

Technical Memorandum

Project: SEC 23-047 Military Road
Date: June 30, 2023
To: Gerard Forget, Landowner
From: Cassandra Fligg, Environmental Consultant
Re: Ecologist Letter for 120 Military Road, Penetanguishene

Background, Purpose and Authorization: Sumac Environmental Consulting (Sumac) was retained by landowner, Gerard Forget, to prepare a letter, including a site visit and Species at Risk (SAR) Habitat Assessment in support of a proposed development at 120 Military Road, Penetanguishene (hereinafter referred to as the “subject property”). It is our understanding that the landowner wishes to place a temporary garden suite and septic on the subject property in an existing clearing adjacent to the driveway. Moreover, minor grading will be required to facilitate the proposed development. For the purpose of the letter, the study area has been scoped to the front 120 m of the subject property extending from Military Road (Attachment 1 – Existing Conditions). The main objective of the investigation was to identify candidate natural heritage features in the study area and recommend mitigation measures to avoid negative impacts to said features.

Report Summary: Sumac staff, Cassandra Fligg, completed a site visit on June 28, 2023 at the subject property to assess for the presence of natural heritage features and perform an Ecological Land Classification (ELC) exercise. Candidate significant woodland, wetland and water feature were identified in the study area and mapped accordingly (Attachment 1 – Existing Conditions). The portion of candidate significant woodland that extended onto the study area was comprised of the FOD5-1, FOD8-1, FOMM2-4 and SWD4-3 communities. The portion of candidate wetland that extended onto the study area was comprised of the SWD4-3 community. The portion of the subject property that included a single-family dwelling, accessory buildings/structures, mown lawn and landscape trees was characteristic of an anthropogenic community and has been given the descriptor of ‘Maintained Area’. The existing clearing adjacent to the driveway has been mapped for reference. The clearing consisted of woodchips and sparsely vegetated forbs at the groundfloor and was bordered by a variety of mid-aged tree species (e.g., Eastern white pine, sugar maple) and young tree species (e.g., American beech, basswood, ash sp., large tooth aspen). An image gallery of the clearing has been provided for reference (Attachment 2 – Image Gallery). A Species at Risk (SAR) Habitat Assessment was completed to identify the presence/absence of candidate SAR habitat in the study area (Attachment 3 – SAR Habitat Assessment). The results of



the SAR Habitat Assessment indicate that the following SAR and their habitat have the potential of occurring in the study area: Eastern wood-pewee, red-headed woodpecker, wood thrush, monarch, little brown myotis, Northern myotis, tri-colored bat, Blanding's turtle, common five-lined skink and Massasauga.

The following mitigation measures are recommended to mitigate negative impacts to candidate significant woodland, wetland, water feature and SAR habitat:

- **Perimeter Control (1):** Tree preservation hoarding is recommended to protect the candidate significant woodland feature. The fence should be erected prior to the onset of siteworks and must remain in place for the duration of all construction activity. The recommended location of the fence is depicted on Attachment 4. There should be no disturbance beyond the limits of tree preservation hoarding (e.g., digging, trenching, compaction, changes in grade or other soil disturbance). Fill should never be placed beyond the limits of the tree preservation hoarding. We recommend diligent monitoring of said fence throughout the entirety of the development to ensure the integrity of the fence does not fail.
- **Perimeter Control (2):** Wildlife exclusion fencing consistent with provincial guidance and best practices as described herein is recommended to prevent entry of SAR reptiles known to occur in the local area to the construction area. The fence should be erected prior to the onset of siteworks and must remain in place for the duration of all construction activity. The recommended location of the fence is depicted on Attachment 4. The wildlife exclusion fence should be installed with turn-arounds to assist in redirecting wildlife away from the construction site. A light-duty geotextile fencing material (e.g., nylon material with wooden stakes pre-attached at 2 m to 3 m intervals) should suffice given the anticipated duration of construction. The stakes should be driven into the ground to a depth of 30 cm and installed on the activity side. The fence should be buried a minimum depth of 10 – 20 cm with a horizontal lip extending outward an additional 10 to 20 cm. The minimum height of the fence after it has been installed including the buried components and any installed overhangs or extended lips is 60 cm. The overhang or lip should point towards the species side. Backfill and compact soil along the entire length on both sides of the fence. A survey of the enclosed/secluded area should be conducted immediately following fence installation to ensure that no individuals have been trapped on the wrong side of the fence. We recommend diligent monitoring of said fence throughout the entirety of the development to ensure the integrity of the fence does not fail.
- **Preventing Entry of Deleterious Substances in Aquatic Features:** All machinery should be kept in a clean condition and free of fluid leaks. Washing, fueling and servicing machinery should not be completed in or near (i.e., up to 30 m) the identified wetland and water feature.
- **Relocating Basking Habitat Features:** All basking habitat features identified in the clearing (e.g., logs) that are located in the footprint of the proposed development should be relocated to the CUW1 community in an open area that receives all-day sun exposure.



- **Wildlife Encounters:** Any wildlife encountered during site clearing or subsequent construction activities should be allowed to exit the site on their own, via safe routes. Construction staff should not attempt to capture or handle most kinds of wildlife, unless an animal is in imminent peril or is injured and cannot wait for rescue by qualified personnel. Improper handling can result in injuries to both workers and wildlife, and may in some cases contravene provincial or federal legislation. Removal and relocation of mammals, in particular, should only be done by qualified wildlife service providers working in accordance with applicable laws (i.e., *Fish and Wildlife Conservation Act*).

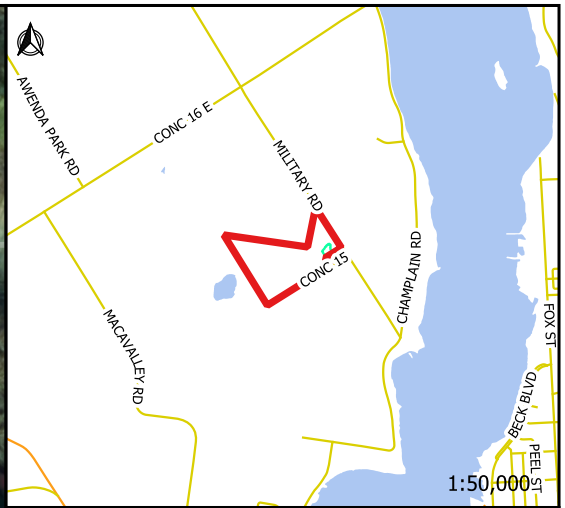
Conclusion: Candidate significant woodland, wetland and water feature were identified in the study area and mapped accordingly (Attachment 1 – Existing Conditions). The SAR Habitat Assessment identified habitat of the following species as having potential to occur on the subject property Eastern wood-pewee, red-headed woodpecker, wood thrush, monarch, little brown myotis, Northern myotis, tri-colored bat, Blanding’s turtle, common five-lined skink and Massasauga. The mitigation measures as outlined in the Report Summary and depicted on Attachment 4 – Proposed Development should be carried out accordingly to mitigate negative impacts to candidate significant woodland, candidate wetland and SAR.

Attachment 1 – Existing Conditions

Attachment 2 – Image Gallery

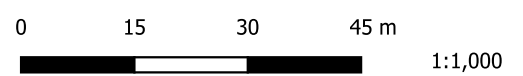
Attachment 3 – SAR Habitat Assessment

Attachment 4 – Proposed Development



Legend

- Subject Property
- Study Area
- Wetland
- Water Feature
- Approximate Woodland Dripline
- ELC Vegetation Communities
- CUW1** Mineral Cultural Woodland Ecosite
- FOD5-1** Dry - Fresh Sugar Maple Deciduous Forest Type
- FOD8-1** Fresh - Moist Poplar Deciduous Forest Type
- FOMM2-4** Dry-Fresh White Pine - Early Successional Forest Type
- SWD4-3** White Birch - Poplar Mineral Deciduous Swamp Type



Attachment 1: Existing Conditions



Designed by: N.F.
Date: 06/30/2023
Project: SEC 23-047



Clearing, facing west.



Clearing, facing north.



Clearing, facing south.



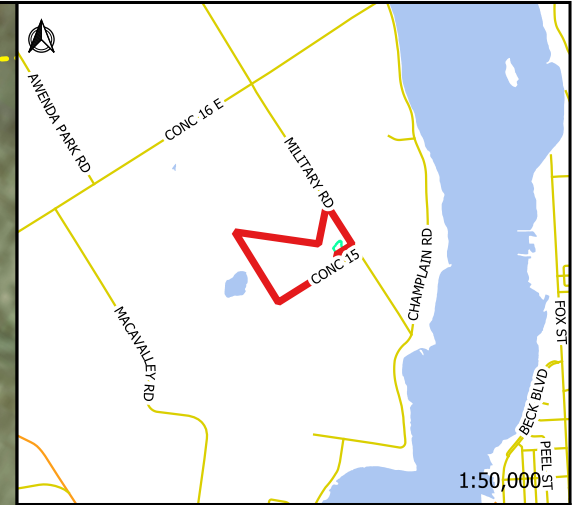
Clearing, facing east.

Species Grouping	Common Name	Scientific Name	Provincial Status ^A	Federal Status ^B	SAR Habitat Assessment
Birds	Bald Eagle	<i>Haliaeetus leucocephalus</i>	Special Concern	Not at Risk	Absent. No candidate bald eagle nests or nesting sites observed in the study area.
Birds	Bank Swallow	<i>Riparia riparia</i>	Threatened	Threatened	Absent. No candidate nesting sites for bank swallow observed in the study area.
Birds	Black Tern	<i>Chlidonias niger</i>	Special Concern	Not at Risk	Absent. No suitable marshes were identified in the study area.
Birds	Canada Warbler	<i>Cardellina canadensis</i>	Special Concern	Threatened	Absent. No forest types with key habitat features identified in the study area.
Birds	Cerulean Warbler	<i>Setophaga cerulea</i>	Threatened	Endangered	Absent. No suitable forest types identified in the study area.
Birds	Chimney Swift	<i>Chaetura pelagica</i>	Threatened	Threatened	Absent. No suitable chimney observed on the existing structures in the Maintained Area during Sumac's investigation.
Birds	Common Nighthawk	<i>Chordeiles minor</i>	Special Concern	Special Concern	Absent. No suitable area with little to no vegetation identified in the study area.
Birds	Eastern Whip-poor-will	<i>Antrostomus vociferus</i>	Threatened	Threatened	Candidate. Eastern whip-poor-will have the potential of nesting in the significant woodland feature and foraging above the clearing at the rear of the subject property.
Birds	Eastern Wood-pewee	<i>Contopus virens</i>	Special Concern	Special Concern	Candidate. A single Eastern wood-pewee was heard calling in the FOD5-1 community during Sumac's investigation. The significant woodland feature and CUW1 have the potential to function as habitat for this species.
Birds	Golden-winged Warbler	<i>Vermivora chrysoptera</i>	Special Concern	Threatened	Absent. No combination of suitable open and forested areas identified on and in proximity to the study area.
Birds	Grasshopper Sparrow	<i>Ammodramus savannarum pratorensis</i>	Special Concern	Special Concern	Absent. No suitable grassland identified in the study area.
Birds	King Rail	<i>Rallus elegans</i>	Endangered	Endangered	Absent. No suitable marshes identified in the study area.
Birds	Kirtland's Warbler	<i>Setophaga kirtlandii</i>	Endangered	Endangered	Absent. No forest with an abundance of jack pine was identified in the study area.
Birds	Least Bittern	<i>Ixobrychus exilis</i>	Threatened	Threatened	Absent. No suitable wetland identified in the study area.
Birds	Louisiana Waterthrush	<i>Parkesia motacilla</i>	Threatened	Threatened	Absent. No suitable wetland habitat or ravine identified in the study area.
Birds	Piping Plover	<i>Charadrius melodus</i>	Endangered	Non-active	Absent. No beaches or similar features identified in the study area.
Birds	Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	Endangered	Endangered	Candidate. The CUW1 community has the potential to function as habitat for this species.
Birds	Wood Thrush	<i>Hylocichla mustelina</i>	Special Concern	Threatened	Candidate. The SWD4-3 and FOD8-1 communities have the potential to function as habitat for this species.
Fishes	Lake Sturgeon (Great Lakes - Upper St. Lawrence populations)	<i>Acipenser fulvescens</i>	Endangered	Special Concern	Absent. No suitable fish habitat identified in the study area.
Insects	Monarch	<i>Danaus plexippus</i>	Special Concern	Special Concern	Candidate. Although no milkweed was observed during Sumac's investigation, all naturalized portions of the study area have the potential to function as dispersal, resting and foraging habitat for adult monarch.
Mammals	Eastern Small-footed Myotis	<i>Myotis leibii</i>	Endangered	Not Listed	Absent. No suitable rock or similar features for Eastern small-footed myotis were encountered in the study area during Sumac's investigation.
Mammals	Little Brown Myotis	<i>Myotis lucifugus</i>	Endangered	Endangered	Candidate. Little brown myotis have the potential to roost in some of the existing structures in the study area, as well as, the significant woodland feature. Foraging habitat may include the SWD4-3, water feature and woodland edge, should this species be present.







Mammals	Northern Myotis	<i>Myotis septentrionalis</i>	Endangered	Endangered	Candidate. Northern myotis have the potential to roost in the significant woodland feature. Foraging habitat may include the SWD4-3, water feature and woodland edge, should this species be present.
Mammals	Tri-colored Bat	<i>Perimyotis subflavus</i>	Endangered	Endangered	Candidate. Tri-colored bat have the potential to roost in some of the existing structures in the study area, as well as, maple and oak trees in the significant woodland feature. Foraging habitat may include the SWD4-3, water feature and woodland edge, should this species be present.
Reptiles	Blanding's Turtle	<i>Emydoidea blandingii</i>	Threatened	Endangered	Candidate. Blanding's turtle habitat may include the SWD4-3 community and up to 250 m of its adjacent lands.
Reptiles	Common Five-lined Skink (Southern Shield population)	<i>Plestiodon fasciatus</i>	Endangered	Threatened	Candidate. Five-lined skink has the potential of utilizing rocks and logs in the clearing and CUW1 community for basking, should this species be present. One (1) large rock with a crevice at its base was observed in the SWD4-3 community and has the potential to function as a hibernation site for five-lined skink, should this species be present.
Reptiles	Eastern Foxsnake (Georgian Bay population)	<i>Pantherophis gloydi</i>	Endangered	Not Listed	Absent. This species is not anticipated in the study area due to its proximity (i.e., more than 150 m) from Georgian Bay.
Reptiles	Eastern Hog-nosed Snake	<i>Heterodon platirhinus</i>	Threatened	Threatened	Absent. Although the SWD4-3 has the potential to function as a suitable food source for Eastern hog-nosed snake, no dry forest type with broken/semi-open canopy throughout was observed in the study area. No candidate snake hibernaculum was encountered in the study area.
Reptiles	Eastern Musk Turtle	<i>Sternotherus odoratus</i>	Special Concern	Special Concern	Absent. No suitable aquatic habitat identified in the study area.
Reptiles	Massasauga (Great Lakes - St. Lawrence population)	<i>Sistrurus catenatus</i>	Threatened	Endangered	Candidate. Massasauga has the potential to utilize the logs and rocks in the clearing and CUW1 community for basking, should this species be present. The significant woodland feature could be utilized for dispersal. No candidate snake hibernaculum was encountered in the study area.
Reptiles	Northern Map Turtle	<i>Graptemys geographica</i>	Special Concern	Special Concern	Absent. No suitable aquatic habitat identified in the study area.
Reptiles	Snapping Turtle	<i>Chelydra serpentina</i>	Special Concern	Special Concern	Absent. No key habitat features for snapping turtle were identified in the study area.
Vascular Plants	Black Ash	<i>Fraxinus nigra</i>	Endangered	Not Listed	Absent. This species was not encountered in the study area during Sumac's investigation.
Vascular Plants	Butternut	<i>Juglans cinerea</i>	Endangered	Endangered	Absent. This species was not encountered in the study area during Sumac's investigation.

^AClassification of species as they are anticipated to appear on the updated O. Reg. 230/08 Species at Risk Ontario (SARO) list on January 25, 2023.

^BClassification of species as they appear on Schedule 1 of the Species at Risk Act.



Legend

-  Subject Property
-  Limit of Work
-  Proposed Dwelling
-  Proposed Septic
-  Wildlife Exclusion Fence
-  Approximate Woodland Dripline



Attachment 4: Proposed Development



Designed by: N.F.
Date: 06/30/2023
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