AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Environmental Assessments & Approvals

October 9, 2025 AEC 23-226

Rayville Developments (Legacy) Inc.

Attention: Andy Kidd

Re: **Environmental Impact Study Addendum & Response #1 – Natural Heritage Peer Review Comments, Part of Lot 43, Concession 11 (780 Tenth Line), Town of Collingwood**

Andy Kidd:

Azimuth Environmental Consulting, Inc. (Azimuth) has reviewed natural heritage peer review comments prepared by Natural Resource Solutions Inc. (NRSI) on behalf of the Town of Collingwood (the "Town") with respect to the Scoped Environmental Impact Study (EIS) Update prepared for a redline revision to an approved draft plan of the Linksview Subdivision on Part of Lot 43, Concession 11 (also referred to as 780 Tenth Line) in the Town of Collingwood. The original EIS submission was prepared by Azimuth on December 17, 2014, and the Scoped EIS Update was prepared on May 2, 2024. Peer review comments relating to the Scoped EIS Update submission were prepared by NRSI in a letter dated November 5, 2024 and are the subject of the responses/updates below.

Azimuth most recently issued an Interim Field Program Summary for the proposed development, outlining preliminary and high-level results of supplementary 2025 field work, in a letter dated June 27, 2025. A subsequent peer review letter was received on September 10, 2025 that provides comments and recommendations on reviewed materials, largely reiterating those provided in the November 2024 letter.

The purpose of this letter is to provide a detailed EIS Addendum & Response #1 to NRSI's November 2024 peer review comments and subsequent September 2025 letter, based on a suite of additional field studies undertaken in 2025, and updated impact assessment relating to redline draft plan of subdivision materials also included within this submission.

EIS Addendum Responses

Characterization of Vegetation Communities

Azimuth acknowledges NRSI's comment regarding timing of vegetation studies, that a single-season botanical inventory in early fall (October 4, 2023) may not have adequately captured the suite of vegetation species with potential to occur on the property. Azimuth completed a subsequent spring vascular plant inventory on May 28, 2025 in an effort to compile a comprehensive list of plant species onsite, including potential occurrences of Species at Risk (SAR) protected under Ontario's *Endangered Species Act*, 2007 (ESA), or other plant species of conservation concern (*e.g.* S-Rank 1-3). A complete vascular plant list, organized by vegetation community that incorporates both fall 2023 and spring 2025 plant surveys is attached as Table 1. Azimuth is of the opinion that in combination with the October 4, 2023 survey, the expanded vascular plant inventory suitably captures the suite of flora that occurs on the property.

No additional/previously unidentified plant SAR or other species of conservation concern were identified during the supplementary spring 2025 plant survey (note: previously-identified Butternut (*Juglans cinerea*) are discussed below).

Habitat for Endangered or Threatened Species

With regard for matters related to SAR, Azimuth emphasizes that ESA permissions and approvals are a proponent-driven process, and it is the responsibility of the applicant to confirm conformity in accordance with Ministry of the Environment, Conservation and Parks (MECP) requirements. In cases where the proponent is confident that negative impacts to SAR will not occur as a result of a proposed development, there is no requirement to directly engage MECP with regard for permissions or approvals, as MECP does not provide Letters of Advice or routinely "sign off" on development applications.

SAR Bats and Bat Habitat

Regardless of the above, Azimuth completed a comprehensive inventory throughout the subject property for bat habitat "snag" trees on April 24, 2025 during the "leaf-off" period when cracks/splits/cavities that have potential to provide access for roosting bats are most readily identified. The results of the bat snag inventory indicated that snags were present throughout the woodland (FOD5-8/FOD3-1) feature on the property, but were most concentrated within interior sections of the eastern (FOD3-1) portion of the feature. Bat "snag" trees throughout the property limits are presented in the updated Environmental Features mapping presented in Figure 2 (attached).

Based on the proposed draft plan of subdivision associated with the application, woodland removals will occur along the southern and eastern edges of the woodland where snags occur at a low density, suggesting that impacts to roosting habitat for SAR bats will occur in portions of the woodland with the most limited capacity for bat habitat function. As illustrated in updated Proposed Development mapping presented in Figure 3 (attached), removal of a total of 9 snags and 0.67ha of associated woodland would be required to facilitate the proposed development concept. A total of 44 snags identified within the woodland feature will be retained on the property, however it is notable that the woodland and connected thicket extend to the north, west, and south as part of a larger woodland complex feature with natural connectivity toward extensive woodland tracts of the Niagara Escarpment to the west. Removal of 9 snags within 0.67ha of woodland would be considered minimal in the context of the woodland and connected natural features both on-property and in the context of the local landscape.

For projects of a similar scope, Azimuth has engaged the MECP regarding potential impacts to woodland bat habitat. Guidance was provided via the Bat Survey Standards Note (MECP, 2022), which clarifies the following:

> *"If a proposed activity will avoid impairing or eliminating the function of habitat for supporting bat life processes (e.g. remove, stub, etc. a proportionally small number of potential maternity or day roost trees in treed habitats which would not result in fragmentation/barriers) and the timing of tree removal will avoid the bat active season (April 1-September 30 in Southern Ontario)"…"then there is no need to conduct species at risk bat surveys of treed habitats."*

The above is consistent with Azimuth's understanding when suitable habitat availability is not limiting, a mitigation approach that restricts vegetation removals during the active period for bats is a suitable approach to avoid a contravention to SAR bat individuals or habitats under Section 9 and Section 10 of the ESA. It is anticipated that if the proposed works can be accomplished via removal of a proportionately small number of snag trees, no impacts to bat habitat function within woodlands on the property would occur. With regard for protection of individual bats, Azimuth recommended tree removals should be avoided between **April 1 through September 30** of any given year, during the active period for bat species that may utilities trees for maternity and day roosting purposes. It is anticipated that adherence to this timing restriction avoids impacts to individual SAR bats, therefore remaining in compliance with Section 9 of the ESA affording individual protection to Endangered species. It is anticipated that removal of 9 snags and associated tree cutting within the woodland edge area would represent removal of a proportionally small number of snag trees and would not

result in fragmentation/barriers to SAR bat movement, therefore also remaining in compliance with Section 10 of the ESA.

With regard for the demolished dwelling on the property, Azimuth is unable to comment on whether SAR bats were harmed or killed during the activity as bat exit studies were not completed. As stated in NRSI's comment, Azimuth identified the structure as having low potential to support bat maternity roosting habitat.

Butternut

With regard for Butternut (Endangered under the ESA), four (4) live stems were identified during Azimuth's 2024 field program. A Butternut Health Assessment (BHA) was conducted on June 27, 2025, and submitted to MECP on October 6, 2025. The updated Figure 2 (attached) shows the locations and identification of the four (4) live Butternut stems identified within the study area, and their associated categorizations as a result of the BHA. The BHA completed in June 2025 determined the following categories/statuses for the identified Butternut:

Category 1 ("non-retainable"):

- Butternut #1, #2, #3

Category 2 ("retainable"):

- Butternut #4

In accordance with BHA guidelines (MECP, 2021) trees designated Category 1 as a result of a BHA do not receive protection in accordance with the ESA. Category 2 trees (*i.e.* Butternut #4) are considered "retainable" and are afforded individual and habitat protection under the ESA. The proposed development will result in the cutting ("killing") of one (1) Category 2 Butternut tree (Butternut #4; Figure 3).

Under O. Reg. 830/21 (the "Regulation"), impacts to a limited number of Butternut stems are eligible for an ESA Permit exemption, when a proposed activity will result in "killing" or "harm" to 15 or fewer Category 2 Butternut stems (Section 25.(3)). As the proposed development will result in killing of one (1) Category 2 tree, the proposal therefore remains eligible for an ESA exemption through a Notice under the Regulation. Proponents are able to proceed with such an exemption providing a Notice of Butternut Impact ("Notice") is filed and the proponent remains compliant with compensatory measures that are committed to upon completion of the Notice.

It is anticipated that timely filing of a Notice in advance of site works and compliance with associated commitments under the Regulation would suitably offset impacts to Butternut within the study area limits, thereby remaining compliant with individual and habitat protections conveyed to the species through Sections 9 and 10 of the ESA.

Species of Conservation Concern and Significant Wildlife Habitat

Special Concern and Rare Wildlife Species (Monarch)

It is acknowledged that Azimuth observed Monarch butterflies on the property during field studies associated with the EIS, and that NRSI observed an abundance of Common Milkweed (*Asclepias syriaca*) in proximity to property and woodland edges. The updated proposed development concept overlain on environmental features mapping (Figure 3) illustrates a 10m naturalized buffer will be maintained between the northern property limit and the edge of the development area. It is anticipated that this 10m buffer will preserve a suitable quantity of Common Milkweed proximal to a naturalized hedgerow, wetland, and woodland such that breeding/nectaring and wildlife conveyance opportunities will persist along the northern property edge in the post-development setting. It is acknowledged that a limited amount of meadow vegetation directly along the woodland edge and southern hedgerow will be removed as a result of the proposed development, however proposed removals are minor such that the ecological form and function of habitat for Monarch would not expected to be compromised. As such, there is no expectation the proposed development would result in a negative impact upon habitat for Monarch and therefore associated candidate SWH for Special Concern and Rare Wildlife Species.

No other insect species of conservation concern were observed throughout the course of Azimuth's field program (2025 field work or earlier studies) within the study area limits.

Bat Maternity Colonies

The woodland comprising the northwest portion of the property contains a total of 21 snags within the FOD5-8 feature (measuring 2.82ha). Of the 21 snag trees identified within the FOD5-8 feature, one (1) snag is <25cm Diameter at Breast Height (DBH) and is therefore not considered as contributing toward Bat Maternity Colonies in accordance with the SWHTG Ecoregion 6E Criteria Schedules. A total of 20 snag trees within the 2.82ha FOD5-8 unit equate to a density of 7.09 snags/ha, below the minimum threshold of 10 snags/ha for further consideration of Bat Maternity Colonies. As such, the FOD8-5 feature is not afforded further consideration as candidate SWH for Bat Maternity Colonies in this assessment.

The FOD3-1 portion of the woodland contains the remaining 32 snags within an area measuring 1.11ha in size. Of the 32 snag trees documented within this polygon, 8 snags were recorded as <25cm

DBH and therefore only 24 snag trees contribute toward the density calculation for determination of Bat Maternity Colonies candidacy. Based on a polygon size of 1.11ha, the calculated density of bat snags within the FOD3-1 polygon is 21.62 snags/ha, exceeding the minimum threshold of 10 snags/ha for further consideration of Bat Maternity Colonies.

The proposed development will result in the removal of three (3) qualify snag trees (>25cm DBH) of 24 documented within a woodland area measuring 0.26ha in size within the FOD3-1 polygon, therefore retaining 21 of 24 snags and 0.85ha (76.6%) of continuous woodland habitat within the polygon limits. Proposed tree removals will occur along the eastern and southern edges of the woodland, and will avoid removals of snag tree concentrations generally within the interior portions of the feature that likely provide higher quality roosting habitat opportunities for SAR bats. Removal of snag trees along the existing edges of the polygon would also avoid habitat fragmentation, allowing for continuation of bat movement in the post-construction setting, particularly toward lands to the west of the property where large expanses of natural vegetation types will persist.

Further to recommendations and conclusions provided for SAR bats above, Azimuth recommends tree removals should be avoided between **April 1 through September 30** of any given year, during the active period for bat species that may utilities trees for maternity and day roosting purposes. It is Azimuth's opinion that removal of three (3) snag trees and 0.26ha of woodland habitat outside of the active bat season would not undermine the form or function of potential SWH for Bat Maternity Colonies in the post-construction setting, therefore demonstrating conformity with municipal and provincial requirements.

Amphibian Breeding Habitat

Azimuth completed three (3) supplementary evening amphibian call surveys on April 27, May 15, and June 25, 2025, during the early- (April 15-30), mid- (May 15-31), and late- (June 15-30) spring survey periods in accordance with Great Lakes Marsh Monitoring Protocol (2009) methodology. Surveys occurred starting at least 30 minutes after sunset and during appropriate weather conditions in accordance with the protocol as follows:

- **April 27**: 21:37-22:11hrs, Temp 5-6°C, cloud cover 30-90%, Beaufort 2, no precipitation
- **May 15**: 21:54-10:46hrs, Temp 16°C, cloud cover 30-40%, Beaufort 1-2, no precipitation
- **June 26**: 23:15-23:57hrs, Temp 19°C, cloud cover 100%, Beaufort 0, no precipitation

The locations of evening amphibian survey stations reviewed in 2025 are illustrated on the updated Figure 2 (attached). A summary of the results of the amphibian breeding survey program is presented in Table 2 (attached). In regards to NRSI's relevant comment, it is notable that Western Chorus Frog

was not documented on the property during Azimuth's amphibian breeding survey program. It is also acknowledged that NRSI observed Northern Leopard Frogs during the 2024 site investigation, however spring 2025 amphibian breeding surveys did not document breeding activity from the species within the study area.

Azimuth's field surveys did not detect amphibian breeding activity at amphibian breeding stations #1 and #4, therefore associated lowland/wetland features are not afforded further consideration as potential Significant Wildlife Habitat (SWH) in this assessment.

Based on criteria outlined in the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF, 2015), wetlands/areas of pooled water >500m^2 in size and not located within 120m of a woodland (especially those containing predominately aquatic species) are considered under the Amphibian Breeding Habitat (Wetland) category. Amphibian station #3 was established to determine presence of calling amphibians beyond the southern property limit, however also occurs next to a very small anthropogenic pond measuring 297m^2. As this unit does not exceed the minimum 500m^2 size criterion for consideration as potential SWH, the feature is also not afforded further consideration in this assessment. Regardless, amphibian breeding activity of listed species included Gray Treefrog (3 individuals), substantially below the threshold of 20 calling individuals belonging to two (2) or more listed species. As such, minimum criteria amphibian breeding SWH was not met for wetlands/ponds proximal to amphibian station #3.

With regard for amphibian station #2 which sampled both MAM2-5 (incl.) features in the north-central portion of the property, amphibian breeding activity of listed species included Gray Treefrog (full chorus), and Green Frog (1 individual within the western MAM2-5 (incl.) feature). Although presence of >20 calling individuals belonging to one species (Gray Treefrog) was presumed during the amphibian survey program, such activity for at least two (2) listed species must occur within the feature to meet minimum criteria as SWH for Amphibian Breeding Habitat (Wetlands).

Based on the above information, amphibian breeding activity was detected within the study area however minimum breeding activity levels did not meet minimum criteria for contemplation as SWH for Amphibian Breeding Habitat in accordance with provincial guidelines.

Rock Piles/Snake Habitat Surveys

Azimuth reviewed the property for presence of rock piles on April 27, 2025, and documented locations in updated Environmental Features mapping as shown on Figure 2 (attached). All rock piles documented throughout the study area were measured <1.5m in height and comprised small-medium sized rocks intermixed with mineral soils, none of which exhibited conspicuous crevices or

other features that would be anticipated to provide subterranean access. For rock piles to function as snake hibernacula, access below/beyond the frost line must be possible, to protect snakes from freezing during the overwintering period. The frost line depth is understood to extend at least 1.5m from the ground surface in Southern Ontario. Based on observations during the April 2025 site investigation, none of the documented rock piles are of the size or dimensions such that subterranean access below/beyond the frost line would be possible. As such, there is no expectation that any of the observed rock piles have potential to function as reptile hibernacula for snakes.

Woodlands

Woodland boundaries were refined through re-delineation of the dripline using GPS technology (Garmin Montana) on June 27, 2025, and are illustrated on updated Environmental Features (Figure 2) and Proposed Development (Figure 3), attached.

Given the generally disturbed state and history of agricultural land uses on the property, locations where tree removal is proposed proximal to existing woodland edges are currently subject to substantial influence from adjacent/transitional edge stressors such as exposure to light, dust, and wind. Woodland removals are proposed as removals of linear areas along the southern and eastern edges of the woodland feature not exceeding 35m in width but generally 10-15m in width, such that woodland clearance will be limited to existing edge habitats. It is recognized that creation of a new woodland edge will expose more interior portions of the woodland feature to increased environmental stressors associated with open areas, however such effects are expected to be minor in scale. Notably, the MAM2-10 (incl.) feature internal to the woodland feature will remain protected, and a natural woodland buffer measuring >30m in width will be retained, thereby maintaining ecological features/functions associated with the wetland inclusion. Similarly, a permanent watercourse that traverses the woodland near the northwest corner of the property will also remain protected with a natural woodland buffer measuring >30m in width in the post-construction setting.

It is anticipated that the proposed removal of 0.67ha of woodland along the eastern and southern woodland edges would not compromise ecological functions within the feature, as described above and elsewhere within this response (*e.g.* Bat Maternity Colonies, SAR bat habitat).

Regardless of the above, implementation of the following design considerations related to mitigation of impacts the woodland (otherwise understood as an Edge Management Plan) are proposed, particularly referring to to locations where residential yards will abut or encroach upon existing woodland edges:

- Prior to the commencement of site works, silt fencing shall be applied along the length of the limit of future woodland encroachment.
- Routine inspection/maintenance of the silt fencing shall occur throughout construction.
- Silt fencing shall be maintained until adjacent residential lots are vegetated and considered stabilized.
- Following site construction, permanent exclusion fencing shall be installed along the rear of residential lots and maintained in the long term.
- An educational brochure or similar package shall be prepared for landowners abutting the woodland providing information about ecological functions of the woodland, and best practices of yard/property maintenance and backyard lighting (*i.e.* away from natural areas) to reduce residual impacts to the adjacent woodland.
- Construction lighting shall be directed away from the retained woodland throughout the course of site works, to the extent possible.
- A Vegetation Planting Plan shall be prepared and implemented concurrent with project construction within the nearest 10m to the newly-created woodland edge.
    - The Vegetation Planting Plan should consist of woody inter-plantings comprising native, locally-appropriate shrub and understory tree species.
    - Trees/shrubs should be installed from early October (coincident with leaf colour change) until freeze-up; or in the spring after frost is out of the soil until new foliage is partly unfurled (this occurring early to mid-May).
    - Mulch should be applied, and trees and shrubs should be maintained for two years post-planting. Stem guards applied to deciduous trees may be subject to improper installation or damage due to animal activity (deer rubbing). Guards should be maintained and replaced as necessary for the first two years following installation.
    - Monitoring of plantings should continue for two years after installation to ensure successful establishment. During the course of the inspections, the success of the plantings and degree of herbivory should be noted.
    - For planted woody stock, a success rate of 80% of the original abundance of planted stems and 80% of the original diversity of woody stems is the recommended target after two years.
    - Removal of waste should occur along the woodland edge prior to restoration works and throughout the above-noted monitoring period.

It is anticipated that the above mitigation recommendations for an Edge Management Plan would be appropriate to include as Draft Plan conditions, subject to further consideration at the detailed design stage.

Tree Impacts

Although it is recognized that the results of a Tree Inventory and Preservation Plan may corroborate information presented in this EIS Addendum, implementation of such plan is outside of the scope of natural heritage matters and is expected to be coordinated by others.

Wetlands and Watercourses

Azimuth is liaising with the Nottawasaga Valley Conservation Authority (NVCA) to determine applicability of *Ontario Regulation 41/24* as it relates to minor wetland units on the property. A wetland staking exercise occurred with NVCA, Azimuth ecologist, and a qualified surveyor on August 29, 2025, and included the three (3) MAM2-5 (incl.) features in proximity to the development footprint. Refined wetland boundaries are illustrated on updated Environmental Features (Figure 2) and Proposed Development (Figure 3), attached.

A post-development wetland water balance assessment should be prepared at the detailed design stage, recommended to be carried forward as a condition of Draft Plan Approval.

Further assessment regarding impacts to wetlands and wetland buffers are considered under a separate cover, in the context of NVCA's Ecological Offsetting Policy requirements under *Ontario Regulation 41/24*.

Closure

We trust that the above sufficiently addresses outstanding questions and concerns outlined in NRSI's November 2024 peer review letter and subsequent September 2025 letter. If you have any questions, please do not hesitate to contact the undersigned.

Yours truly,
AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Dan Stuart, M.Env.Sc.
Ecology Lead/Partner

Attached:
Figure 2 – Environmental Features (Updated)
Figure 3 – Proposed Development (Updated)
Table 1 - Vascular Plant List (Updated)
Table 2 – Amphibian Breeding Summary
Butternut Health Assessment (780 Tenth Line Collingwood)

EXISTING CULVERT
MAM2-10 (incl.)
FOD3-1
CUM
MAM2-5 (incl.)
MAM2-5 (incl.)
10th LINE
FOD5-8
CUTb
CUTa
OAG (PLOWED)
OAGM1 (CORN)
OAGM1 (CORN)
OAG (PLOWED)
CUT/CUM
CVR_3
DEMOLISHED DWELLING
6th STREET

LEGEND:

- APPROX. PROPERTY BOUNDARY
- WATERCOURSE
- INTERMITTENT DRAINAGE FEATURE
- CULVERT

ELC UPLAND COMMUNITIES:

CVR_3	SINGLE FAMILY RESIDENTIAL
CUM	CULTURAL MEADOW
CUT	CULTURAL THICKET
FOD3-1	DRY-FRESH POPLAR DECIDUOUS FOREST
FOD5-8	DRY-FRESH SUGAR MAPLE-WHITE ASH DECIDUOUS FOREST
OAGM1	ANNUAL ROW CROPS
OAG	OPEN AGRICULTURE

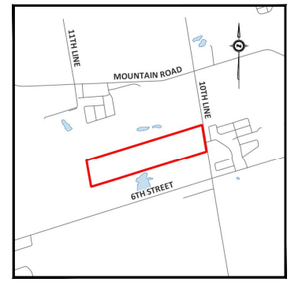
ELC WETLAND COMMUNITIES:

MAM2-5 (incl.)	NARROW-LEAVED SEDGE GRAMINOID MINERAL MEADOW MARSH (WETLAND INCLUSION)
MAM2-10 (incl.)	MIXED FORB MINERAL MEADOW MARSH (WETLAND INCLUSION)

BUTTERNUT TREE SYMBOLOGY:

- BUTTERNUT TREE – CATEGORY 1
- BUTTERNUT TREE – CATEGORY 2
- BAT SNAG LOCATION
- ROCK PILE
- DAWN BREEDING BIRD SURVEY STATION
- EVENING CALLING AMPHIBIAN SURVEY STATION

LOCATION PLAN



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HORIZONTAL SCALE 1:5000

AZIMUTH ENVIRONMENTAL CONSULTING, INC.
ENVIRONMENTAL ASSESSMENTS & APPROVALS

ENVIRONMENTAL FEATURES

PART OF LOT 43, CONCESSION 11
COLLINGWOOD, ON

DATE ISSUED:	SEPTEMBER 2025	Figure No. 2
CREATED BY:	A.L.	
PROJECT NO.:	23-226	
REFERENCE:	SIMCOE COUNTY	

EXISTING CULVERT

MAM2–10 (incl.)

FOD3–1

CUM

FOD5–8

WETLAND REMOVAL = 1,138.23m²

WETLAND BUFFER REMOVAL = 5,460.48m²

MAM2–5 (incl.)

WETLAND REMOVAL = 1,748.66m²

MAM2–5 (incl.)

WETLAND BUFFER REMOVAL = 3,366.71m²

10th LINE

CUTa

CUTb

WETLAND REMOVAL = 1,497.75m²

WOODLAND REMOVAL = 6,692.07m²

OAG (PLOWED)

OAGM1 (CORN)

OAGM1 (CORN)

OAG (PLOWED)

CUT/CUM

CVR_3

DEMOLISHED DWELLING

6th STREET

STREET 'A' (24.5m)

STREET 'B'

STREET 'C'

STREET 'D'

STREET 'E'

STREET 'F'

STREET 'G'

STREET 'H'

STREET 'I'

STREET 'J'

STREET 'K'

STREET 'L'

STREET 'M'

GEORGIAN MEADOWS DRIVE

ORIGINAL ROAD ALLOWANCE BETWEEN CONCESSIONS 10 AND 11

REGISTERED PLAN 51M-711

REGISTERED PLAN 51M-809

HIGHLANDS CRESCENT

LOT 12 CONCESSION 1

LOT 43 CONCESSION 1

SOUTH HALF OF LOT 44 CONCESSION 1

PART 8, 51R–9690 "EXISTING GRAVEL PIT"

PART 1, 51R–18209 "EXISTING RESIDENTIAL"

PART 4, 51R–25151 "BY GONE DAYS FARM"

PART 2, 51R–25151 "FISHER FIELD"

PART 1, 51R–25151

PART 2, 51R–12858

PART 1, 51R–14463

PART 7, 51R–25151

PART 1, 51R–20001

"EXISTING GOLF COURSE"

POTENTIAL FUTURE CONNECTION PROVIDED BY THE TOWN AT THE TOWN'S DISCRETION

LEGEND:

- APPROX. PROPERTY BOUNDARY
- WATERCOURSE
- INTERMITTENT DRAINAGE FEATURE
- CULVERT

ELC UPLAND COMMUNITIES:

CVR_3	SINGLE FAMILY RESIDENTIAL
CUM	CULTURAL MEADOW
CUT	CULTURAL THICKET
FOD3–1	DRY–FRESH POPLAR DECIDUOUS FOREST
FOD5–8	DRY–FRESH SUGAR MAPLE–WHITE ASH DECIDUOUS FOREST
OAGM1	ANNUAL ROW CROPS
OAG	OPEN AGRICULTURE

ELC WETLAND COMMUNITIES:

MAM2–5 (incl.)	NARROW–LEAVED SEDGE GRAMINOID MINERAL MEADOW MARSH (WETLAND INCLUSION)
MAM2–10 (incl.)	MIXED FORB MINERAL MEADOW MARSH (WETLAND INCLUSION)

- WETLAND SETBACK
- WETLAND REMOVAL
- WETLAND BUFFER REMOVAL
- WOODLAND REMOVAL

BUTTERNUT TREE SYMBOLOGY:

- BUTTERNUT TREE – CATEGORY 1
- BUTTERNUT TREE – CATEGORY 2
- BAT SNAG LOCATION
- ROCK PILE

0 125.00 250.0

HORIZONTAL SCALE 1:5000

AZIMUTH ENVIRONMENTAL CONSULTING, INC.
ENVIRONMENTAL ASSESSMENTS & APPROVALS

PROPOSED DEVELOPMENT

PART OF LOT 43, CONCESSION 11 COLLINGWOOD, ON

DATE ISSUED:	SEPTEMBER 2025	Figure No. 3
CREATED BY:	A.L.	
PROJECT NO.:	23-226	
REFERENCE:	SIMCOE COUNTY	

Plotted by: ALU on September 22, 2025 at 2:29pm
File: Q:\23 Projects\23-226 Linkview (Collingwood) EIS Update\04.0 – Drafting\23-226 Site Layout.dwg Layout: 3 PROPOSED DEVELOPMENT Plotscale: 1

Table 1: Vascular Plant List, EIS Addendum #1 Surveyor: C. Pezik, A. Pompilio-Grant **AEC23-226**

			Vegetation Communities[2]								Conservation Rankings[3]			
FAMILY[1]	SCIENTIFIC NAME[1]	COMMON NAME[1]	FOD5-8	FOD3-1	CUTa	CUTb	CUT/CUM	CUM	CVR_3	Fencerows	GRANK	SRANK	ESA	TRACK
Alismataceae	*Alisma triviale*	Northern Water-plantain						X			G5	S5		N
Amaranthaceae	*Amaranthus retroflexus*	Redroot Amaranth				X		X			G5	SE5		N
Amaryllidaceae	*Allium tricoccum*	Wild Leek	X								G5	S4		P
Anacardiaceae	*Cotinus coggygria*	European Smoketree							X		GNR	SE1		N
Anacardiaceae	*Rhus typhina*	Staghorn Sumac	X	X	X	X	X	X	X	X	G5	S5		N
Anacardiaceae	*Toxicodendron radicans var. rydbergii*	Western Poison Ivy	X	X		X	X	X	X		G5	S5		N
Apiaceae	*Aegopodium podagraria*	Goutweed							X		GNR	SE5		N
Apiaceae	*Daucus carota*	Wild Carrot			X	X	X	X	X		GNR	SE5		N
Apocynaceae	*Apocynum androsaemifolium*	Spreading Dogbane			X	X	X	X			G5	S5		N
Apocynaceae	*Apocynum cannabinum*	Hemp Dogbane						X			GNR	S5		N
Apocynaceae	*Asclepias syriaca*	Common Milkweed			X	X	X	X	X		G5	S5		N
Apocynaceae	*Vinca minor*	Lesser Periwinkle							X		GNR	SE5		N
Araceae	*Lemna minor*	Small Duckweed						X			G5	S5		N
Asparagaceae	*Maianthemum canadense*	Wild Lily-of-the-valley	X	X							G5	S5		N
Asparagaceae	*Maianthemum racemosum*	Large False Solomon's Seal	X	X							G5T5	S5		N
Asparagaceae	*Maianthemum stellatum*	Star-flowered False Solomon's Seal	X	X		X	X				G5	S5		N
Asteraceae	*Achillea millefolium*	Common Yarrow		X		X	X		X		G5	SE5?		N
Asteraceae	*Ambrosia artemisiifolia*	Common Ragweed			X	X	X	X	X		G5	S5		N
Asteraceae	*Arctium minus*	Common Burdock		X							GNR	SE5		N
Asteraceae	*Artemisia biennis*	Biennial Wormwood			X						G5	SE5		N
Asteraceae	*Bidens cernua*	Nodding Beggarticks			X			X			G5	S5		N
Asteraceae	*Cichorium intybus*	Wild Chicory			X	X	X	X	X		GNR	SE5		N
Asteraceae	*Cirsium arvense*	Canada Thistle			X	X	X	X	X		G5	SE5		N
Asteraceae	*Cirsium vulgare*	Bull Thistle			X		X	X	X		GNR	SE5		N
Asteraceae	*Erigeron canadensis*	Canada Horseweed			X	X	X	X	X		G5	S5		N
Asteraceae	*Erigeron philadelphicus*	Philadelphia Fleabane	X		X	X	X	X			G5	S5		P
Asteraceae	*Eurybia macrophylla*	Large-leaved Aster	X						X		G5	S5		N
Asteraceae	*Euthamia graminifolia*	Grass-leaved Goldenrod			X			X	X		G5	S5		N

Table 1: Vascular Plant List, EIS Addendum #1 Surveyor: C. Pezik, A. Pompilio-Grant **AEC23-226**

			Vegetation Communities[2]								Conservation Rankings[3]			
FAMILY[1]	**SCIENTIFIC NAME[1]**	**COMMON NAME[1]**	**FOD5-8**	**FOD3-1**	**CUTa**	**CUTb**	**CUT/CUM**	**CUM**	**CVR_3**	**Fencerows**	**GRANK**	**SRANK**	**ESA**	**TRACK**
Asteraceae	*Eutrochium maculatum*	Spotted Joe Pye Weed	X								G5	S5		N
Asteraceae	*Leucanthemum vulgare*	Oxeye Daisy				X	X	X			GNR	SE5		N
Asteraceae	*Matricaria discoidea*	Pineappleweed			X	X					G5	SE5		N
Asteraceae	*Nabalus altissimus*	Tall Rattlesnakeroot	X								G5	S5		N
Asteraceae	*Pilosella piloselloides*	Tall Hawkweed			X	X	X	X			GNR	SE5		N
Asteraceae	*Solidago canadensis*	Canada Goldenrod	X	X	X	X	X	X	X		G5	S5		N
Asteraceae	*Solidago gigantea*	Giant Goldenrod			X		X	X			G5	S5		P
Asteraceae	*Solidago rugosa*	Rough-stemmed Goldenrod			X	X	X	X	X		G5	S5		N
Asteraceae	*Sonchus arvensis*	Field Sow-thistle			X	X	X	X	X		GNR	SE5		N
Asteraceae	*Symphyotrichum lanceolatum*	Panicled Aster			X			X			G5	S5		P
Asteraceae	*Symphyotrichum lateriflorum*	Calico Aster	X	X							G5	S5		P
Asteraceae	*Symphyotrichum novae-angliae*	New England Aster			X	X	X	X	X		G5	S5		N
Asteraceae	*Taraxacum officinale*	Common Dandelion	X		X	X	X	X	X		G5	SE5		N
Asteraceae	*Tragopogon dubius*	Yellow Goatsbeard					X				GNR	SE5		N
Asteraceae	*Tragopogon pratensis*	Meadow Goatsbeard				X	X				GNR	SE5		N
Asteraceae	*Tussilago farfara*	Coltsfoot	X		X		X	X	X		GNR	SE5		N
Balsaminaceae	*Impatiens capensis*	Spotted Jewelweed	X		X						G5	S5		N
Berberidaceae	*Berberis vulgaris*	Common Barberry						X			GNR	SE5		N
Betulaceae	*Betula papyrifera*	Paper Birch	X	X		X	X			X	G5	S5		N
Betulaceae	*Ostrya virginiana*	Eastern Hop-hornbeam	X	X			X			X	G5	S5		N
Boraginaceae	*Echium vulgare*	Common Viper's Bugloss			X	X	X	X	X		GNR	SE5		N
Brassicaceae	*Alliaria petiolata*	Garlic Mustard	X	X			X		X		GNR	SE5		N
Brassicaceae	*Barbarea vulgaris*	Bitter Wintercress			X	X	X				GNR	SE5		N
Brassicaceae	*Brassica nigra*	Black Mustard			X		X				GNR	SE5		N
Brassicaceae	*Capsella bursa-pastoris*	Common Shepherd's Purse			X	X	X	X	X		GNR	SE5		N
Brassicaceae	*Lepidium campestre*	Field Peppergrass					X	X			GNR	SE5		N
Brassicaceae	*Thlaspi arvense*	Field Pennycress			X	X	X	X			GNR	SE5		N
Caprifoliaceae	*Dipsacus fullonum*	Common Teasel			X	X	X	X			GNR	SE5		N

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			Vegetation Communities[2]								Conservation Rankings[3]			
FAMILY[1]	SCIENTIFIC NAME[1]	COMMON NAME[1]	FOD5-8	FOD3-1	CUTa	CUTb	CUT/CUM	CUM	CVR_3	Fencerows	GRANK	SRANK	ESA	TRACK
Caprifoliaceae	*Lonicera tatarica*	Tatarian Honeysuckle				X	X				GNR	SE5		N
Caryophyllaceae	*Silene noctiflora*	Night-flowering Catchfly			X			X			GNR	SE5		N
Caryophyllaceae	*Silene vulgaris*	Bladder Campion			X	X	X	X			GNR	SE5		N
Caryophyllaceae	*Stellaria media*	Common Chickweed					X				GNRTNE	SE5		N
Convolvulaceae	*Convolvulus arvensis*	Field Bindweed			X	X	X	X	X		GNR	SE5		N
Cornaceae	*Cornus alternifolia*	Alternate-leaved Dogwood	X			X			X	X	G5	S5		N
Cornaceae	*Cornus rugosa*	Round-leaved Dogwood	X	X						X	G5	S5		N
Cornaceae	*Cornus sericea*	Red-osier Dogwood	X		X	X	X	X	X	X	G5	S5		N
Cucurbitaceae	*Echinocystis lobata*	Wild Cucumber			X						G5	S5		N
Cupressaceae	*Juniperus virginiana*	Eastern Red Cedar							X		G5	S5		N
Cupressaceae	*Thuja occidentalis*	Eastern White Cedar	X	X					X		G5	S5		N
Cyperaceae	*Carex blanda*	Woodland Sedge	X	X							G5	S5		N
Cyperaceae	*Carex gracillima*	Graceful Sedge	X	X							G5	S5		N
Cyperaceae	*Carex lacustris*	Lake Sedge						X			G5	S5		N
Cyperaceae	*Carex pensylvanica*	Pennsylvania Sedge		X							G5	S5		N
Cyperaceae	*Carex rosea*	Rosy Sedge		X							G5	S5		N
Cyperaceae	*Carex rostrata*	Swollen Beaked Sedge						X			G5	S4?		N
Cyperaceae	*Carex vulpinoidea*	Fox Sedge			X			X			G5	S5		N
Cyperaceae	*Cyperus esculentus*	Perennial Yellow Flatsedge			X			X			G5	S5		N
Cyperaceae	*Eleocharis palustris*	Creeping Spikerush						X			G5	S5		N
Cystopteridaceae	*Cystopteris bulbifera*	Bulblet Bladder Fern	X								G5	S5		N
Dennstaedtiaceae	*Pteridium aquilinum*	Bracken Fern	X	X							G5	S5		N
Dryopteridaceae	*Dryopteris intermedia*	Evergreen Wood Fern	X								G5	S5		N
Equisetaceae	*Equisetum arvense*	Field Horsetail	X	X	X	X	X	X	X		G5	S5		N
Equisetaceae	*Equisetum hyemale*	Common Scouring-rush			X						G5	S5		N
Equisetaceae	*Equisetum sylvaticum*	Woodland Horsetail	X								G5	S5		N
Equisetaceae	*Equisetum variegatum*	Variegated Scouring-rush						X			G5	S5		N
Fabaceae	*Lotus corniculatus*	Garden Bird's-foot Trefoil			X	X	X	X	X		GNR	SE5		N

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			Vegetation Communities[2]								Conservation Rankings[3]			
FAMILY[1]	SCIENTIFIC NAME[1]	COMMON NAME[1]	FOD5-8	FOD3-1	CUTa	CUTb	CUT/CUM	CUM	CVR_3	Fencerows	GRANK	SRANK	ESA	TRACK
Fabaceae	*Medicago lupulina*	Black Medick			X	X	X	X	X		GNR	SE5		N
Fabaceae	*Medicago sativa*	Alfalfa			X		X				GNR	SE5		N
Fabaceae	*Melilotus albus*	White Sweet-clover	X		X		X	X			G5	SE5		N
Fabaceae	*Robinia pseudoacacia*	Black Locust		X					X	X	G5	SE5		N
Fabaceae	*Trifolium hybridum*	Alsike Clover			X				X		GNR	SE5		N
Fabaceae	*Trifolium pratense*	Red Clover	X		X	X	X	X	X		GNR	SE5		N
Fabaceae	*Trifolium repens*	White Clover	X		X	X	X	X	X		GNR	SE5		N
Fabaceae	*Vicia cracca*	Tufted Vetch	X		X	X	X	X	X		GNR	SE5		N
Fagaceae	*Fagus grandifolia*	American Beech	X	X						X	G5	S4		N
Fagaceae	*Quercus rubra*	Northern Red Oak	X							X	G5	S5		N
Grossulariaceae	*Ribes americanum*	American Black Currant	X	X				X			G5	S5		N
Grossulariaceae	*Ribes cynosbati*	Eastern Prickly Gooseberry	X	X							G5	S5		N
Haloragaceae	*Myriophyllum spicatum*	Eurasian Water-milfoil						X			GNR	SE5		N
Hydrophyllaceae	*Hydrophyllum virginianum*	Virginia Waterleaf	X								G5	S5		N
Iridaceae	*Iris versicolor*	Harlequin Blue Flag	X								G5	S5		N
Iridaceae	*Sisyrinchium montanum*	Strict Blue-eyed-grass				X		X	X		G5	S5		N
Juglandaceae	*Juglans cinerea*	Butternut		X						X	G3	S2?	END	Y
Juglandaceae	*Juglans nigra*	Black Walnut		X			X		X	X	G5	S4?		N
Juncaceae	*Juncus balticus*	Baltic Rush			X	X	X				G5	S5		N
Juncaceae	*Juncus effusus*	Soft Rush			X		X	X			G5	S5		N
Lamiaceae	*Glechoma hederacea*	Ground-ivy			X				X		GNR	SE5		N
Lamiaceae	*Leonurus cardiaca*	Common Motherwort			X	X	X	X			GNR	SE5		N
Lamiaceae	*Nepeta cataria*	Catnip			X		X				GNR	SE5		N
Lamiaceae	*Prunella vulgaris*	Common Self-heal			X	X	X	X	X		G5	S5		N
Liliaceae	*Erythronium americanum*	Yellow Trout-lily	X	X							G5	S5		N
Lythraceae	*Lythrum salicaria*	Purple Loosestrife			X		X	X			G5	SE5		N
Malvaceae	*Malva neglecta*	Common Mallow			X		X				GNR	SE5		N
Malvaceae	*Tilia americana*	Basswood	X	X	X	X	X	X		X	G5	S5		N

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			Vegetation Communities[2]								Conservation Rankings[3]			
FAMILY[1]	SCIENTIFIC NAME[1]	COMMON NAME[1]	FOD5-8	FOD3-1	CUTa	CUTb	CUT/CUM	CUM	CVR_3	Fencerows	GRANK	SRANK	ESA	TRACK
Melanthiaceae	*Trillium grandiflorum*	White Trillium	X								G5	S5		N
Moraceae	*Morus alba*	White Mulberry			X		X				GNR	SE5		N
Oleaceae	*Forsythia suspensa*	Weeping Forsythia							X		GNR	SE1		N
Oleaceae	*Fraxinus americana*	White Ash	X	X	X	X		X		X	G4	S4		N
Oleaceae	*Fraxinus nigra*	Black Ash	X								G5	S4	END	Y
Oleaceae	*Fraxinus pennsylvanica*	Red Ash	X		X		X	X			G4	S4		N
Oleaceae	*Ligustrum vulgare*	European Privet	X								GNR	SE5		N
Oleaceae	*Syringa vulgaris*	Common Lilac							X		GNR	SE5		N
Onagraceae	*Circaea alpina*	Small Enchanter's Nightshade	X	X							G5	S5		N
Onagraceae	*Circaea canadensis*	Broad-leaved Enchanter's Nightshade		X							G5	S5		N
Onagraceae	*Epilobium hirsutum*	Hairy Willowherb			X						GNR	SE5		N
Onagraceae	*Oenothera biennis*	Common Evening-primrose				X	X				G5	S5		N
Onocleaceae	*Onoclea sensibilis*	Sensitive Fern	X	X		X					G5	S5		N
Pinaceae	*Picea abies*	Norway Spruce							X		G5	SE3		N
Pinaceae	*Picea glauca*	White Spruce							X	X	G5	S5		N
Pinaceae	*Picea pungens*	Blue Spruce							X		G5	SE1		N
Pinaceae	*Pinus strobus*	Eastern White Pine		X					X		G5	S5		N
Plantaginaceae	*Chelone glabra*	White Turtlehead	X								G5	S5		N
Plantaginaceae	*Linaria vulgaris*	Butter-and-eggs				X	X				GNR	SE5		N
Plantaginaceae	*Plantago lanceolata*	English Plantain			X	X	X	X	X		G5	SE5		N
Plantaginaceae	*Plantago major*	Common Plantain			X	X	X	X	X		G5	SE5		N
Plantaginaceae	*Veronica officinalis*	Common Speedwell	X				X				G5	SE5		N
Plantaginaceae	*Veronica persica*	Bird's-eye Speedwell					X				GNR	SE4		N
Poaceae	*Agrostis gigantea*	Redtop			X	X	X	X	X		G4G5	SE5		N
Poaceae	*Bromus inermis*	Smooth Brome			X	X	X	X	X		G5T5	SE5		N
Poaceae	*Dactylis glomerata*	Orchard Grass			X	X	X	X	X		GNR	SE5		N
Poaceae	*Danthonia spicata*	Poverty Oatgrass				X					G5	S5		N
Poaceae	*Echinochloa crus-galli*	Large Barnyard Grass			X	X	X	X			GNR	SE5		N

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FAMILY[1]	SCIENTIFIC NAME[1]	COMMON NAME[1]	FOD5-8	FOD3-1	CUTa	CUTb	CUT/CUM	CUM	CVR_3	Fencerows	GRANK	SRANK	ESA	TRACK
Poaceae	*Elymus canadensis*	Canada Wildrye			X		X	X			G5	S5		N
Poaceae	*Muhlenbergia mexicana*	Mexican Muhly		X							G5	S5		N
Poaceae	*Panicum capillare*	Common Panicgrass			X	X	X	X	X		G5	S5		N
Poaceae	*Phalaris arundinacea*	Reed Canarygrass	X		X	X	X	X			G5	S5		N
Poaceae	*Phleum pratense*	Common Timothy			X	X	X	X			GNR	SE5		N
Poaceae	*Phragmites australis ssp. australis*	European Reed			X			X			G5T5	SE5		N
Poaceae	*Poa compressa*	Canada Bluegrass		X		X	X		X		GNR	SE5		N
Poaceae	*Poa pratensis*	Kentucky Bluegrass			X	X	X	X	X		G5	S5		P
Poaceae	*Setaria viridis*	Green Foxtail			X	X		X			GNR	SE5		N
Poaceae	*Sorghum halepense*	Johnson Grass			X		X	X			GNR	SE2		N
Polygonaceae	*Persicaria maculosa*	Spotted Lady's-thumb			X			X			G3G5	SE5		N
Polygonaceae	*Rumex crispus*	Curled Dock			X	X	X	X	X		GNR	SE5		N
Polygonaceae	*Rumex obtusifolius*	Bitter Dock	X				X				GNR	SE5		N
Primulaceae	*Lysimachia ciliata*	Fringed Yellow Loosestrife			X						G5	S5		N
Ranunculaceae	*Actaea rubra*	Red Baneberry	X								G5	S5		N
Ranunculaceae	*Anemonastrum canadense*	Canada Anemone					X		X		G5	S5		N
Ranunculaceae	*Caltha palustris*	Yellow Marsh Marigold	X								G5	S5		N
Ranunculaceae	*Clematis virginiana*	Virginia Clematis					X				G5	S5		N
Ranunculaceae	*Hepatica acutiloba*	Sharp-lobed Hepatica	X								G5	S5		N
Ranunculaceae	*Ranunculus acris*	Common Buttercup	X		X	X	X	X	X		G5	SE5		N
Ranunculaceae	*Ranunculus repens*	Creeping Buttercup			X						GNR	SE5		N
Ranunculaceae	*Ranunculus sceleratus*	Cursed Buttercup	X				X				G5	S5		N
Ranunculaceae	*Thalictrum dioicum*	Early Meadow-rue	X	X							G5	S5		N
Rhamnaceae	*Rhamnus cathartica*	European Buckthorn	X	X	X	X	X	X	X		GNR	SE5		N
Rosaceae	*Amelanchier arborea*	Downy Serviceberry		X							G5	S5		N
Rosaceae	*Crataegus chrysocarpa*	Fireberry Hawthorn			X	X	X	X		X	G5	S5		P
Rosaceae	*Crataegus monogyna*	English Hawthorn			X	X	X	X		X	G5	SE4		N
Rosaceae	*Fragaria vesca*	Woodland Strawberry	X	X							G5	S5		N

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			Vegetation Communities[2]								Conservation Rankings[3]			
FAMILY[1]	SCIENTIFIC NAME[1]	COMMON NAME[1]	FOD5-8	FOD3-1	CUTa	CUTb	CUT/CUM	CUM	CVR_3	Fencerows	GRANK	SRANK	ESA	TRACK
Rosaceae	*Fragaria virginiana*	Wild Strawberry	X	X	X	X	X	X	X		G5	S5		N
Rosaceae	*Geum aleppicum*	Yellow Avens	X	X		X	X	X			G5	S5		N
Rosaceae	*Geum canadense*	Canada Avens	X								G5	S5		N
Rosaceae	*Malus pumila*	Common Apple			X	X	X	X		X	G5	SE4		N
Rosaceae	*Potentilla argentea*	Silvery Cinquefoil			X		X	X			GNR	SE5		N
Rosaceae	*Prunus pensylvanica*	Pin Cherry	X				X	X			G5	S5		N
Rosaceae	*Prunus serotina*	Black Cherry	X	X						X	G5	S5		N
Rosaceae	*Prunus virginiana*	Chokecherry		X		X	X			X	G5	S5		N
Rosaceae	*Pyrus communis*	Common Pear							X		G5	SE4		N
Rosaceae	*Rosa multiflora*	Multiflora Rose	X	X		X	X				GNR	SE5		N
Rosaceae	*Rubus occidentalis*	Black Raspberry					X				G5	S5		N
Rosaceae	*Sorbus aucuparia*	European Mountain-ash		X		X					G5	SE4		N
Rubiaceae	*Galium aparine*	Common Bedstraw	X		X	X	X		X		G5	S5		N
Rubiaceae	*Galium mollugo*	Smooth Bedstraw			X			X			GNR	SE5		N
Rubiaceae	*Galium palustre*	Common Marsh Bedstraw	X				X	X	X		G5	S5		N
Salicaceae	*Populus balsamifera*	Balsam Poplar			X	X	X	X		X	G5	S5		N
Salicaceae	*Populus grandidentata*	Large-toothed Aspen				X		X		X	G5	S5		N
Salicaceae	*Populus tremuloides*	Trembling Aspen	X	X		X	X	X		X	G5	S5		N
Salicaceae	*Salix bebbiana*	Bebb's Willow			X	X		X			G5	S5		N
Salicaceae	*Salix discolor*	Pussy Willow			X	X	X	X			G5	S5		N
Salicaceae	*Salix eriocephala*	Cottony Willow			X	X	X	X			G5	S5		N
Salicaceae	*Salix interior*	Sandbar Willow						X			G5	S5		N
Salicaceae	*Salix petiolaris*	Meadow Willow			X	X					G5	S5		N
Salicaceae	*Salix x fragilis*	(Salix alba X Salix euxina)			X						GNA	N/A		N
Sapindaceae	*Acer negundo*	Manitoba Maple	X		X	X	X	X	X	X	G5	S5		N
Sapindaceae	*Acer platanoides*	Norway Maple							X		GNR	SE5		N
Sapindaceae	*Acer rubrum*	Red Maple	X								G5	S5		N
Sapindaceae	*Acer saccharinum*	Silver Maple						X			G5	S5		N

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			Vegetation Communities[2]								Conservation Rankings[3]			
FAMILY[1]	**SCIENTIFIC NAME[1]**	**COMMON NAME[1]**	**FOD5-8**	**FOD3-1**	**CUTa**	**CUTb**	**CUT/CUM**	**CUM**	**CVR_3**	**Fencerows**	**GRANK**	**SRANK**	**ESA**	**TRACK**
Sapindaceae	*Acer saccharum*	Sugar Maple	X	X			X		X	X	G5	S5		N
Scrophulariaceae	*Verbascum thapsus*	Common Mullein			X	X	X		X		GNR	SE5		N
Solanaceae	*Solanum dulcamara*	Bittersweet Nightshade	X		X		X		X		GNR	SE5		N
Typhaceae	*Typha angustifolia*	Narrow-leaved Cattail	X		X		X	X			G5	SE5		N
Typhaceae	*Typha latifolia*	Broad-leaved Cattail					X				G5	S5		N
Ulmaceae	*Ulmus americana*	White Elm	X	X	X	X				X	G4	S5		N
Viburnaceae	*Viburnum lentago*	Nannyberry				X	X				G5	S5		N
Viburnaceae	*Viburnum opulus var. opulus*	Cranberry Viburnum	X	X			X	X			G5TNR	SE4?		N
Violaceae	*Viola odorata*	English Violet		X							GNR	SE2		N
Violaceae	*Viola pubescens*	Yellow Violet		X							G5	S5		N
Vitaceae	*Parthenocissus quinquefolia*	Virginia Creeper	X	X	X	X	X	X	X		G5	S4?		N
Vitaceae	*Vitis riparia*	Riverbank Grape	X	X	X	X	X	X	X		G5	S5		N

[1] Nomenclature based on Ministry of Natural Resources (MNR) Natural Heritage Information Centre (NHIC; 2025)

[2] ELC Codes based on Ecological Land Classification for Southern Ontario manual (Lee et al., 1998, 2008)

[3] Conservation Rankings: From Ontario Ministry of Natural Resources, Natural Heritage Information Centre (https://www.ontario.ca/page/natural-heritage-information-centre)

Table 2: Amphibian Breeding Summary, Linksview (Collingwood) EIS Addendum #1

AEC23-226

Observer: J. Wrobel, C. Pezik

			Species								
Date	**Sampling Station(s)***	**Start Time**	**Wood Frog**	**Spring Peeper**	**Western Chorus Frog**	**Northern Leopard Frog**	**American Toad**	**Green Frog**	**Gray Treefrog**	**American Bullfrog**	**Nothing Heard**
27-Apr-25	1	21:51									X
	2	22:06		3			1-1				
	3	21:37		3							
	4	21:50									X
15-May-25	1	22:10									X
	2	22:26		2-8				1-1	3		
	3	21:54		3					1-3		
	4	22:41									X
26-Jun-25	1	23:25									X
	2	23:42									X
	3	23:15									X
	4	23:42									X

**see mapping* ** format: call code - estimated # of individuals*

Weather Conditions

Date	**Air Temperature (^{o}C)**	**Wind (Beaufort)**	**Cloud Cover**	**Precipitation**
27-Apr-25	10	B1-2	100%	none
15-May-25	13	B2-3	70-100%	none
26-Jun-25	17-18	B3	10%	none

[1] **Call Code Levels**

0 = none heard
1 = males could be individually counted
2 = calls overlap but numbers could be estimated
3 = overlapping calls, not possible to estimate numbers involved in chorus.

Ontario

Ministry of the Environment, Conservation and Parks

Butternut Health Expert's Report Template – Version 2022

Instructions to Butternut Health Experts (BHEs):

Please enter the 6-character BHE Report number: WRO-002

BHE Report numbering format:
BHE Report numbers are to be assigned by the BHE using the first 3 letters of BHE's last name, followed by BHE's own 3-digit report numbering system. If the BHE's last name has fewer than 3 letters, use the full last name and numbers for the remaining characters.

  Disponible en français

BHE Report Number: WRO-002

Cover letter to client:
Insert your cover letter to your client here and include the below list of enclosures.

John van Beurden

RE: Butternut Health Assessment Report #WRO-002 for 780 Tenth Line, Collingwood

Dear John van Beurden:

As requested, a Butternut Health Assessment related to four Butternut was completed for the above noted property.

A copy of the BHA report has been submitted electronically to the Ministry of Environment Conservation and Parks via it on-line portal - SAROntario.ca.

Please retain this information and a copy of the BHA Report (including copies of all data forms) for your records.

If you have questions or require additional information please do not hesitate to contact me.

Yours truly,
AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Jordan Wrobel, B.Sc.
Terrestrial Ecologist

Attach: BHA Report # WRO-002

Enclosures:

1. Information from the Ministry of the Environment, Conservation and Parks about Butternut and the *Endangered Species Act, 2007*
2. Butternut Health Expert's Report, including the completed Butternut Data Collection Form

Ministry of the Environment, Conservation and Parks

Species at Risk Branch
40 St. Clair Avenue West
14th Floor
Toronto ON M4V 1M2

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Direction des espèces en péril
40, avenue St. Clair Ouest
14e étage
Toronto ON M4V 1M2

Ontario

Information for the Property Owner (or person(s) who requested the enclosed Butternut Health Expert's Report):

The enclosed Butternut Health Expert's Report (BHE Report) documents the results of the Butternut health assessment that was conducted by the Butternut Health Expert (BHE) 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 impacted by a proposed activity that are not identified in the enclosed BHE Report, they too must be assessed by a BHE before commencing any actions that may impact those Butternut trees or their habitat.

Butternut (*Juglans cinerea*) is listed as an endangered species in Schedule 2 of Ontario Regulation (O. Reg.) 230/08 "the Species at Risk in Ontario List". As an endangered species, the *Endangered Species Act, 2007* (ESA) prohibits adversely impacting Butternut and its habitat. A permit or agreement under the ESA is required before engaging in an activity that is otherwise prohibited under the ESA. The activity may be eligible for the Butternut conditional exemption in Part V of O. Reg. 830/21, provided the requirements of the regulation are met.

If the proposed activity is eligible for the conditional exemption in Part V of O. Reg. 830/21, the next step is to submit the BHE Report and the Butternut Data Collection Form enclosed in this package to the Ministry of the Environment, Conservation and Parks (MECP).

If the enclosed BHE Report does not identify which Butternut tree(s) are proposed to be killed, harmed or taken and the reasons for doing so (e.g., if "unknown" is indicated in Table 1) or if the information in the last two columns of Table 1 has changed since the date this BHE Report was produced, **do not edit the BHE Report to update this information**. Instead, the report must be submitted together with 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 BHE Report to MECP.

The BHE Report must be submitted to MECP at least 30 days before registering an activity in respect of the Butternut conditional exemption. MECP may need to examine the Butternut trees subject to the report during this 30-day period. **Adversely impacting Butternut trees during this 30-day period or before registration is completed is prohibited by the ESA.** Further, the conditional exemption for Butternut does not apply unless the requirements of Part V of O. Reg. 830/21 are being followed.

If the proposed activity is eligible for the Butternut conditional exemption, you may register the proposed activity using the "**Notice of Butternut Impact**" form after the 30-day period has elapsed.

If the proposed activity is not eligible for a regulatory exemption, please contact MECP to determine whether the proposed activity would require a permit or agreement under the ESA in order to proceed.

Please retain this information and a copy of the BHE Report for your records, along with any other documentation you may receive from MECP should an examination of the trees occur.

This information should not be relied upon to determine legal obligations. To determine your legal obligations, consult the *Endangered Species Act, 2007* and the relevant regulations made thereunder. These may be found at www.ontario.ca/laws. If legal advice is required, consult a legal professional. In the event of an error on this template or a conflict between this template and any applicable law, the law prevails.

If you have any questions, please contact MECP at SAROntario@ontario.ca.

Butternut Health Expert's Report (BHE Report)

BHE Report Number: WRO-002

Butternut Health Expert Contact Information

Name of Butternut Health Expert

Last Name	First Name
Wrobel	Jordan

Mailing Address

Unit Number	Street Number	Street Name	PO Box
	642	Welham Road	

City/Town	Province	Postal Code
Barrie	Ontario	L4N 9A1

Telephone Number	Email Address
705-721-8451	jwrobel@azimuthenvironmental.com

Summary of qualifications as a Butternut Health Expert

a) expertise in relation to butternut

Terrestrial Ecologist with Azimuth Environmental since 2022. Completion of site assessments including natural heritage inventories (i.e., plants, birds, amphibians, mammals) and delineation of vegetation communities in conjunction with Ecological Land Classification protocols. Assessments include the identification of potential constraints to development including but not limit to species protected according to Ontario's Endangered Species Act, such as Butternut and Black Ash.

b) expertise, education, training and experience necessary to assess the health of butternut trees

Have assisted and completed BHAs for dozens of Butternut individuals with submitted reports accepted by the province.

Property Owner Contact Information

Name of Property Owner (or representative)

Last Name	First Name
van Beurden	John

Mailing Address

Unit Number	Street Number	Street Name	PO Box
			70

Lot Number	Concession	Township	Rural Route

City/Town	Province	Postal Code
Orangeville	Ontario	L9W 2Z5

Telephone Number	Email Address
705-446-4157	john@devonleighhomes.com

Site Location

Unit Number	Street Number	Street Name	PO Box
	780	Tenth Line	

Lot Number	Concession	Township	Rural Route
43	11		

City/Town	Province	Postal Code
Collingwood	Ontario	L9Y 3Y9

Additional Site Location Information

In the County of Simcoe.

Date(s) of Butternut health assessment

Start Date (yyyy/mm/dd) 2025/06/27

End Date (yyyy/mm/dd) 2025/06/27

Date BHE Report prepared (yyyy/mm/dd) 2025/10/06

Map datum used: ☑ NAD83 ☐ WGS84

Total number of trees assessed in this BHE Report 4

The assessed trees were numbered on site using numbered tree tags and white paint

The numbers at the site correspond to the tree identification numbers referenced in this report.

This BHE Report includes the following tables:

- Table 1: Butternut trees assessed by the BHE
- Table 2: Trees determined by the BHE to be Butternut hybrids
- Table 3: Summary of Butternut health assessment results

Table 1: Butternut trees assessed by the BHE

Tree ID #	UTM coordinates	Accuracy (+/-)	Category[1] (1, 2 or 3)	Tree stem diameter[2] (cm)	Is tree stem shorter than 1.37 m? (Yes/No)	Cultivated? (Yes/No)	Proposed to be: (killed, harmed, taken, or unknown[3])	If tree is proposed to be killed, harmed or taken, indicate reason tree is to be killed, harmed or taken, if known
77	17T 558742 4926762	5 m	1	53	No	No	unknown	residential development
70	17T 558642 4926632	5 m	1	50	No	No	killed	residential development
1880	17T 558632 4926638	5 m	1	46	No	No	killed	residential development
1883	17T 558579 4926610	5 m	2	23	No	No	killed	residential development

[1] Details regarding the extent to which the tree is affected by Butternut Canker is presented in the Butternut Data Collection Form that accompanies this BHE Report.

[2] Diameter of the tree stem rounded to nearest cm, measured in accordance with the Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the *Endangered Species Act, 2007*

[3] In this column, "unknown" indicates that at the time of assessment and reporting, there are no proposals to kill, harm or take this tree that are known to the BHE.

Table 2: Trees determined by the BHE to be Butternut hybrids

Tree ID #	UTM coordinates	Method used (genetic testing or field identification)	Additional Comments on Method Used

Tree ID #	UTM coordinates	Method used (genetic testing or field identification)	Additional Comments on Method Used

Table 3: Summary of Butternut health assessment results

Result	Total number of trees in this category	Information for persons planning activities that may impact Butternut
Category 1	3	• Category 1 Butternut 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.
		• If the proposed activity will kill, harm or take one or more Butternut trees of any category (including Category 1), the BHE Report must be submitted to MECP at SARontario@ontario.ca.
Category 2	1	• Category 2 Butternut 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 as advanced as a Category 1 Butternut tree and retaining the tree could support the protection or recovery of Butternut trees in the area in which the tree is located.
		• Activities that may kill, harm or take up to a **maximum of fifteen (15)** Category 2 trees may be eligible for the conditional exemption in Part V of Ontario Regulation 830/21. Refer to the regulation for eligibility conditions and requirements that must be fulfilled.
		• If the proposed activity will kill, harm or take more than fifteen (15) Category 2 trees, **contact MECP** for information on how to seek an ESA authorization (e.g., a permit).
Category 3	0	• Category 3 Butternut tree — the Butternut tree may be useful in determining sources of resistance to Butternut Canker.
		• Activities that may kill, harm or take up to a **maximum of five (5)** Category 3 trees may be eligible for the conditional exemption in Part V of Ontario Regulation 830/21. Refer to the regulation for eligibility conditions and requirements that must be fulfilled.
		• If the proposed activity will kill, harm or take more than five (5) Category 3 trees, contact MECP for information on how to seek an ESA authorization (e.g., a permit).

Result	Total number of trees in this category	Information for persons planning activities that may impact Butternut
Cultivated	0	• An activity that will kill, harm or take a cultivated Butternut tree that was required to be planted to fulfil a condition of an ESA permit or agreement, or a conditional exemption, is **not** eligible for the exemption for cultivated trees that is provided by subsection 25 (5) of O. Reg. 830/21. Refer to the regulation for eligibility conditions.
Hybrid	0	• Hybrid Butternut trees are not protected under the ESA but impacts to these trees may be subject to local municipal by-laws and other legislation.

Additional Information on Cultivated Tree Determination

Please note:

- A BHE Report that is submitted to MECP must include the completed Butternut Data Collection Form. As appropriate, please also ensure additional relevant documentation to support the assessment (e.g., completed Data Sheets for Field Identification of Butternut Hybrids, evidence that the Butternut was cultivated) and all relevant maps and photographs are provided.
- During the 30-day period that follows the submission of this BHE Report to MECP, no Butternut trees (of any category) may be killed, harmed or taken. MECP may need to examine the Butternut trees subject to the report during this 30-day period.

Butternut Health Expert's Comments
None

Ontario

Ministry of the Environment, Conservation and Parks

Butternut Data Collection Form

Butternut (*Juglans cinerea*) is listed as an endangered species in Schedule 2 of Ontario Regulation 230/08 "the Species at Risk in Ontario List". As an endangered species, the *Endangered Species Act, 2007* (ESA) prohibits adversely impacting Butternut and its habitat. A permit or agreement under the ESA is required before engaging in an activity that is otherwise prohibited under the ESA. The activity may be eligible for the Butternut conditional exemption in Part V of Ontario Regulation 830/21, provided the requirements of the regulation are met. For more information please refer to the following links:

Endangered Species Act, 2007
Ontario Regulation 830/21 (Exemptions – Species Subject to Species Conservation Charges)
Ontario Regulation 230/08 (Species at Risk in Ontario List)
Ontario Regulation 242/08 (General Regulation)
Information about ESA permits and authorizations
Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the Endangered Species Act, 2007

A Butternut Health Expert's Report (BHE Report) completed by a "Butternut Health Expert" (BHE) as defined in section 21 of Ontario Regulation 830/21 is typically required as part of an application to the Ministry of the Environment, Conservation and Parks (MECP) for a permit or agreement under the ESA and is required in respect of the conditions of the Butternut conditional exemption in Part V of O. Reg. 830/21. **This Butternut Data Collection Form must be completed by the BHE and included in their BHE Report**.

This form should not be relied upon to determine your legal obligations. To determine your legal obligations, consult the *Endangered Species Act, 2007* and the relevant regulations made thereunder. These may be found at www.ontario.ca/laws. If legal advice is required, consult a legal professional. In the event of an error on this form or a conflict between this form and any applicable law, the law prevails.

Notice of Collection and Use

Personal information on this form is collected under the authority of Section 53 of the ESA and section 38 of the *Freedom of Information and Protection of Privacy Act*. Forms that have been submitted to MECP may be used by MECP staff to contact the property owner (or person acting on their behalf) to request permission to access the assessed trees for the purpose of examining the trees or to contact the BHE who prepared the BHE Report. Questions about the use of your personal information should be directed to the Species at Risk Branch, Ministry of the Environment, Conservation and Parks, 300 Water Street, Peterborough Ontario, K9J 3C7 at speciesatriskregistry@ontario.ca.

Fields marked with an asterisk (*) are mandatory.

Butternut Health Expert's Report Number*	Start Date of Butternut Health Assessment (yyyy/mm/dd)*	End Date of Butternut Health Assessment (yyyy/mm/dd)*
WRO-002	2025/06/27	2025/06/27

Butternut Health Expert (BHE) Contact Information

Last Name*		First Name*
Wrobel		Jordan
Telephone Number*	**Alternate Telephone Number**	**Email Address***
705-721-8451	705-305-4830	jwrobel@azimuthenvironmental.com

Summary of Qualifications as a Butternut Health Expert*

Terrestrial Ecologist with Azimuth Environmental since 2002. Completion of site assessments including natural heritage inventories in conjunction with identification of potential constraints to development, including Butternut. Trained in the field by Certified Butternut Health Assessors (inlcuding assessor #450) and completed BHAs for dozens of Butternut individuals with reports submitted and accepted by the province.

Property Owner Contact Information

Last Name*	First Name*
van Beurden	John

Company Name
Devonleigh Homes

Mailing Address*

Unit Number	Street Number	Street Name	PO Box
			70

Lot Number	Concession	Township	Rural Route

City/Town	Province	Postal Code
Orangeville	Ontario	L9W 2Z5

Telephone Number *	Alternate Telephone Number	Email Address
705-446-4157		john@devonleighhomes.com

Butternut Tree(s) Location Information

Address* ☐ Select if location of Butternut is the same as the property owner's mailing address

Unit Number	Street Number	Street Name	PO Box
	780	Tenth Line	

Lot Number	Concession	Township	Rural Route
43	11		

City/Town	Province	Postal Code
Collingwood	Ontario	L9Y 3Y9

General description of area containing Butternut (select one)

☐ Natural ☑ Rural ☐ Urban - Suburban ☐ Industry / Resource Extraction Area

Soil drainage (select one)

☐ Well Drained ☐ Moderately Drained ☐ Poorly Drained ☑ Unknown

Have any of the Butternut at this site produced seeds?

☐ Yes ☐ No ☑ Unknown

General Comments

Four Butternut trees of varying size, age, and health were assessed. The property has a history of disturbance through agricultural practices.

Butternut Tree Data 1

Tree Identification Number* 77 Date of Assessment (yyyy/mm/dd)* 2025/06/27

UTM Zone* 17 Northing* 4926762 Easting* 558742

Is this tree a Butternut tree or a putative hybrid? * ☑ Butternut ☐ Putative Hybrid

Is the stem of this tree shorter than 1.37 m? * ☐ Yes ☑ No

Is this a single or multi-stemmed tree? * ☑ Single Stem ☐ Multiple Stems

Live Crown %* 40 Tree Stem Diameter (cm)* 53

Number of sooty cankers* At or below 2m (the lower stem) 2 Above 2m 0 At the root (root flares) 3

Number of open cankers* At or below 2m (the lower stem) 1 Above 2m 1 At the root (root flares) 0

Metres from badly cankered tree* ☐ 40 metres or less ☑ Greater than 40 metres ☐ None found

Crown Class ☑ Dominant, full sun ☐ Co-dominant, two sides in the sun ☐ Intermediate, sun only from above ☐ Suppressed, shaded crown

Signs of Stress ☑ Twig dieback ☑ Branch dieback ☑ Defoliation ☐ Discolouration

Seed Signs ☐ Mature stamens or pollen ☐ Receptive pistils ☐ Seed set ☑ None ☐ Unknown

Below Crown Number of stems 1 Main stem length (m) below crown 5

Number of epic-live 0 Number of epic-dead 0 Number of callused wounds 1

Bark type: ☐ Deep furrows/Narrow ridges ☑ Shallow furrows/Wide ridges

Tree Origin ☐ Naturally-occurring ☐ Planted (cultivated) ☑ Unknown

Is this tree located in an area that is upland, wetland, or riparian? ☑ Upland ☐ Wetland ☐ Riparian

Vegetation Community ☑ Open ☐ Shrub thicket ☐ Savannah - Woodland ☐ Forest

If Savannah-Woodland or Forest selected, select one option from both groups:

☐ Deciduous ☐ Coniferous ☐ Mixed

☐ Climax ☐ Regenerating

Does this tree occupy edge habitat? ☑ Yes ☐ No

If "Yes", select which edge habitat:

☐ Road ☐ Trail ☐ Utility corridor

☑ Fencerow ☐ Forest/woodlot edge ☐ Watercourse/waterbody

Competing Species 1. fraamer 2. Vitripa 3.

Comments about this tree

Old barbed wire fence embedded in tree.

Butternut Tree Data 2

Tree Identification Number* **70** Date of Assessment (yyyy/mm/dd)* 2025/06/27 ☐ Select if Date is same as tree above

UTM Zone* 17 Northing* 4926632 Easting* 558642

Is this tree a Butternut tree or a putative hybrid? * ☑ Butternut ☐ Putative Hybrid

Is the stem of this tree shorter than 1.37 m? * ☐ Yes ☑ No

Is this a single or multi-stemmed tree? * ☑ Single Stem ☐ Multiple Stems

Live Crown %* 40 Tree Stem Diameter (cm)* 50

Number of sooty cankers* At or below 2m (the lower stem) 5 Above 2m 0 At the root (root flares) 1

Number of open cankers* At or below 2m (the lower stem) 0 Above 2m 0 At the root (root flares) 1

Metres from badly cankered tree* ☑ 40 metres or less ☐ Greater than 40 metres ☐ None found

Crown Class ☑ Dominant, full sun ☐ Co-dominant, two sides in the sun ☐ Intermediate, sun only from above ☐ Suppressed, shaded crown

Signs of Stress ☑ Twig dieback ☑ Branch dieback ☑ Defoliation ☐ Discolouration

Seed Signs ☐ Mature stamens or pollen ☐ Receptive pistils ☐ Seed set ☑ None ☐ Unknown

Below Crown Number of stems 1 Main stem length (m) below crown 5

Number of epic-live 0 Number of epic-dead 0 Number of callused wounds 1

Bark type: ☐ Deep furrows/Narrow ridges ☑ Shallow furrows/Wide ridges

Tree Origin ☐ Naturally-occurring ☐ Planted (cultivated) ☑ Unknown

Is this tree located in an area that is upland, wetland, or riparian? ☑ Upland ☐ Wetland ☐ Riparian

Vegetation Community ☐ Open ☐ Shrub thicket ☐ Savannah - Woodland ☑ Forest

If Savannah-Woodland or Forest selected, select one option from both groups:

☑ Deciduous ☐ Coniferous ☐ Mixed

☐ Climax ☐ Regenerating

Does this tree occupy edge habitat? ☑ Yes ☐ No

If "Yes", select which edge habitat:

☐ Road ☐ Trail ☐ Utility corridor

☐ Fencerow ☑ Forest/woodlot edge ☐ Watercourse/waterbody

Competing Species 1. Tilamer 2. Fraamer 3. Ostvig

Comments about this tree

Old barbed fence embedded in tree, holes in some limbs, 1 limb previously broken off.

Butternut Tree Data 3

Tree Identification Number* **1880** Date of Assessment (yyyy/mm/dd)* 2025/06/27 ☐ Select if Date is same as tree above

UTM Zone* 17 Northing* 4926638 Easting* 558632

Is this tree a Butternut tree or a putative hybrid? * ☑ Butternut ☐ Putative Hybrid

Is the stem of this tree shorter than 1.37 m? * ☐ Yes ☑ No

Is this a single or multi-stemmed tree? * ☑ Single Stem ☐ Multiple Stems

Live Crown %* 25 Tree Stem Diameter (cm)* 46

Number of sooty cankers* At or below 2m (the lower stem) 1 Above 2m 1 At the root (root flares) 2

Number of open cankers* At or below 2m (the lower stem) 3 Above 2m 2 At the root (root flares) 1

Metres from badly cankered tree* ☑ 40 metres or less ☐ Greater than 40 metres ☐ None found

Crown Class ☐ Dominant, full sun ☑ Co-dominant, two sides in the sun ☐ Intermediate, sun only from above ☐ Suppressed, shaded crown

Signs of Stress ☑ Twig dieback ☑ Branch dieback ☑ Defoliation ☐ Discolouration

Seed Signs ☐ Mature stamens or pollen ☐ Receptive pistils ☐ Seed set ☑ None ☐ Unknown

Below Crown Number of stems 1 Main stem length (m) below crown 8

Number of epic-live 0 Number of epic-dead 0 Number of callused wounds 1

Bark type: ☐ Deep furrows/Narrow ridges ☑ Shallow furrows/Wide ridges

Tree Origin ☐ Naturally-occurring ☐ Planted (cultivated) ☑ Unknown

Is this tree located in an area that is upland, wetland, or riparian? ☑ Upland ☐ Wetland ☐ Riparian

Vegetation Community ☐ Open ☐ Shrub thicket ☐ Savannah - Woodland ☑ Forest

If Savannah-Woodland or Forest selected, select one option from both groups:

☑ Deciduous ☐ Coniferous ☐ Mixed

☐ Climax ☐ Regenerating

Does this tree occupy edge habitat? ☑ Yes ☐ No

If "Yes", select which edge habitat:

☐ Road ☐ Trail ☐ Utility corridor

☐ Fencerow ☑ Forest/woodlot edge ☐ Watercourse/waterbody

Competing Species 1. Poptrem 2. Fraamer 3. acesasa

Comments about this tree

Wind/storm has blown tree partially over (could be considered a hazard tree). Visible root decay and snag features observed.

Butternut Tree Data 4

Tree Identification Number* **1883** Date of Assessment (yyyy/mm/dd)* 2025/06/27 ☐ Select if Date is same as tree above

UTM Zone* 17 Northing* 4926610 Easting* 558579

Is this tree a Butternut tree or a putative hybrid? * ☑ Butternut ☐ Putative Hybrid

Is the stem of this tree shorter than 1.37 m? * ☐ Yes ☑ No

Is this a single or multi-stemmed tree? * ☑ Single Stem ☐ Multiple Stems

Live Crown %* 80 Tree Stem Diameter (cm)* 23

Number of sooty cankers* At or below 2m (the lower stem) 3 Above 2m 0 At the root (root flares) 1

Number of open cankers* At or below 2m (the lower stem) 0 Above 2m 0 At the root (root flares) 0

Metres from badly cankered tree* ☐ 40 metres or less ☑ Greater than 40 metres ☐ None found

Crown Class ☐ Dominant, full sun ☐ Co-dominant, two sides in the sun ☑ Intermediate, sun only from above ☐ Suppressed, shaded crown

Signs of Stress ☑ Twig dieback ☑ Branch dieback ☑ Defoliation ☐ Discolouration

Seed Signs ☐ Mature stamens or pollen ☐ Receptive pistils ☐ Seed set ☑ None ☐ Unknown

Below Crown Number of stems 1 Main stem length (m) below crown 15

Number of epic-live 0 Number of epic-dead 0 Number of callused wounds 0

Bark type: ☐ Deep furrows/Narrow ridges ☑ Shallow furrows/Wide ridges

Tree Origin ☐ Naturally-occurring ☐ Planted (cultivated) ☑ Unknown

Is this tree located in an area that is upland, wetland, or riparian? ☑ Upland ☐ Wetland ☐ Riparian

Vegetation Community ☐ Open ☐ Shrub thicket ☐ Savannah - Woodland ☑ Forest

If Savannah-Woodland or Forest selected, select one option from both groups:

☑ Deciduous ☐ Coniferous ☐ Mixed

☐ Climax ☐ Regenerating

Does this tree occupy edge habitat? ☑ Yes ☐ No

If "Yes", select which edge habitat:

☐ Road ☐ Trail ☐ Utility corridor

☐ Fencerow ☑ Forest/woodlot edge ☐ Watercourse/waterbody

Competing Species 1. Tilamer 2. Poptrem 3. Acesasa

Comments about this tree

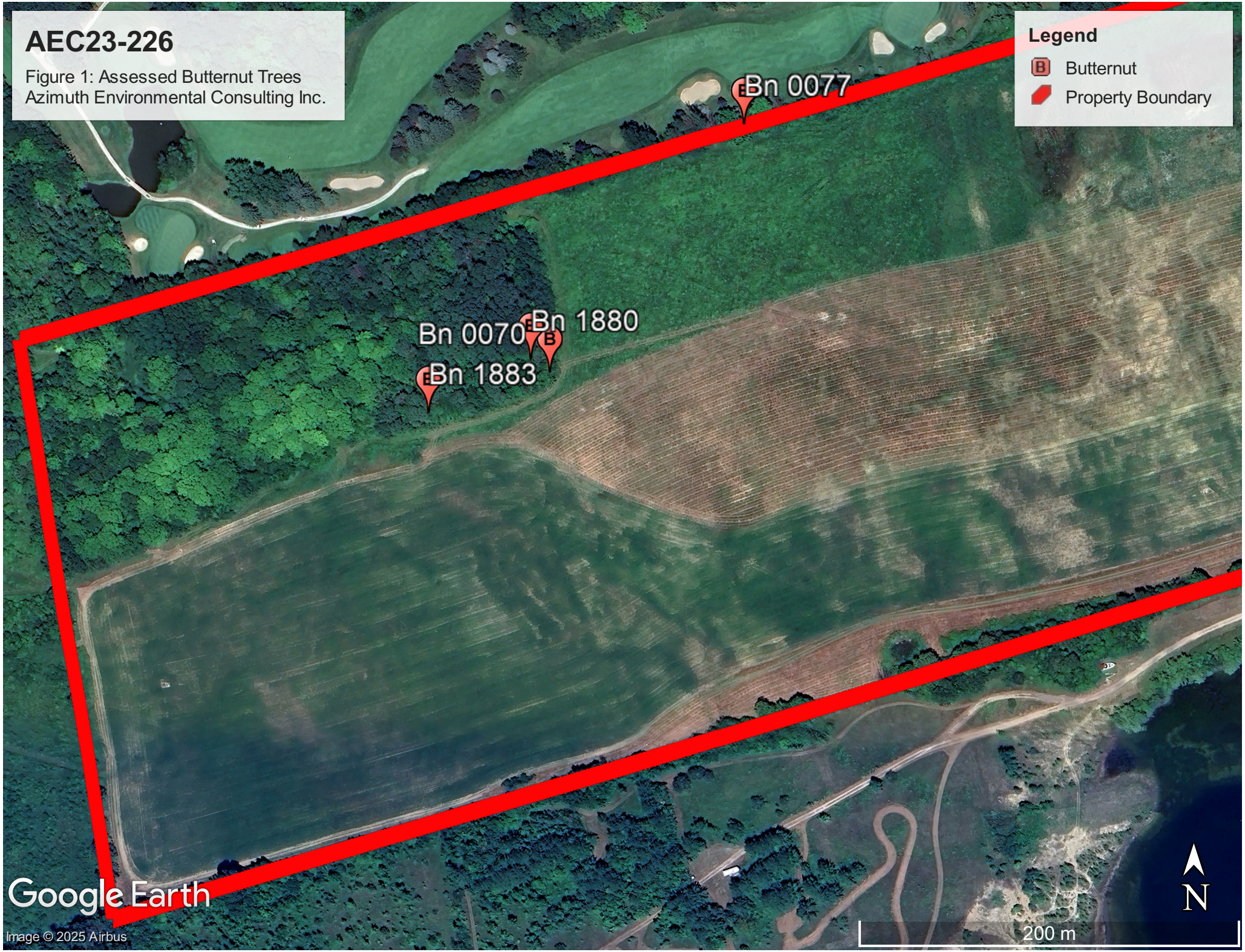
(Use this space to provide comments about this tree, or to record the file numbers of photos of this tree)

BHE Report Number	Start Date of Butternut Health Assessment (yyyy/mm/dd)	End Date of Butternut Health Assessment (yyyy/mm/dd)
WRO-002	2025/06/27	2025/06/27

Total Number Butternut Trees in BHE Report	Butternut Health Expert's Name
4	Wrobel, Jordan

Property Owner/Client Name	Property Address
van Beurden, John	780 43 11 Tenth Line Collingwood Ontario L9Y 3Y9

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
Tree #	Live Crown %	Tree stem diameter (cm)	# bole cankers (BC) Sooty (S) (will be assigned 2.5 cm per canker) Open (O) (will be assigned 5 cm per canker)				# root flare cankers (RF)		40 m or less from cankered tree? (Y or N)	Circ. (cm) = Pi * tree stem diameter	Total BC Width (cm) = (D * 2.5) + (E * 2.5) + (F * 5) + (G * 5)	Total RF Width (cm) = (H * 2.5) + (I * 5)	Total BC Width % of Circ. = L / K * 100	Total RF Width % of Circ. = M / K * 100	Total BC + RF Width % of 2 * Circ. = (N + O) / 2	Tree Categories: 1, 2, or 3				
			S <= 2m	S > 2m	O <= 2m	O > 2m	S	O								= Cat 2 if B >= 50 and N=0 else = Cat 1	= Cat 2 if B > 70 and P < 20 else = Cat 1	= Cat 2 if B > 70 and N < 20 else = Cat 1	**Preliminary tree call** = Cat 2 if Q= Cat 2 or R= Cat 2 or S= Cat 2 else = Cat 1	**Final tree call** = Cat 3 if T= Cat 2 and C > 19 and J='Y' else T
77	40	53	2	0	1	1	3	0	N	166.42	15.0	7.5	9.01	4.51	6.76	1	1	1	1	1
70	40	50	5	0	0	0	1	1	Y	157	12.5	7.5	7.96	4.78	6.37	1	1	1	1	1
1,880	25	46	1	1	3	2	2	1	Y	144.44	30.0	10.0	20.77	6.92	13.85	1	1	1	1	1
1,883	80	23	3	0	0	0	1	0	N	72.22	7.5	2.5	10.38	3.46	6.92	1	2	2	2	2


AEC23-226
Figure 1: Assessed Butternut Trees
Azimuth Environmental Consulting Inc.
Legend
Butternut
Property Boundary
Bn 0077
Bn 0070
Bn 1880
Bn 1883
Google Earth
Image © 2025 Airbus
200 m
N

Butternut Data Collection Form 1 - 2010 Edition

0cm 3cm 15cm

Surveyor ID or BHA #: N/A

(PLEASE USE BLOCK LETTERS)

Date (dd/mm/yyyy): 27 - 06 - 2025

Shaded fields are mandatory for Butternut Health Assessments

Surveyor Contact

First: JORDAN Last: WROBEL

Email: JWROBEL@AZIMUTHENVIRONMENTAL.COM

Telephone: (705) 365-4830 Telephone Other: (705) 721-8451 x221

Property Owner (check if same as surveyor) ☐

First: JOHN Last: VAN BEURDEN

or Company: DEVONLEIGH

Email: JOHN@DEVONLEIGHHOMES.COM

Telephone: (705) 446-4157 Telephone Other: ( ) - x

Property Owner's Mailing address

Address: PO BOX 70

City: ORANGEVILLE

Postal Code: L9W2Z5 Prov.: ON

Tree Location (if different from mailing address)

Address/(911#): 780 TENTH LINE

Township: COLLINGWOOD Lot: 43 Con: 11

City: COLLINGWOOD

Directions:

☒ Yes ☐ No Can Share Location Information with other Butternut Recovery Organizations?

☒ Yes ☐ No Site visits OK? (prior arrangments will always be made for a site vist)

> (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			01	
Poor Vigor: <50% Live Crown or >50% Live Crown + heavily cankered stem				03
Dead				

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

Estimated area containing butternut for properties > 1 acre (0.4 hectares): 2 ☐ Acres ☒ Hectares

Overall Property Description (area(s) containing Butternut)

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

Vegetation Community/ies

☐ Open ☒ Fencerow
☐ Shrubland ☐ Roadside
☒ DeciduousForest ☐ Quary
☐ ConiferForest ☐ UrbanYard
☐ MixedForest ☐ UrbanPark

Other

Soil Drainage

☐ Well Drained
☐ Moderately Drained
☐ Poorly Drained
☒ Unknown

Soil Texture

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

Soil Depth

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

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

Page Link: 023226

(Contact Information follows all applicable privacy policies and guidelines)

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Forest Gene Conservation Association
Suite 233, 266 Charlotte St.
Peterborough, ON, K9J 2V4
www.fgca.net

49731

Butternut Data Collection FORM 2 (2010 Edition)

(PLEASE USE BLOCK LETTERS)

Shaded fields are mandatory for Butternut Health Assessments

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

Site Code(A,B,...Z, AA...) | Surveyor ID or BHA # | Date (dd/mm/yyyy)

Surveyor Last Name: WROBEL | 27-06-2025

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

Tree 1

Tree #: 077 | Zone: 17 | Easting: 558742 | Northing: 4926762

Crown Class: 1 | Live Crown %: 40 | Main Stem Length(m) Below crown: 5

Seed Signs: Male Flowers ☐ | Female Flowers ☐ | Seed Set ☐ | None ☑

Twig Dieback ☑ | Branch Dieback ☑ | Defoliation ☑ | Discolouration ☐

#Stems: 1 | DBH(cm): 53

Butternut Origin: Natural ☐ | Planted ☐ | Unknown ☑

Assess below live crown

	#Open	#Sooty
0 #Epic-Live		
0 #Epic-Dead		
R Bark Type		
1 # Callused Wounds		
Root		3
=<2m	1	2
>2m	1	

Metres from badly cankered tree: ☐ < 40 ☑ > 40 ☐ None Found

Competing Species: FRAAMER | VITRTPA

- Old Barbed wire fence embedded in tree

Tree 2

Tree #: 070 | Zone: 17 | Easting: 558642 | Northing: 4926632

Crown Class: 1 | Live Crown %: 40 | Main Stem Length(m) Below crown: 5

Seed Signs: Male Flowers ☐ | Female Flowers ☐ | Seed Set ☐ | None ☑

Twig Dieback ☑ | Branch Dieback ☑ | Defoliation ☑ | Discolouration ☐

#Stems: 2 | DBH(cm): 56

Butternut Origin: Natural ☐ | Planted ☐ | Unknown ☑

Assess below live crown

	#Open	#Sooty
0 #Epic-Live		
C #Epic-Dead		
YR Bark Type		
2 # Callused Wounds		
Root	1	1
=<2m		5
>2m		

Metres from badly cankered tree: ☑ < 40 ☐ > 40 ☐ None Found

Competing Species: TILAMER | FRAAMER | OSTVIRG

- old barbed wire fence embedded, holes in some limbs, loose bark, 1 broken-off limb

Tree 3

Tree #: 880 | Zone: 17 | Easting: 558632 | Northing: 4926638

Crown Class: 2 | Live Crown %: 25 | Main Stem Length(m) Below crown: 8

Seed Signs: Male Flowers ☐ | Female Flowers ☐ | Seed Set ☐ | None ☑

Twig Dieback ☑ | Branch Dieback ☑ | Defoliation ☑ | Discolouration ☐

#Stems: 1 | DBH(cm): 46

Butternut Origin: Natural ☐ | Planted ☐ | Unknown ☑

Assess below live crown

	#Open	#Sooty
0 #Epic-Live		
0 #Epic-Dead		
R Bark Type		
1 # Callused Wounds		
Root	1	2
=<2m	3	1
>2m	2	1

Metres from badly cankered tree: ☑ < 40 ☐ > 40 ☐ None Found

Competing Species: POPTREM | FRAAMER | ACESASA

- Wind blew tree half over (hazard tree?), visible root decay, snag fractures

Tree 4

Tree #: 883 | Zone: 17 | Easting: 558579 | Northing: 4926610

Crown Class: 3 | Live Crown %: 80 | Main Stem Length(m) Below crown: 15

Seed Signs: Male Flowers ☐ | Female Flowers ☐ | Seed Set ☐ | None ☑

Twig Dieback ☑ | Branch Dieback ☑ | Defoliation ☑ | Discolouration ☐

#Stems: 1 | DBH(cm): 23

Butternut Origin: Natural ☐ | Planted ☐ | Unknown ☑

Assess below live crown

	#Open	#Sooty
0 #Epic-Live		
0 #Epic-Dead		
S Bark Type		
0 # Callused Wounds		
Root		1
=<2m		3
>2m		

Metres from badly cankered tree: ☐ < 40 ☑ > 40 ☐ None Found

Competing Species: TILAMER | POPTREM | ACESASA

Tree 5

Tree #: | Zone: 17 | Easting: | Northing:

Crown Class: | Live Crown %: | Main Stem Length(m) Below crown:

Seed Signs: Male Flowers ☐ | Female Flowers ☐ | Seed Set ☐ | None ☐

Twig Dieback ☐ | Branch Dieback ☐ | Defoliation ☐ | Discolouration ☐

#Stems: | DBH(cm):

Butternut Origin: Natural ☐ | Planted ☐ | Unknown ☐

Assess below live crown

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

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

Competing Species:

Please enter matching page link code on forms 1 and 2

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