* This list represents all species found in Ahmic Lake and is therefore not specific to the shoreline along the subject property.

FRi confirmed the absence of specialized habitat for fish such as suitable nursery and spawning areas along the east point of the subject property. The absence of aquatic vegetation coverage and appropriate substrate – rock and cobble with interstitial spaces – to protect fish eggs from predation or weather elements make this area of shoreline unsuitable for spawning or nursery

<sup>2</sup> <https://www.lioapplications.lrc.gov.on.ca/fishonline/Index.html?viewer=FishONLine.FishONLine&locale=en-CA>

life stages. Although some sections of rock and cobble are present, the cobble layer is thin overlying sandy/detritus substrates. A thick layer of cobble is required to create the interstitial spaces required to protect the eggs. Therefore, only generalized habitat is present as this location; specialized habitat is confirmed absent.

The south and north sections of the shoreline contain some suitable features for critical life processes. The north section of shoreline includes woody debris and some boulder features as well as aquatic vegetation which could be suitable for nursery or spawning habitat for some fish species. The south section of shoreline fronts the vegetated marsh which provides suitable nursery or spawning habitat for fish. Both the north and south sections of shoreline offer specialized habitat for fish (**Figure 14**). Terrestrial land does not offer suitable fish habitat and therefore should not be included in the EP zoning.



Figure 14: Overview of shoreline assessed as specialized fish habitat and general fish habitat. General fish habitat is proposed to be rezoned to shoreline residential while specialized habitat can remain under the EP zoning. All terrestrial lands above the highwater mark are also recommended to be rezoned.

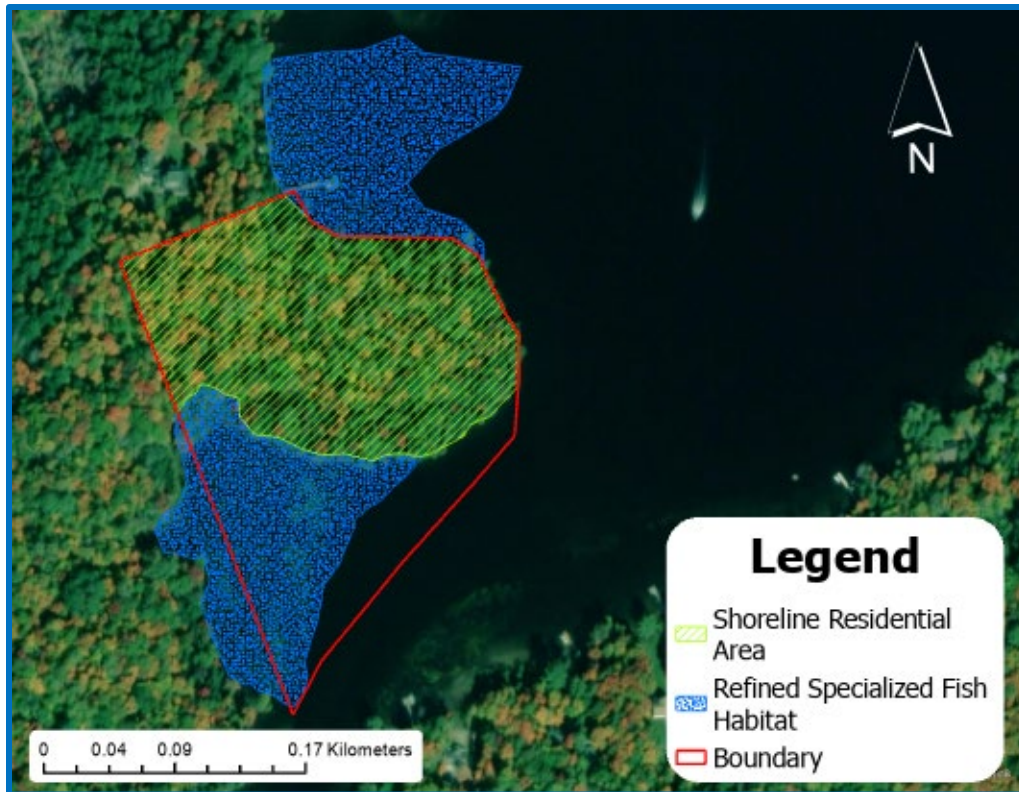


Figure 15: Recommended refinement of EP Zoning from Schedule A of Zoning By-law and Specialized Fish Habitat from Schedule B of Official Plan.

FRi recommends any water access or dock structures developed along the shoreline be located within the 160-metres of general fish habitat frontage. This report assumes water access developments will follow the size and planning requirements outlined in the Official Plan and Zoning By-law.

#### Recommended Fish Habitat Setbacks

Regarding Environmental Protection Zoning setbacks, section 5.3.3 of the Municipality of Magnetawan’s Official Plan states:

*‘Building setbacks may be imposed from the boundaries of Environmental Protection areas as found in the implementing Zoning By-law or otherwise as a result of an approved Environmental Impact Assessment. The severity of the hazard or the sensitivity of the environment shall be the determining factor.’*

FRi recommends a 30-metre setback from the shoreline fronting the mapped specialized fish habitat (**Figure 15**). The Natural Heritage Reference Manual<sup>3</sup> recommends 30-metres as the most prescriptive setback for sensitive fish habitat. Potential nursery habitat for fish is more

<sup>3</sup> Ontario Ministry of Natural Resources. March 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the provincial Policy Statement, 2005. Second Edition. Toronto: Queen’s Printer for Ontario. 248 pp

sensitive than general fish habitat; 30-metres is adequate in protecting these specialized areas for fish. Additionally, a 30-metre setback from the edge of the specialized fish habitat will protect the wetland features. The 30-metre setback was applied from the edge of the wetland and its associated floodplain delineated in the field, or the shoreline where the wetland features did not extend inland.

Section 4.10 of the Municipality of Magentawan’s Official Plan considers adjacent lands as 120-metres from Provincially Significant Wetlands (PSW) or unclassified wetlands in excess of 0.8 ha. The wetland within Ahmic Lake is not a PSW but it is in excess in 0.8 ha and therefore was considered in the recommendations. A 30-metre setback is adequate in protecting the function and values associated with a lacustrine wetland and adjacent features to the immediate south. Dock and/or water access is permitted within planning documents and should occur within general fish habitat, not within the specialized fish habitat and shoreline area or its associated 30-metre setback.

Additionally, the species listed in Table 1, represent a coolwater community. FRi recommends a 20-metre setback from the shoreline fronting general fish habitat (**Figure 16**). This is consistent with the Natural Heritage Reference Manual’s recommendation for coolwater systems.

Section 4.3 of the Official Plan regarding surface water quality states:

*‘Septic systems shall be located at least 30-metres from a watercourse or waterbody, ...’*

to comply with the Official Plan, development of the septic system, including the tank and field bed, should occur 30-metres from the highwater mark of Ahmic Lake (**Figure 16**). The OP suggests an engineer or other qualified professional determine the highwater mark on the shoreline of Ahmic Lake; the approximated setback shown in **Figure 16** should be verified in the field as per the Official Plan.

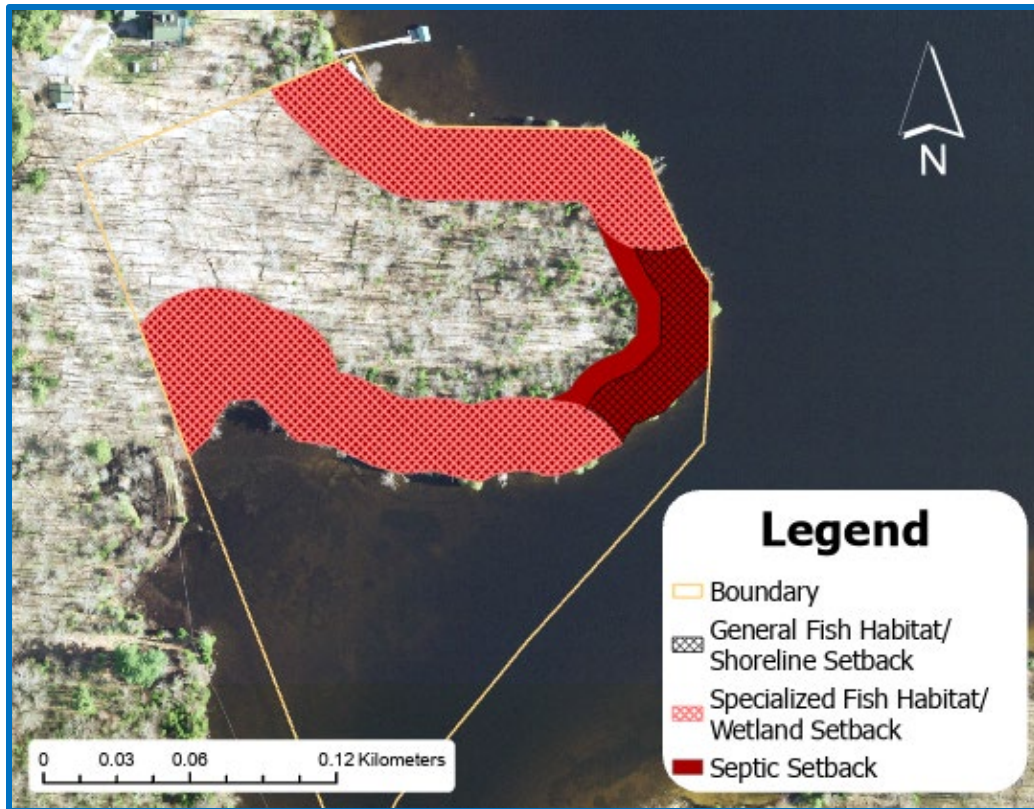


Figure 16: Recommended setbacks from shoreline.

In summary, FRi recommends that approximately 160-metres of shoreline frontage be rezoned from EP to shoreline residential. The development of recreational amenities and water access should be restricted to the 160-metre RS frontage. In addition, FRi recommends a 30-metre development setback from the specialized fish habitat, and 20-metres from the general fish habitat shoreline areas. The septic system should be setback at least 30-metres from the shoreline or highwater mark. With the recommended setbacks implemented, an area of approximately 1.63 ha is available to select a development envelope.

## Stratum II Deer Wintering Habitat

### [Background Information](#)

The subject property is overlapped by Stratum II deer wintering area. These areas are identified by the Ministry of Natural Resources and Forestry and are reflected in municipal planning documents (**Figure 16**).

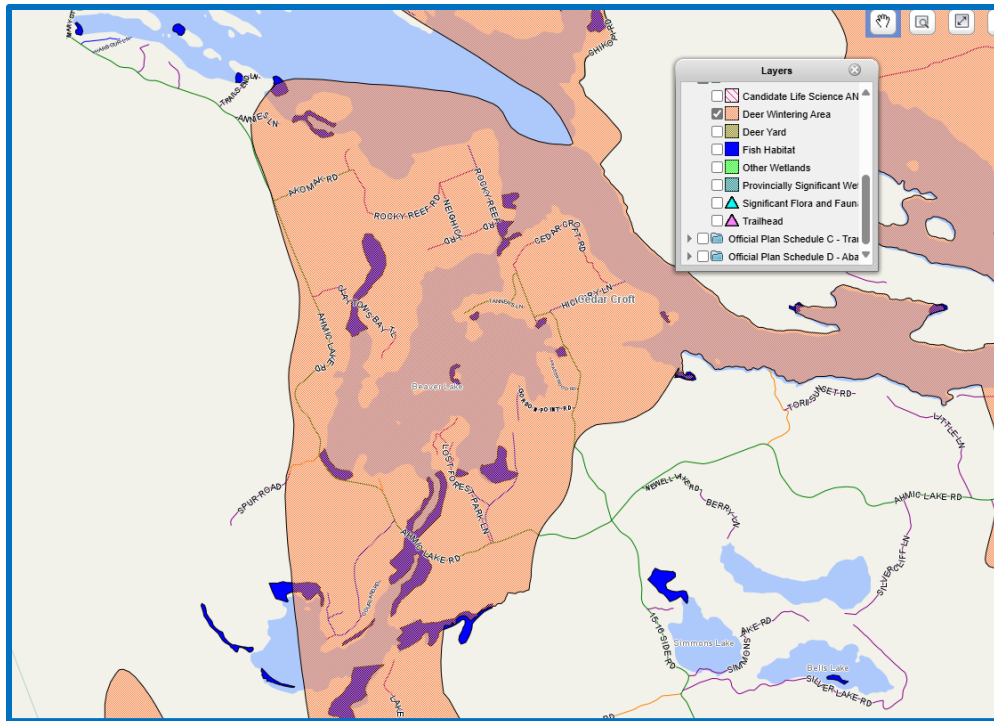


Figure 17: Overview of Schedule B the Municipality of Magnetawan’s official plan – deer wintering habitat.

The Significant Wildlife Habitat Criteria Schedules for Ecoregion 5E<sup>4</sup> (SWHCS) and the Significant Wildlife Habitat Mitigation Support Tool<sup>5</sup> (SWHMIST) provide details on the function and composition of winter concentration areas for white-tailed deer. Deer wintering or yarding areas are areas where deer move at the onset of cold temperatures and snow. The ‘yard’ is further classified into two distinct stratum, referred to as stratum I and stratum II.

Stratum I represents the ‘core’ of the yard; areas where deer will concentrate during the winter when snow depths reach 30+ cm. Stratum I areas are critical for survival during the winter and are primarily composed of coniferous trees (pine, hemlock, cedar, spruce) with a canopy coverage of more than 60%.

Stratum II is typically a deciduous or mixed forest with abundant woody browses available for food. Deer move into stratum II areas in the fall and early winter, usually when snow depths reach 20 cm. Deer use the stratum II habitat to move to stratum I habitats during the winters with heavier snowfalls: stratum II functions as a staging and movement area.

<sup>4</sup> Significant Wildlife Habitat Criteria Schedules for Ecoregion 5E, January 2015, Ontario Ministry of Natural Resources and Forestry. 46 pp.

<sup>5</sup> Significant Wildlife Habitat Mitigation Support Tool, Version 2014. Ontario Ministry of Natural Resources and Forestry. 533 pp.



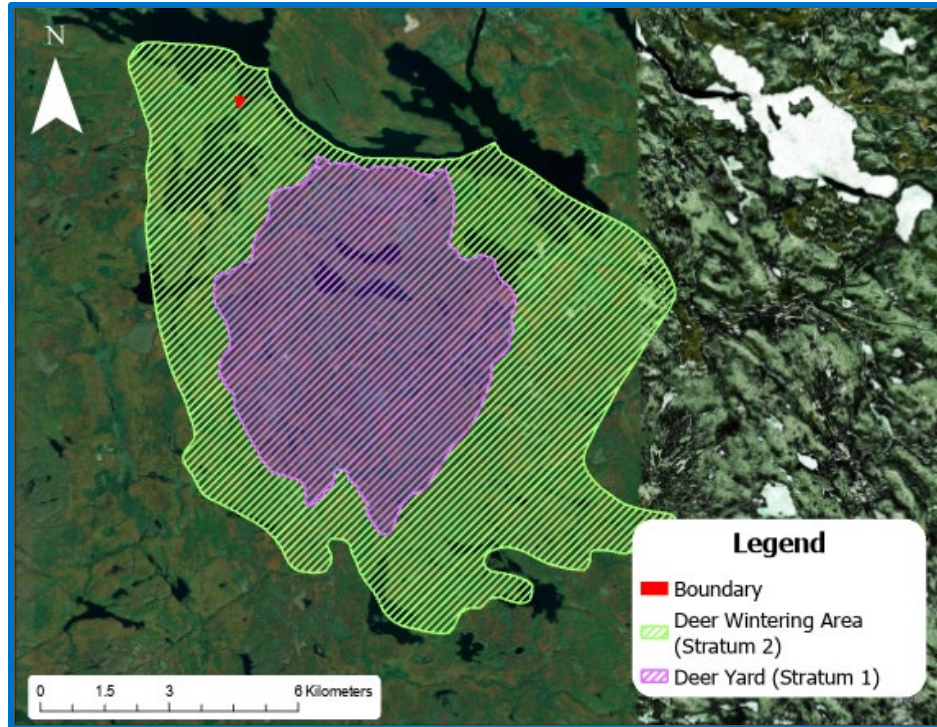


Figure 18: The subject property is entirely within stratum II deer wintering area of the Oranmore Deer Yard.

In Northern Ontario, Stratum II habitat staging areas are on lands surrounding core wintering areas. According to the SWHMIST, single-lot development is not expected to have significant or serious impacts on deer wintering habitat or its function.

### Existing Conditions

To aid in determining potential impacts and the suitability of the subject property to offer stratum II deer wintering habitat, an assessment of the ecological land classification or ecosites on the subject property was undertaken. Ecosites help determine the vegetation community present on the property and by extension features such as conifer cover and snow interception for deer yarding.

### Ecological Setting

The subject property is within the Ontario Shield Zone, Georgian Bay Ecozone (5E). This ecozone occupies more than half of Ontario and contains both boreal forest and non-boreal Great Lakes – St. Lawrence Forest regions. It experiences long cold winters and short warm

summers. There are a wide range of temperatures, precipitation, and diverse surficial geology and substrates, as well as complex drainage patterns.<sup>6</sup>

It is more specifically within the Huntsville Ecodistrict (5E-8). The climate in this ecoregion is cool temperate and humid; with mean annual temperatures ranging from 2.8 to 6.2°C and a growing season between 183 and 219 days. Mean precipitation ranges between 771 and 1134 annually.

The Huntsville Ecodistrict is situated on the southern edge of the Precambrian Shield and is comprised of gneissic and granitic bedrock. Exposed bedrock is common, as is bedrock covered by limited unconsolidated matter; reflecting the bedrock-controlled geology of the region. There are localized pockets of clay and silt scattered throughout the ecodistrict; wetlands are present in lower areas adjacent the upland bedrock knobs. The forest composition in this region is dominated by mixed forest with pure deciduous and coniferous stands.

### Ecosites

There are three (3) ecosites on the subject property (**Figure 18**) and two (2) other ecosites within the 120-metre adjacent area. The adjacent ecosites will not be impacted by development and therefore will not be discussed in detail but may provide context for deer wintering habitat. Additionally, only the terrestrial ecosites will be discussed as they relate to deer wintering. The lake and marsh wetland do not provide stratum I or stratum II deer wintering habitat and therefore are not discussed in this section. Ecosites that were located within the 120-metre adjacent area were assessed from the subject property or using digital imagery to avoid trespassing on other private property.

The two (2) ecosites present on the subject property include:

- G066Tt – Very Shallow, Humid: Hemlock – Cedar Conifer
- G073Tt – Moist, Coarse: Sugar Maple Hardwood

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<sup>6</sup> Crins, William J., Paul A. Gray, Peter W. C. Uhlig, and Monique C. Wester. 2009. The Ecosystems of Ontario, Part 1: Ecozones and Ecoregions. Ontario Ministry of Natural Resources, Peterborough Ontario. Inventory, Monitoring and Assessment, SIV TER IMA TR-01, 71pp.

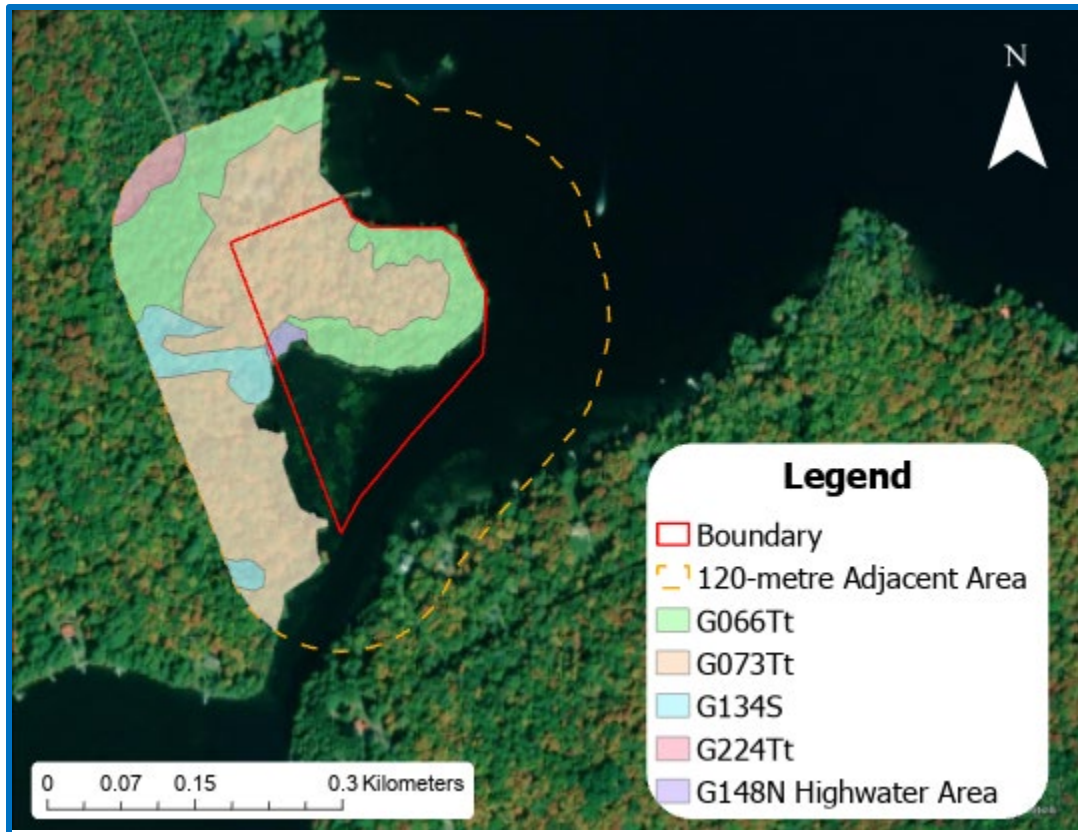


Figure 19: Overview of terrestrial ecosites overlapping the subject property and 120-metre adjacent area.

*G066Tt – Very Shallow, Humid: Hemlock – Cedar Conifer*

The conifer ecosite creates a thin band along the shoreline of the property (**Figure 19 & 20**). This ecosite has mostly deep mineral soils (>15cm) but also contains some shallow locations with white pine (*Pinus strobus*) present. However, these shallow areas are sparse with only a few white pine present and therefore the deeper soils are better representative of the area.

The G066Tt ecosite transitions from an Eastern white cedar (*Thuja occidentalis*) and Eastern hemlock (*Tsuga canadensis*) dominant along the shoreline to a balsam fir (*Abies balsamea*) dominant canopy inland. Other species periodically present in the canopy include yellow birch (*Betula alleghaniensis*), white birch (*Betula papyrifera*), white pine, and sugar maple (*Acer saccharum*). The understory is dominated by balsam fir. The shrub and herb layers were poor with deciduous leaf litter as ground cover. There are occasional patches of hobblebush (*Viburnum lantanooides*) in the shrub layer.



Figure 20 & Figure 21: Overview of conifer vegetation (left) and cedar dominant shoreline (right).

*G072Tt – Moist, Coarse: Sugar Maple Hardwood*

The hardwood ecosite is located upland of the conifer ecosite and shoreline and encompasses the remaining area of the subject property as well as some of the 120-metre adjacent lands (**Figure 21 & 22**). The soils are a coarse loam with variable stones at the surface.

The canopy of the hardwood ecosite is dominated by sugar maple, but also contain species such as American basswood (*Tilia americana*), yellow birch, white birch, and American Beech (*Fagus grandifolia*). Sugar maple is the dominant species in the understory. The shrub layer varies from moderate to poor while the herb layer is consistently poor. Species in the shrub and herb layer include sapling sugar maple, hobblebush, spinulose wood fern (*Dryopteris carthusiana*), trillium (spp.), Canada mayflower (*Mianthemum canadense*), mayapple (*Podophyllum peltatum*), wild sarsaparilla (*Aralia nudicaulis*), rose twisted stalk (*Streptopus lanceolatus*), and ground pine (*Lycopodium obscurum*). There are various species of mosses growing on the rocks exposed at the surface.



Figure 22 & Figure 23: Overview of the shrub and herb layer (left) and canopy closure (right).

### Stratum II Deer Wintering Impact Assessment

As stated above, the SWHMIST guide states that single-lot development is not expected to have significant or serious impacts on deer wintering habitat and its function in Northern Ontario. The subject property contains very minimal evidence of deer presence. When deer are present, there is often evidence of hyper-browsing or compacted animal trails. FRi biologists found a single compacted trail and minimal evidence of browse.

As stated in the ecosite descriptions, the G073Tt sugar maple ecosite contains a moderate to poor shrub layer and poor herb layer. These vegetative layers are important for stratum II deer wintering habitat as they provide food sources for deer before snow depths accumulate. Deciduous tree species do not provide any snow interception as they lose their leaves in the winter.

The G066Tt ecosite contains some species that have the ability to intercept snow including Eastern hemlock, Eastern white cedar, and balsam fir. Snow interception is more important for stratum I habitat than stratum II habitat as this impacts the snow accumulation. Stratum II habitat is used prior to large accumulations of snow regardless of interception species. The shrub and herb layer in the conifer ecosite is also poor, with almost no shrubs observed to offer browse.

Section 4.6 of the OP provides context for general recommendations related to development on new lots outside of the most significant deer wintering habitat areas. The subject property is an existing lot; the following excerpts were included to provide context for general OP direction:

*‘Within the significant deer habitat areas shown on Schedule B new lots should avoid areas of dense conifer cover or be of a sufficient size to provide a suitable development area including access and services, outside the most significant deer wintering habitat areas described above’*

*‘Where deer wintering habitat is restricted to a narrow fringe along the lakeshore there should be a minimum of 120-metres shoreline frontage as per Section 5.3.2. Where any development is proposed within significant deer wintering habitat Council will require the submission of an Environmental Impact Assessment Report including a wildlife habitat assessment prepared by a qualified biologist. The recommendations of that report will be implemented through site-specific zoning and site plan control to ensure that no negative impacts will occur.’*

In the absence of suitable browse materials, poor connectivity to adjacent conifer or mixedwood stands, and the relatively small size of the property within the Oranmore deer yard, it is in FRI’s opinion that none of the terrestrial lands on the subject property offer significant features for deer wintering to support their long-term persistence and should not be afforded EP (environmental protection) zoning. FRI recommends that the Environmental Protection zoning overlapping the subject property be re-zoned to Shoreline Residential.

## Summary of Recommendations

FRI assumes that the proponent will respect all planning processes outlined in the Official Plan and Zoning By-law regarding size requirements and yard setbacks. The following recommendations are to mitigate impacts specific to fish habitat and deer wintering for residential development structures on Rocky Reef Road:

- A 30-metre development setback from specialized fish habitat and EP areas and a 20-metre development setback from general fish habitat.
  - The development of a dock, boathouse, water access, etc. should follow the Department of Fisheries and Oceans Canada’s (DFO) published Code of Practice:
    - <https://www.dfo-mpo.gc.ca/pnw-ppe/codes/interim-provisoire/docks-moorings-boathouses-quais-amarrages-hangars-bateaux-eng.html#3.0>
  - If the development of a dock or other shoreline development cannot follow the codes of practice outlined in the link above, a Request for Review should be submitted to DFO:
    - <https://www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/request-review-demande-d-examen-004-eng.html>
- Timing of tree clearing and vegetation removal for the development envelopes restricted to October 1<sup>st</sup> through March 31<sup>st</sup> of any given year to protect breeding birds, bats, and other wildlife values.

- Delineate development areas to minimize disturbance to adjacent undeveloped areas on the subject property.
- FRi recommends that the Environment Protection Zoning be re-established by the Municipality to match the sensitive fish areas depicted in **Figure 15** and attached below. Terrestrial environmentally sensitive habitats are absent from the property and therefore do not require EP zoning status. Specialized habitat for fish is present; these sections of shoreline extending into the water could be zoned EP or be adequately protected by specialized fish habitat mapping in Schedule B of the Official Plan. This is up to the municipality's discretion.

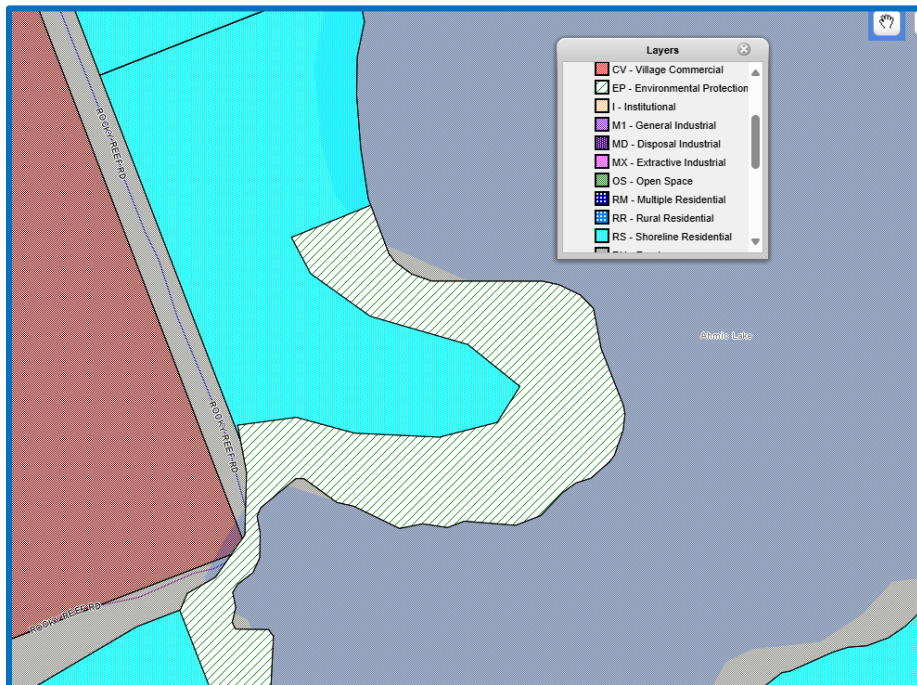


Figure 24: EP-Zoning mapped on Schedule A of the Municipality of Magnetawan's Zoning By-law.

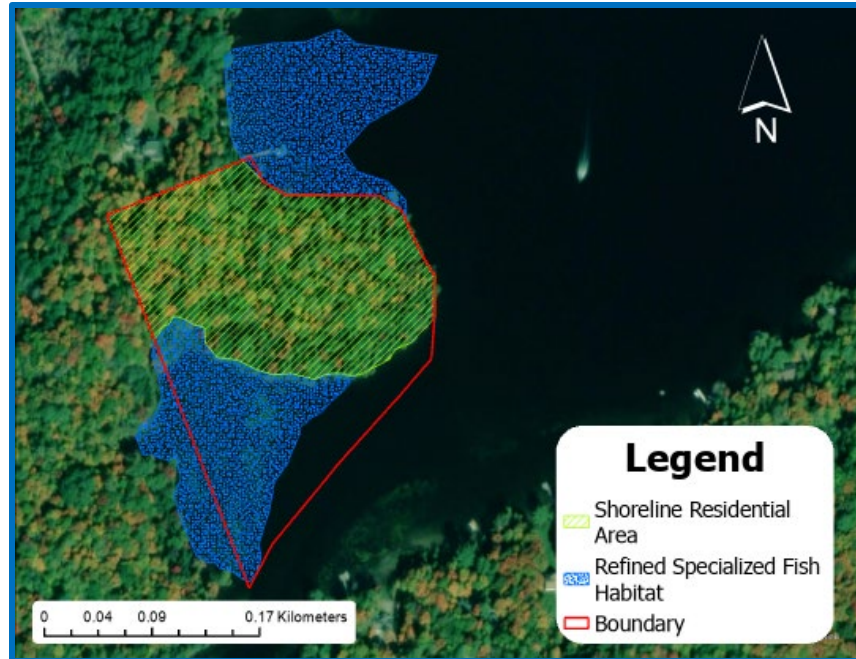


Figure 15 (referenced from above): Recommended refined zoning and/or updates to Schedule B of the Municipality of Magnetawan’s fish habitat mapping.

## Conclusion

The field investigation and report support the rezoning of all identified terrestrial upland areas on the subject property from EP (Environmental Protection) to RS (Shoreline Residential) (**Figure 15**). Deer wintering habitat was deemed absent from the subject property supporting the rezoning. The specialized fish habitat will be adequately protected by a 30-metre development setback and the general fish habitat and shoreline features will be protected by a 20-metre development setback.

A building envelope would be appropriate outside of the recommended fish habitat and shoreline setbacks. The placement of the septic system outside of the 30-metre setback from the highwater mark should also be appropriately considered.

The location of a dock and shoreline access/activity area is recommended to occur within the 160-metres of shoreline outside of the specialized fish habitat (**Figure 14**).

In conclusion, the proposed rezoning and recommended development setbacks will protect the identified fish habitat and wetland while providing appropriate zoning for areas of the property to facilitate residential development.



Respectfully submitted,

A handwritten signature in black ink that reads "Katie Schankula". The signature is written in a cursive, flowing style.

Katie Schankula

Field Biologist