

NATURAL HERITAGE ENVIRONMENTAL IMPACT STUDY

PREPARED FOR

John Spaleta:

Single Residential Dwelling-Development Envelope

**Part Lot 29, Concession 2 WGR,
Geographic Township of Bentinck
Municipality of West Grey
County of Grey**

PREPARED BY

AWS

ENVIRONMENTAL CONSULTING INC.

Operating as Aquatic and Wildlife Services

Phone: (519) 372-2303, Fax: (519) 372-1990, Email: aws@gbtel.ca
JOHN MORTON, R. R. # 1, Shallow Lake, Ontario, N0H 2K0

December, 2015

Table of Contents

1	Executive Summary	2
2	Introduction	2
3	Study Works	3
3.1	Background Review	3
3.2	Field Study Methodology	3
3.3	Field Survey Dates	5
4	Vegetation Community Characterization	6

Significant Feature Analysis

5	Habitat of Endangered and Threatened Species	7
6	Fish Habitat	8
7	Significant Valleylands	9
8	Significant Areas of Natural and Scientific Interest (A.N.S.I.)	10
9	Significant Wetlands	11
10	Significant Woodlands	12
11	Significant Wildlife Habitat	12
11.1	Seasonal Concentration Areas of Animals	13
11.2	Rare Vegetation Communities	15
11.3	Specialized Habitat for Wildlife	16
11.4	Habitat for Species of Conservation Concern	17
11.5	Animal Movement Corridors	19
11.6	Exceptions for Ecoregion 6E	19
12	Significant Feature Analysis Summary	20

Impact Assessment

13	Endangered Species: Butternut	21
13.1	Characterization	21
13.2	Impact Assessment	21
14	Significant Woodland	22
14.1	Characterization	22
14.2	Floristic Quality Scoring	22
14.3	Impact Assessment	23
15	Mitigation	25
16	Conclusions	26
17	References	27
18	Figures	28

1 Executive Summary

John Spaleta has proposed to construct a single residential dwelling within his land holding at; Part Lot 29, Concession 2 WGR, geographic Township of Bentinck, Municipality of West Grey, Grey County. Presently site disturbance is minimal, with a narrow forestry access laneway and a small woodlot clearing. Cuesta planning consultants undertook preliminary consultation with the Saugeen Conservation regarding the proposed site development for a new residential dwelling. Through this preliminary application consultation process, a Natural Heritage Environmental Impact Study (EIS) was requested by the reviewing agencies.

AWS Environmental Consulting Inc. was retained by the applicant/landowner in April 2015 to complete the required EIS technical report within the subject Lot. Field investigations for assessment of natural heritage features and ecological functions was carried out from late April through to late August 2015, providing 2 seasons of field study coverage. Through inventory data analysis, site development with no negative impacts to significant features or ecological functions could occur within the subject Lot provided recommended mitigation measures for Endangered Species Act application/remediation works were undertaken and site development was constrained for Development Envelope vegetation clearing extent.

With the mitigative measures implemented, site development would be in compliance with the Endangered Species Act, 2007, the Natural Heritage Policies of the 2014 Provincial Policy Statement and the natural heritage policies of the 2012 Grey County Official Plan.

2 Introduction

This Environmental Impact Statement (EIS) has been undertaken to address the Endangered Species Act 2007, 2014 Natural Heritage Provincial Policy Statement 2.1, other applicable Provincial and Federal Acts / Legislation and the 2012 County of Grey Official Plan. Technical reporting will follow the Provincial Natural Heritage Reference Manual of March 2010 for natural heritage feature, ecological function identification and impact assessment format.

Reporting analysis shall address the seven Natural Heritage Features, as defined by the Provincial Policy Statement 2.1, with a review of literature reports, data files, feature maps etc. currently available through Municipal, Provincial and Federal agencies, augmented with field inventory works and air photo interpretation of the surrounding landscape.

Within this technical report, the field investigation lands are referred to as the 'Study Lands', delineated on Figure No. 2. The Study Lands represent the proposed development area plus an additional 30m of the surrounding lands in the same landownership. A broader review of the 120m adjacent lands, referred to as the 'Site Lands', delineated on Figure No. 3 was undertaken through air photo interpretation and background literature reviews to identify any off-site natural environment features for corridor/linkage functions.

3 Study Works

3.1 Background Review

A literature review and data search was conducted to aid in the identification of Natural Heritage Features (see Figure No. 4) and historical occurrence records for Flora and Fauna species of conservation concern within 5km's to the Study Lands (see Appendix 1). This background review was utilized to augment field data collection, with a full listing of reports / documents reviewed or cited provided within the reference section.

- Natural Heritage Information Center (NHIC) web site of the Ontario Ministry of Natural Resources and Forestry (MNRF) for significant flora and fauna records.
- MNRF- Owen Sound Area Office; fish and wildlife records and maps and Land Information Ontario data bank and maps.
- 2012 Grey County Official Plan and schedule mapping.
- Municipality of West Grey Zoning Bylaw mapping

3.2 Field Study Methodology

Site location mapping for the subject property has been provided on Figure No. 1, with the field inventory lands or '**Study Lands**', delineated on Figure No. 2. Historical data record searches, literature reviews and air photography interpretation encompassed the Site Lands as delineated on Figure No. 3, with a broader landscape review extending 5km from the Study Lands (see Figure No. 4 and Appendix 1 mapping).

Field investigations and data collection for this EIS reporting were carried out from late April 2015 through to late August 2015, with a full listing of field work dates and weather conditions provided under Table No. 1.

- A qualified two-person team comprised of John Morton and Judith Jones from AWS Environmental Consulting, completed natural environment field inventory and assessment works within the Study Lands.

Vascular Plant Surveys were conducted during the growing seasons (spring and summer) of 2015, with a full species listing, ranking, status levels and Floristic Quality Scores provided within Appendix 2. Given the small size of the Study Lands (approx. 1ha), survey works followed a random coverage search methods over the full Study Lands.

General Fauna Surveys within the Study Lands included specific searches and/or investigation for amphibians, breeding birds, activity for snakes, turtles and nesting habitat, general searches for mammals and movement corridor functions. A full summary list of all recorded fauna species over the study period has been provided under Appendix 3 with current rankings, status levels and highest bird breeding codes observed .

Breeding Bird Surveys for the Study Lands followed two standardized search methods:

- a) Monitoring activity included a 'Point Count' methodology for breeding activity in accordance to Bird Studies Canada for Woodland habitat. Point Count Locations were established to cover all habitat types within the Study Lands, with no point count location closer than 100m (limited overlapping of potential territories). Occurrences were recorded through both sightings and calling for a total of 5-10 minutes at each point count location in the early morning hours (dusk to 10:40am). Point Count undertaking times and location mapping have been provided within Appendix 3.
- b) Additional bird observations of feeding adults and fledglings during summer site visits were also recorded and listed under Appendix 3 as observations outside the breeding season.

Herpetofaunal Surveys were conducted within the Study Lands but were focused within suitable habitat areas.

- a) Intensive amphibian (Anuran) calling survey works were deemed to be unnecessary as no suitable 'breeding' habitat was identified within the Study Lands.
- b) Reptiles- Turtle activity survey works were deemed to be unnecessary as no suitable 'breeding or overwintering' habitat was identified within the Study Lands.
- c) Reptiles-Snake activity was actively searched for during the spring hibernation emergence period and summer gestation period within suitable habitat areas.

Mammal sightings or observations of habitat use (tracks, scat) were recorded during all other flora and fauna investigation work during site visits in 2015. Specific searches plus random coverage across the Study Lands focused on habitat/vegetation community transition zones.

Fish Habitat and community survey works were deemed to be unnecessary as no surface water features were identified within the Study Lands.

EIS field survey works and technical reporting follows recommended/standard provincial guidelines, protocols and techniques.

3.3 Field Survey Dates

Table No. 1: Field Survey Dates and Focus of Works

Date	Survey Time & Duration	Weather Conditions (at start time)	Survey Focus
April 29, 2015	1730 to 1800 For 0.5 hrs	Wind Speed = 6-11 km/hr Air Temp. = 10.0 C Precipitation = 0 Cloud Cover = 30%	Preliminary habitat survey: Amphibian breeding, Reptile hibernation, Stick Nests, Hydrology.
May 7, 2015	1430 to 1530 For 1.0 hrs	Wind Speed = 6-11km/hr Air Temp. = 21.0 C Precipitation = 0 Cloud Cover = 75%	Amphibian egg mass search, Reptile hibernation emergence period activity, Cavity Trees, General Fauna
June 1, 2015	0700 to 0730 For 0.5 hrs	Wind Speed = 6-11 km/hr Air Temp. = 10.0 C Precipitation = 0 Cloud Cover = 60%	First breeding Bird survey
June 18, 2015	1500 to 1600 2-Person Team For 2.0 hrs	Wind Speed = 6-11 km/hr Air Temp. = 17.0 C Precipitation = 0 Cloud Cover = 90%	Spring season Flora survey
June 20, 2015	0715 to 0800 For 0.75 hr	Wind Speed = 3-6 km/hr Air Temp. = 15.0 C Precipitation = 0 Cloud Cover = 50%	Second breeding Bird survey
July 21 2015	1000 to 1100 For 1.0 hr	Wind Speed = 12-19 km/hr Air Temp. = 19.0 C Precipitation = 0 Cloud Cover = 25%	Vegetation community mapping, Snake gestation activity, General Fauna
August 19, 2015	0800 to 0900 2-person crew For 2.0 hours	Wind Speed = 12-19 km/hr Air Temp. = 24.0 C Precipitation = 0 Cloud Cover = 50%	Summer Flora inventory, Snake gestation activity, General Fauna

Total field survey work provided 7.75 hours of search /survey coverage over seven site visit during the spring and summer growing seasons of 2015.

4 Vegetation Community Characterization

Vegetation community boundaries within the Site Lands are depicted on Figure No.7, which were mapped and defined in the field based upon the 'Ecological Land Classification (ELC) for Southern Ontario, First Approximation'. ELC types, ranking and characterization for each vegetation community is provided in Table No. 2.

Table No. 2: Vegetation Communities Types - ELC Codes

Vegetation Community Number	ELC Code	Type	Description	Provincial Ranking
1	FOD5-1	Dry-Fresh Sugar Maple Deciduous Forest Type	Mature stand, closed canopy. Average mature tree height = 23m, Average Stand B.A. = 24m sq./ha. Groundcover at 30% predominantly tree seedlings	S5
2	FOC2-2	Dry-Fresh White Cedar Coniferous Forest Type	Mature stand, closed canopy along north facing slope with scattered Pines, Balsam Fir, Poplars.	S5
3	FOM7-1	Fresh-Moist White Cedar-Hardwood Mixed Forest Type	Mature stand, closed canopy. Lowlands along toe of slope and Township road allowance area.	S5
4	SWC3-2	White Cedar-Conifer Organic Swamp Type	Mature stand, closed canopy. Cedar swamp area with shallow gradient profile gently sloped to north (McCormick Lake).	S5
5	None	None	Disturbed developed lands for residential dwellings.	None

Significant Feature Analysis

5 Habitat of Endangered and Threatened Species

A literature search for historic records of Endangered and Threatened species has been undertaken for the surrounding landscape extending 5 km's from the Study Lands utilizing the Species At Risk in Ontario (SARO) listings maintained by the Ontario Ministry of Natural Resources and Forestry (MNR); and the national lists maintained by Environment Canada (i.e. Committee on the Status of Endangered Wildlife in Canada (COSEWIC), provided under Appendix 1.

Through this literature review, the following four species are noted:

- American Badger, current status of Endangered.
 - No suitable habitat for this species was identifiable within the Study Lands as described by the province. No burrows or digging activity observed. Through air photo review, no suitable habitat identifiable within the surrounding Site Lands.
- Eastern Meadowlark, current status of Threatened.
 - No suitable habitat for this species was identifiable within the Study Lands as described by the province. No open country grasslands. Through air photo review, no suitable habitat identifiable within the surrounding Site Lands.
- Restricted Species ID No. 1620, current status of Endangered.
 - Fauna species identification and record location confirmed with MNR-Midhurst District. No suitable habitat for this species was identifiable within the Study Lands as described by the province. Through air photo review, potential suitable habitat is identifiable off-site, within and the abutting shoreline lands to McCormick Lake. With a separation distance of 45m and a Township road separating the Study Lands from this potential habitat area, no negative impacts are anticipated from site development.
- Restricted Species ID No. 35635, current status of Endangered
 - Fauna species identification and record location confirmed with MNR-Midhurst District. Preliminary site investigation identified potential suitable habitat for this species within the Study Lands, further assessment deemed warranted.

The Provincial Policy Statement (PPS) section 2.1.7 states:

Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.

MNR documentation of historical records states:

Absence of information for a specific location does not mean there are no natural areas, provincially tracked species, plant communities or wildlife concentration areas at that location. It means that on the date the MNR created the dataset there was no information for that location. These data are not a substitute for site visits.

As such, detailed site investigations within the Study Lands was undertaken for flora and fauna that are currently listed under the Endangered Species Act (provincial or federal). Appendix 2 and Appendix 3 provide an inventory of species listing respectively for the Study Lands. Through intensive on-site survey works, one Flora species: **Butternut** having an Endangered status was recorded during on-site investigations of 2015.

Through this analysis of historical data, potential suitable habitat was noted for one Endangered Fauna species within the 'Study Land' and one confirmed Endangered Flora species was observed within the Study Lands. Therefore, further impact assessment is required and provided under reporting section 13 to demonstrate site development would be in compliance with the Endangered Species Act 2007, the PPS 2.1.7 and the County of Grey Official Plan 2.8.6.2

6 Fish Habitat

No watercourse or surface water features are identifiable within the Study Lands through available mapping and air photo interpretation. This was confirmed through on-site investigations.

Within the Site Lands, a small inland lake known as 'McCormick Lake' is identifiable 45m north of the Study Lands. This lake is documented to support a small resident population of cool-water fish community (MNR). The Township side road 12 is situated between the Study Lands and McCormick Lake, with no surface water linkage between the study lands or the inland lake feature, as such there is no direct hydrology linkage impact concerns.

Through this review it has been demonstrated that Fish Habitat, as defined under the Federal Fisheries Act, does not occur within the Study Lands but does occur within 120m to the Study Lands.

With confirmation of no Fish Habitat within the Study Lands, site development would be in compliance with the Federal Fisheries Act.

The Provincial Policy Statement (PPS) Natural Heritage section 2.1.6 states:

Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.

Similarly the Grey County Official Plan policy 2.8.6 (1) in part states:

Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.

Thus, site development would also be in compliance with the PPS 2.1.6 and the Grey County policy 2.8.6 (1), for Fish Habitat.

The PPS Natural Heritage section 2.1.8 states:

Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

The Provincial Natural Heritage Reference Manual (NHRM) 2010 under section 11.4 of adjacent lands for Fish Habitat in part states:

Adjacent Lands Width.... for all other fish habitat is 120m.

With Fish Habitat identified within the Site Lands, further policy review is warranted and provided below to demonstrate site development compliance.

The Grey County Official Plan policy 2.8.6 (5) in part states:

No development shall be permitted within 30 metres of the banks of a stream, river, lake or Georgian Bay.

The Study Lands have a minimum separation distance of 45m for Fish Habitat within McCormick Lake, thus site development within the Study Lands would be in compliance with the Grey County Official Plan policy 2.8.6 (5). Additionally with no hydrological connection between the Study Lands and McCormick Lake and with the noted separation distance and existing township road between the two location, no identifiable ecological functions can be attributed from the Study Lands to McCormick Lake. Thus site development within the Study Lands would also be in compliance with the PPS 2.1.8.

Through this review and on-site investigations it has been demonstrated and concluded that site development within the Study Lands would be in compliance with the Federal Fisheries Act and applicable policies of the PPS and County of Grey Official Plan. Therefore, no impact assessment review is deemed required for Fish Habitat.

7 Significant Valleylands

Grey County or its associated Conservation Authorities have not identified potential Significant Valleylands within the Official Plan mapping or supporting documentation to-date; as such this technical report has reviewed recommended Provincial criteria as listed in the 2010 Natural Heritage Reference Manual (NHRM) section 8.0, for determining said designations.

A valleyland, as defined by the Province states:

A natural area that occurs in a valley or other landform depression that has water flowing through or standing for some period of time

Through a preliminary review of provincial criteria assessment listed under section 8 of the NHRM and provincial elevation contour mapping in Appendix 4, the following have been determined for the Site Lands: no watercourse features occur within the Study Lands.

Groundwater functions and landform prominence are not identifiable within the Site Lands, no unique or high degree of naturalness to the Site Lands are noted. Through this brief analysis, it could be concluded that no significant Valleyland Feature occurs within the Site Lands.

The Provincial Policy Statement (PPS) section 2.1.5 (c) states:

Development and site alteration shall not be permitted in significant valleylands in Ecoregions 6E and 7E unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

With the Study Lands are located within Ecoregion 6E, this policy is applicable.

The Provincial NHRM, 2010 under section 8.4 for Significant Valleylands states that the Adjacent Land width to said features is 120m.

The PPS section 2.1.8 for the adjacent lands to Significant Valleylands states:

Development and Site Alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5 and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

With no confirmed or candidate Significant Valleyland feature occurring within the Study or Site Lands, proposed site development would be in compliance with the PPS section 2.1.5 (c) and 2.1.8 for adjacent lands, and the County Official Plan policy 2.8.6 (1) for Significant Valleylands. Therefore it can be concluded that site development would be in compliance with these applicable policies and no further impact assessment for this feature is deemed warranted.

8 Significant Areas of Natural and Scientific Interest (A.N.S.I.)

A review of Provincially Significant ANSI's was undertaken and provided on Figure No. 4, sourced through the MNRF web site mapping. This provincial mapping demonstrates that no significant ANSI features, earth science or life science, occurs within the Site Lands.

The Provincial Policy Statement (PPS) section 2.1.5 (e) states:

Development and site alteration shall not be permitted in significant areas of natural and scientific interest unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

With no ANSI feature confirmed within the Study Lands, it can be concluded that site development would be in compliance with the PPS 2.1.5 (e).

The Provincial NHRM, 2010 under section 10.4 for Significant ANSI's states that the Adjacent Land Width to earth science ANSI's is 50m while the Adjacent Lands Width to life science ANSI's is 120m.

The PPS Natural Heritage section 2.1.8 states:

Development and site alteration shall not be permitted on adjacent lands (120m) to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

With **no** ANSI features confirmed within the Site Lands, it has been demonstrated and can be concluded that site development would be in compliance with the: PPS 2.1.5 (e) and PPS 2.1.8, the County of Grey Official Plan 2.8.6 (3). Therefore, no further review or impact assessment is warranted for this feature.

9 Significant Wetlands

A review of Provincially Significant Wetlands (PSW) was undertaken and provided on Figure No. 4, sourced through the MNR web site mapping. This provincial mapping demonstrates that **no** evaluated significant wetland features occur within the Study or Site Lands.

The Provincial Policy Statement (PPS) section 2.1.4 (a and b) states:

Development and site alteration shall not be permitted in significant wetlands in Ecoregions 5E, 6E and 7E and significant coastal wetlands.

With the Study Lands being within Ecoregion 6E, this policy is applicable.

The Provincial NHRM, 2010 under section 6.4 for Significant Wetlands states that the Adjacent Land width to significant wetlands is 120m. Figure No. 4 demonstrates that no designated Significant Wetland feature occurs within 120m to the Study Lands.

The PPS Natural Heritage section 2.1.8 states:

Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

With **no** Significant Wetland feature within the Site Lands, it has been demonstrated and can be concluded that site development would be in compliance with the PPS 2.1.4 (a and b) and PPS 2.1.8.

Figure No. 5A does show Hazard Land (unevaluated wetland) east and north of the Study Lands but not within the Study Lands. This hazard land is further defined as a forested swamp environment and delineated as vegetation community No. 4 within this EIS reporting. Similarly the Municipality of West Grey Zoning Bylaws shown on Figure No. 6 has this Hazard or Vegetation Community No. 4, zoned as 'Natural Environment'. With the Hazard Land or Natural Environment zoned lands having a separation distance of 40m at its closest point to the Study Lands, with no anticipated negative impacts from site development within the Study Lands

anticipated on this forested wetland community, no additional impact assessment review is deemed warranted. Therefore, it can be concluded that site development within the Study Lands will be in compliance with the County of Grey Official Plan policies for 'Hazard Lands' and the Municipality of West Grey Zoning By-laws for Natural Environment.

10 Significant Woodlands

The County of Grey has undertaken countywide mapping for Significant Woodlands within its Official Plan, as per policy 2.8.4. In review of the County Official Plan- Constraint mapping, provided on Figure No. 5B, the forest cover within the Site Lands, delineated as Vegetation community numbers 1,2,3 and 4 on Figure No. 7, has been deemed 'Significant Woodland' under the Grey County Official Plan.

Natural Heritage Provincial Policy 2.1.5 (b) regarding Significant Woodlands states:

Development and site alteration shall not be permitted in significant woodlands in Ecoregions 6E and 7E unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

The Study Lands are located with Ecoregion 6E, thus this policy is applicable. Thus, further review and impact assessment is required and provided under section 14, to demonstrate compliance with the PPS 2.1.5 (b) and the adjacent lands policy (120m) for the PPS 2.1.8.

The Grey County Official Plan policy 2.8.4.1 in part states:

No development or site alteration may occur within Significant Woodlands or their adjacent lands (50m) unless it has been demonstrated through an Environmental Impact Study, as per section 2.8.7 of this Plan, that there will be no negative impacts on the natural features or their ecological functions.

With confirmed Significant Woodland within the Study Lands, further review and impact assessment is required and provided in section 14, to demonstrate compliance with the County Official Plan 2.8.4.1.

11 Significant Wildlife Habitat

Currently no mapping has been undertaken within Grey County to identify Significant Wildlife Habitat (SWH) due to its complexity and sub-component aspects requiring on-site survey works. Some historical Provincial MNRF inventory and wildlife assessment works within Grey County has been sourced to aid in determination of confirmed SWH within these Study Lands. Additionally EIS field inventory works carried out over the Study Lands will augment this historical data to aid in the determination of significance for each wildlife habitat sub-component.

The Province of Ontario is currently implementing a Draft 2012 "Significant Wildlife Habitat Eco-regional Criteria Schedules", posted on the Environmental Registry in March 2012, as a supplement document to the 2000 Significant Wildlife Habitat Technical Guide (SWHTG). This draft document provides a listing of candidate and criteria or threshold levels to confirm the presence of significant wildlife habitat within the four principal Ecoregions of central and southern Ontario.

The Study Lands are within the provincial ecoregion 6E, following is a review of the Provincial Ecoregion 6E Criterion Schedule and provincial threshold levels for the identification of 'confirmed' significant wildlife habitat based on detailed site inventory works of 2015.

11.1 Seasonal Concentration Areas of Animals

A summary review of Table 1.1 Criterion is provided below:

- Waterfowl Stopover and staging (Terrestrial)
 - No criteria waterfowl species were observed in 2015.
 - No ELC criteria code are present.
 - Criteria threshold for species and aggregate numbers not met.
 - No confirmed SWH.
- Waterfowl Stopover and staging (Aquatic)
 - No criteria waterfowl species were observed in 2015.
 - No ELC criteria codes are present.
 - Criteria threshold for species and aggregate numbers not met, with site survey works undertaken during the spring migration period.
 - No Confirmed SWH.
- Shorebird Migratory Stopover
 - No criteria shorebird species were observed in 2015.
 - No ELC criteria codes are present
 - Criteria threshold for species and aggregate numbers not met.
 - No confirmed SWH.
- Raptor Wintering Area
 - No criteria raptor species were observed in 2015.
 - ELC forest criteria code: FOD, FOM and FOC are present, however no upland meadows or cultural lands present. No historical documentation of habitat use during winter period.
 - No confirmed SWH.
- Bat Hibernacula
 - No criteria bat species were observed in 2015.
 - No ELC criteria codes present.
 - No historical documentation of bat hibernation activity, no ecological functioning habitat was identifiable.
 - No confirmed SWH.

- Bat Maternity Colonies
 - No criteria bat species were observed in 2015.
 - ELC criteria codes: FOD and FOM are present.
 - However, due to past site activities (site clearings and logging activity) very few snags/wildlife trees, dead top trees or cavity trees are present within the forest communities. Past fuel wood and stand improvement cuts have harvested many of these suitable tree types, with were very few trees >25cm dbh (provincial threshold level) identified which could support large canopies and had cavities present.
 - Tree snag/cavity inventory data and coverage area calculations for the Study Lands are in accordance to the provincial document " Bats and Bat Habitats, Guidelines for Wind Power Projects" with the following findings:
 - Habitat size = 0.49ha (Vegetation community No. 1) + 0.04ha (Vegetation community No. 3) = 0.53ha of suitable habitat.
 - Trees >=25cm dbh with Snags/Cavity present = 3 observed trees for the suitable habitat area.
 - Thus Snag/Cavity Tree Density within suitable habitat with a calculated density of 5.7 snag/cavity trees per ha.
 - Provincial threshold criteria states: *If snag/cavity tree density is > = 10 snags per hectare of trees >=25cm dbh, then the site is a candidate for maternity colony roosts.*
 - Based on detailed inventory works, the woodlands suitable habitat areas within the Study Lands do not meet the provincial threshold criteria for candidate habitat.
 - No confirmed SWH.
- Bat Migratory Stopover Area
 - No historical documentation or observed activity during 2015 site investigations.
 - No confirmed SWH.
- Turtle Wintering Areas
 - No criteria turtle species were observed in 2015.
 - No ELC criteria codes are present and no suitable habitat for overwintering was identifiable.
 - No confirmed SWH.
- Reptile Hibernaculum
 - No criteria snake species were observed in 2015 (activity period).
 - No ELC criteria codes present.
 - No confirmed SWH.
- Colonially-Nesting Bird Breeding Habitat: Bank and Cliff
 - No criteria bird species were observed in 2015.
 - No ELC criteria codes present.
 - No confirmed SWH.
- Colonially-Nesting Bird Breeding Habitat: Tree/Shrub
 - No criteria bird species were observed in 2015.
 - No ELC criteria codes present.
 - No confirmed SWH.

- Colonially-Nesting Bird Breeding Habitat: Ground
 - No criteria bird species were observed in 2015.
 - No ELC criteria codes present.
 - No confirmed SWH.

- Migratory Butterfly Stopover Areas
 - No criteria butterfly species were observed in 2015.
 - Forest ELC criteria codes: FOD, FOM and FOC are present but no adjacent cultivated field habitat. Study Lands are not located within 5km of Lake Ontario (criteria site location).
 - No confirmed SWH.

- Landbird Migratory Stopover Areas
 - Several migratory songbird species present within the Study Lands.
 - ELC criteria codes: FOD, FOM ,FOC and SWC are present however, Study lands are not located within 5km of Lake Ontario, thus confirmed not a SWH candidate area.
 - No confirmed SWH.

- Deer Yarding Areas
 - MNR to determine this habitat. Midhurst District has identified and mapped wintering deer yards within Grey County, with no such habitat identified within the Study Lands or its 120m adjacent lands. No suitable habitat identified through field survey works.
 - No confirmed SWH through MNRF map search.

- Deer Winter Congregation Areas
 - Within Grey County, deer are typically constrained by snow depths thus 'yarding habitat used', congregation areas are typically associated with Carolina habitat regions, as such not a SWH function in Grey County.

11.2 Rare Vegetation Communities

A summary review of Table 1.2.1 Criterion is provided below:

- Cliffs and Talus Slopes
 - No ELC criteria code types present within the Study Lands or 120m adjacent lands.
 - No confirmed SWH.

- Sand Barren
 - No ELC criteria code types present within the Study Lands or 120m adjacent lands.
 - No confirmed SWH.

- Alvar
 - No ELC criteria code types present within the Study Lands or 120m adjacent lands.
 - No confirmed SWH.

- Old Growth Forest
 - ELC criteria code type FOD, FOC and FOM are present.
 - Provincial Habitat description criteria for 'Old Growth Forest' community is not present (tree sizes, density, etc) within the Study Lands or 120m adjacent lands.
 - No confirmed SWH.
- Savannah
 - No ELC criteria code types present within the Study Lands or 120m adjacent lands.
 - No confirmed SWH.
- Tallgrass Prairie
 - No ELC criteria code types present within the Study Lands or 120m adjacent lands.
 - No confirmed SWH.
- Other Rare Vegetation Communities
 - No ELC types having a provincial rank of S1, S2 or S3 identified within the Site Lands.
 - No confirmed SWH.

11.3 Specialized Habitat for Wildlife

A summary review of Table 1.2.2 Criterion is provided below:

- Waterfowl Nesting Area
 - No criteria waterfowl species were observed in 2015.
 - No ELC criteria codes are present.
 - Criteria thresholds not met for species diversity, numbers or suitable habitat.
 - No confirmed SWH.
- Bald Eagle and Osprey Nesting, Foraging and Perching Habitat
 - No criteria species were observed in 2015.
 - ELC criteria codes: FOD, FOM and FOC are present and an inland lake is in close proximity however, no evidence of current or historical nesting activity within the Site Lands.
 - Criteria thresholds not met for active use of habitat.
 - No confirmed SWH.
- Woodland Raptor Nesting Habitat
 - No criteria species were observed in 2015.
 - ELC criteria codes: FOD, FOM, FOC and SWC are present however, no forest interior habitat within the Study Lands and no evidence of current or past nesting activity was observed.
 - Criteria thresholds for species, numbers and habitat size plus use, not met.
 - No confirmed SWH.

- Turtle Nesting Areas
 - No criteria species were observed in 2015.
 - No ELC criteria codes present.
 - Criteria thresholds for species, numbers and habitat size plus use, not met.
 - No Confirmed SWH

- Seeps and Springs
 - Criteria fauna species were identified within the Study Lands in 2015.
 - No groundwater upwelling features identified within the Study Lands.
 - Criteria thresholds for numbers or presence, not met.
 - No confirmed SWH.

- Amphibian Breeding Habitat (Woodland)
 - No criteria species identified within the Study Lands in 2015.
 - ELC criteria codes: FOD, FOM, FOC and SWC are present but suitable breeding habitat (ephemeral pools or vernal ponds) identified within the Study Lands.
 - Criteria thresholds for species or numbers not met.
 - No confirmed SWH.

- Amphibian Breeding Habitat (Wetlands)
 - One criteria species: American Toad identified within the Study Lands in 2015.
 - One ELC criteria code: SW is present within the Site Lands..
 - Site investigations recorded 1 adult American Toad within the Study Lands however, no suitable breeding habitat identified. Criteria thresholds for species diversity or numbers not met.
 - No confirmed SWH.

11.4 Habitat for Species of Conservation Concern
 (Not including Endangered or Threatened Species)

A summary review of the Table 1.3 Criterion is provided below:

- Marsh Breeding Bird Habitat
 - No criteria bird species were observed in 2015.
 - No ELC criteria codes are present and no suitable habitat identified.
 - Criteria thresholds not met for species diversity, numbers or active habitat use.
 - No confirmed SWH.

- Woodland Area-Sensitive Bird Breeding Habitat
 - Two criteria bird species: Veery and Ovenbird were observed in 2015.
 - ELC criteria codes: FOD, FOM, FOC and SWC are present however, no forest interior habitat identified within the woodlands for the Site Lands.
 - Criteria thresholds for 3 or more criteria species not met, numbers or suitable forest interior habitat, not met
 - No confirmed SWH.

- Open Country Bird Breeding Habitat
 - No criteria bird species were observed in 2015.
 - No ELC criteria codes present.
 - Criteria thresholds for species diversity, numbers or active habitat use, not met.
 - No confirmed SWH.

- Shrub/Early Successional Bird Breeding Habitat
 - No criteria indicator species were observed in 2015
 - No ELC criteria codes present.
 - Criteria thresholds for species diversity, numbers or active habitat use, not met.
 - No confirmed SWH.

- Terrestrial Crayfish
 - No criteria species (no crayfish chimney's observed) observed in 2015.
 - No ELC criteria codes are present.
 - Criteria threshold for species diversity, numbers or active habitat use, not met.
 - No confirmed SWH.

- Special Concern and Rare Wildlife Species
 - No flora species were identified in 2015 which have a Provincial Special Concern or Rarity status, see Appendix 2 .
 - One fauna species: Eastern Wood-Pewee was recorded in 2015 which has a Provincial Status of Special Concern, see Appendix 3.
 - One single male was heard calling at Point Count No. 3 on June 1, with no reoccurrence on June 20, 2015.
 - With only one single record and no confirmed nesting activity or reoccurrence of calling or sightings, and no forest interior habitat, it can be concluded that no significant habitat for this species occurs within the Study Lands. Site development is anticipated to have no negative impact on the breeding population for this bird species.
 - Historical Records (Appendix 1) search identified 4 Fauna species and 2 Flora species within the surrounding landscape. None of these species were recorded within the Study Lands during the 2015 site investigations. A further review for potential habitat identification or impacts is provided below:

Fauna

- Eastern Milksnake: Some minor forage habitat along the hardwood-conifer transitional edge, habitat is considered to be marginal with no anticipated functional use. Intensive investigations during the hibernation emergence and gestation activity periods did not record any habitat use. Concluded no significant habitat for this species within the Study Lands.
- Eastern Ribbonsnake: No identifiable habitat within the Study Lands which meets provincial description. Concluded no significant habitat for this species within the Study Lands.

- Snapping Turtle: No identifiable habitat within the Study Lands which meets provincial description. Concluded no significant habitat for this species within the Study Lands.
- Harlequin Darner: Potential suitable habitat within vegetation community No. 4, no identifiable habitat within the Study Lands which meets provincial description. Concluded no significant habitat for this species within the Study Lands

Flora

- Scarlet Beebalm: No suitable habitat identified within the Study Lands which meets provincial description. Concluded no significant habitat for this species within the Study Lands.
- Hart`s-tongue Fern: Suitable but marginal habitat observed within vegetation community No. 1 however, intensive flora inventory works for 2015 did not identify this species within the Study Lands.

- No confirmed SWH.

11.5 Animal Movement Corridors

A summary review of the Table 1.4.1 Criterion is provided below:

- Amphibian Movement Corridors
 - No confirmed significant breeding habitat through Table 1.1 review, thus no corridor assessment required.
 - No confirmed SWH.
- Deer Movement Corridors
 - No deer wintering habitat was confirmed through Table 1.1 analysis, thus no delineation or threshold levels for deer movement corridor is required.

11.6 Exceptions for Ecoregion 6E

A summary review of the Criterion Table 1.5.1 is provided below:

- Mast Producing Areas
 - Candidate areas are only within for EcoDistrict 6E-14, the Upper Bruce Peninsula.
 - No confirmed SWH.
- Sharp-tailed Grouse
 - Candidate areas are only within for EcoDistrict 6E-17, for Manitoulin Island.
 - No confirmed SWH.

In summary for this review of Ecoregion 6E criterion schedule, no Significant Wildlife Habitat has been confirmed which meet provincial description or criteria.

The Natural Heritage Provincial Policy 2.1.5 (d) states:

Development and site alteration shall not be permitted in significant wildlife habitat unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

Natural Heritage Provincial Policy 2.1.8 regarding the adjacent lands (120m) for significant wildlife habitat states:

Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5 and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

The Grey County Official Plan policy 2.8.6 (1) in part states:

...Development and site alterations shall not be permitted within...wildlife habitat,...and their adjacent lands, unless it has been demonstrated through an acceptable Environmental Impact Study is completed in accordance with section 2.8.6 (4) of the Plan that there will be no negative impacts on the natural features or their ecological functions..

With no confirmed Significant Wildlife Habitat within the Study Lands, site development within the Study Lands would be in compliance with the applicable Provincial and Official Plan policies. Therefore no further review or impact assessment is warranted for this feature.

12 Significant Feature Analysis Summary

Through the significant feature analysis two natural heritage features of provincial and one additional local land use designation concern have been confirmed within the Study Lands:

- Endangered Species : Butternut
- Significant Woodlands: Vegetation community numbers 1, 2, 3 and 4.

Further review of these three identified features and their ecological functions has been provided within the 'Impact Assessment' component of the EIS. Site development with recommended mitigation measures in relation to the proposed development activity has also been provided to maintain compliance with applicable Acts, Legislation and Planning Policies.

Impact Assessment

13 Endangered Species: Butternut

13.1 Characterization

Three Butternut seedlings (all less than 1m in height) were identified within the Study Lands and one additional Butternut seedling was observed off-site on the adjacent property being in close proximity to the eastern boundary of the Study Lands.

All four Butternut seedlings were in good health, exhibited no signs or symptoms of butternut canker at this time, however being of young age (estimated at 3-4 years) canker signs may not yet be evident. No mature or `parent` seed producing butternuts were observed within the Study Lands. A Butternut Health Assessment was undertaken for the tree seedlings within the Study Lands in accordance to Provincial and ESA requirements (see Appendix 5). No health assessment was undertaken on the off-site butternut seedling, as its location is on other private lands and ownership. However, for this off-site butternut seedling which is situated within 25m to the property line, for the applicant to proceed with potential site development, this off-site butternut seedling will be considered a Category 3 (retainable) tree as a precautionary approach and at a minimum remediation works will be in compliance with ESA.

Butternut are a regulated species under the Provincial Endangered Species Act, 2007, with no development or site alterations permissible within 25m to a Category 3 (retainable) butternut tree, see Figure No. 9 with this current 25m Buffer Zone portrayed.

13.2 Impact Assessment

Under the Act the province of Ontario has established regulations through an application process to permit the removal of up to 10 butternuts and their associated buffer zones by an applicant at a single location (See Appendix 6). Given the location of these four butternut seedlings and their associated 25m Buffer Zones, as shown on Figure No. 9, there is no accessible development lands within the Study Lands. That is, though there could be 'developable lands' further south within the property limits, the required laneway upgrades and construction off of side road 12 to access this south property lands for development is considered a 'site alteration' and would bisect through the identified Buffer Zones, which is not permissible without ESA application and approval. Thus, regardless of the potential site development lands orientation/size within the property limits, an ESA application for Butternut and Buffer Zone removal will be required (and applied for) for any site development or site alterations to proceed within the Study Lands.

As such, the applicant has submitted (December 8/15) the required ESA forms under Ontario Regulation 242/08 (see Appendix 6) following the Butternut Health Assessment reporting (see Appendix 5) submitted to the Ministry of Natural Resources and Forestry (MNRF). By making application under ESA, the applicant has made a binding commitment to the Province of Ontario to undertake the remedial works (planting of genetically certified butternut seedlings and

maintenance plan) in accordance to Ontario Regulation 242/08. Pending the mandated 30 day MNRF review period which commenced on Dec 8/15 , the identified four butternut buffer zones and the three butternut seedlings will no longer be applicable as a site development limitation. Thus, potential site development and/or site alterations within the Study Lands would be in compliance with ESA. Confirmation from MNRF for Butternut ESA registration has been obtained on December 23/15, number M-103-6113594843, see Appendix 6.

With Ontario Regulation 282/08 clearance, any proposed site development would be in compliance with ESA for Butternuts within the Study Lands. Based on this clearance approval, delineation of a potential 'Development Envelope' has proceeded without Butternut concern, to permit a review of this EIS technical report from the Conservation Authority and the Municipality of West Grey.

14 Significant Woodland

14.1 Characterization

14.2 Floristic Quality Scoring

Section 4 provides a description of the woodland vegetation communities found on and adjacent to the Study Lands. The following analysis provides more detail regarding the provincial floristic quality analysis for the Study Lands native flora. The full flora listing of species identification, significances status and values to the 'Floristic Quality Assessment for Southern Ontario' has been provided within Appendix 3.

A total of 57 vascular plant species were identified within the Study Lands, with 52 being native and 5 considered non-native (introduced), this reflects a non-native flora composition of 9%. Within Southern Ontario, the average non-native composition ranges between 20 to 30%, as per M. Oldham of OMNR Natural Heritage Information Center. The Study Lands non-native flora percentage composition is well below the provincial range, reflecting a level of botanical species composition that is considered stable and overall generally undisturbed.

Floristic Quality Assessment values for the 'coefficient of conservatism' (FQA-CC) scoring ranks for native flora are based on a plants degree of fidelity to a range of synecological parameters established by the province and can represent a flora species tolerance to site disturbances. An analysis of this scoring for native species within the Study lands is provided in Table 3 below.

Table No. 3: Native Flora Coefficient of Conservatism breakdown

Scoring	Provincial Description	Study Lands Plant Numbers
0 to 3	<i>Plants found in a wide variety of plant communities including disturbed sites</i>	11 species or 21%
4 to 6	<i>Plants typically associated with a specific plant community, but tolerate moderate disturbances</i>	33 species or 64%
7 to 8	<i>Plants associated with a plant community in an advanced successional stage that has undergone minor disturbance</i>	7 species or 13%
9 to 10	<i>Those plants with high degrees of fidelity to a narrow range of synecological parameters</i>	1 species or 2%

The above table demonstrates that 85 % of the native plant species within the Study Lands occupy a wide range of habitat types, which tolerate high to moderate degrees of disturbances. The mature woodland environment supports some vascular flora species suited to dense closed canopy forest cover, intolerant to significant sunlight/shade changes. One vascular plant: Showy Orchid, which has a high degree of habitat sensitivity was located within vegetation community No. 3, the lowland/seasonally wet environment.

14.3 Impact Assessment

The analysis review of section 10 identified the Study Lands woodlands were designated 'significant' by Grey County through its GIS mapping exercise, based on meeting the criteria for woodland size. The Provincial Policy Statement 2.1.5 (b) and the Grey County Official Plan policy 2.8.4.1 both permit development and site alteration within Significant Woodlands provided that it is demonstrated that there will be no negative impacts on the natural features or their ecological functions.

The significant woodland environment has been identified to support Habitat for Endangered Species: Butternut. Through application under the Ontario Regulation 242/08, as discussed under reporting section 13.2, site development would be in compliance with the Endangered Species Act, 2007.

Through the Table No. 3 analysis of the Study Lands-vascular plants, one flora species was recorded that has a high sensitivity to site alterations, located within vegetation community No. 3 (see Figure No. 7). This vegetation community is a mixed woodland strip situated between the north facing slope toe from the mature hardwood woodland to the abutting township road edge along its the north perimeter. Though no seeps or groundwater discharge functions were identified along this slope toe, the organic soils were wet to moist year round with pockets of surface water ponding in the early spring. This vegetation community type and vascular flora species growing within vegetation community No. 3 are in response to this area being seasonally wet with a high composition of organic soils. Given the topography, soils and hydrology aspects observed in this immediate area, no residential dwelling or septic treatment development should occur within vegetation community No. 3.

Vegetation community No. 2 occurs along an intermittent and narrow (6m to 7m width) ridge having a north facing slope within the Study Lands. Slopes grades here ranged from 20 to 35 degree inclines averaging 4m-5m in higher elevation change from vegetation community No. 3. Site alteration within this slope feature may negatively impact hydrology functions or flow patterns along the toe slope or to the unevaluated wetland feature (vegetation community No. 4) or to McCormick Lake. Thus without further review by a qualified engineer, it is recommended that no development occur within vegetation community No. 2 and a minimum separation distance of 15m from the ridge crest for a dwelling or septic treatment setback area be maintained. Minor site alterations through this vegetation community for laneway width upgrades is anticipated to have no negative impact on the hydrology or slope stability functions.

Vegetation community No. 1 is situated on a gradual north oriented slope with pockets of undulating terrain with well compacted and stable soils which exhibited no evidence or sign of erosion concern. Constrained Site Development within vegetation community No. 1 could occur within this significant woodland with no measurable negative impacts anticipated. To discourage negative impacts which could occur from large site clearings creating wind throw on the remaining mature woodlands, it is recommended that the Development Envelope Lands should not to exceed 1ha in area within vegetation community No. 1 and maintain a minimum separation distance of 15m from adjacent large clearings/dwellings. This constrained tree canopy opening area size is consistent with provincial forestry stands to address wind throw, invasive species, soil moisture regime changes within mature deciduous forest stands and aids in maintaining flora germination for woodland genetic diversity.

With the 'Development Envelope' focused within vegetation community No. 1, development setbacks from the steeper sloped lands and other adjacent clearings and with a constrained tree canopy opening area limit, no negative impacts to the overall Significant Woodland feature or its identified ecological functions are anticipated. Therefore, it has been demonstrated through this impact assessment and can be concluded, focused site development would be in compliance with the PPS 2.1.5 (b), 2.1.8 and the Grey County Official Plan 2.8.4.1.

15 Mitigation

The following mitigative measures should be implemented through Site Plan Control, Development Agreement and/or Development permits/approvals. These measures are recommended to maintain the ecological functioning role and natural heritage features that have been identified within the Study Lands and are in compliance with applicable Acts, Legislation, and Natural Heritage Planning Policies of the Provincial Policy Statement, County Official Plans and environmental guidelines.

- 15.1 No Development or Site Alterations shall occur within the identified Butternut Buffer Zones until such time that the 30 day MNRF review period has expired (January 8/16) under ESA Registration No. 'M-103-6113594843' at which time the application will be considered cleared and in compliance to Ontario Regulation 242/08 section 23.7.
- 15.2 The 'Development Envelope' shall be focused within the EIS delineated vegetation community No. 1 and shall :
 - i. Maintain a minimum separation distance of 15m from the EIS delineated vegetation community No. 2, without additional supporting engineering impact assessment review on hydrogeology, slope stability and further natural heritage review.
 - ii. Maintain a minimum separation distance of 15m from adjacent tree canopy clearings that exceed 0.1ha in area size and/or adjacent dwelling clearings.
 - iii. Not to exceed 0.4ha in site clearing area size.
- 15.3 Tree clearing for site development activity shall not occur between April 15 to July 15 in any given year, during the active nesting period for birds.
- 15.4 Site alterations for laneway upgrading bisecting through vegetation community No. 2 and No. 3 should be kept to a minimum to limit the extent of cut/fill/grading requirements and to a laneway corridor maximum width of 5m. The existing logging access lane shall be decommissioned.

16 Conclusions

Through the Impact Assessment component, this EIS has demonstrated that with compliance under Ontario Regulation 242/08 section 23.7 for Butternut, the recommended mitigative measures of Development Setbacks, focused Development Envelope lands, constrained development envelope size and tree cutting activity period, the proposed site development will have no anticipated negative impacts or loss of ecological function to the Natural Heritage features assessed within the Study Lands or surrounding natural environment.

Therefore it has been demonstrated and concluded that site development within the Study Lands following recommended Natural Heritage EIS mitigation measures would be in compliance with the Natural Heritage policies of the 2014 Provincial policy Statement, the 2012 Grey County Official Plan, the Regulatory requirements of the Saugeen Valley Conservation Authority and the Zoning policies of the Municipality of West Grey.

All comments contained within this report '*italicized*' are quotes pertaining to available literature, technical reports, manuals and documents relevant to the features and/or functions observed within these Study Lands. All natural feature locations are estimates based on current Grey County air photo imagery and plotting by hand held GPS unit of significant features and through site topographic mapping on Ontario Base Maps. The maps contained within this report should not be considered 'a legal survey' but are deemed adequate for this planning/application review process.

Respectfully Submitted



John Morton
President, AWS Environmental Consulting Inc.

17 References

- Cadman, M.D., D.A. Sutherland, G.G. Beck, D. Lepage, and A.R. Couturier (eds) 2007 Atlas of the Breeding Birds of Ontario, 2001-2005. Bird Studies Canada, Environment Canada, Ontario Field Ornithologists, Ontario Ministry of Natural Resources, and Ontario Nature, Toronto Canada.
- Environment Canada, Federal Committee on the Status of Endangered Wildlife in Canada (COSEWIC), www.cosewic.gc.ca
- Grey County Official Plan, 2012 and schedule mapping
- Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray 1998. Ecological Land Classification for Southern Ontario: First Approximation and its Application. Ontario Ministry of Natural Resources, South central Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02
- Municipality of West Grey Zoning By-Law and schedule mapping
- Natural Heritage Information Centre (NHIC), 2015
Provincial status of Plants, Wildlife and Vegetation Communities database
OMNR, Peterborough. http://nhic.mnr.gov.on.ca/nhic_.cfm
- Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, Ontario Ministry of Natural Resources, March 2010
- Oldham, M.J., W.D. Bakowsky and D.A. Sutherland, (1995). Floristic Quality Assessment for Southern Ontario. Ontario Ministry of Natural Resources, Natural Heritage Information Centre
- Ontario Ministry of Natural Resources, 2000
Significant Wildlife Habitat Technical Guide, Fish and Wildlife Branch
- Ontario Ministry of Municipal Affairs and Housing, 2014.
Provincial Policy Statement
- Ontario Ministry of Natural Resources, 2015
Committee on the Status of Species at Risk in Ontario (COSSARO)
www.mnr.gov.on.ca/mnr/speciesatrisk
- Ontario Ministry of Natural Resources, Significant Wildlife Habitat Eco-regional Criteria Schedules, March 2012

18 Figures

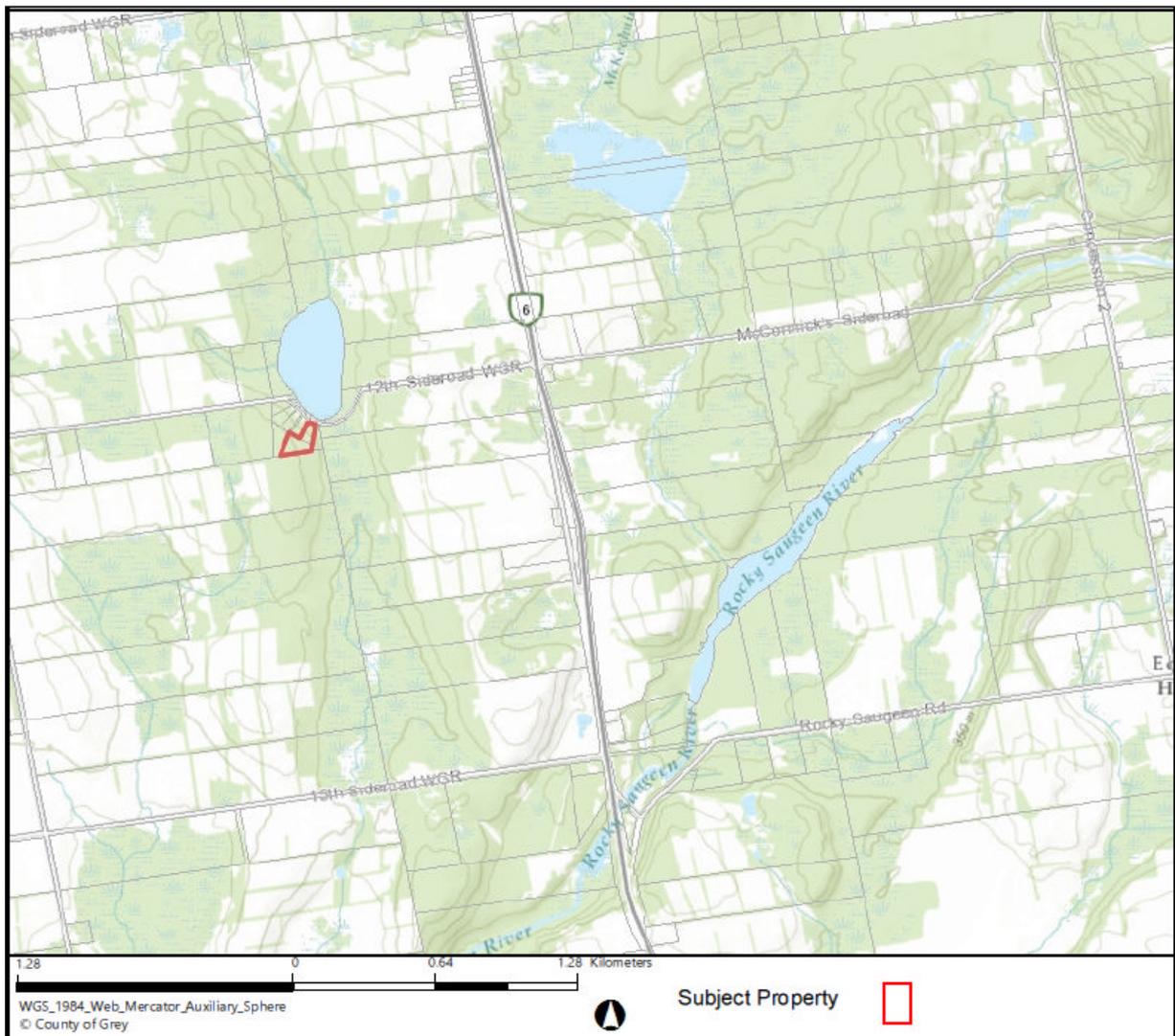
Mapping Note For Clarification:

All Below Figures Are A Very Close Approximation For The Property Boundary But Given Various Mapping Scales, Boundary Anomalies etc., Figures May Not Match The Survey Plan Dimensions Etc. To Its Entirety.

Figure No. 1.....	Site Location
Figure No. 2.....	..Study Lands, Air Photo, April 2010
Figure No. 3.....Site Lands, Air Photo, April 2010
Figure No. 4.....Provincial Natural Heritage Features
Figure No. 5A.....Grey County Official Plan - Land Use Designations
Figure No. 5B.....Grey County Official Plan - Constraints
Figure No. 6.....Municipality of West Grey Zoning Map
Figure No. 7.....Vegetation Communities
Figure No. 8.....Natural Heritage Significant Features
Figure No. 9.....Present Butternut Buffer Zone under ESA
Figure No. 10.....Development Envelope with Setback

Figure No. 1: Property Location

- Base map source map: Grey County web site, Municipality of West Grey



- Subject property situated at: Part Lot 29, Concession 2 WGR in the Geographic Township of Bentinck, Grey County. Property fronts on to the Township 12th Sideroad WGR, just south of McCormick Lake, in the Municipality of West Grey.

Figure No. 2 : Study Lands

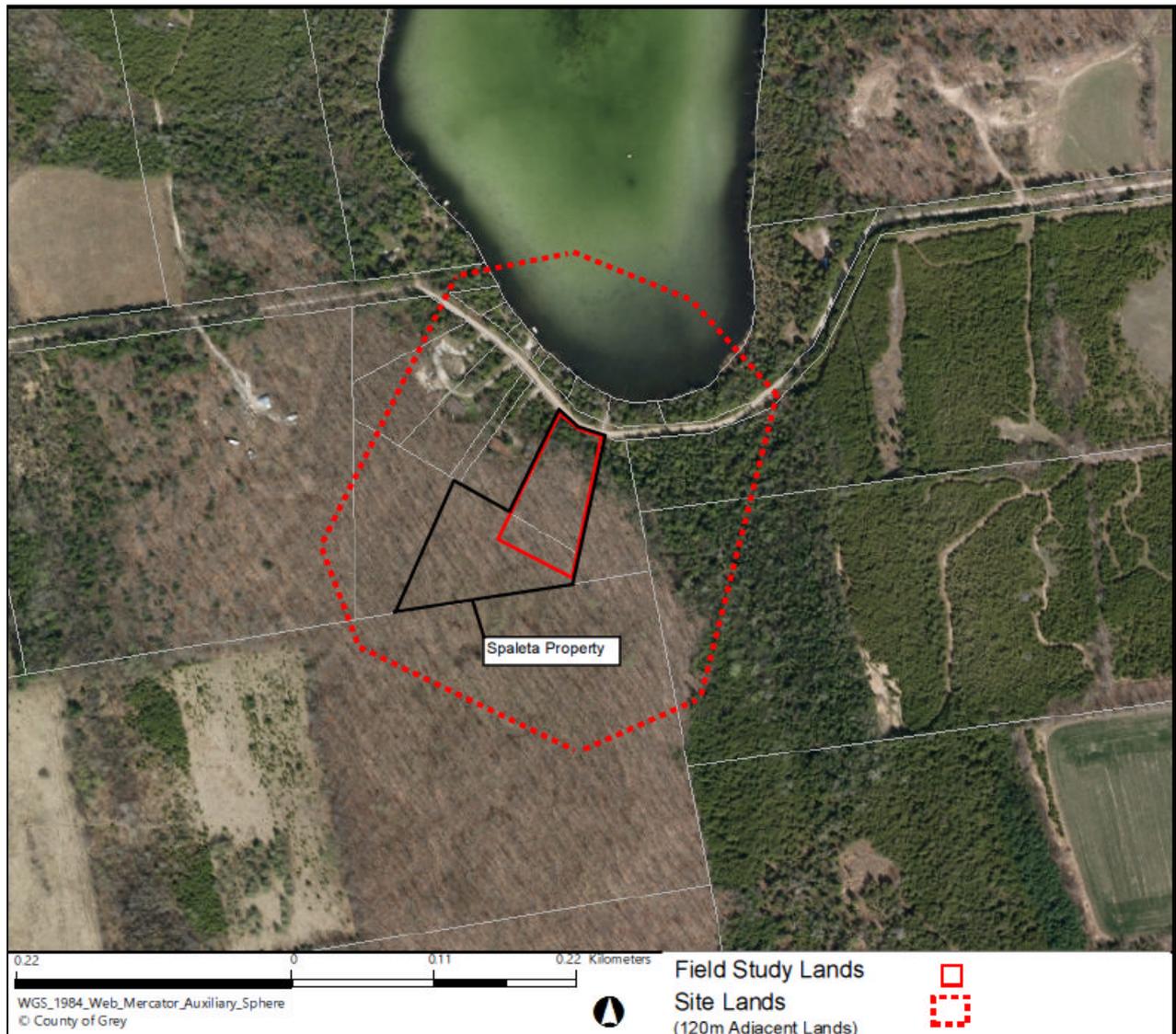
- Base map source: Grey County web site, April 2010 leaf-off air photo



- Study Lands encompass part of the subject property, were the applicant/landowner has proposed site development plus an additional minimum 30m of the surrounding lands in the same land ownership.

Figure No. 3: Site Lands

- Base map source : Grey County web site, April 2010 leaf-off air photo



- Study Lands = Field inventory lands for proposed development area plus 30m surrounding lands within the same landownership.
- Site Lands = Study Lands plus 120m adjacent lands



Figure No. 4: Provincial Features

Notes: John Spaleta's McCormick Lake Area Property,
Part Lot 29, Conc. 2 WGR, Bentinck



Legend

- Assessment Parcel
- Woodland
- Conservation Reserve
- Provincial Park
- Natural Heritage System
- Ecoregion
- Wetland
 - Provincially Significant Wetland Evaluated
 - Non-Provincially Significant Wetland Evaluated
 - Unrehabilitated Wetland
- Area of Natural Heritage & Scientific Interest (ANHS)
 - Provincially Significant Life Science (PLS)
 - Provincially Significant Earth Science (PES)
- Greenbelt Plan
 - Boundary
 - River Valley Connections
- Land Use Designations
 - Protected Countryside
 - Towns and Villages
 - Hamlets
 - Urban River Valley
 - Specialty Crop Area
- Niagara Escarpment Plan (NEP)
 - Boundary
 - Parks and Open Space System
- Land Use Designations
 - Escarpment Natural Area
 - Escarpment Protection Area
 - Escarpment Rural Area
 - Mineral Resource Extraction Area
 - Escarpment Recreation Area
 - Urban Area
 - Minor Urban Centre
- Oak Ridges Moraine Conservation Plan (ORM)
 - Boundary
 - Land Use Designations
 - Natural Core Area
 - Natural Linkage Area
 - Countryside Area
 - Rural Settlement
 - Palgrave Estates
 - Residential Community
 - Settlement Area



0.6 0 0.31 0.6 Kilometers

Scale: 1 : 12,059

Imagery Copyright Notices: DRAPÉ © Aéro-Photo (1961) Inc., 2008 - 2009
GTA 2005 / SWOOP 2006 / Simcoe-Muskoka-Dufferin © FirstBase Solutions, 2005 / 2006 / 2008
© Copyright for Ontario Parcel data is held by Queen's Printer for Ontario and its licensors [2013] and may not be reproduced without permission. THIS IS NOT A PLAN OF SURVEY.

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Natural Resources and Forestry (OMNRF) shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.
© Queen's Printer for Ontario, 2014



Figure No. 5A : Grey County OP -Land Use Designations



Legend

- Parcels
- Future Secondary Plan Area
- Land Use Classification**
- Primary Settlement Area
- Secondary Settlement Area
- Tertiary Settlement Area
- Agricultural
- Escarpment Recreation Area
- Hazard Lands
- Inland Lakes & Shoreline
- Niagara Escarpment Plan Area
- Rural
- Space Extensive Commercial
- Space Extensive Industrial
- Special Agriculture
- Wetlands
- Recreation Resort Area

Notes

John Spaleta's McCormick Lake Area Property

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

0.08 Kilometers





Figure No. 5B : Grey County OP -Constraints



Legend

- Parcels
- Streams
- ANSI
 - Earth Life Science
 - Earth Science
 - Life Science
- Other Identified Wetlands
- Lakes
- Significant Woodlands

Notes

John Spaleta's McCormick Lake Area Property

This map is a user generated static output from an Internet mapping site and is for reference only.
Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

Printed: October 8, 2015 THIS MAP IS NOT TO BE USED FOR NAVIGATION

0.08 Kilometers





Figure No. 6 : West Grey Zoning



Legend

- Parcels
- Floodline
- Flood Fringe
- Regulation Limit
- Zoning - West Grey**
- A1 Agricultural
- A2 Rural
- A3 Restricted Rural
- C1 General Commercial
- C2 Highway Commercial
- C3 Neighbourhood Commercial
- C4 Shopping Centre Commercial
- C5 Hamlet Commercial
- C6 Rural Commercial
- FD Future Development
- FL Flood Way
- I Institutional
- M1 Industrial
- M2 Restricted Industrial
- M3 Rural Industrial
- M4 Extractive Industrial
- MH Mobile Home Park
- MU1 Mixed Use
- ND No Development
- NE Natural Environment
- NE2 Natural Environment 2
- OS Open Space
- ER Estate Residential
- R1A Unserved Residential
- R1B Low Density Residential
- R2 Medium Density Residential
- R3 High Density Residential

Notes

John Spaleta's McCormick Lake Area Property

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Printed: October 8, 2015

0.08 Kilometers



Figure No. 7: Vegetation Communities

- Base map source: Grey County web site, April 2010 leaf-off air photo

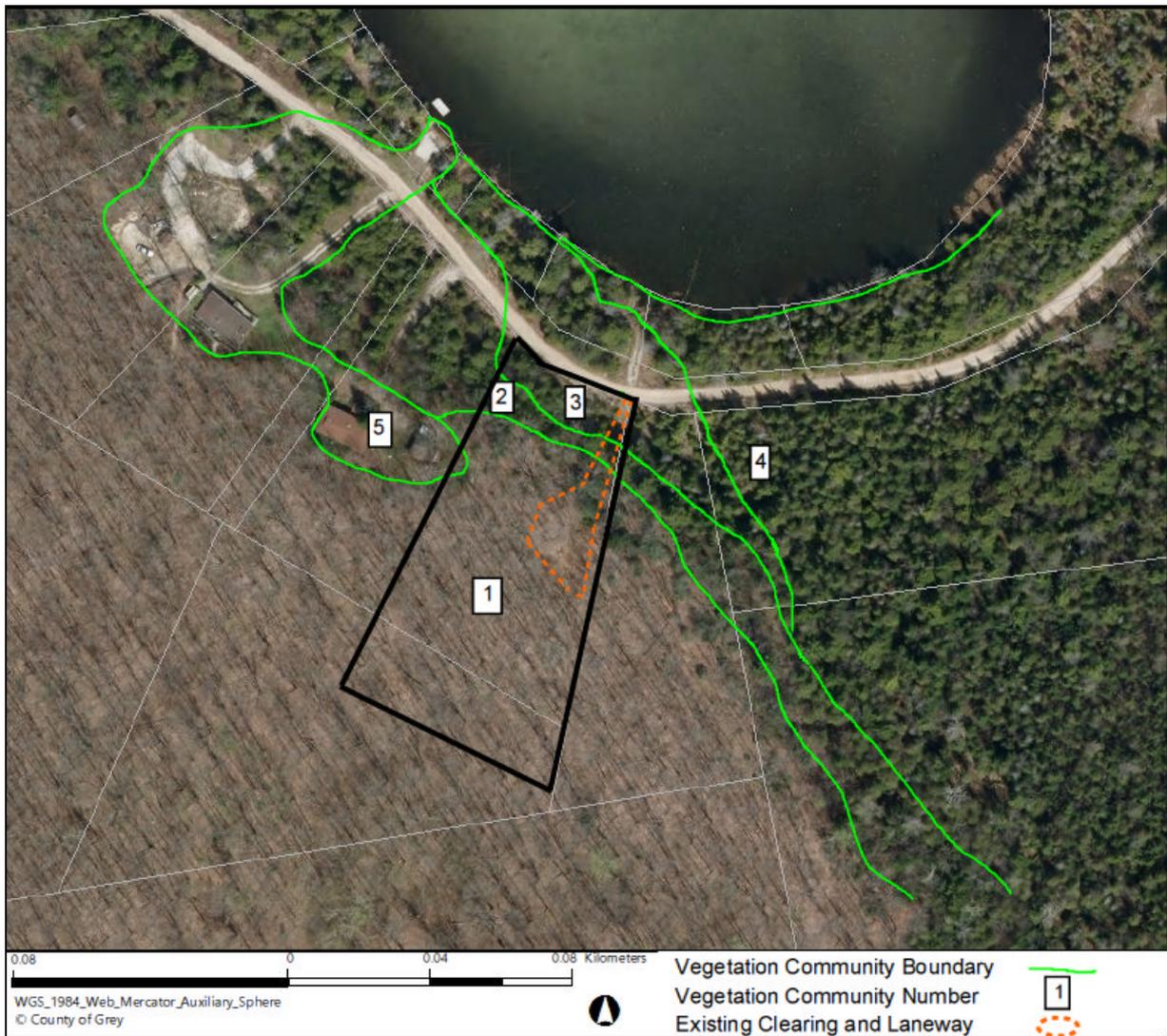
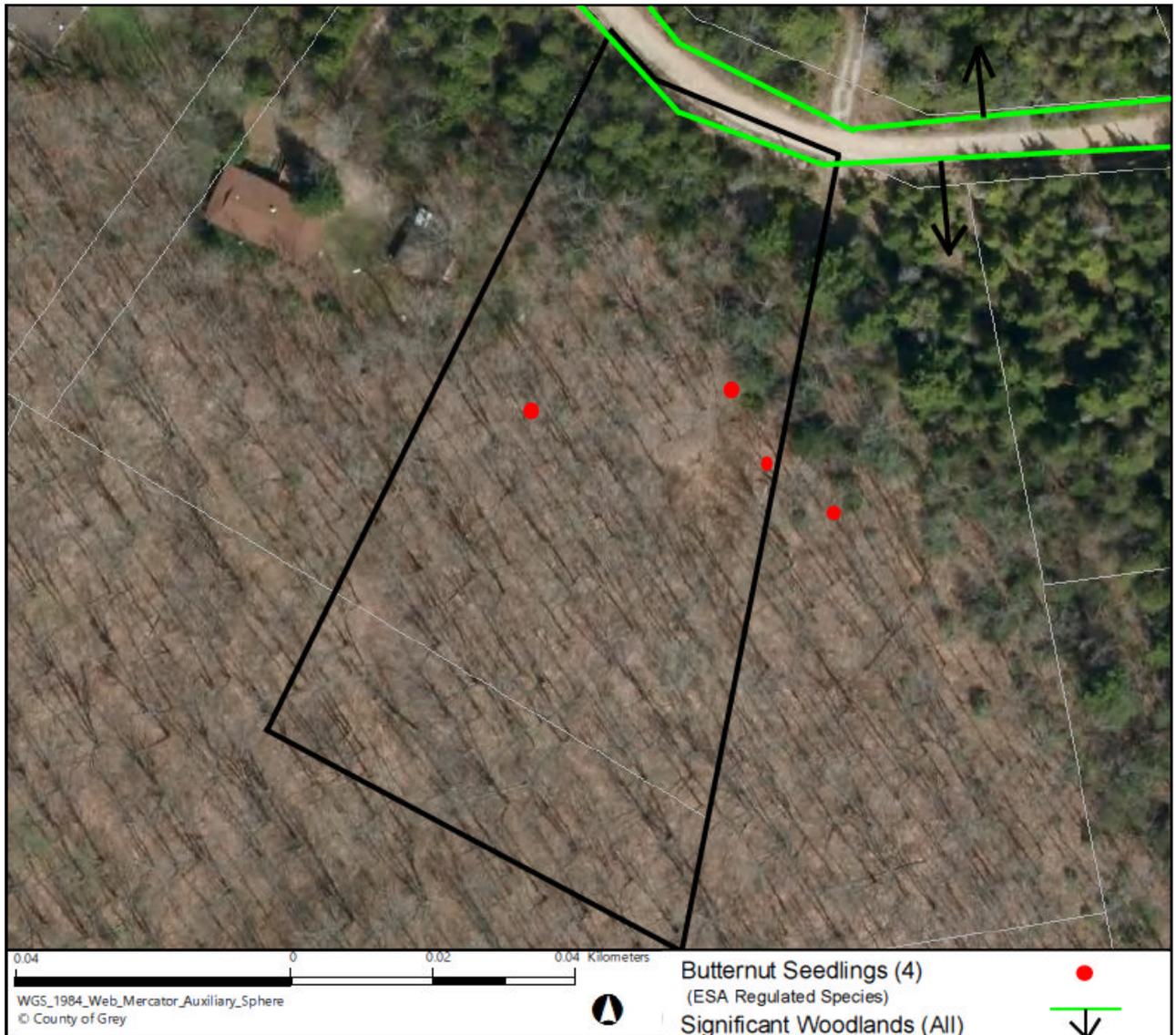


Figure No. 8: Significant Features

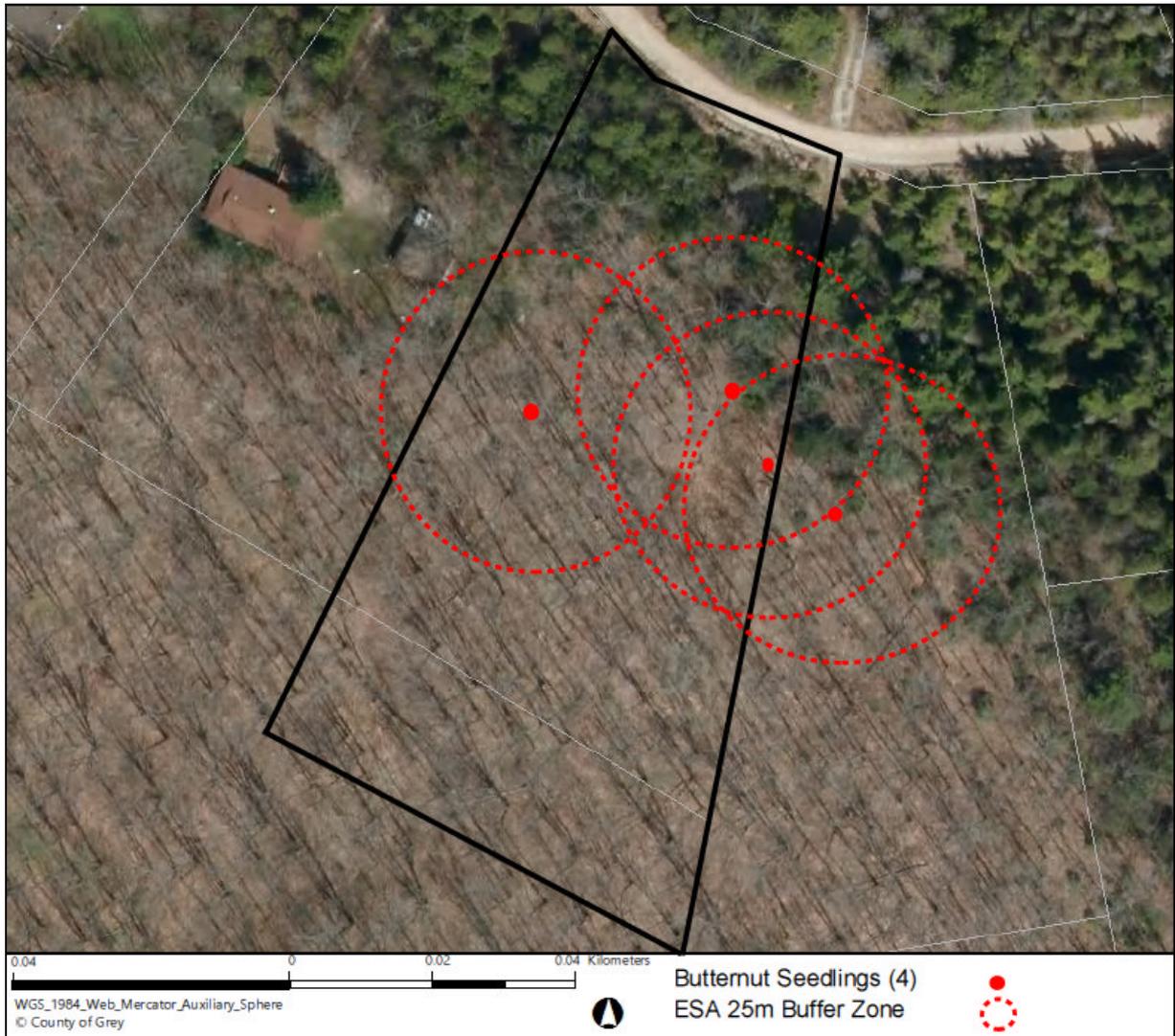
- Base map source: Grey County web site, April 2010 leaf-off air photo



- Study Lands identified with : Significant Woodlands and Regulated Species (Butternut) under the Provincial Endangered Species Act, 2007.

Figure No. 9: Present ESA Buffer Zones

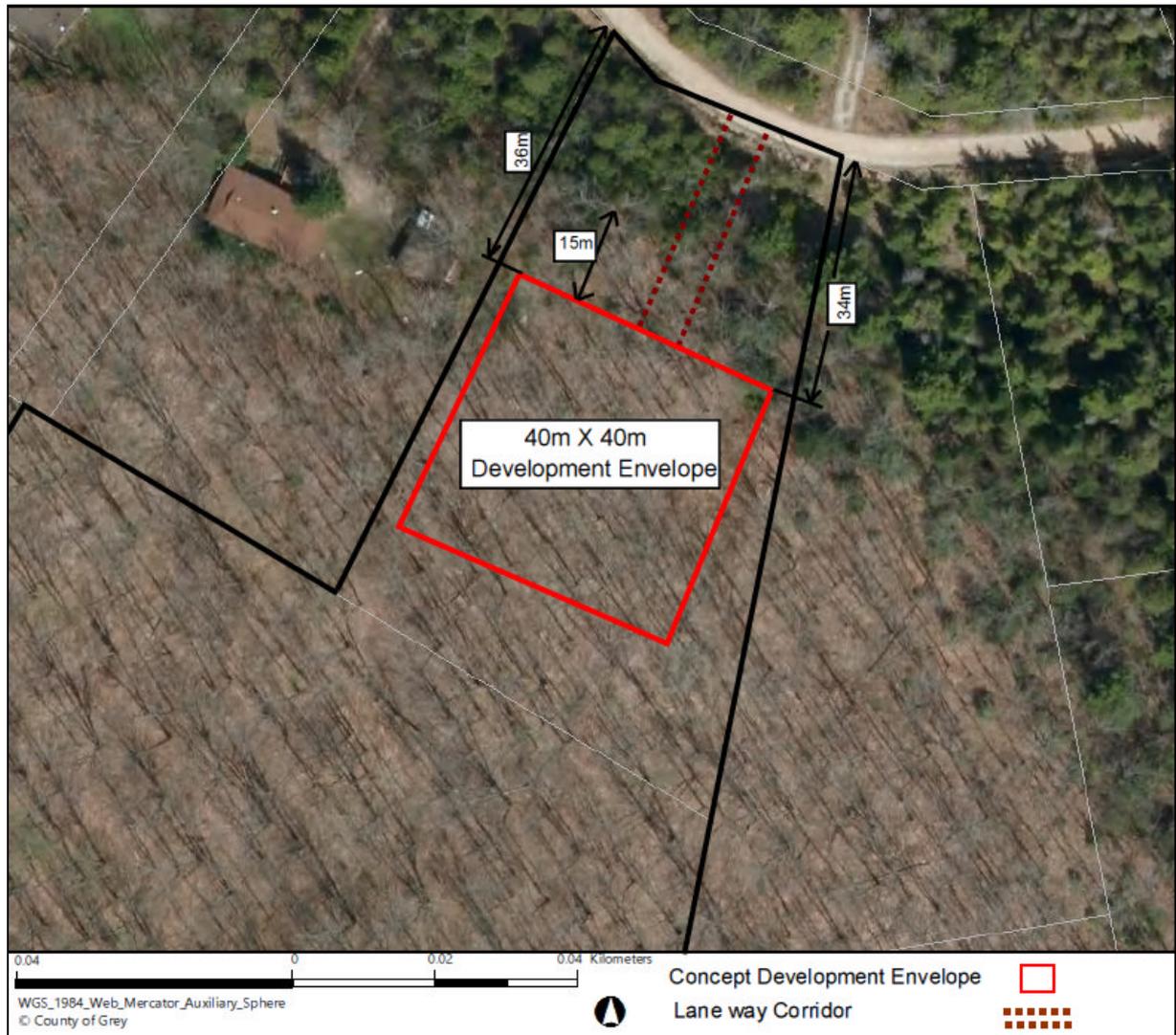
- Base map source : Grey County web site, April 2010 leaf-off air photo



- Buffer Zones shown are based on current Endangered Species Act (ESA) regulatory site development setbacks for 'No Development or Site Alterations' without application for removal under ESA.
- Given buffer zone locations and extent, no site development lands are accessible, as such Mr. Spaleta has proceeded with application under ESA for Butternut Impact Forms and remedial works of purchasing and planting genetically certified Butternut seedlings elsewhere (>25m from the proposed Site Development Lands) within this property, in compliance with ESA and Ministry of Natural Resources and Forestry.

Figure No. 10: Development Envelope

- Base map source : Grey County web site, April 2010 leaf-off air photo
- ESA Buffer Zones around identified Butternuts removed through ESA application/approval



- Development Envelope to be 15m back from edge of vegetation community No. 2 (slope stability), thus north perimeter of Concept Development Envelope shown at 36m south of the northwest property line corner and 34m south of the northeast property line corner.
- 40m X 40m Development Envelope = 0.16ha, which is below the EIS recommended maximum continuous clearing size of 0.4ha within a Significant Woodland.
- Existing lane along a portion of the south property line to be decommissioned.

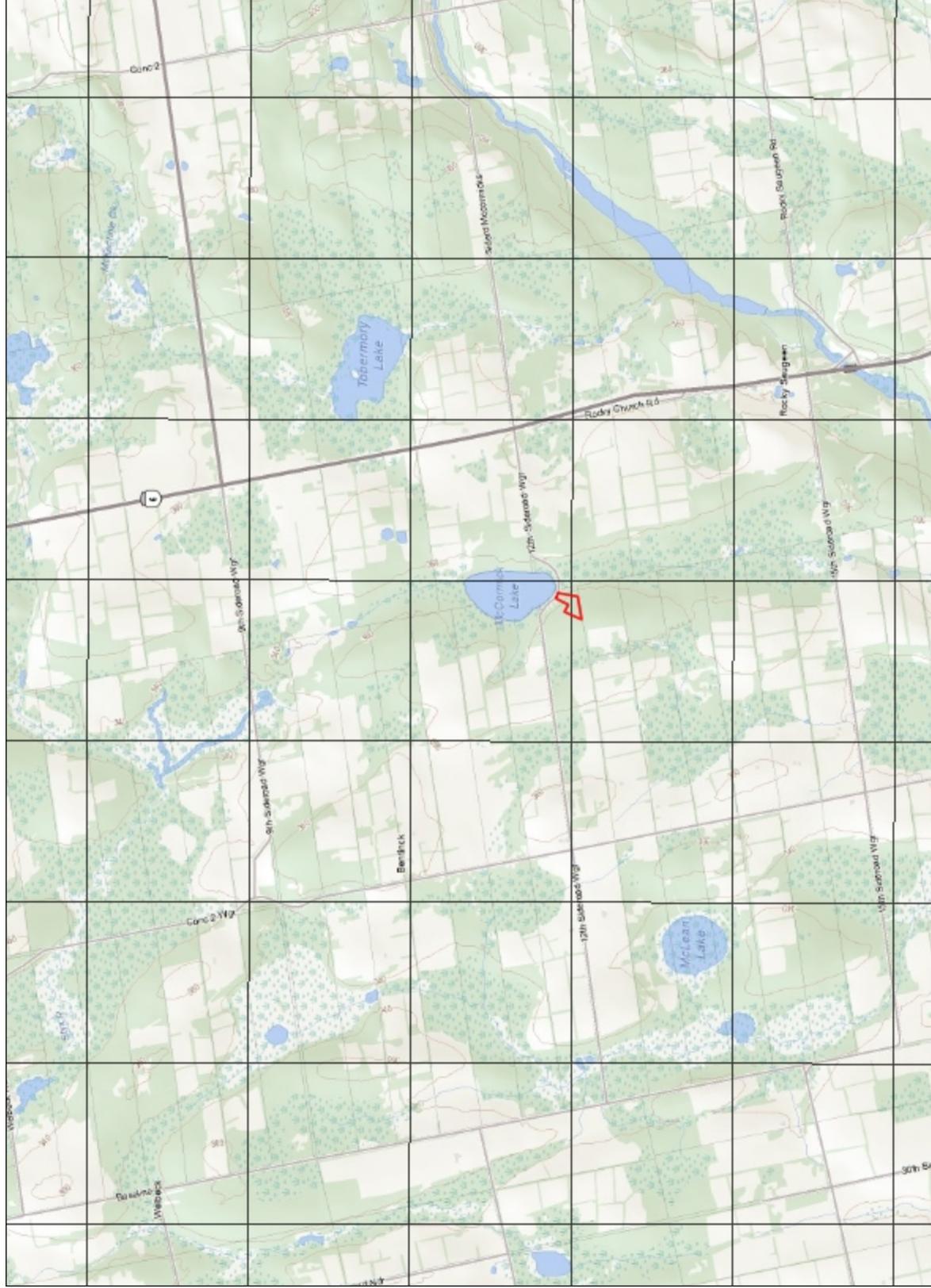
APPENDIX 1

- **MNRF- Natural Heritage Center data search for historical records of significant Flora and Fauna, with search coverage map of surrounding 5km area**



Species of Conservation Concern Records Search

Notes: John Spaleta's McCormick Lake Area Property,
Part Lot 29, Conc. 2 WGR, Bentinck



Legend

- Assessment Parcel
- Woodland
- Conservation Reserve
- Provincial Park
- Natural Heritage System
- Ecoregion
- Wetland
 - Provincially Significant Wetland Evaluated
 - Non-Provincially Significant Wetland Evaluated
 - Unrated Wetland
- Area of Natural Heritage & Scientific Interest (ANHS)
 - Provincially Significant Life Science (PLS)
 - Provincially Significant Earth Science (AES)
- Greenbelt Plan
 - Boundary
 - River Valley Connections
- Land Use Designations
 - Protected Countryside
 - Towns and Villages
 - Hamlets
 - Urban River Valley
 - Specialty Crop Area
- Niagara Escarpment Plan (NEP)
 - Boundary
 - Parks and Open Space System
- Land Use Designations
 - Escarpment Natural Area
 - Escarpment Protection Area
 - Escarpment Rural Area
 - Mineral Resource Extraction Area
 - Escarpment Recreation Area
 - Urban Area
 - Minor Urban Centre
- Oak Ridges Moraine Conservation Plan (ORM)
 - Boundary
 - Land Use Designations
 - Natural Core Area
 - Natural Linkage Area
 - Countryside Area
 - Rural Settlement
 - Palgrave Estates Residential Community
 - Settlement Area



Scale: 1 : 51,734



This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Natural Resources and Forestry (OMNRF) shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.

Imagery Copyright Notices: DRAPÉ © Aéro-Photo (1961) Inc., 2008 - 2009

GTA 2005 / SWOOP 2006 / Simcoe-Muskoka-Dufferin © FirstBase Solutions, 2005 / 2006 / 2008

© Copyright for Ontario Parcel data is held by Queen's Printer for Ontario and its licensors [2013] and may not be reproduced without permission. THIS IS NOT A PLAN OF SURVEY.

© Queen's Printer for Ontario, 2014



John Spaleta: McCormick Lake Area Property

Ministry of Natural Resources and Forestry - Historical records

search for Significant Flora & Fauna within 5km's to Study Lands

- American Badger, *Taxidea taxus*
 - Provincial Ranking = S2, Provincial Status = Endangered
 - Last recorded in search coverage area in 1980
- Eastern Meadowlark, *Sturnella magna*
 - Provincial Ranking = S4, Provincial Status = Threatened
 - Last recorded in search coverage area in 2004
- Eastern Milksnake, *Lampropeltis triangulum*
 - Provincial Ranking = S3, Provincial Status = Special Concern
 - Last recorded in search coverage area in 1977
- Eastern Ribbonsnake, *Thamnophis sauritus*
 - Provincial Ranking = S3, Provincial Status = Special Concern
 - Last recorded in search coverage area in 1981
- Snapping Turtle, *Chelydra serpentina*
 - Provincial Ranking = S3, Provincial Status = Special Concern
 - Last recorded in search coverage area in 2008
- Scarlet Beebalm, *Monarda didyma*
 - Provincial Ranking = S3, Provincial Status = Rare
 - Last recorded in search coverage area in 1901
- Hart's-tongue Fern, *Asplenium scolopendrium var. americanum*
 - Provincial Ranking = S3, Provincial Status = Special Concern
 - Last recorded in search coverage area in 2001
- Harlequin Darner, *Gomphaeschna furcillata*
 - Provincial Ranking = S3, Provincial Status = Special Concern
 - No recorded date
- Restricted Species No. 1620
- Restricted Species No. 35635

APPENDIX 2

- Flora Listing: Rankings, Status and Floristic Quality Scoring

Spaleta Property : Part Lot29, Conc. 2 WGR, Bentinck

Flora Inventory Listing with current Ranking, Status and Floristic Quality Assessment (FQA) Scores

One species of conservation concern identified : Butternut

Vegetation Community No. 1, 2 and 3

Latin Name	Common Name	Native or Introduced	Rank		Status			FQA	
			Nat.	Prov.	Nat.	Prov.	Local Status	CC	CW
<i>Abies balsamea</i>	Balsam Fir	N	N5	S5	NAR	NAR	Common	5	-3
<i>Acer saccharum</i>	Sugar Maple	N	N5	S5	NAR	NAR	Common	4	3
<i>Actaea pachypoda</i>	Doll's Eyes	N	NNR	S5	NAR	NAR	Common	6	5
<i>Adiantum pedatum</i>	Maidenhair Fern	N	N5	S5	NAR	NAR	Common	7	1
<i>Allium tricoccum</i>	Wild Leek	N	N5	S5	NAR	NAR	Common	7	2
<i>Anemone acutiloba</i>	Hepatica	N	N5	S5	NAR	NAR	Common	6	5
<i>Arisaema triphyllum</i>	Jack-in-the-pulpit	N	N5	S5	NAR	NAR	Common	5	-2
<i>Asarum canadense</i>	Wild Ginger	N	N5	S5	NAR	NAR	Common	6	5
<i>Betula alleghaniensis</i>	Yellow Birch	N	N5	S5	NAR	NAR	Common	6	0
<i>Carex arctata</i>	Drooping Wood Sedge	N	N5	S4S5	NAR	NAR	Common	0	0
<i>Carex castanea</i>	Chestnut Sedge	N	N5	S5	NAR	NAR	Common	7	-4
<i>Carex eburnea</i>	Ebony Sedge	N	N5	S5	NAR	NAR	Common	6	4
<i>Carex flava</i>	Yellow Sedge	N	N5	S5	NAR	NAR	Common	5	-5
<i>Carex gracillima</i>	Graceful Sedge	N	N5	S5	NAR	NAR	Common	4	3
<i>Carex intumescens</i>	Bladder Sedge	N	N5	S5	NAR	NAR	Common	6	-4
<i>Carex pallescens</i>	Pale Sedge	N	N5	S5	NAR	NAR	Common	5	3
<i>Carex pedunculata</i>	Long-stalked Sedge	N	N5	S5	NAR	NAR	Common	5	5
<i>Carex plantaginea</i>	Plantain-leaved Sedge	N	N5	S5	NAR	NAR	Common	7	5
<i>Caulophyllum thalictroides</i>	Blue Cohosh	N	N5	S5	NAR	NAR	Common	6	5
<i>Clinopodium vulgare</i>	Wild Basil	N	N5	S5	NAR	NAR	Common	4	5
<i>Clintonia borealis</i>	Blue Bead Lily	N	N5	S5	NAR	NAR	Common	7	-1
<i>Cornus alternifolia</i>	Alternate-leaved Dogwood	N	NNR	S5	NAR	NAR	Common	6	5
<i>Dactylis glomerata</i>	Orchard Grass	I	NNA	SNA	Exotic	Exotic	Exotic	0	3
<i>Dryopteris carthusiana</i>	Spinulose Woodfern	N	N5	S5	NAR	NAR	Common	5	-2

Dryopteris intermedia	Intermediate Wood Fern	N	N5	S5	NAR	NAR	Common	5	0
Epipactis helleborine	Helleborine	I	NNA	SNA	Exotic	Exotic	Exotic	0	5
Equisetum fluviatile	Water Horsetail	N	N5	S5	NAR	NAR	Common	7	-5
Erythronium americanum	Trout Lily	N	N5	S5	NAR	NAR	Common	5	5
Fagus grandifolia	Beech	N	NNR	S4S5	NAR	NAR	Common	6	3
Fraxinus pennsylvanica	Green Ash	N	N5	S4S5	NAR	NAR	Common	3	-3
Galearis spectabilis	Showy Orchis	N	NNR	S4	NAR	NAR	Common	9	5
Glyceria striata	Fowl Manna Grass	N	N5	S5	NAR	NAR	Common	3	-5
Juglans cinerea	Butternut	N	N3N4	S3?	END	END	END	6	2
Maianthemum canadense	Mayflower	N	N5	S5	NAR	NAR	Common	5	0
Maianthemum racemosum	Spikenard	N	N5	S5	NAR	NAR	Common	4	3
Maianthemum stellatum	Starry False Solomon's Seal	N	N5	S5	NAR	NAR	Common	6	1
Ostrya virginiana	Ironwood	N	N5	S5	NAR	NAR	Common	4	4
Petasites frigidus	Sweet Colt's Foot	N	N5	S5	NAR	NAR	Common	8	-3
Polystichum acrosticoides	Christmas Fern	N	N5	S5	NAR	NAR	Common	5	5
Prunus serotina	Black Cherry	N	N5	S5	NAR	NAR	Common	3	3
Prunus virginiana	Choke Cherry	N	NNR	S5	NAR	NAR	Common	2	1
Pteridium aquilinum	Bracken Fern	N	N5	S5	NAR	NAR	Common	2	3
Rhamnus cathartica	Common Buckthorn	I	NNA	SNA	Exotic	Exotic	Exotic	0	3
Rubus strigosus	Red Raspberry	N	N5	S5	NAR	NAR	Common	0	-2
Salix discolor	Pussy Willow	N	NNR	S5	NAR	NAR	Common	3	-3
Solidago rugosa	Rough Goldenrod	N	NNR	S5	NAR	NAR	Common	4	-1
Symphotrichum ciliolatum	Fringed Blue Aster	N	N5	S5	NAR	NAR	Common	6	4
Symphotrichum cordifolium	Heart-leaved Aster	N	N5	S5	NAR	NAR	Common	5	5
Symphotrichum lateriflorum	Calico Aster	N	N5	S5	NAR	NAR	Common	3	-2
Thuja occidentalis	White Cedar	N	N5	S5	NAR	NAR	Common	4	-3
Trillium grandiflorum	Large-flowered Trillium	N	N5	S5	NAR	NAR	Common	5	5
Tsuga canadensis	Hemlock	N	N5	S5	NAR	NAR	Common	7	3
Tussilago farfara	Colt's Foot	I	NNA	SNA	Exotic	Exotic	Exotic	0	3
Ulmus americana	American Elm	N	NNR	S5	NAR	NAR	Common	3	-2
Veronica officinalis	Common Speedwell	I	NNR	SNA	Exotic	Exotic	Exotic	0	5
Viola conspersa	Dog Violet	N	N5	S5	NAR	NAR	Common	4	-2
Vitis riparia	Wild Grape	N	N5	S5	NAR	NAR	Common	0	-2
Mean								4	1

Number of Native species = 52 or 91%
 Number of Introduced or Non-Native species = 5 or 9%
57

National and Provincial Rank: Based on current 2015 Ontario Natural Heritage Information Center (NHIC) listings

- NNA/ NNR defined as: No Ranking
- N5 defined as: Very common
- N4 defined as: Common
- N3 defined as: Rare to uncommon species
- N2 defined as : Very Rare
- N1 defined as: Extremely Rare
- SNA/S? defined as : Unranked
- S5 defined as: Secure
- S4 defined as: Apparently Secure
- S3 defined as: Vulnerable
- S2 defined as: Imperiled
- S1 defined as: Critically Imperiled

NAR defined as : Not At Risk / END defined as : Endangered / THR defined as :Threatened / SC defined as : Special Concern

National Status based on: Species At Risk Act, COSEWIC 2015 Listings

Provincial Status based on: Endangered Species Act 2007, NHIC 2015 and 2015 COSSARO Listings

Regional Status based on: Bruce-Grey Plant Committee: A Checklist of Vascular Plants for Bruce and Grey Counties Ontario

Ontario Ministry of Natural Resources, 'Floristic Quality Assessment' (FQA) Scoring System:

CC = Coefficient of Conservatism, ranked 0 (grows anywhere) to 10 (very specific habitat requirements)
 WI = Wetness Index, values from -5 (very wet) to 5 (very dry)

Note: CC scores of 8 or higher are indicator species of candidate Significant Woodlands

APPENDIX 3

- Fauna Listing: Ranking and Status

Spaleta Property : Part Lot 29, Conc. 2 WGR, Bentinck

Fauna Inventory Listing with current Ranking, Status and Highest Breeding Codes for Birds

One bird species of conservation concern identified

Scientific Name	Common Name	Ranking		Status			Breeding Codes	Observed Range of Adult Numbers
		Nat.	Prov.	National	Prov.	Regional		
<i>Bonasa umbellus</i>	Ruffed Grouse	N5	S4	NAR	NAR	Common	Pr	2
<i>Catharus fuscescens</i>	Veery	N5	S4	NAR	NAR	Common	Po-S	1
<i>Cardinalis cardinalis</i>	Northern Cardinal	N5	S4	NAR	NAR	Common	Po-H	2 or 3
<i>Contopus virens</i>	Eastern Wood-Pewee	N5	S4	SC	SC	Common	Po-H	1
<i>Cyanocitta cristata</i>	Blue Jay	N5	S5	NAR	NAR	Common	Pr	3
<i>Dycopopus pileatus</i>	Pileated Woodpecker	N5	S5	NAR	NAR	Common	Ob-X	1
<i>Dumetella carolinensis</i>	Gray Catbird	N5	S5	NAR	NAR	Common	Po-H	2
<i>Picoides villosus</i>	Hairy Woodpecker	N5	S5	NAR	NAR	Common	Po-H	2
<i>Poecile atricapillus</i>	Black-capped Chickadee	N5	S5	NAR	NAR	Common	Pr	5 to 7
<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak	N5	S4	NAR	NAR	Common	Po-H	2
<i>Picoides pubescens</i>	Downy Woodpecker	N5	S5	NAR	NAR	Common	Po-H	4 to 5
<i>Sayornis phoebe</i>	Eastern Phoebe	N5	S5	NAR	NAR	Common	Pr	3 to 4
<i>Seiurus aurocapillus</i>	Ovenbird	N5	S4	NAR	NAR	Common	Po-S	1 to 2
<i>Setophaga ruticilla</i>	American Redstart	N5	S5	NAR	NAR	Common	Po-H	1 to 3
<i>Sitta carolinensis</i>	White-breasted Nuthatch	N5	S5	NAR	NAR	Common	Po-H	3 to 4
<i>Spizella passerina</i>	Chipping Sparrow	N5	S5	NAR	NAR	Common	Po-H	2
<i>Troglodytes aedon</i>	House Wren	N5	S5	NAR	NAR	Common	Po-S	1
<i>Turdus migratorius</i>	American Robin	N5	S5	NAR	NAR	Common	Conf	4 to 5
<i>Vireo olivaceus</i>	Red-eyed Vireo	N5	S5	NAR	NAR	Common	Pr	2 to 3
<i>Zenaida macroura</i>	Mourning Dove	N5	S5	NAR	NAR	Common	Po-H	1
<i>Zonotrichia albicollis</i>	White-throated Sparrow	N5	S5	NAR	NAR	Common	Pr	2 to 4

Birds

Condensed Breeding Codes as per Bird Studies Canada Protocol	
Ob = Observed bird outside of the Breeding Season	Po-S = Possible: Singing/Calls in suitable nesting habitat
Ob -X = Observed in breeding season but no evidence of breeding	Pr = Probable: pairs observed, nest building, courtship display
Po-H = Possible: Observed in suitable nesting habitat	Conf = Confirmed: active nest, egg shells, feeding young

Scientific Name	Common Name	Ranking		Status			Observed Range of Adult Numbers
		N5	S5	NAR	NAR	Common	
<i>Odocoileus virginianus</i>	White-tailed Deer		S5	NAR	NAR	Common	2
<i>Peromyscus maniculatus</i>	Deer Mouse	N5	S5	NAR	NAR	Common	3
<i>Procyon lotor</i>	Raccoon	N5	S5	NAR	NAR	Common	1
<i>Sciurus carolinensis</i>	Eastern Gray Squirrel	N5	S5	NAR	NAR	Common	4
<i>Tamias striatus</i>	Eastern Chipmunk	N5	S5	NAR	NAR	Common	2

Mammals

None observed							0
---------------	--	--	--	--	--	--	---

Reptiles

<i>Bufo americanus</i>	American Toad	N5	S5	NAR	NAR	Common	1
------------------------	---------------	----	----	-----	-----	--------	---

Amphibians

None observed							0
---------------	--	--	--	--	--	--	---

Dragonflies and Damselflies

None observed							0
---------------	--	--	--	--	--	--	---

Butterflies

None observed							0
---------------	--	--	--	--	--	--	---

Fish

National and Provincial Rank: Based on current 2015 Ontario Natural Heritage Information Center (NHIC) listings

NNR/NNA defined as: Not Ranked
 N5 defined as: Secure
 N4 defined as: Apparently Secure
 N3 defined as: Vulnerable
 N2 defined as: Imperiled
 N1 defined as: Critically Imperiled

SNR/SNA defined as: Unranked
 S5 defined as: Secure
 S4 defined as: Apparently Secure
 S3 defined as: Rare to Uncommon
 S2 defined as: Very Rare
 S1 defined as: Extremely Rare

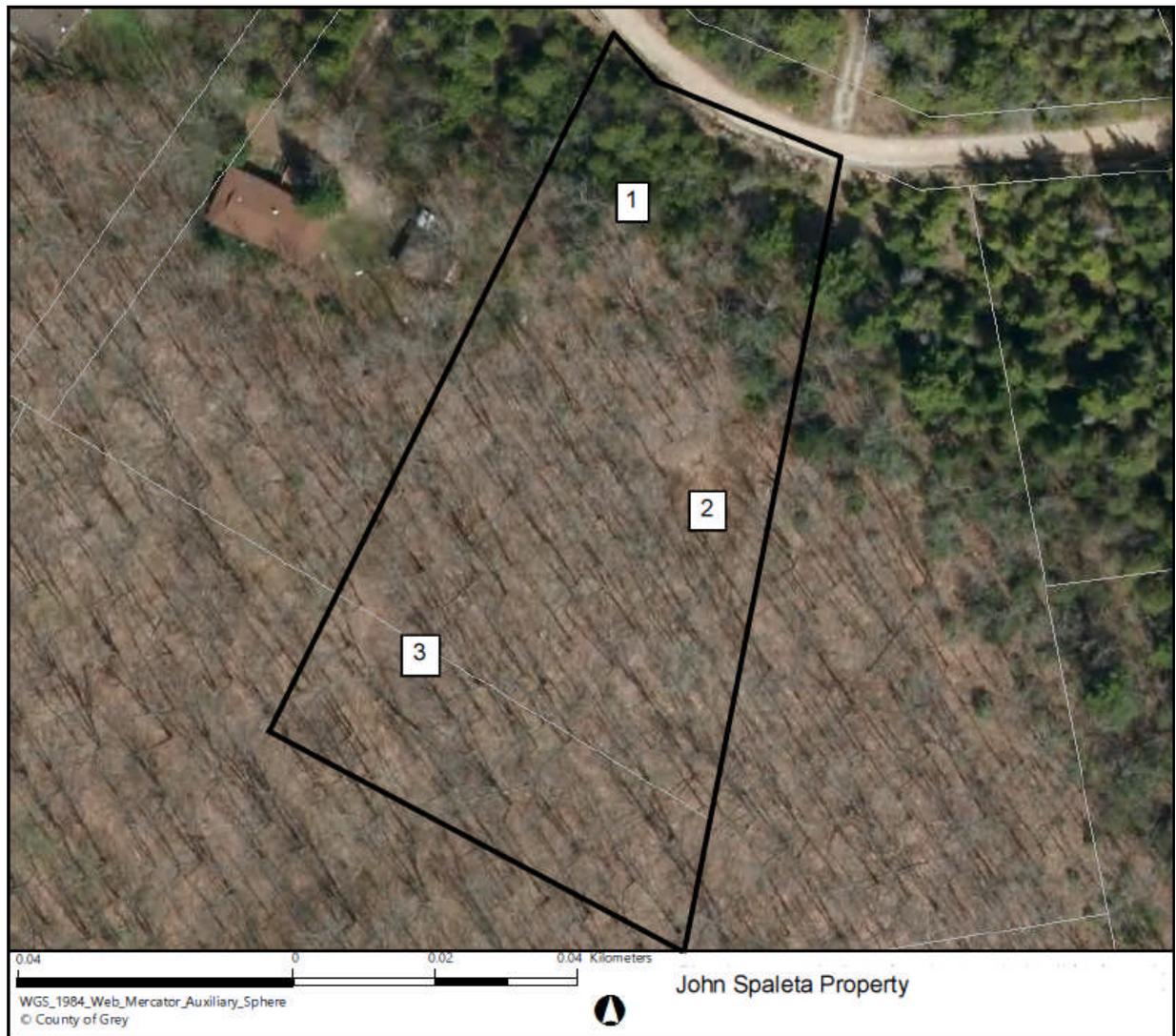
NAR defined as: Not At Risk END defined as: Endangered THR defined as: Threatened SC defined as: Special Concern

National Status based on: Species At Risk Act, and COSEWIC 2015 Listings

Provincial Status based on: Endangered Species Act 2007, NHIC 2015, COSSARO 2015 Listings

Regional Status lists based on: Birds- Region No. 9 (Grey) 'Atlas Breeding Birds of Ontario 2001-2005' Dragonflies & Damselflies (Grey) ' Regional Lists of Ontario Odonata'

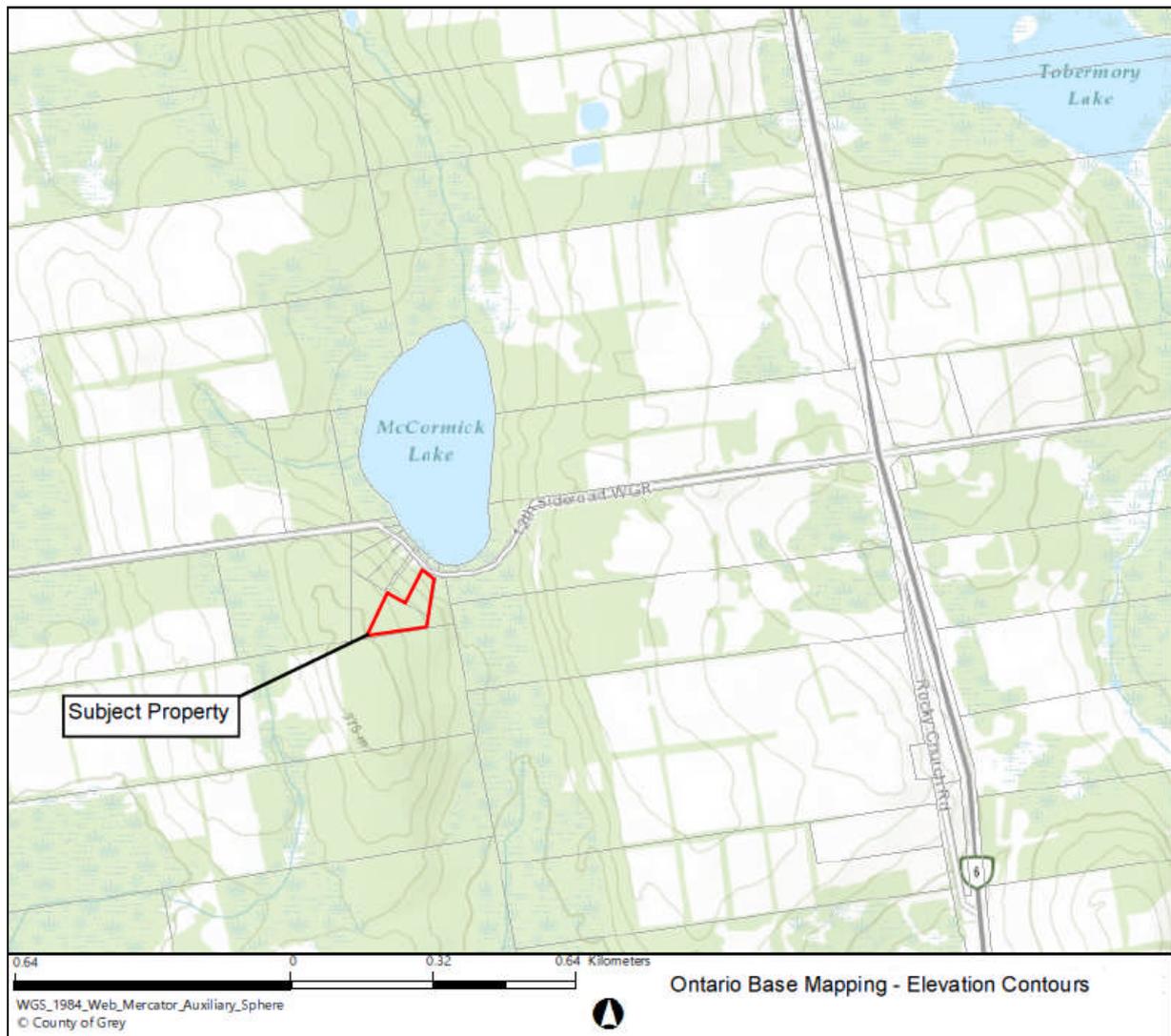
Spaleta Property : Breeding Bird Point Count Locations



APPENDIX 4

- Provincial Topographic Site Mapping

Spaleta Property : Significant Valleyland, Topographic Review



APPENDIX 5

- **Butternut Health Assessment Report, November 6, 2015**



AWS Environmental Consulting Inc.

(Operating as Aquatic and Wildlife Services)

**242090 Concession Rd. 3 Keppel,
R.R. # 1, Shallow Lake, Ontario, Canada, N0H 2K0**

Office: 519-372-2303, Email: aws@gbtel.ca

Web site: www.awsenvironmental.ca

Butternut Health Assessor: John Morton, No. 099
242090 Conc. Rd. 3 Keppel
R.R. 1, Shallow Lake, ON
N0H 2K0
519-372-2303
aws@gbtel.ca

John Spaleta
159 Delatre Street
Woodstock, ON
N4S6C2
519-539-7699
jspaleta@fioautomotive.com

November 6, 2015

RE: 442830 12th Side Road WGR
Bentinck Township
Municipality of West Grey, Grey County
BHA Report Number: 01
Date(s) of Butternut health assessment: August 19, 2015

Dear Mr. Spaleta

This letter is in regard to my assessment of the Butternut trees on your property. Please read this letter carefully as it contains important information about the Endangered Species Act, 2007 (ESA).

Butternut is listed as an endangered species on the Species at Risk in Ontario List, and as such, it is protected under the ESA from being killed, harmed, or removed. If you are planning to undertake an activity that may affect Butternut, you may be eligible to follow the requirements set out in section 23.7 of Ontario Regulation 242/08 under the ESA, or you may need to seek an authorization under the ESA (e.g., a permit).

Please visit e-laws at the link provided below for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled. Information about Butternut is also available at: <http://www.ontario.ca/environment-and-energy/butternut-trees-your-property>.

If you are eligible to kill, harm or take Butternut under section 23.7 of the regulation, your first step is to submit the BHA Report and the original data forms enclosed in this package to the local MNR District Manager. Note that the MNR will not accept photocopies. The BHA Report must be submitted at least 30 days prior to registering to kill, harm, or remove a Butternut tree. During this 30 day period, no Butternut trees (of any category) may be killed, harmed, or removed, and MNR may contact you for an opportunity to examine the trees.

Links:
Endangered Species Act, 2007: http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_07e06_e.htm
Ontario Regulation 242/08 (refer to section 23.7): http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm
Summary of changes related to Butternut: http://www.ontario.ca/environment-and-energy/butternut-trees-your-property
MNR office locations: http://www.mnr.gov.on.ca/en/ContactUs/2ColumnSubPage/STEL02_179002.html

If MNR chooses to examine the trees, a representative of the MNR will contact you using the information you supplied when you submitted the BHA Report. After the examination has been completed, MNR will notify you if the examination results change whether you are eligible for the regulation.

If you are eligible to follow the rules in regulation under section 23.7, you may register your activity using the “Notice of Butternut Impact” form on the [MNR Registry](#) **after** the 30 day period has elapsed.

If you are **not** eligible to follow the rules in regulation under section 23.7, please contact the local Ministry of Natural Resources (MNR) office to determine whether you will need to seek a permit. A link to the directory of MNR offices is provided in the text box on the previous page.

As a designated Butternut Health Assessor (BHA), I am providing the following Butternut Health Assessor’s Report for the trees located at the above noted property, for which I completed an assessment during the site visit on the above noted date. If there are other Butternut trees at the site that may be affected by the activity and they are not identified in this report, they too must be assessed by a BHA.

Note that municipal by-laws and legislation other than the ESA may also be applicable to the removal or harming of trees.

Please retain this letter and a copy of the BHA Report for your records, along with any other documentation you may receive from the MNR should an examination of the trees occur. If you have any questions, please do not hesitate to contact me or your [local MNR district office](#) .

Sincerely,

John Morton

Enclosures:

1. Butternut Health Assessor's Report
2. Original data forms
3. Electronic and printed copies of the Excel data spreadsheet (BHA Tree Analysis)

Copy: Ministry of Natural Resources, Midhurst District
Jodi Benvenuti email: jodi.benvenuti@ontario.ca

Butternut Health Assessor's Report

Butternut Health Assessor: John Morton, No. 099
242090 Conc. Rd. 3 Keppel
R.R. 1, Shallow Lake, ON
N0H 2K0
519-372-2303
aws@gbtel.ca

Landowner: John Spaleta
John Spaleta
159 Delatre Street
Woodstock, ON
N4S6C2
519-539-7699
jspaleta@fioautomotive.com

Property description: 442830, 12th Side Road WGR, Bentinck Twp, Grey County

BHA Report Number: 01
Date(s) of Butternut health assessment: August 19, 2015
Date BHA Report prepared: November 6, 2015

Map datum used: X NAD83 WGS84

Total number of trees assessed in this BHA Report: 03

The assessed trees were numbered on site using orange flagging tap with No. 01,02,03. The numbers at the site correspond to the tree numbers used in this report.

This BHA Report includes the following tables:

- Table 1: Butternut trees proposed to be killed, harmed, or taken
- Table 2: Butternut trees that are **not** proposed to be killed, harmed or taken
- Table 3: Trees determined to be hybrid Butternuts
- Table 4: Summary of Assessment Results

Table 1: Butternut trees proposed to be killed, harmed, or taken

Tree #	UTM coordinates	Category ¹ (1, 2, or 3 ²)	dbh ³ (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: killed, harmed or taken)	Reason tree is proposed to be killed, harmed or taken:
1	511924E , 4899030N	2	1	N	Taken	Residential Dwelling Development
2	511926E, 4899019N	2	1	N	Taken	Residential Dwelling Development
3	511888E, 4899030N	2	1	N	Taken	Residential Dwelling Development

Table 2: Butternut trees that are **not** proposed to be killed, harmed or taken

Tree #	UTM coordinates	Category (1, 2, or 3)	dbh ⁴ (cm)	Cultivated? (Y/N)
4	Seedling situated 10m beyond property line on other private lands	2	1	N

Table 3: Trees determined to be hybrid Butternuts

Tree #	UTM coordinates
	None

Table 4: Summary of Assessment Results

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
Category 1	0	<ul style="list-style-type: none"> A Category 1 tree is one that is affected by butternut canker to such an advanced degree that retaining the tree would not support the protection or recovery of butternut in the area in which the tree is located; and is considered “non-retainable”. During the 30 day period that follows your submission of this BHA Report to the MNR District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNR may contact you for an opportunity to examine the trees. Category 1 trees may be killed, harmed or taken after the 30 day period that follows submission of this BHA Report to the MNR District Manager, unless the results of an MNR examination indicate that the assessment has not been conducted in accordance with the document entitled “Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the <i>Endangered Species Act, 2007</i>”.

¹ The extent to which the tree is affected by Butternut Canker is presented in the Excel document titled, “BHA Tree Analysis” that accompanies this BHA Report.

² The rules in regulation under section 23.7 of O. Reg. 242/08 are not applicable to Category 3 trees.

³ dbh: diameter at breast height, rounded to nearest cm (if tree is shorter than breast height, enter zero)

⁴ dbh: diameter at breast height, rounded to nearest cm (if tree is shorter than breast height, enter zero)

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
Category 2	3	<ul style="list-style-type: none"> • A Category 2 tree is one that is not affected by Butternut Canker, or is affected by Butternut Canker but the degree to which it is affected is not too advanced and retaining the tree could support the protection or recovery of butternut in the area in which the tree is located, and is considered “retainable”. • During the 30 day period that follows your submission of this BHA Report to the MNR District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNR may contact you for an opportunity to examine the trees. • Activities that may kill, harm or take up to a maximum of ten (10) Category 2 trees may be eligible to follow the rules in section 23.7 of Ontario Regulation 242/08, in accordance with the conditions and requirements set out in the regulation. • Refer to e-Laws for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled: http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm
Category 3	0	<ul style="list-style-type: none"> • A Category 3 tree is one that may be useful in determining sources of resistance to Butternut Canker, and is considered “archivable”. • Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08. • Visit the MNR website using the link below for information on how to seek an ESA authorization, or consider an alternative that will avoid killing, harming or taking any Category 3 trees: http://www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/MNR_SAR_HOW_DO_GET_PER_EN.html
Cultivated	0	<ul style="list-style-type: none"> • An activity that involves killing, harming, or taking a cultivated Butternut tree that was not required to be planted to fulfill a condition of an ESA permit or a condition of a regulation, may be eligible for the exemption provided by subsection 23.7 (11) of O. Reg. 242/08. • Prior to undertaking the activity, the owner or occupier of the land on which the Butternut is located (or person acting on their behalf) will need to determine whether the exemption for cultivated trees is applicable by determining whether or not the tree was cultivated as a result of the requirements for an exemption under O. Reg. 242/08 or a condition of a permit issued under the ESA. This information can be accessed by contacting the local MNR district office: http://www.mnr.gov.on.ca/en/ContactUs/2ColumnSubPage/STEL02_179002.html • The owner or occupier of the land on which the Butternut is located (or person acting on their behalf) is encouraged to append the details regarding whether the tree was planted to satisfy a requirement (e.g., the permit number or registration number) to this BHA Report for their records.
Hybrid	0	<ul style="list-style-type: none"> • Hybrid Butternut trees are not protected under the ESA, but their removal may be subject to municipal by-laws and other legislation.

NOTE: This concludes the summary of the BHA Report. A complete BHA Report must include the original (hard copy) data forms (i.e., all completed sets of Form 1 and Form 2), an electronic copy of the Excel data analysis spreadsheet, and one printed copy of the Excel data analysis spreadsheet.

Butternut Data Collection FORM 2 (2010 Edition)

(PLEASE USE BLOCK LETTERS)

Fill when Form 1 indicates canker is well established. The information on Form 2 must be filled out for all trees when doing a Butternut Health Assessment.

Shaded fields are mandatory for Butternut Health Assessments

AAA Site Code(A,B,...Z, AA...)

Surveyor ID or BHA # 0099

Date (dd/mm/yyyy) 19-08-2015

Surveyor Last Name MORTON

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree # Zone Easting Northing
001 175119244899030

4 Crown Class 100 Live Crown % 01 Main Stem Length(m) Below crown Seed Signs
 Twig Dieback Branch Dieback Defoliation Discolouration #Stems 1
 Butternut Origin Natural Planted Unknown Male Flowers Female Flowers None

Assess below live crown
 #Epic-Live 01 #Epic-Dead 00 #Open #Sooty Root 00 00
 Bark Type S =<2m 00 00 # Callused Wounds 00 >2m 00 00

Metres from badly cankered tree < 40 > 40 None Found

Competing Species
MH

Healthy Seedling 1m in height

Tree # Zone Easting Northing
002 175119264899019

4 Crown Class 100 Live Crown % 01 Main Stem Length(m) Below crown Seed Signs
 Twig Dieback Branch Dieback Defoliation Discolouration #Stems 1
 Butternut Origin Natural Planted Unknown Male Flowers Female Flowers None

Assess below live crown
 #Epic-Live 00 #Epic-Dead 00 #Open #Sooty Root 00 00
 Bark Type S =<2m 00 00 # Callused Wounds 00 >2m 00 00

Metres from badly cankered tree < 40 > 40 None Found

Competing Species
MH
HE

Healthy Seedling 1m in height

Tree # Zone Easting Northing
003 175118884899030

4 Crown Class 100 Live Crown % 01 Main Stem Length(m) Below crown Seed Signs
 Twig Dieback Branch Dieback Defoliation Discolouration #Stems 1
 Butternut Origin Natural Planted Unknown Male Flowers Female Flowers None

Assess below live crown
 #Epic-Live 00 #Epic-Dead 00 #Open #Sooty Root 00 00
 Bark Type S =<2m 00 00 # Callused Wounds 00 >2m 00 00

Metres from badly cankered tree < 40 > 40 None Found

Competing Species
MH
AW

Healthy Seedling 1m in height

Tree # Zone Easting Northing
1

Crown Class Live Crown % Main Stem Length(m) Below crown Seed Signs
 Twig Dieback Branch Dieback Defoliation Discolouration #Stems
 Butternut Origin Natural Planted Unknown Male Flowers Female Flowers None

Assess below live crown
 #Epic-Live #Epic-Dead #Open #Sooty Root
 Bark Type =<2m # Callused Wounds >2m

Metres from badly cankered tree < 40 > 40 None Found

Competing Species

*Fourth seedling on adjacent private lands, appears Healthy

Tree # Zone Easting Northing
1

Crown Class Live Crown % Main Stem Length(m) Below crown Seed Signs
 Twig Dieback Branch Dieback Defoliation Discolouration #Stems
 Butternut Origin Natural Planted Unknown Male Flowers Female Flowers None

Assess below live crown
 #Epic-Live #Epic-Dead #Open #Sooty Root
 Bark Type =<2m # Callused Wounds >2m

Metres from badly cankered tree < 40 > 40 None Found

Competing Species

Please enter matching page link code on forms 1 and 2

Page Link 511924

(Contact Information follows all applicable privacy policies and guidelines)

Please return forms to:
 Forest Gene Conservation Association
 Suite 233, 266 Charlotte St.
 Peterborough, ON, K9J 2V4
 www.fgca.net

49731



BHA Tree Analysis (version: December 2013)

This table is to be completed by a designated Butternut Health Assessor (BHA).

BHA Report #	1	Assessment Date(s)	19-Aug-15				Total # Butternut Trees in BHA Report	3												
BHA ID #	99	BHA Name	John Morton																	
Landowner / Client Name		John Spaleta																		
Property Location																				
input field data										automatic calculations from field data						Categories:				
Tree #	Live Crown %	Tree dbh (cm)	# bole cankers				# root flare (RF) cankers		<40 m from cankered tree? (Y or N)	Circ. (cm) = Pi x dbh	total bole canker width (sooty x 2.5 + open x 5)	total RF canker width (sooty x 2.5 + open x 5)	bole canker % of circ.	RF canker % of circ.	total bole & root canker % of 2xCirc	LC% >= 50 & BC% = 0	LC% >70 & BRC % <20	LC% >70 & BC % <20	Preliminary tree call	FINAL TREE CALL a Cat 2, dbh>20cm <40m from a Cat 1
			S <2 m	S >2 m	O <2 m	O >2 m	RF S	RF O		Circ (cm)	BC (cm)	RC (cm)	BC%	RC%	BRC%					
1	100	1	0	0	0	0	0	0	N	3.14	0.0	0.0	0.0	0.0	0.0	2	2	2	2	2
2	100	1	0	0	0	0	0	0	N	3.14	0.0	0.0	0.0	0.0	0.0	2	2	2	2	2
3	100	1	0	0	0	0	0	0	N	3.14	0.0	0.0	0.0	0.0	0.0	2	2	2	2	2
4										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
5										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
6										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
7										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
8										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
9										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
10										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
11										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
12										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
13										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
14										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
15										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
16										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
17										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
18										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
19										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
20										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
21										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
22										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
23										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
24										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
25										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
26										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
27										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
28										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
29										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
30										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!
31										0	0.0	0.0	#####	#####	#####	####	####	###	##	#DIV/0!



Explanation of Butternut Categories under Ontario Regulation 242/08

On July 1 2013, Ontario Regulation 242/08, (the General Regulation under the Endangered Species Act, 2007) was amended to include a new subsection pertaining to Butternut (s. 23.7). This amendment resulted in revisions to the rules that Butternut Health Assessors (BHAs) must follow when conducting health assessments of Butternut trees.

The categories for classification of trees have broadened from the previous categories of 'retainable' and 'non-retainable' to include a third category for trees that may be useful in determining sources of resistance to Butternut Canker. The exemptions from ESA prohibitions that are provided by section 23.7 of the regulation are not applicable to Category 3 trees.

Butternut Categories, as defined in section 23.7 of Ontario Regulation 242/08:

Category 1: the butternut tree is affected by butternut canker to such an advanced degree that retaining the tree would not support the protection or recovery of butternut trees in the area in which the tree is located.

Category 2: the butternut tree is not affected by butternut canker or the butternut tree is affected by butternut canker but the degree to which it is affected is not too advanced and retaining the tree could support the protection or recovery of butternut trees in the area in which the tree is located.

Category 3: the butternut tree may be useful in determining sources of resistance to butternut canker.

Summary of Categories:

Category 1: Non-retainable Butternut

Category 2: Retainable Butternut

Category 3: A Butternut is judged to be Category 3 if the Butternut exhibits resistance to Butternut Canker, based on observation that:

- (3)(a) It satisfies the criteria for Category 2,
- (3)(b) It has a breast height diameter of at least 20 cm, and
- (3)(c) It occurs within 40 m of at least one Butternut tree which is severely affected by Butternut Canker.

As scientific research provides greater understanding of resistance to Butternut Canker, other criteria for determining the categorization of a Butternut tree may be adopted. The BHA must ensure they are using the most up to date versions of the Butternut Assessment Guidelines and all Butternut health assessment materials. To receive updates from the Ministry, BHAs are required to keep their contact information up to date, as specified in the BHA Protocol.

For more information on the regulation changes pertaining to Butternut:

<http://www.ontario.ca/environment-and-energy/butternut-trees-your-property>

Contact: esapermits@ontario.ca

APPENDIX 6

- ESA: Ontario Regulation 242/08-section 23.7
- Proponent ESA Application for Butternut + Buffer Zone removal for identified Butternuts within the Study Lands-Development Envelope and Laneway Access Corridor.

Endangered Species Act, 2007

ONTARIO REGULATION 242/08

GENERAL

Consolidation Period: From January 1, 2014 to the [e-Laws currency date](#).

Last amendment: O. Reg. 323/13 (as am. by O. Reg. 325/13).

This is the English version of a bilingual regulation.

Butternut

[23.7 \(1\)](#) In this section,

“butternut health assessor” means a person or member of a class of persons designated by the Minister for the purpose of assessing whether, and the extent to which, butternut trees are affected by butternut canker; (“évaluateur de la santé des noyers cendrés”)

“seed zone” means a seed zone identified in the document entitled “Southern Ontario Tree Seed Zone Atlas” that is published by the Ministry of Natural Resources, dated 2011, as amended from time to time, and that is available to the public at the Ministry’s district offices, at the Ministry’s corporate library in Peterborough or on the Ministry’s website. (“zone de semences”) O. Reg. 176/13, s. 14.

[\(2\)](#) The following classes of butternut trees are established for the purposes of this section:

1. Category 1 tree — the butternut tree is affected by butternut canker to such an advanced degree that retaining the tree would not support the protection or recovery of butternut trees in the area in which the tree is located.
2. Category 2 tree — the butternut tree is not affected by butternut canker or the butternut tree is affected by butternut canker but the degree to which it is affected is not too advanced and retaining the tree could support the protection or recovery of butternut trees in the area in which the tree is located.
3. Category 3 tree — the butternut tree may be useful in determining sources of resistance to butternut canker. O. Reg. 176/13, s. 14.

[\(3\)](#) This section does not apply to a butternut tree if a butternut health assessor has conducted an assessment of the tree in accordance with the practices and requirements referred to in subparagraph 1 ii of subsection (4) and determined that the tree is a category 3 tree. O. Reg. 176/13, s. 14.

[\(4\)](#) Subject to subsection (5), clause 9 (1) (a) of the Act does not apply to a person who kills, harms or takes butternut trees if the following conditions are satisfied:

1. The following events must be completed at least 30 days before the person kills, harms or takes the butternut trees,
 - i. the person must request a butternut health assessor to conduct an assessment of the health of the butternut trees,
 - ii. the butternut health assessor must conduct an assessment of the health of the butternut trees in accordance with the practices and requirements for such assessments set out in the document entitled “Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the *Endangered Species Act, 2007*”, published by the Ministry of Natural Resources, dated May 2011, as amended from time to time, and available to the public on the Ministry’s website,

- iii. the butternut health assessor must provide a written report in respect of the butternut trees that is completed in accordance with the guidelines set out in the document referred to in subparagraph ii and that meets the requirements of subsection (6),
 - iv. the person must give the butternut health assessor's report to the district manager of the Ministry for the district in which the butternut trees are located.
2. The butternut health assessor's report must indicate that, in the opinion of the butternut health assessor, the butternut trees are either category 1 trees or category 2 trees and are not category 3 trees.
3. During the 30-day period that follows the day the person gives the report of the butternut health assessor to a district manager, the person must give permission to enter the property on which the trees are located for the purpose of examining the trees to the district manager or any employee of the Ministry who request the permission to do so.
4. If the butternut health assessor's report indicates that one or more of the butternut trees are category 2 trees, the person must satisfy the following additional conditions with respect to those trees after the 30-day period described in paragraph 3 has elapsed:
 - i. before killing, harming or taking the category 2 trees, the person must give the Minister notice of the activity by submitting a notice of butternut impact form available on the Registry to the Minister through the Registry,
 - ii. the person must ensure that the notice of butternut impact form includes,
 - A. the number of category 2 trees that the person proposes to kill, harm or take,
 - B. whether the category 2 trees will be killed, harmed or taken,
 - C. the location of each category 2 tree and the diameter of each tree at breast height, and
 - D. the date and report number of the butternut health assessor's report prepared in respect of the butternut trees in question,
 - iii. the person must follow the requirements of subsections (7) and (8) with respect to the completion of the notice of butternut impact form, the keeping of records relating to the notice of butternut impact form and the updating of the information on the Registry, and
 - iv. the person must comply with the requirements set out in subsection (10) for planting seedlings to replace butternut trees that are killed, harmed or taken and for monitoring and tending to those seedlings, and keeping records in relation to the seedlings. O. Reg. 176/13, s. 14.

(5) The exemption from clause 9 (1) (a) of the Act provided in subsection (4) is subject to the following limitations:

1. If the report of a butternut health assessor identifies more than 10 butternut trees as category 2 trees among the butternut trees that a person proposes to kill, harm or take, the exemption shall not apply with respect to more than 10 such trees.
2. The exemption shall not apply if,
 - i. the person has previously been exempted, pursuant to subsection (4), from clause 9 (1) (a) of the Act with respect to 10 butternut trees that were identified by a butternut health assessor as category 2 trees,
 - ii. the butternut trees that the person is proposing to kill, harm or take are located in the same area as the 10 butternut trees with respect to which the person was previously exempted from clause 9 (1) (a) of the Act, or in an area situated in close proximity to that area, and
 - iii. the reasons for which the person is proposing to kill, harm or take butternut trees are the same as, or similar to, the reasons for which the person previously killed, harmed or took butternut trees. O. Reg. 176/13, s. 14.

(6) A butternut health assessor's report shall, for each butternut tree that a person is proposing to kill, harm or take,

- (a) identify the precise location of the tree;
- (b) set out the diameter of the tree at breast height or indicate that the tree is shorter than breast height;
- (c) state whether, in the opinion of the butternut health assessor, the tree is affected by butternut canker, describe the extent of the canker and classify the tree as a category 1 or 2 tree depending on the extent of the butternut canker;
- (d) determine if, in the opinion of the butternut health assessor, the tree may be useful in determining sources of resistance to butternut canker and should be categorized as a category 3 tree; and
- (e) identify the reason the person is proposing to kill, harm or take the butternut tree, if known to the butternut health assessor. O. Reg. 176/13, s. 14.

(7) Before submitting a notice of butternut impact form to the Minister, the person must ensure that,

- (a) all mandatory information requested on the form, including the person's contact information, has been provided; and
- (b) the information provided on the form is complete and accurate. O. Reg. 176/13, s. 14.

(8) After submitting a notice of butternut impact form to the Minister, the person must,

- (a) promptly upon obtaining from the Ministry confirmation that a notice of butternut impact form submitted through the Registry has been received by the Minister, make a record of the confirmation;
- (b) for as long as the activity is being carried out,
 - (i) keep the record of the confirmation and, if applicable, ensure that a copy of the record is kept at the site where the activity is being carried out, and
 - (ii) make the record of the confirmation available to the Ministry upon receiving a request for it; and
- (c) if there is a change in the contact information for the person who submitted the notice of butternut impact form, update the information on the Registry within 10 business days of the change. O. Reg. 176/13, s. 14.

(9) A person who provides incomplete, false or misleading information on a notice of butternut impact form or when updating information on the Registry shall be deemed to have not submitted the notice of butternut impact form. O. Reg. 176/13, s. 14.

(10) A person who kills, harms or takes one or more butternut trees that are category 2 trees and who, pursuant to subsection (4), is exempt from clause 9 (1) (a) of the Act shall comply with the following requirements:

1. For each tree that is killed or taken, the person shall plant butternut seedlings in accordance with the following rules:
 - i. at least two butternut seedlings, if the tree that is killed or taken is described in the butternut health assessor's report as shorter than breast height or less than three centimetres in diameter at breast height,
 - ii. at least five butternut seedlings, if the tree that is killed or taken is described in the butternut health assessor's report as at least three centimetres but less than 15 centimetres in diameter at breast height, and
 - iii. at least 20 butternut seedlings, if the tree that is killed or taken is described in the butternut health assessor's report as 15 centimetres or greater in diameter at breast height.
2. For each tree that is harmed, the person shall plant butternut seedlings in accordance with the following rules:
 - i. at least one butternut seedling, if the tree that is harmed is described in the butternut health assessor's report as shorter than breast height or less than three centimetres in diameter at breast height,

- ii. at least three butternut seedlings, if the tree that is harmed is described in the butternut health assessor's report as at least three centimetres but less than 15 centimetres in diameter at breast height, and
 - iii. at least 10 butternut seedlings, if the tree that is harmed is described in the butternut health assessor's report as 15 centimetres or greater in diameter at breast height.
3. Every butternut seedling that is planted must have been grown from seed that originated from the seed zone in which it is planted.
4. All butternut seedlings must be planted within three years of the person submitting the relevant notice of butternut impact form under subparagraph 4 i of subsection (4).
5. Butternut seedlings must be planted in an area with the following characteristics:
 - i. the soil must be greater than one metre deep, moist but well-drained and have a fine to medium texture with a recognizable organic layer and with a pH ranging from 6.8 to 7.2, and
 - ii. the area must provide full sunlight conditions to the butternut seedlings.
6. In order to avoid a monoculture of butternut, the person shall plant deciduous trees and shrubs that are not butternut seedlings and that are native to the area in which the seedlings are planted in such numbers to ensure that there are an equal number of butternut trees and other native Ontario species in the area.
7. Every butternut seedling and companion tree or shrub referred to in paragraph 6 must be planted either between March 1 and May 15 or between September 20 and October 30 of any year, except for a butternut seedling or companion tree or shrub that was grown in a container which may be planted between May 16 and May 25 of any year.
8. No more than 200 butternut seedlings shall be planted in a hectare.
9. Butternut seedlings must be planted at least,
 - i. three metres from other planted butternut seedlings,
 - ii. two metres from other trees or shrubs that are likely to be the same height or shorter than the butternut tree at full growth,
 - iii. four metres from other trees or shrubs that are likely to be taller than the butternut tree at full growth,
 - iv. five metres from the canopy drip line of trees that are greater than four metres in heights at the time of planting, and
 - v. 100 metres from a highway consisting of two or more lanes in either direction.
10. Every butternut seedling that is planted under this subsection must be monitored once annually between May 15 and September 20 for two years after it is planted to assess the health of the tree and its habitat conditions.
11. In order to ensure the good growth and health of the butternut tree, every butternut seedling that is planted under this subsection must be tended to in accordance with the following rules:
 - i. tending activities shall take place once a week from May 15 to September 20 during the first growing season after the butternut seedling is planted,
 - ii. tending activities during the first growing season after the butternut seedling is planted will include,
 - A. maintenance of tree guards to protect the lower stem from rodents,
 - B. vegetation control 60 centimetres around the base of the tree until the tree is above the herbaceous vegetation, and
 - C. watering during drought or low rainfall periods, and

- iii. tending activities shall take place during the second growing season after the butternut seedling is planted as required to ensure that,
 - A. vegetation is controlled 60 centimetres around the base of the tree until the tree is above the herbaceous vegetation, and
 - B. the tree is watered during drought or low rainfall periods.
12. The person must plant a butternut seedling to replace any butternut seedling planted under this subsection that dies within two years of the planting of the seedling and must do so in accordance with the planting requirements of this subsection.
13. For each butternut seedling planted under this subsection, the person must maintain a record of the planting, monitoring and tending activities required under this subsection, which record shall include,
 - i. the date the butternut seedling was planted,
 - ii. the date of each time a person attended to monitor or tend to the butternut tree,
 - iii. a description of every monitoring and tending activity,
 - iv. an assessment of the health status of the butternut seedling every time it is monitored or tended to to indicate if its health is good, poor or whether it is dead, and
 - v. whether the butternut tree shows evidence of butternut canker and, if so, a description of the extent to which the tree is affected by butternut canker.
14. Within 14 days of receiving a request from the Ministry, the person shall provide the record maintained under paragraph 13. O. Reg. 176/13, s. 14; O. Reg. 323/13, s. 4.

[\(11\)](#) Clause 9 (1) (a) of the Act does not apply to a person who kills, harms or takes a butternut tree that was cultivated if the person is the owner or occupier of the land on which the tree is located or is acting on behalf of the owner or occupier of such land. O. Reg. 176/13, s. 14.

[\(12\)](#) The exemption from clause 9 (1) (a) of the Act provided under subsection (11) does not apply in respect of a butternut tree that was cultivated as a result of the requirements for an exemption under subsection (4) or of a condition of a permit issued under section 17 of the Act. O. Reg. 176/13, s. 14.

[\(13\)](#) Clause 9 (1) (b) of the Act does not apply with respect to butternut. O. Reg. 176/13, s. 14.

[\(14\)](#) Subsection 10 (1) of the Act does not apply with respect to the damage or destruction of the habitat of a butternut tree that occurs when a person kills, harms or takes a butternut tree if the person is exempt from clause 9 (1) (a) of the Act pursuant to an exemption under subsection (4) or (12). O. Reg. 176/13, s. 14.

[\(15\)](#) Subsection 9 (1) of the Act does not apply to nuts from a butternut tree. O. Reg. 176/13, s. 14.

[\(16\)](#) Section 12 of this Regulation does not apply to the commercial cultivation of butternut trees. O. Reg. 176/13, s.



CONFIRMATION OF REGISTRATION

Form Name: Notice of Butternut Impact

Date Registration Filed: 12/23/2015

Confirmation ID: M-103-6113594843

Version Number: 001

Update Date:

MR John Spaleta
159 Delatre ST
Woodstock, ON N4S6C2

Dear Sir/Madam,

You have registered under section 23.7 of Ontario Regulation Reg. 242/08 of the *Endangered Species Act, 2007* and your Notice of Butternut Impact Form has been received by the Ministry of Natural Resources for activities impacting Butternut located at:

Lot 29 Concession 2
BENTINCK, ON, A1A1A1

This confirmation applies to the 4 Category 2 (retainable) butternut trees identified in the information provided to the Ministry through the Registry and as referenced in the Butternut Health Assessor's Report # 511924.

Please note, you may only kill, harm or take those Category 2 (retainable) butternut trees from the above-referenced report that you have identified in the information provided to the Ministry through the Registry with the following tree number (s): 1; 2; 3; 0.

A copy of this Confirmation of Registration must be kept on the site where the impacts to Butternut are occurring and you are required to show this Confirmation of Registration upon the request of the Ministry. Please refer to Ontario Regulation 242/08 for requirements that apply to your activity.

Any questions related to this registration and/or the Natural Resources Registry should be directed to:

Registry and Approval Services Centre
Ministry of Natural Resources
300 Water Street
Peterborough, ON, K9J8M5
Toll-free: 1-855-613-4256
E-mail: mnr.rasc@ontario.ca

APPENDIX 7

- Site Photographs



Photo No. 1: Vegetation community No. 1, June/15

Photo No. 2: Vegetation community No. 2, mixed bush, June/15





Photo No. 3: Vegetation community No. 3, conifer lowland, June/15

Photo No. 4: Existing laneway corridor looking north over the ridge crest, June/15





Photo No. 5: Development Envelope , small existing clearing in vegetation community No. 1, August/15

Photo No. 6: Butternut seedling within Study Lands, August/15



APPENDIX 8

- AWS Qualifications & EIS Experience



AWS Environmental Consulting Inc.
(Operating as Aquatic and Wildlife Services)

242090 Concession Rd. 3 Keppel,
R.R. # 1, Shallow Lake, Ontario, Canada, N0H 2K0

Office: 519-372-2303, Email: aws@gbteel.ca

Web site: www.awsenvironmental.ca

C.V. Summary: John D. Morton

Education

- 1985: Graduate Sault College, Forestry Technician
- 1986: Honors Graduate Sault College, Fish & Wildlife Technologist
- 15 years training and experience with Ontario Ministry of Natural Resources as a contract & full time employee for Natural Heritage Programs and Biology/Ecology

Work Experience Summary

- 1997 to Present: Sole Proprietorship of **Aquatic and Wildlife Services**, specializing in Natural Heritage
 - Studies and Development Impact Assessments:
 - Over 250 Natural Heritage and Natural Environment Impact Study Reports for Land Use development proposals throughout Southwestern and Central Ontario in accordance to Legislation and Regulation for Federal and Provincial Agencies, Government and Niagara Escarpment Plan Policies and Conservation Authority Regulatory Lands.
 - Impact assessment technical reports ranging from: Single Residential Lot creations to Plan of Subdivisions for 100+ Lots, and Aggregate applications ranging from 5ha Wayside Gravel Pits to 120 ha Quarry Operations for both above and below groundwater table.
 - Design and Monitoring technical reports for Marina Development, , Water Crossings, Recreational Pond designs, Fish & Wildlife Habitat Restoration Plans and Managed Forest Plans.
 - Species At Risk Surveys for flora and fauna with study areas encompassing 20ha to 7000ha
 - Ontario Municipal Board expert witness testimony on Natural Heritage Features, Ecology, Development Impacts and Mitigation Techniques.
 - 1986 to 1997 : Resource Technician with the Ontario Ministry of Natural Resources, responsibilities included:
 - Backfill positions for Owen Sound Area Office District Biologist (Fisheries and Wildlife), and District Fish & Wildlife Management Officer.
 - Review and commenting on Provincial interests through Planning Review for development proposals.
 - Deputy Conservation Officer with completion of 5-week Enforcement Training Program, Provincial Offences charges, court evidence presentation and convictions.
 - Fish & Wildlife Population and Habitat surveys and Rehabilitation Designs.

- Midhurst District Administrator and Program Coordinator of Wetlands and CFWIP Programs with annual budgeting and auditing roles.
- Fisheries Research Technician and Fish Culture Technician, Chatsworth Fish Culture Station.
- 1982 to 1986 : Contract Resource Technician With Ontario Ministry of Natural Resources, Grey-Sauble and Saugeen Conservation Authorities, responsibilities included:
 - Wetland Inventory Technician, Fish and Wildlife Population and Habitat Surveys.

Project Related Experience Summary

- Fauna population and habitat surveys:
 - Salmonid biomass surveys through seining and Electrofishing.
 - Stream/Watershed surveys for habitat quality/conditions, fish passage/barriers, water quality assessment including Benthic Macro Invertebrate sampling.
 - Genetic research survey work on Chinook Salmon, Saugeen Muskellunge, Backcross Lake Trout.
 - Inland Lake surveys for water quality, thermal regimes, fisheries qualitative assessments through seining, trap netting, creel survey.
 - Stream/River/Lake Fisheries habitat enhancement and rehabilitation Plans.
 - Wintering Deer Yard mapping, quality assessment, carrying capacity calculations, herd health monitoring and natural reproduction rates.
 - Genetic research work on Bruce Peninsula Eastern Massassagua Rattlesnake and Black Bears including radio telemetry.
 - Breeding Bird surveys including waterfowl nesting surveys and natural recruitment success, Bald Eagle monitoring and banding, mapping of Owen Sound area significant production/staging areas.
 - Amphibian qualitative assessment within sensitive environments and monitoring population trends for wetland habitat conditions.
 - Species At Risk Surveys with habitat mapping and Ecological Land Classification community mapping for Copeland Forest, Shallow Lake Wetland, Meaford National Defense Training Centre, Grey County Pretty River Forest Tract and Oliphant Fens
- Flora species and habitat surveys:
 - Provincially Certified Wetland evaluator to Book 2 and 3 standards, with over 150 wetland evaluations and desktop upgrades completed. Wetland Evaluation instructor to former book 2 standards with successful training of 30+ candidates.
 - Southern Ontario Ecological Land Classification- Vegetation Community Mapping for sensitive and/or rare habitat types including fens, bogs, natural beaches, and alvars plus common woodland community types.
 - Botanical qualitative inventory works including identification, mapping of species of conservation concern with status levels and habitat types/condition assessments.
 - Tree marking for sustainable harvesting and rotational management of fuel wood and/or saw logs.
 - Native tree and shrub nursery operation with annual seedling production and retail sales of deciduous and conifer seedlings and saplings.

Certification & Training Courses:

- Provincially Certified Wetland Evaluator to Book 2 and Book 3 Standards
- Provincial Class 1 Electrofishing Certification
- Provincial workshop training for Natural Heritage Environmental Impact Studies, Natural Hazard Studies and Non-Renewable (Aggregates) Impact Studies
- Level '1' OMNR Law Enforcement training
- Advanced Fish Habitat training and Habitat Impact Assessment
- Fluvial Geomorphology Workshop
- Stream Bioengineering Restoration training
- Cyprinidae Identification Workshop
- Wetland Restoration Techniques Training
- Provincial Managed Forest Tax Incentive Plan Approver
- Species-At-Risk Ontario Mussel Identification
- Bruce Peninsula Eastern Massassagua Rattlesnake Habitat Identification Training through Radio Telemetry work with Parks Canada
- Ecological Land Classification System for Southern Ontario
- Provincial Tree Making Course
- WHMIS
- Ontario Courts Evidence Collection and Presentation Training
- Department of Fisheries and Oceans South Georgian Bay Fish Habitat Issues Workshop
- Provincial Butternut Health Assessor
- Biotechnical Slope Stabilization Workshop.

Recipient of Provincial -OMNR Award for Fish Habitat Restoration Works & Stewardship

C.V. SUMMARY: Judith Jones

Education

B.S. Botany, University of Michigan, Ann Arbor 1980
M.S. Cell Biology, University of Illinois, Chicago 1983
Ontario Provincial Wetland Evaluator--certified 1999
Canadian Environmental Assessment Agency—screening training, 2007
Certificate of Proficiency in Spanish, Ryerson University, 2012

Areas of Expertise

Plant identification and classification
Vegetation identification and mapping (Ecological Land Classification; VSP; other protocols)
Identification and mapping of Species at Risk and their habitats
Life science inventories
Field mapping of other natural features

Judith Jones has been a consulting biologist since 1994. She has worked for AWS since 2005.

Highlights of Recent Projects

SURVEYS FOR ENVIRONMENTAL IMPACT

STUDIES (Subdivisions, Aggregates, etc.)

Aquatic and Wildlife Services since 2005
Robin Craig Consulting since 2013
M.K. Ince and Associates (2006)
CEAA screening, Beausoleil First Nation (2007-8)

LIFE SCIENCE INVENTORIES

- 58 acres on Manitoulin Island for a species at risk farm plan.
- Ecological survey for an ecogift transfer.
- Copeland Forest
- Oliphant Shoreline
- Degrassi Point Prairie Remnant
- Carden Alvar ANSI
- 4 provincial parks on Manitoulin Island
- 4 conservation reserves on the Georgian Bay Coast
- Alvars of the Manitoulin District
- Manitoulin Island Escarpment ecosystem
- Field work: NCC's Ecological Survey of the Georgian Bay Coast.

RESEARCH

- Life history of Hill's Thistle (threatened)
- Demographics of Pitcher's Thistle (thr.)
- Niagara Escarpment: 50 years of forest change, VSP and point-quarter sampling.
- Sustainable harvest levels for Canada Yew (*Taxus canadensis*)
- Fire history of Oak Savannah vegetation
- Fire history of Manitoulin alvars

SPECIES AT RISK SURVEYS

- SAR surveys & mapping: Wikwemikong First Nation, Serpent River First Nation, Beausoleil First Nation, United Chiefs and Councils of M'nidoo M'nissing.
- Trent-Severn Waterway (Parks Canada)
- Fort St. Joseph National Historic Site
- Sault Canal National Historic Site
- Survey and mapping of Pitcher's Thistle and dune grasslands on Lake Huron

RECOVERY OF SPECIES AT RISK

- Author of more than 25 recovery strategies, action plans, management plans, and COSEWIC reports for endangered, threatened, and special concern species.
- Monitoring design and implementation for several species at risk and for prairie and alvar habitats.
- Coordinator of SAR monitoring by volunteers on Manitoulin Island

OTHER

- Gathering traditional ecological knowledge (TEK): Wikwemikong, Sagamok Anishnaabek, and elsewhere.
- Workshops about SAR for schools, Christian Island, Manitoulin Island
- Spring flora courses for non-biologists
- Layout and construction of trails (Misery Bay Provincial Park; other locations)
- Nature and environment columnist for the Manitoulin Expositor (1992-2004)

Natural Heritage Environmental Impact Studies and Experience 1997-2015

Subdivisions : Residential & Commercial

Grey County (14)	Bruce County (20)
Andpet 16th Ave Comm Deve.-Owen Sound	Pegasus Trails-Saugeen
Loucks Subdivision- Chatsworth	Lorne Beach Development- Kincardine
Langen Subdivision-Shallow Lake	Mulholland Division St-Southampton
Boulter Subdivision- Keppel	Chippewa Golf & Country Club-Saugeen
Hilton Head Subdivision- Meaford	Leslie Subdivision-Saugeen
Oak Meadows Subdivision-Meaford	McMillan Subdivision-Saugen
Mannerow Estates- Owen Sound	Wellington County (1)
Georgian Shores Subdivision-Sarawak	Murphy Subdivision - Mount Forest
Sutacriti Park Phase III- Sarawak	Perth County (1)
Debrincat Subdivision- Holland	Maitland River Estates - Listowel
Ferraro Subdivision- McCullough Lake	
Andpet Bothwells Corner Comm.- Owen Sound	
HSC Alvanley Comm. Cement Plant-Keppel	
MacKinnon-Smart Subdivision-Francis Lake	

Infrastructure Projects & Monitoring

Bruce County (16)	Grey County (17)
Barrow Bay North Shore Road	Town of Hanover Business Park
Bruce Road 21--Stoney Creek	
Bruce Road 25	Huron County (2)
Kincardine-Park Street	Wingham Force main
Bruce Road 9	Goderich Pier Stabilization
Bruce Road 12	Wellington County (2)
Southampton Sanitary Sewers	Town of Minto-Coon Creek 5-Year Monitoring
Arran Landfill Expansion	Town of Minto-Palmerston Industrial Park
Calhoun Drain	
Bruce County Line Road Upgrades	
Otter Creek-Dam Removal	
McClure's Bridge	
Silver Creek Bridges-Walkerton	
Saugeen Shores 10th Line Drain	
Mildmay Elora Street Dam Removal	
South Bruce Carrick-Normanby Meux Cr Bridge	

Natural Heritage Environmental Impact Studies and Experience 1997-2015

Recreational and Energy Land Use Development

Grey County (28)	Bruce County (13)	Simcoe County (3)
<p>Monterra Plateau Stream Realignment Devils Glen Ski Hill Expansion Morris Wetland Creation Rocky Saugeen Campground Expansion Sobiski Property Shoreline Stabilization Pesnall Property Shoreline Stabilization Carmicheal Pond Cleanout Overton Pond Design Beaver River Bank Stabilization Andrews Pond Design Hrodzicki Storage Building Klages Tree Retention Plan Cedar Run Horse Park Expansion Osler Bluff Shi Club-Storage Building Osler Bluff Ski Club-Water Reservoir Blue Mount. Orchard Run Ski Hill Expansion Walters Falls Hydro Facility Proposal Blue Mount Resort-Roller Blue Mount. Resort Stream Monitoring AndPet Commercial Development East West Exchange Retreat Camp Lahman Comm. Development Blue Mount. Resort SWMP Outlet Monitoring Lee Pond Design Morrison Marina Meaford-Cemetery Creek Realignment Goodyear-Effluent Monitoring Miller Group Ltd, -Owen Sound Indus. Park</p>	<p>Blue Heron Parking Lot Home Hardware-Sauble Beach Mystic Cove Stream Realignment Casey Property-Bank Stabilization Wells Trucking-Mildmay Mackenzie Marina Dredging Pike Bay Marina Dredging Chesley Lake Cottagers Assoc. Dredging Miller Property Shoreline Dredging Hood Property Shoreline Dredging Smith Com. Expansion LEED Tree Retention Plan Mildmay-Hamel's Pond and Elora Street Dam</p>	<p>Hamilton Brothers Ltd.-Stream Restoration Devils Glen Stream Realignment Devils Glen Club House Expansion Robitaille Wind Farm-Cedar Point</p> <p>Dufferin County (2)</p> <p>Bowman Comm. Development Cedar Highlands Ski Club</p> <p>Wellington County (1)</p> <p>White's Creek Restoration</p> <p>Manitoulin Island (2)</p> <p>Manitoulin Streams Association Municipality Official Plan</p>

Natural Heritage Environmental Impact Studies and Experience 1997-2015

Lot Severances & Building Envelopes

Grey County (85)

Zafaris Building Envelope	Hughes Building Envelope	Wiley Severance
Clancy- 20th Street Building Envelope	Wilson Building Envelope	Davies Severance
Emmerson Building Envelope	Smith Severance	Stewart Severances
Shantz Building Envelope	Currie Building Envelope	Irwin Building Envelope
Fligg Building Envelope	Valette Building Envelope	Valent Building Envelope
Todd Severance	Robinson Severance	Barfoot Building Envelope
Underwood Building Envelope	Taylor Building Envelope	Voisin Building Envelope
Klages Severances	Low Building Envelope	Colborne Building Envelope
Beacock Building Envelope	Donavon Building Envelope	Tengler Building Envelope
McNeil Building Envelope	Lupia Building Envelope	Langerap Building Envelope
Gilbert Severances	Zeggil Severances	Wattie Building Envelope
Dillman Severance	McNeil Severance	Hall Severance
Thom Severances	Byers Building Envelope	Hrodzicki Building Envelope
DiFranco Severances	Gilmour Building Envelope	Nicholls Dwelling Expansion
Farnenhorst Building Envelope	Martindill Severance	NEC-Caframo Tree Preservation Plan
Biesinger Severances	Peach Severance	
Love Building Envelope	Ryan Severance	
Braun Severances	J. Martin Building Envelope	
Legge Building Envelope	Shrek Building Envelope	
Wilcox Building Envelope	James Severance	
HSC Clavering Severances	Maxwell Severance	
Holmes Building Envelope	Harris Severance	
Brulette Severances	R. Martin Building Envelope	
Philipp Severances	Philipp Building Envelope	
Sheppard Severance	Bauman Building Envelope	
Pfaff Building Envelope	Berg Building Envelope	
Wilmer Severances	Shrek Severance	
Doherty Building Envelope	Yoder Severance	
Menaul Severance	Hollingshead Severance	
McNabb Building Envelope	McKay Building Envelope	
Toombs Building Envelope	Molner Severance	
McGowan Building Envelope	Detzier Severance	
Lobban Severance	Baragar Building Envelope	

Natural Heritage Environmental Impact Studies and Experience 1997-2015

Lot Severances & Building Envelopes continued	Species At Risk and Biological Surveys
Bruce County (32)	Bruce County (12)
Lee Building Envelopes	Rankin River-Sky Lake SAR Study
Hall Building Envelope	Rankin River-Boat Lake SAR Study
Vespasiano Severance	Rankin River-Isaac Lake SAR Study
Matheson Severances	Beatty Saugeen River-Thermal
Seeman Severance	Grey/Bruce Wetland Evaluation Upgrades
P. MacDonald Severances	Spring Creek Fish Habitat
Arcaro Building Envelope	Saugeen River-Muskellunge Habitat
Goetz Severances	Beatty Saugeen River-Smolt Passage
Chippewa Golf Course Severances	Chesley Lake Angling Winter Creel
S. MacDonald Severances	Peninsula Black Bear Radio Tag-Dens
Zepf Severances	Peninsula Winter Yard Deer Browse
Porto Severance	Denny's Dam Fishway Monitoring
B. Elliot Severances	Grey County (3)
Royal Homes-Kincardine	Shallow Lake SAR Study
Ferguson Point Severances	Meaford National Defence SAR Study
CAW-Saugeen Beach Severances	Pretty River Valley County Forest SAR Study
Siekierski Building Envelope	Simcoe County (1)
Murray Severance	Copeland Forest SAR Study
Walker Severances	Region of Peel (1)
Janssen Building Envelope	Rattray Marsh SAR Study
Knight Building Envelope	
Thorn Severance	
Kramer Building Envelope	
Smith Severances	
D. Elliot Severance	
O'Conner Severances	
McLay Severances	
Burley Building Envelope	
	Natural Environment Impact Assessment Reports for Aggregate Applications
	Southern & Central Ontario: 100+ Technical Reports for Pits and Quarries, above and below water table with successful representation at Ontario Municipal Board Hearing, Niagara Escarpment Hearings, County and Municipal Council Presentation and Legal Court Proceedings