



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

February 15, 2018

Municipality of Meaford
21 Trowbridge Street West
Meaford, ON
N4L 1A1

Att: Robert Armstrong & Liz Buckton

Re: Natural Heritage Environmental Impact Study (EIS) Addendum
Meaford Golf Course Inc.
Residential Draft Plan of Subdivision, Ridge Road
Hilton Head Heights Development

In response to recent review comments to the submitted EIS dated February 2011 and given that the original EIS field work is now 9 years old (2011 EIS report covered the 2009 field season), this EIS Addendum letter report provides an updated technical review to original findings and to the current proposed Site Plan as prepared by GSS Engineering Ltd.

AWS Environmental Consulting Inc. (AWS) completed several site visits during the summer of 2017 to view current field habitat conditions and Butternut investigations.

The following is a review of the original findings, updated Butternut assessments, updated 2017 on-site habitat investigation, response to peer review EIS question and a technical review of the Draft Site Plan.

Flora, Fauna listing and Habitat Review

- Site investigations of 2017 confirmed that habitat features, vegetation communities and current land use activity has not changed since the 2011 EIS reporting. No new flora or fauna were observed in 2017 within the Study Lands.
- A review of the 2011 reported Flora and Fauna Listings have been undertaken in relation to any species status changes.
 - Fauna: No status or ranking changes. Given that no change to the sites habitat or land use activity it is not anticipated that any additional new species of conservation concern would be present.

- Fauna: One local status change, 'Pale Sedge' which was listed as Regional/Locally Rare for Grey County in 2011, is now no longer deemed to be a species of conservation concern in Grey County (i.e. de-listed).

Butternut Health Assessment & Impact Assessment

- Updated Health Assessment to Provincial Standards was undertaken and reported to the Ministry of Natural Resources and Forestry on August 23, 2017, see attached copy for Municipal records.
- Through this updated health assessment, butternut canker had advanced significantly within the former healthy butternut trees to the extent now, that all of the Butternuts within the Study Lands (subject property area) are classified as Category 1, being Non-Retainable. The 30 day MNRF review period has expired, with no concern or response from the MNRF, as such, these identified Category 1 Butternuts can be removed by the landowner at any time, in compliance with the Endangered Species Act (ESA). No development related buffer zones/setbacks are required in relation to these specific on-site Butternuts.
- Within the adjacent northerly woodlands, the County of Grey Planning department brought to the attention of AWS that Butternuts had been identified through a separate EIS Report (another consulting firm) in close proximity to the joint property line. No Butternut Health Assessment Reporting was on file with the MNRF for that adjacent property (personal communication with Owen Sound MNRF Office).
- Meaford Golf Course contacted this adjacent landowner and confirmed that no Butternut Health Assessment had been undertaken to-date. Permission to access this adjacent property was granted to AWS in August 2017 for Butternut location mapping along the adjacent property line, extending 50m into the adjacent woodland.
- Through this adjacent land investigation, four Butternuts were identified and mapped; no health assessment works were undertaken for these off-site four butternuts and as such are currently deemed 'retainable' until such time as Health Assessment reporting demonstrates otherwise.
- In the spring of 2017, the MNRF reviewed and updated its policy in relation to Butternut Buffer Zones for un-assessed or Category 2 and Category 3 Trees, with two-tier buffering; 0m to 25m (tree protection) and 25m to 50m (propagation potential), from the base of Retainable Butternut Trees.
- AWS sent a letter to MNRF, dated September 20, 2017 for discussion purposes relating to these four off-site butternuts, site condition review of the candidate propagation lands and consideration of removal for this second-tier (25m to 50m) buffer zone. Copy of said letter is attached.
- MNRF-Owen Sound Office reviewed and **approved** this request; that only a 25m buffer zone needs to be maintained in relation to the four off-site Butternuts, with written approval attached here, dated November 17, 2017.

- Through detailed location mapping of these four off-site butternuts, GSS Engineering Site Plan Drawing 16-015-03 shows that only two of these trees have their 25m Buffer Zones intersecting into the proposed Meaford Golf Course Development Lands, now shown on the Site Plan.

Site Plan- ESA Compliance

- With MNRF approval that the 25m to 50m propagation buffer zone is not required on the Golf Course lands, the shown Site Plan having with two areas of 25m buffer zone intersection into the subject Meaford Golf Course property is in compliance with ESA.
- Further, to maintain compliance with ESA, No Development or Site Alterations are permissible within the identified two Butternut Buffer Zones. Maintaining these buffer zone lands in a 'lawn like condition' is also permissible under ESA, through maintaining existing site conditions (i.e. the lands do not need to be left to regenerate to a natural environment condition). A Site Plan 'Note' has been added to address this.

2011 EIS Mitigation Measures

- Point 5.1
 - No longer valid as 2017 Butternut Health Assessment reporting has demonstrated that said trees are no longer retainable, as such no Buffer Zone development setbacks are required. This is in compliance with ESA.
- Point 5.2
 - The 8m development setback from vegetation community No. 4 (adjacent northerly woodlot) is still valid, with expansion to portions of that setback out to the shown 25m buffer zone limit for the identified two-off-site butternut trees.
 - The most recent 2018 Site Plan demonstrates this Development Setback, as such the Site Plan is in compliance with this EIS mitigation measure.
- Point 5.3
 - The narrow treed corridor situated at the west end of the Golf Course Driving range development setback is still valid.
 - The most recent 2018 Site Plan demonstrates this Development Setback, as such the Site Plan is in compliance with this EIS mitigation measure.
- Point 5.4
 - The 15m development setback along the two watercourse features is still valid.
 - The most recent 2018 Site Plan demonstrates this Development Setback, as such the Site Plan is in compliance with this EIS mitigation measure. Minor incursions for SWP outlet and underground servicing are acceptable and not considered to be a negative impact to the identified natural heritage features or its ecological functions.

- Point 5.5
 - Construction activity sedimentation concerns are still valid.
 - Aspects to be addressed within the Lot Development design and Grading Plans. A typical approach and requirement post development approval, also aspects shall be addressed through GSCA permitting.

Peer Review dated October 11, 2017 Ainley Group

- Question 6.4 relates to the west end development setback.
 - See response to Mitigation Point 5.3 above.
 - Appropriate Land Use Designation to be addressed by consulting planner within the application submission.

Site Plans

- Revised and current Site Plan demonstrates EIS mitigation aspects and notes, thus in-compliance with the EIS recommendations.
- Revised SWM ponds have been shifted to be outside the EIS buffer zone to the watercourse features, with no negative impacts anticipated to Fish Habitat, provided Construction Phase plan design demonstrates consistency with Provincial Sedimentation control measures.

Yours Truly



John Morton, President
AWS Environmental Consulting Inc.

cc Ivan Alderdice, Meaford Golf and Country Club
Ron Davidson, Land Use Consulting Planner
Ross Slaughter, GSS Engineering

Att:

- AWS August 23, 2017 Butternut Health Assessment Report
- AWS September 20, 2017 Butternut-Development Setback reduction request
- MNRF November 17, 2017 response for Butternut development setback request



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August 23, 2017

Meaford Golf & Country Club
408 Ridge Road
Meaford, ON
N4L 1L8

Att: Ivan Alderdice

Re: Butternut Health Assessment Report No. 099174
Meaford Golf & Country Club
Municipality of Meaford

Dear Mr. Alderdice

As per your request, a Health Assessment for five Butternut tree, identified around the perimeter of the Golf Course-Driving Range, an area proposed for land use change to Residential Development, was completed on August 8, 2017. The Bu Health Report of March 2010 had identified 4 of these trees being 'retainable' however, due to the canker advancement; all the identified Butternuts now within the Golf Course property are a Category 1 classification, which is similar to the old (2010) category of 'non-retainable'. Attached is the full Butternut Health Assessment report following the required template by the Ministry of Natural Resources and Forestry, including site photos of the subject butternut trees.

If you require clarification or have any questions regarding this assessment please contact me.

Regards

John Morton
President, AWS Environmental Consulting Inc.
Provincially Certified Butternut Health Assessor No. 099

cc District Manager, MNRF Midhurst District (Owen Sound Area)

Enclosures:

1. Information from the Ministry of Natural Resources and Forestry about Butternut and the *Endangered Species Act, 2007*
2. Butternut Health Assessor's Report
3. Original data forms
4. Electronic and printed copies of the Excel data spreadsheet (BHA Tree Analysis)

Ministry of Natural
Resources and Forestry

Species At Risk
P.O. Box 7000, 300 Water Street
Peterborough ON K9J 8M5

Ministère des Richesses
naturelles et des Forêts

Espèces en péril
C.P. 7000, 300, rue Water
Peterborough ON K9J 8M5



The enclosed Butternut Health Assessor's Report documents the results of the Butternut health assessment that was conducted by the designated Butternut Health Assessor (BHA) identified in the top section of the report. If there are other Butternut trees (of any size or age) at the site that may be affected by the activity and they are not identified in the enclosed BHA Report, they too must be assessed by a designated BHA.

Butternut is listed as an endangered species on the Species at Risk in Ontario List, and as such, it is protected under the *Endangered Species Act, 2007* (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 Ministry of Natural Resources and Forestry (MNRF) District Manager. Note that MNRF cannot accept photocopies or scanned electronic copies of the data forms.

Note regarding changes:

If the enclosed BHA Report does not identify which Butternut tree(s) are proposed to be killed, harmed, or taken in Table 1 (i.e., if "unknown" is indicated in the second last column of Table 1), or, if the information in the last two columns of Table 1 has changed since the date this BHA Report was produced, **do not make any edits to the BHA Report**. Instead, please attach a cover letter that identifies which Butternut tree(s) are proposed to be killed, harmed, or taken (by referencing the tree identification numbers) when you submit the enclosed BHA Report to the local MNRF District Manager.

The BHA Report must be submitted at least 30 days prior to registering an eligible activity 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 MNRF may contact you for an opportunity to examine the trees. If MNRF chooses to examine the trees, a representative of MNRF will contact you using the information you supplied when you submitted the BHA Report.

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 [MNRF 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 MNRF district office to determine whether you will need to seek an authorization (e.g., a permit). A link to the directory of MNRF offices is provided below.

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 information and a copy of the BHA Report (including copies of all data forms) for your records, along with any other documentation you may receive from MNRF should an examination of the trees occur. If you have any questions, please contact your local MNRF district office.

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

MNRF Office Locations:

<https://www.ontario.ca/government/ministry-natural-resources-and-forestry-regional-and-district-offices>

Butternut Health Assessor's Report Number: 099174

John Morton, BHA Number 099
242090 Conc. Rd 3
R.R. # 1
Shallow Lake, ON
N0H2K0
519-372-2303
aws@gbtel.

Meaford Golf & Country Club
408 Ridge Road
Meaford, ON
N4L 1L8
519-538-4649
ivan@meafordgolf.com

Site location: Meaford Golf & Country Club,
Part Lot 17, Concession 6
Geographic Township of St. Vincent
Municipality of Meaford

Date(s) of Butternut health assessment: August 8, 2017)
Date BHA Report prepared: August 23, 2017

Map datum used: X NAD83 ☐ WGS84

Total number of trees assessed in this BHA Report: 5

The assessed trees were numbered on site using orange flagging tape marked sequentially as AWS-Bu01. The numbers at the site correspond to the tree numbers referenced in this report.

This BHA Report includes the following tables:

- Table 1: Butternut Trees Assessed
- Table 2: Trees Determined by BHA to be Butternut Hybrids
- Table 3: Summary of Assessment Results

Table 1: Butternut Trees Assessed

Tree #	UTM coordinates	Category ¹ (1, 2, or 3 ²)	dbh ³ (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: unknown ⁴ , killed, harmed or taken)	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:
1	530703 4939892	1	2	N	Harm	Site Development with 5m to Tree
2	530706 4939894	1	20	N	Harm	Site Development within 5m to Tree
3	530706 4939895	1	20	N	Harm	Site Development within 5m to Tree
4	530700 4939909	1	28	N	Harm	Site Development within 20m to Tree
5	530775 4939927	1	18	N	Harm	Site Development within 20m to Tree

Table 2: Trees Determined by BHA to be Butternut Hybrids

Tree #	UTM coordinates	Method used (genetic testing or field identification):
0	None	

Table 3: Summary of Assessment Results

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
Category 1	5	<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”.

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 Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08.

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

⁴ In this column, “unknown” indicates that at the time of assessment, there are no proposals to kill, harm or take this tree that are known to the BHA.

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
		<ul style="list-style-type: none"> During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF 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 MNRF District Manager, unless the results of an MNRF 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>".
Category 2	0	<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 MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF 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/regis/english/elaws_regs_080242_e.htm Activities that may kill, harm or take more than ten (10) Category 2 trees are not eligible to follow the rules in section 23.7 of Ontario Regulation 242/08. Contact the local MNRF district office for information on how to seek an ESA authorization (e.g., a permit) or consider an alternative that would be eligible for the regulation.
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. Contact the local MNRF district office for information on how to seek an ESA authorization, or consider an alternative that will avoid killing, harming or taking any Category 3 trees.
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 MNRF district office. 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.

Butternut Health Assessor's Comments:

No health assessment reporting has been completed for the Butternuts on the northerly adjacent private property. For the Butternuts within the Golf Course property, all 5 are now at a Category 1 classification (similar to the old classification of 'non-retainable') due to the canker advancement within each tree. The summer of 2009 health assessment (reporting March 10, 2100) had 4 of these butternuts at the old classification of 'retainable' as these trees were saplings and the canker was not externally visible.

This concludes the summary of the BHA Report. A complete BHA Report must also include:

1. All original (hard copy) data forms (i.e., all completed sets of Form 1 and Form 2), and
2. Electronic and printed copies of the Excel data analysis spreadsheet.

Surveyor ID
or BHA # 0099

(PLEASE USE BLOCK LETTERS)

Date (dd/mm/yyyy)

08 - 08 - 2017

Shaded fields are mandatory for Butternut Health Assessments

Surveyor Contact First JOHN Last MORTON
Email a.w.s.096fel.c9
Telephone (519) 372-2303 Telephone Other () X

Property Owner First IVAN Last ALDERDICE
(check if same as surveyor) or Company MEAFORD GOLF COURSE
Email IVAN@MEAFORDGOLF.COM
Telephone (519) 538-4649 Telephone Other () X

Property Owner's Mailing address Address 408 RIDGE ROAD Postal Code M4L 1L8 Prov. ON
City MEAFORD

Tree Location (If different from mailing address)

Address/(911#)
Township Lot Con
City

Directions

Trees located along the north and west end of Golf Course - Driving Range

☒ Yes ☐ No Can Share Location Information with other Butternut Recovery Organizations?
☒ Yes ☐ No Site visits OK? (prior arrangements will always be made for a site visit)

> (Greater than)
< (Less than)

Butternut Trees Tally by Diameter Class

(Do a dot tally in blank space; write total# in box for each)

Tree Condition	< 3 cm	3-15 cm	16-30cm	>30 cm
Vigorous: > 50% Live Crown Minor or no cankers	00	00	00	00
Poor Vigor: <50% Live Crown or >50% Live Crown + heavily cankered stem	01	00	04	00
Dead	00	00	01	00

Historically, do some trees produce seeds? ☐ Y ☒ N ☐ Unknown

Estimated area containing butternut
for properties > 1 acre (0.4 hectares): 001 Acres ☒ Hectares

By Health assessment in 2009 - reported on March 10, 2010 were "retainable" at that time. Now (2017) all By trees are a Category 1 or the old format of "non-retainable", given butternut canker advancement.

Overall Property Description (area(s) containing Butternut)

☐ Rolling Upland ☐ Bottomland
☐ Valley Slope ☐ Variable
☒ Tableland ☐ Unknown

Vegetation Communities

☐ Open ☒ Fencerow
☐ Shrubland ☐ Roadside
☐ Deciduous Forest ☐ Quarry
☐ Conifer Forest ☐ Urban Yard
☐ Mixed Forest ☐ Urban Park

Other

GOLF COURSE

Soil Drainage

☒ Well Drained
☐ Moderately Drained
☐ Poorly Drained
☐ Unknown

Soil Texture

☐ Clay ☐ Sand
☒ Clay Loam ☐ Variable
☐ Loam ☐ Unknown
☐ Loamy Sand

Soil Depth

☒ > 1 metre
☐ 30 - 99cm
☐ < 30cm
☐ Variable
☐ Unknown

Please enter matching numerical page link code on forms 1 and 2

Page Link 530706

(Contact Information follows all applicable privacy policies and guidelines)

Please return forms to:
Forest Gene Conservation Association
Suite 233, 286 Charlotte St.
Peterborough, ON, K9J 2V4
www.fgca.net

49731

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

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

Surveyor ID
or BHA #

Date (dd/mm/yyyy)

Surveyor Last Name

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

Tree # Zone Easting Northing

Crown Class Live Crown % Main Stem Length(m)

Butternut Origin Signs Male Flowers Female Flowers
Natural Planted Seed Set Unknown None

Assess below live crown

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

Metres from badly cankered tree
☒ < 40 ☐ > 40 ☐ None Found

Competing Species

B V
A W
P S C

Main stem of sapling partially broken at canker, tree falling over

Tree # Zone Easting Northing

Crown Class Live Crown % Main Stem Length(m)

Butternut Origin Signs Male Flowers Female Flowers
Natural Planted Seed Set Unknown None

Assess below live crown

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

Metres from badly cankered tree
☒ < 40 ☐ > 40 ☐ None Found

Competing Species

B V
A W
P S C

Tree # Zone Easting Northing

Crown Class Live Crown % Main Stem Length(m)

Butternut Origin Signs Male Flowers Female Flowers
Natural Planted Seed Set Unknown None

Assess below live crown

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

Metres from badly cankered tree
☒ < 40 ☐ > 40 ☐ None Found

Competing Species

A W
B V
P S C

Tree # Zone Easting Northing

Crown Class Live Crown % Main Stem Length(m)

Butternut Origin Signs Male Flowers Female Flowers
Natural Planted Seed Set Unknown None

Assess below live crown

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

Metres from badly cankered tree
☒ < 40 ☐ > 40 ☐ None Found

Competing Species

M h
A W
M h

Tree # Zone Easting Northing

Crown Class Live Crown % Main Stem Length(m)

Butternut Origin Signs Male Flowers Female Flowers
Natural Planted Seed Set Unknown None

Assess below live crown

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

Metres from badly cankered tree
☐ < 40 ☒ > 40 ☐ None Found

Competing Species

A W
M h
M h

Please enter matching page link code on forms 1 and 2

Page Link

530706

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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 #		991704		Assessment Date(s)		8-Aug-17								Total # Butternut Trees in BHA Report				5			
BHA ID #		99		BHA Name		John Morton															
Landowner / Client Name						Ivan Alderdice															
Property Location			Meaford Golf Course-Driving Range Area																		
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	1: non-retainable, 2: retainable, 3: archivable					FINAL TREE CALL a Cat 2, dbh>20cm <40m from a Cat 1
			sooty (S) (will be assigned 2.5 cm per canker)		open (O) (will be assigned 5 cm per canker)											LC% >= 50 & BC% = 0	LC% >70 & BRC % <20	LC% >70 & BC % <20	Preliminary tree call		
			S <2 m	S >2 m	O <2 m	O >2 m	RF S	RF O													
1	30	2	1	0	0	0	0	2	y	6.28	2.5	10.0	39.8	159.2	99.5	1	1	1	1	1	
2	100	20	2	3	0	1	3	1	y	62.8	17.5	12.5	27.9	19.9	23.9	1	1	1	1	1	
3	100	20	5	9	0	0	5	1	y	62.8	35.0	17.5	55.7	27.9	41.8	1	1	1	1	1	
4	60	28	4	6	3	2	8	3	y	87.92	50.0	35.0	56.9	39.8	48.3	1	1	1	1	1	
5	95	18	5	2	0	0	3	0	y	56.52	17.5	7.5	31.0	13.3	22.1	1	1	1	1	1	
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!	
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Photo No. 1: Bu001 with broken main stem at canker



Photo No. 2: Bu001 sapling laying on ground



Photo No. 3: Bu002 root flare with significant canker



Photo No. 4: Bu002 crown



Photo No. 5: Bu003 root flare with significant canker

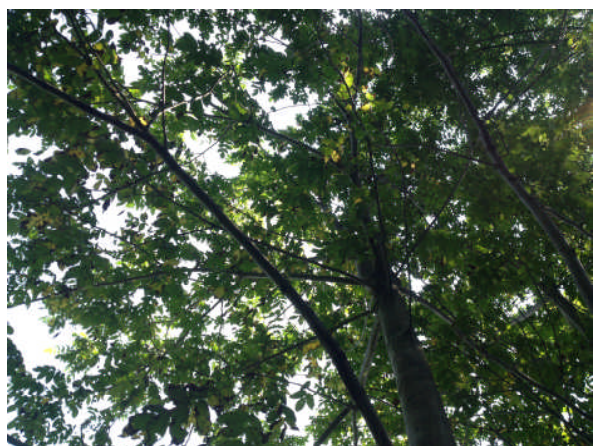


Photo No. 6: Bu003 crown



Photo No. 7: Bu004 root flare with significant canker



Photo No. 8: Bu004 crown with twig and branch die back



Photo No. 9: Bu005 root flare with significant canker

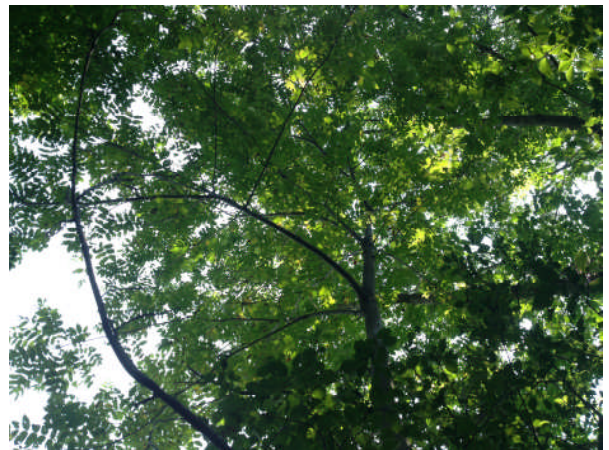


Photo No. 10: Bu005 crown



Photo No. 11: Golf Course Driving Range, Bu001-004 at far (west end), Bu005 along north fenceline



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

September 20, 2017

Ontario Ministry of Natural Resources and Forestry (MNRF)
Midhurst District, Owen Sound Area office
1450 7th Ave. east
Owen Sound, ON
N4K 2Z1

Att: Jody Scheifley, Area Biologist

Re: Butternut Setback for Site Development
Meaford Golf & Country Club
Residential Site Development Proposal
Meaford, Grey County, ON

Dear Mr. Scheifley

As per our earlier discussions, the Meaford Golf & Country Club are proposing to convert their golf driving range and portions of the golf course to residential dwellings. A Butternut Health Assessment Report, in accordance to provincial guidelines, was completed and submitted to your office on August 23, 2017 for five Category 1 butternuts which are situated along the treed perimeter of the driving range. Within the adjacent other private property lands bordering to the north, it was brought to our attention by the County of Grey that a Natural Heritage Environmental Impact Study (completed by another environmental consulting firm) was undertaken by that landowner for a tentative Draft Plan of Subdivision. Within those other private lands, several live Butternut trees were mapped by the consultant through that EIS process however; no Butternut Health Assessment was undertaken (communication with this private landowner by Meaford Golf Course). This adjacent landowner gave the Meaford Golf Course owner permission to access his property lands for the purpose of accurate mapping of butternuts within a 50m zone to their joint property line. AWS environmental consulting identified four butternut trees on August 8, 2017 within this adjacent property zone, with detailed site location mapping shown on the attached Meaford Golf & Country Club Draft Site Plan by GSS engineering.

In the spring of 2017, I was informed that the MNRF had recently changed the development setback/buffer zone to Butternuts from 25m to 50m. Through the provided Butternut Health assessment reporting of the five on-site Category 1 butternuts, no development setback/buffer zone is required (non-retainable trees). In accordance to Ontario Regulation section 23.7 a 'Notice of Butternut Impact' to remove these on-site five butternut trees shall be submitted after the MNRF Bu health assessment 30 day wait/review period (approximately post September 25/17) to have these five butternut assessed trees removed.

In relation to the mapped four off-site Butternuts, as there is no health assessment reporting, we have tentatively shown on the attached Draft Site Plan the MNRF required 50m off set line around each of these four off-site butternut trees. As the Site Plan shows, these development setback/buffer zones extend onto the Meaford Golf Course Driving Range and significantly impact upon the draft design of residential site development.

Distance measurements were undertaken in the field for accurate site location mapping, with some base line tree data also collected by AWS, for these four off-site Bu trees:

- Tree 1: Closest Bu tree to the property line and the most easterly tree is 10m north of the property line, being a healthy sapling at 10cm dbh with no canker exhibited.
- Tree 2: The second closest Bu tree is 11.5m north of the property line, being 16cm dbh and exhibiting canker.
- Tree 3: The third and largest Bu tree is 27.5m north of the property line; with a double main stem being 54cm and 56cm dbh, and exhibiting a healthy growing standard with very little canker.
- Tree 4: The fourth and most westerly Bu tree is 35m north of the property line, having a 38cm dbh and exhibiting significant canker and tree health decline.

As noted and shown, the portion of the four 50m off-set lines situated within the proposed development lands for the Meaford Golf & Country Club occur within the exiting Golf Course Driving Range, which is regularly mowed and maintained in a short grass environment (see attached site photos), with NO potential for tree regeneration within these particular lands. Tree regeneration would be possible within the northerly adjacent lands as it is forested habitat (see site air photo).

Of note, all of the five assessed on-site butternut trees are smaller sapling to polewood size trees and all assessed with extensive canker and being Category 1 trees. It is anticipated that the off-site Tree No 3, being mature, very large and old could be the seed source or parent tree to these surrounding butternuts (both on and off site trees identified). With all the on-site butternuts assessed as Category 1 or non-retainable and the off-site mid-aged trees also exhibiting extensive canker (Bu tree No. 1 being a sapling is too young of an age to start to exhibit external signs of the canker, similar to the on-site Bu trees assessed back in 2011, which were healthy saplings at that time) it could be anticipated that any seedlings sourced from the off-site Tree No. 3 (only tree observed in this area to be supporting seeds) would probably not exhibit resistance to butternut canker.

For the off-site trees No. 3 and No. 4, no negative impacts from the proposed Meaford Golf Course development shall be incurred within the 0-25 m buffer zone. For the off-site trees No. 1 and No. 2, no negative impacts or site alterations from the proposed Meaford Golf Course development shall be incurred within the 0-10m buffer zone. As noted above, there is no potential for regeneration south of the joint property line, within the golf course driving range lands. Though the proposed overlapping lot creation lines extend to the north property line, development will be focused on these lots towards the fronting new 'Golf Course Drive Road' (south portion of these particular lots) with the northerly portion of said overlapping lots within these off-site Bu buffer lands to be considered 'back yards' to the lots. As such, no significant land form changes or use from existing conditions (mowed grasses) should occur. As such, no negative impacts from the Golf Course site development is anticipated within 25m to the identified off-site Bu tree No. 1, or within 26.5m to off-site Bu tree No. 2.

Through this impact assessment analysis, it has been demonstrated that given the current land use activity and site conditions, we are requesting that no development setback be shown or deemed necessary to the off-site Bu tree No. 3 and Bu tree No. 4 with no ESA application required.

Additionally, we are requesting for Bu tree No. 1 and Bu tree No. 2, that upon your approval, the Meaford Golf & Country Club Site Development Plan and Design shall be revised to show a 'No Development Constraint Zone' extending a maximum of 15m south of the noted property line within those development lands which overlap into the identified 50m offset lines to said Bu trees, thus providing a full 25m development setback from said Bu trees. Therefore, with a development constraint providing a 25m buffer zone comprised of both natural-forested habitat (off-site lands) and short grass environment (back yard lawns), no negative impacts to these off-site butternut trees are anticipated and site development would be in compliance with ESA and would not require ESA application for butternut trees situated on 'other private lands'.

Regards, John



John Morton
President, AWS Environmental Consulting Inc.

Att: Site Air Photo
Site Photographs
Draft Engineering Site Plan showing Off-Site Butternuts and 50m off-set radius

cc Howard Stevens, Meaford Golf & Country Club
Ron Davidson, Land Use Consultant
Scott Taylor, Grey County Planning Dept.

Meaford Golf & Country Club

Butternuts within and adjacent to the Development Lands

- Base map source: Grey County web site with April 2015 air photo





Photo No. 1: Driving Range- Development Lands, Off-Site Butternuts are within woodlands to right (other private property lands), 50m off-set overlaps onto golf course driving range lands

Photo No. 2: Off-Site Bu tree No. 3, probable parent tree to surrounding butternuts.
Note Canker signs exhibited



**Ministry of Natural
Resources and Forestry**

Owen Sound Field Office
1450 7th Ave East
Owen Sound, ON N4K 2Z1
Tel: 519-376-3860
Fax: 519-372-3305

**Ministère des Richesses naturelles
et des Forêts**

Bureau du secteur d'Owen Sound
1450 ave 7 est
Owen Sound, ON N4K 2Z1
Tél: 519-376-3860
Télé: 519-372-3305



November 17, 2017

John Morton
242090 Conc Rd 3
R.R. # 1, Shallow Lake, Ont
N0H 2K0

Dear Mr. Morton:

RE: Butternut

Meaford Golf and Country Club, Part Lot 17, Concession 6, Geographic Township of St. Vincent, County of Grey

The Ministry of Natural Resources and Forestry (MNRF) has reviewed the information to assess the potential impacts of the proposal on species protected under the *Endangered Species Act, 2007 (ESA 2007)*. Based on the information provided, it is MNRF's understanding that the proposed project falls within the following parameters:

- A. development within the 25-50 m propagation and habitat protection zone of butternut;

Based on a review of the information you provided, MNRF staff have determined that the activities associated with the project, as currently proposed, will not likely contravene the Endangered Species Act, 2007 (ESA) Butternut as:

- A. The current 25-50 m propagation zone land use is a highly manicured golf driving range and does not support a propagation function.

If any other protected species and/or habitats are observed on your property, please contact the MNRF Midhurst District office as soon as possible.

It is important to be aware that changes may occur in both species and habitat protection. The ESA 2007 applies to species listed on the Species at Risk in Ontario List (www.ontario.ca/environment-and-energy/species-risk-ontario-list). Because the list is updated from time to time, it is recommended that you visit this web page regularly and/or check with

the Midhurst District about species changes as well as information on protected habitats that may occur in your area.

Please be advised that it is also your responsibility to be aware of and comply with all other relevant provincial or federal legislation, municipal by-laws, other MNRF approvals or required approvals from other agencies.

If you have any concerns or questions please contact Jody Scheifley at 519-371-8471 or jody.scheifley@ontario.ca

Sincerely,

Jody Scheifley
Management Biologist
Owen Sound Field Office, Midhurst District