

Environmental Addendum Report

Re-Assessment of Greenlands Extent
Youngblood Property, South River Road, Elora
Draft Plan 23T-15003



September 22, 2021

Prepared by: Rod Bilz (Environmental Specialist)

INTRODUCTION

A July 25, 2018 Local Planning Appeal Tribunal (LPAT) decision indicated that despite the size of the woodland, the condition of the woodland (**Figure 1**) was a relevant factor to take into account. The Open Space Greenlands area comprises part of Blocks 11 and 5 (**Appendix 1**). The Natural Heritage Reference Manual (2010) specifically addresses the recommended evaluation criteria and standards to determine if a woodland is significant. There are four broad categories that include:

1. Wetland Size Criteria;
2. Ecological Functions Criteria;
3. Uncommon Characteristics Criteria; and
4. Economic and Social Functional Values Criteria

Within these four broad categories there are approximately 21 Standards to be evaluated to determine significance. It does not appear that this type of robust evaluation was completed to determine firstly, that the woodland is indeed considered significant and secondly, if it is considered significant, include it in the greenlands system. This report will evaluate the woodland using a systematic approach based on the process outlined in the **Natural Heritage Reference Manual (2010)**.

CONTEXT

Definitions exist in the County of Wellington Official Plan for both Core Greenlands and Greenlands and they align with the Provincial Policy Statement (PPS) 2020.

Section 5.4 Core Greenlands are defined as having greater sensitivity or significance and include:

- Provincially Significant Wetlands (Section 2.1.4 PPS)
- All other wetlands
- Habitat of endangered or threatened species (Section 2.1.7 PPS)
- Fish Habitat (Section 2.1.6 PPS)
- Hazardous lands (Section 3.1 PPS)

Section 5.5 Greenlands are defined as other **significant** natural heritage features including:

- Significant wildlife habitat (Section 2.1.5d PPS)
- Provincially and regionally significant Areas of Natural and Scientific Interest (Section 2.1.5e PPS)
- Significant Valleylands (Section 2.1.5c PPS)
- Significant Woodlands (Section 2.1.5b PPS)
- Environmentally Sensitive Areas
- Ponds, Lakes and Reservoirs

Based on the definitions above, the only plausible reason to include this area into the greenlands system is if the woodland was deemed significant.

The evidence provided at the LPAT relied heavily on Section 5.5.4 of the County of Wellington Official Plan. More specifically it relied on, **“In the Urban System, woodlands over 1 hectare are considered to be significant by the County and are included in the Greenlands System. Woodlands of this size are important due to their economic, visual and environmental contributions to the urban landscape.”** In this case it was determined that the woodland was 1.462 ha in area.

However, there was not much consideration given to the second part of Section 5.5.4 that states that, “Detailed studies such as environmental impact assessments may be used to identify, delineate and evaluate the significance of woodlands based on other criteria such as: proximity to watercourses, wetlands, or other woodlands; linkage functions; age of the stand or individual trees; presence of endangered or threatened species; or overall species composition.”

This report intends to look at the objective criteria and standards contained within the Natural Heritage Reference Manual and apply them to the currently designated woodland to determine if indeed it would be considered a significant woodland and therefore should be considered as greenlands. We will rely on a number of documents as well as our own original field investigations to evaluate this feature objectively.

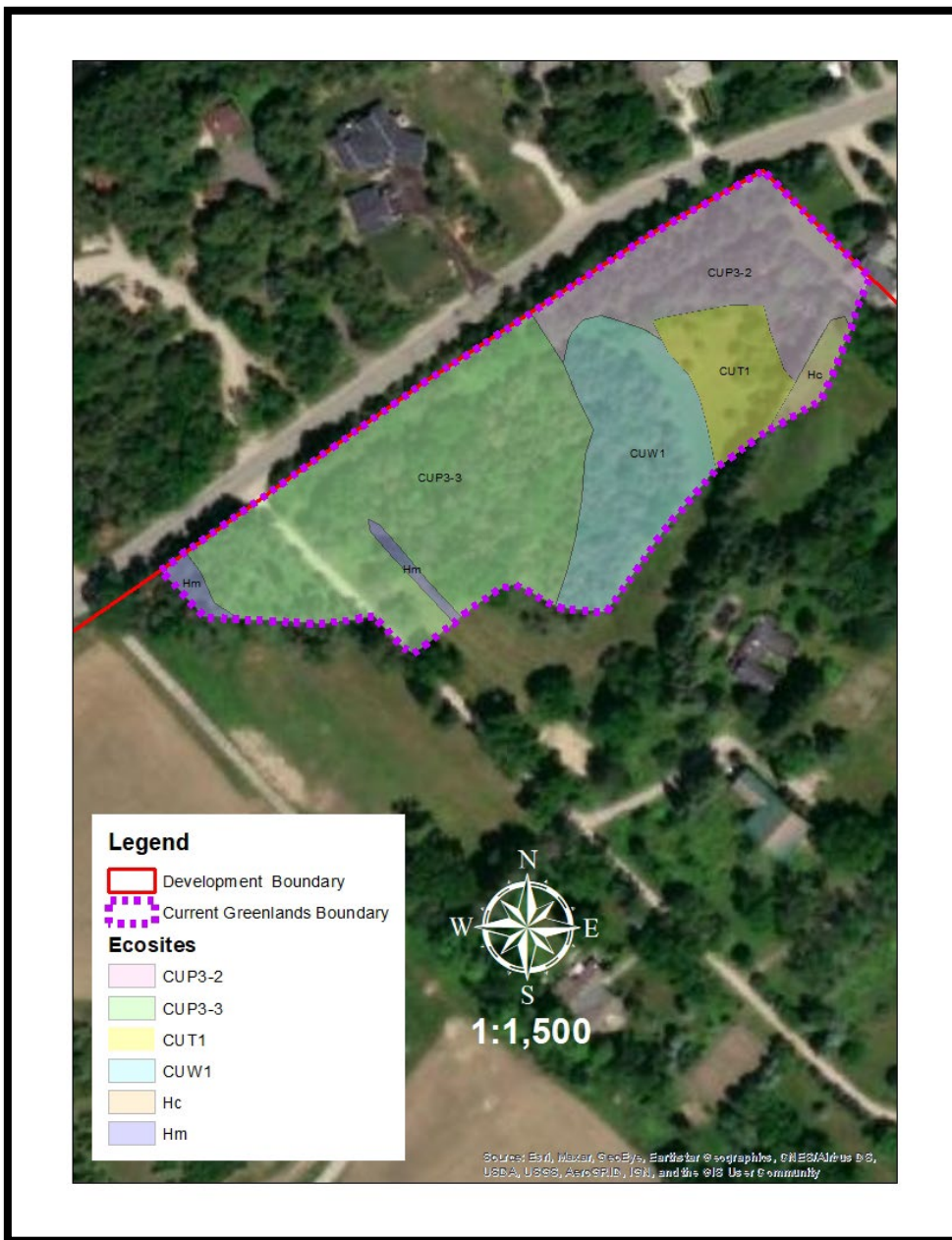


Figure 1 Study Area Map of Current Greenlands

BACKGROUND INFORMATION

The following documents were relied on to complete this investigation:

- County of Wellington Official Plan (July 20, 2021)
- Natural Heritage Reference Manual – Second Edition (2010)
- Local Planning Appeal Tribunal Decision – Cases PL160992 & PL160993 (July 25, 2018)
- Environmental Impact Assessment for Youngblood Property, South River Road, Elora (November 2017)
- Mapping of a Natural Heritage Systems in the County of Wellington (September 2018)
- Haylock & Youngblood Residential Subdivisions Hydrogeology Study (July 21, 2017)

METHODS AND PROCEDURES

A site investigation was completed on June 3, 2021 to assess the current condition and collect any additional information that may be needed to complete the objective evaluation. A series of representative geo-referenced photos were also taken as shown in **Figure 2**. The location of all photos contained in this memorandum can be referenced from **Figure 2**.

RESULTS AND DISCUSSION

To ascertain whether the existing woodlands in Blocks 11 and 5 should be considered significant or not, the standards in the Natural Heritage Reference Manual were used since this manual is provincially recognized. Each of the four broad categories will be discussed in detail and the evaluation matrix in **Table 1** summarizes the results and provides the justification for our conclusions.

Woodland Size Criteria

The woodland size takes into account the aerial extent of the feature regardless of ownership. There are 5 standards to consider when evaluating this specific criterium:

Where woodlands cover:

1. is less than about 5% of the land cover, woodlands 2 ha in size or larger should be considered significant;
 2. is about 5–15% of the land cover, woodlands 4 ha in size or larger should be considered significant;
 3. is about 15–30% of the land cover, woodlands 20 ha in size or larger should be considered significant;
 4. is about 30–60% of the land cover, woodlands 50 ha in size or larger should be considered significant;
- or
5. occupies more than about 60% of the land, a minimum size is not suggested, and other factors should be considered

The planning area considered is Wellington County which is the origin of the LPAT decision. The Mapping of a Natural Heritage Systems in the County of Wellington (September 2018) reported that 17.4% of the landcover in the county is covered in woodlands. Based on this value, woodlands 20 ha in size or larger should be considered significant. We recognize that the County of Wellington Official Plan supercedes the provincial evaluation model for woodland size, but it is important to note, that provincially, this **would not be considered a significant woodland** based on size alone.



Figure 2 Georeferenced photo locations

Ecological Functions Criteria

This criterium is subdivided into five sub criteria which are outlined in the following sections.

Woodland Interior

The first component to be evaluated is the woodland interior. Interior habitat is defined as the area that is more than 100m from the edge. A maintained public road, South River Road, creates an edge even if the opening is not wider than 20 m. The following four standards should be considered to determine significance:

1. any interior habitat where woodlands cover less than about 15% of the land cover;
2. 2 ha or more of interior habitat where woodlands cover about 15–30% of the land cover;
3. 8 ha or more of interior habitat where woodlands cover about 30–60% of the land cover; or
4. 20 ha or more of interior habitat where woodlands cover more than about 60% of the land cover

The woodland at its widest point is approximately 98 m wide. Therefore, there is no interior habitat as defined above. Based on the above standards in this criteria, this woodland **would not be considered significant**.

Proximity to other Woodlands or other Habitats

Woodlands that overlap, abut or are close to other significant natural heritage features or areas could be considered more valuable. The following standard is considered:

1. a portion of the woodland is located within a specified distance (e.g., 30 m) of a significant natural feature or fish habitat likely receiving ecological benefit from the woodland and the entire woodland meets the minimum area threshold

For this standard it has to be first recognized that the woodland does not meet the minimum area threshold and therefore **would not be considered significant**. The adjacent lands as per the Natural Heritage Reference Manual is 120 m for fish habitat features and 120m for other significant woodlands. Just for reference, it is approximately 140 m from the nearest fish habitat in the Grand River and about 15 m from the significant woodlands on the north side of South River Road. It **partially meets the distance standard** to other features.

Linkages

Linkages can be important connections providing for movement between habitats. Woodlands that are located between other significant features or areas can function as “stepping stones” for movement between habitats. The following standard was given consideration:

1. Woodlands should be considered significant if they are located within a defined natural heritage system or provide a connecting link between two other significant features, each of which is within a specified distance (e.g. 120 m) and meets minimum area thresholds

The first part of this standard creates a bit of a circular argument in that the area is identified as greenlands based on the presence of significant woodlands but an objective review to determine if this should be considered a significant woodland has not been completed. The second part of the standard can be applied. The closest natural heritage features are the Grand River and the significant woodlands associated with it on the north side of South River Road. The next closest significant feature is the woodland located about 650 m to the south straddling 1st Line to the south and connects to the Grand River in a northeasterly direction. This feature is much too far away to act as a functional “stepping stone”. Based on this sub criterium, this woodland **would not be considered significant**.

Water Protection

Source water protection is an important function and natural hydrological processes should be maintained. This standard specifies that:

1. Woodlands should be considered significant if they are located within a sensitive or threatened watershed or a specified distance (e.g., 50 m or top of valley bank if greater) of a sensitive groundwater discharge, sensitive recharge, sensitive headwater area, watercourse or fish habitat **and** meet minimum area thresholds

In this case I am relying on the Hydrogeology Study (July 21, 2017) that indicates that the subject lands are not vulnerable to contamination and are not in an Issue Contributing Area (ICA). The subject lands are not located within a Significant Groundwater Recharge Area (SGRA), which is defined as a vulnerable area. In addition to these reasons, the woodland does not meet the minimum area threshold. While there are some water protection values associated with the site, applying this standard would indicate that this woodland **would not be considered significant**.

Woodland Diversity

Some woodland species have had major reductions in representation on the landscape and may need special consideration. More native diversity is more valuable than less diversity. Woodlands should be considered significant if they have:

1. A naturally occurring composition of native forest species that have declined significantly south and east of the Canadian Shield and meet minimum area thresholds
2. a high native diversity through a combination of composition and terrain (e.g., a woodland extending from hilltop to valley bottom or to opposite slopes) and meet minimum area thresholds

This is an interesting standard in that this woodland has some naturally occurring native forest species but by and large it is dominated in the canopy, shrub layer and ground cover by non-native species. **Figure 3** documents the approximate aerial extent of the Scots Pine (non-native) canopy that is currently dead (**Photo 13**) or in severe decline. The shrub layer is dominated by European Buckthorn (non-native) and appears to be expanding its extent as new openings in the canopy allow for more sun exposure (**Photo 12**). There are large contiguous patches of Periwinkle (non-native) at the groundcover level (**Photo 11**). These are just three non-native species but they make up a large percentage of the vegetation cover within this woodland. As discussed, not only is the Scots Pine in serious decline but a large proportion is dead and no longer contributing to forest cover. In fact 344 of the 706 trees inventoried were non-native species including the above-mentioned tree species as well as Norway Spruce, European Ash, Norway Maple, Crab Apple, Littleleaf Linden, Manitoba Maple and Elm species. The site has a relatively low stocking and diversity of native tree species and **would not be considered significant**.

Uncommon Characteristics

Woodlands that are uncommon in terms of species composition, cover type, age or structure should be protected. Older woodlands greater than 100 years old are particularly valuable. Woodlands should be considered significant if they have:

1. a unique species composition or the site is represented by less than 5% overall in woodland area and meets minimum area thresholds



Photo 13. Dead and declining Scots Pine Canopy



Photo 12. Understory of Buckthorn



Photo 11. Groundcover of Periwinkle

1. a vegetation community with a provincial ranking of S1, S2 or S3 (as ranked by the NHIC and meet minimum area thresholds–
 - a. vascular plant species for which the NHIC's Southern Ontario Coefficient of Conservatism is 8, 9 or 10
 - b. – tree species of restricted distribution such as sassafras or rock elm
 - c. – species existing in only a limited number of sites within the planning area
2. characteristics of older woodlands or woodlands with larger tree size structure in native species and meet minimum area thresholds
 - a. – older woodlands could be defined as having 10 or more trees/ha greater than 100 years old
 - b. – larger tree size structure could be defined as 10 or more trees/ha at least 50 cm in diameter, or a basal area of 8 or more m²/ha in trees that are at least 40 cm in diameter

The vascular flora description in the Environmental Impact Assessment described the area to have a relatively high proportion of non-native species. No plant species of Conservation Concern or SAR were observed. A single Common Hackberry seedling was observed and is considered locally significant but is common and secure throughout Ontario. There are no vegetation communities within the woodland that are provincially ranked as S1, S2 or S3 and it does not meet the minimum area threshold.



Figure 3 Current Conditions

No specific age studies have been performed at the site but there are approximately 55 native trees that are 40cm in diameter or more. More specifically, there are approximately 13 native trees per hectare that are over 50cm in diameter. For this standard the woodland **partially meets one of the three standards if you ignore the minimum area threshold for significance.**

Economic and Social Functional Values Criteria

Woodlands that have high economic or social values through particular site characteristics or deliberate management should be protected.

Woodlands should be considered significant if they have:

1. high productivity in terms of economically valuable products together with continuous native natural attributes and meet minimum area thresholds
2. a high value in special services, such as air-quality improvement or recreation at a sustainable level that is compatible with long-term retention and meet minimum area thresholds
3. important identified appreciation, education, cultural or historical value and meet minimum area thresholds

There are approximately 87 Black Walnut trees within the woodland area and their wood products can be valuable if the woodland is managed with the purpose of producing high-grade lumber. In this case the woodland is not managed to produce high-grade lumber and therefore the products do not have any economical value. There are no specifics around the evaluation of high value special services. Any treed area provides some level of air quality improvement and the expectation is that some portion of this woodland would be retained. There was no reference to any identified appreciation, education, cultural or historical value to this particular woodland and as referenced in each of the criteria, it does not meet the minimum area threshold. For this standard the woodland **partially meets one of the three standards if you ignore the minimum area threshold for significance.**

SUMMARY

Table 1 Summary of the Criteria and Standards used to Evaluate the Woodland.

Criteria	Standards	Standard Met *(Y/N/P)
Woodland Size Criteria	Where woodlands cover is about 5-15% of the land cover, woodlands 4 ha in size or larger should be considered significant	N
Woodland Interior Sub Criteria	Woodland area that is more than 100 m from the edge of the woodland	N
Proximity to other Woodlands or other Habitats Sub Criteria	A portion of the woodland is located within 120 m of fish habitat or 120 m within other significant woodlands	P
Linkages Sub Criteria	Woodlands should be considered significant if they are located within a defined natural heritage system or provide a connecting link between two other significant features, each of which is within a specified distance (e.g. 120 m) and meets minimum area thresholds	N

Water Protection Sub Criteria	Woodlands should be considered significant if they are located within a sensitive or threatened watershed or a specified distance (e.g., 50 m or top of valley bank if greater) of a sensitive groundwater discharge, sensitive recharge, sensitive headwater area, watercourse or fish habitat and meet minimum area thresholds	N
Woodland Diversity Sub Criteria	A naturally occurring composition of native forest species that have declined significantly south and east of the Canadian Shield and meet minimum area thresholds	N
	a high native diversity through a combination of composition and terrain (e.g., a woodland extending from hilltop to valley bottom or to opposite slopes) and meet minimum area thresholds	N
Uncommon Characteristics Criteria	a unique species composition or the site is represented by less than 5% overall in woodland area and meets minimum area thresholds	N
	a vegetation community with a provincial ranking of S1, S2 or S3 (as ranked by the NHIC and meet minimum area thresholds	N
	characteristics of older woodlands or woodlands with larger tree size structure in native species and meet minimum area thresholds	P
Economic and Social Functional Values Criteria	high productivity in terms of economically valuable products together with continuous native natural attributes and meet minimum area thresholds	N
	a high value in special services, such as air-quality improvement or recreation at a sustainable level that is compatible with long-term retention and meet minimum area thresholds	P
	important identified appreciation, education, cultural or historical value and meet minimum area thresholds	N

* Objective scoring out of a possible 26: No = 0, Partial =1 and Yes = 2

This particular woodland would receive a score of 3/26 if we use the provincial criteria. If we ignore the Woodland Size Criteria and assume that because it is over 1 ha it meets that standard, it would still only score 5/26. Based on this objective evaluation of the woodland, it is our opinion that it would not be considered a significant woodland.

Summary of Core Greenlands Removal Adjacent to the Study Area

Further to the information presented, there have been some fairly significant core greenlands altered by vegetation removal and development on the north side of South River Road since the zoning by-law amendment and draft plan approval were deemed to be complete in May 2015. A total of 0.91ha has been removed and there is ongoing work at 198 South River Road that will likely increase the area altered. The series of photographs below document vegetation removals within the core greenlands at four locations immediately across South River Road from the greenlands area being examined.



198 South River Road prior to May 2015



198 South River Road as of June 2021



208 South River Road under construction in 2016



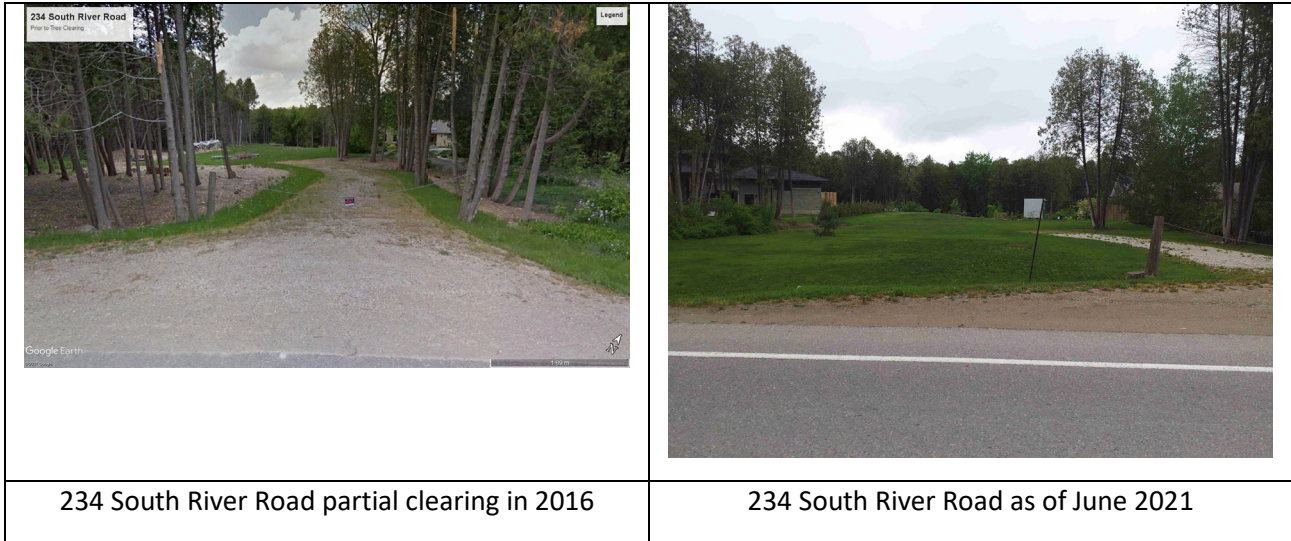
208 South River Road as of June 2021



228 South River Road prior to construction in 2016



228 South River Road as of June 2021



RECOMMENDATIONS

The features and functions of this woodland do not reach the level of a significant woodland and should not be incorporated into the greenlands system.

It seems redundant to force protection of a dead or declining non-native wooded area and allow the removal of better-quality core greenlands adjacent to the Grand River that actually does function as a linkage and natural heritage system corridor. Since it appears that there is no justified basis to identify the study area as greenlands and the linkage has been further compromised by the vegetation clearing on adjacent properties, it would be more appropriate to designate the area as a functional natural screening feature.

We would recommend that the woodland be retained from South River Road for a distance of 30 m back. This will create a lateral corridor along South River Road for a distance of about 250m for a total area of 0.893 ha (**Figure 4**). This forested area will require an updated inventory and tree replacement plan and shall be managed to favour native species with an aggressive non-native species removal management regimen. Opportunities to introduce and establish species such as Common Hackberry, Hop Hornbeam, American Basswood and Bur Oak would compliment the native species that are already established on the site. It is recommended that a Landscape Architect or equivalent develop a plan to remove non-native species and a planting and tending plan to favour Carolinian species to produce a native and better quality forested strip.

This report supports the planning applications that may be required to adjust block limits or the zoning associated with the block.

Sincerely,

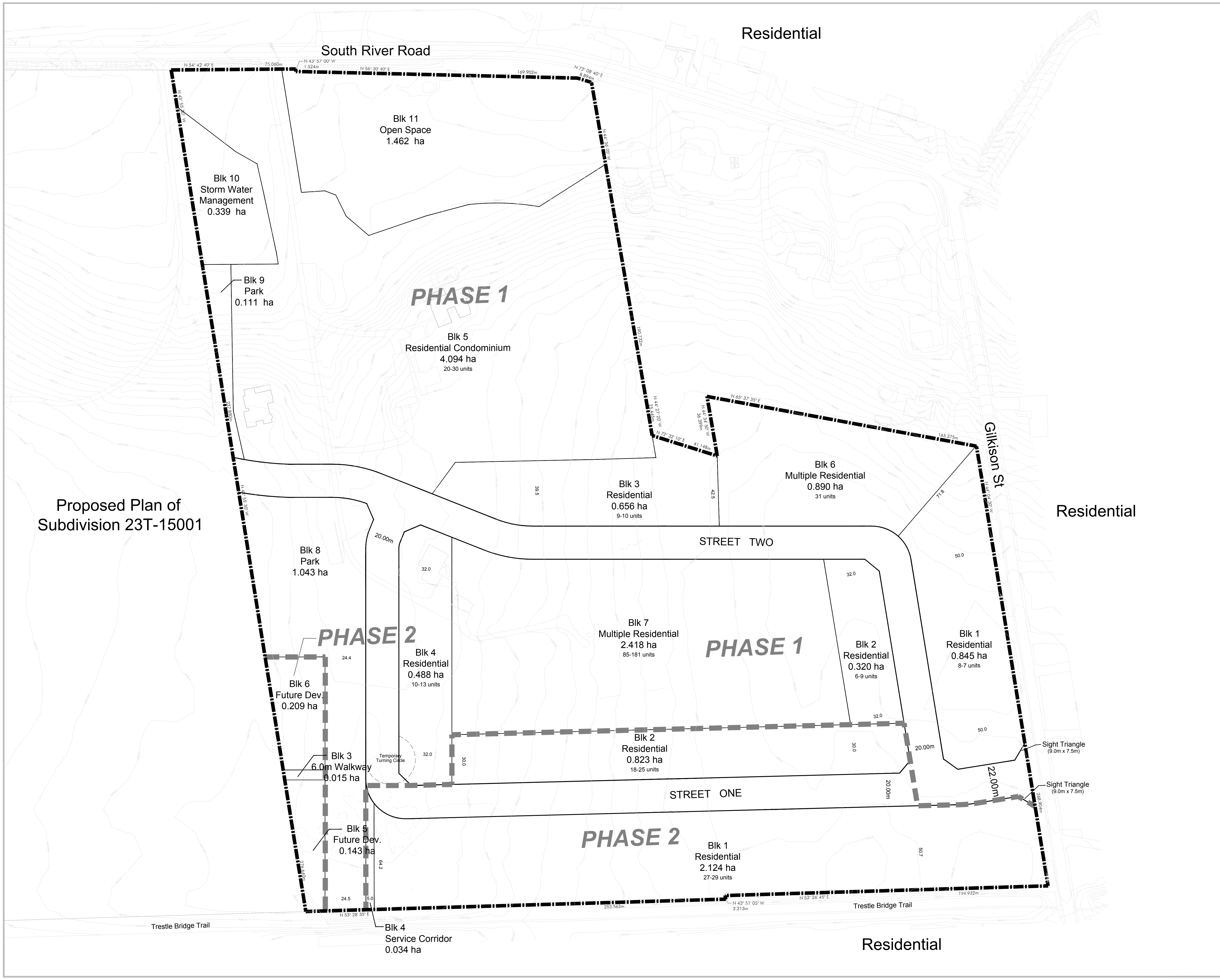
Rod Bilz
Environmental Specialist



Figure 4 Rehabilitated Area

Appendix 1

Draft Plan 23T-15003



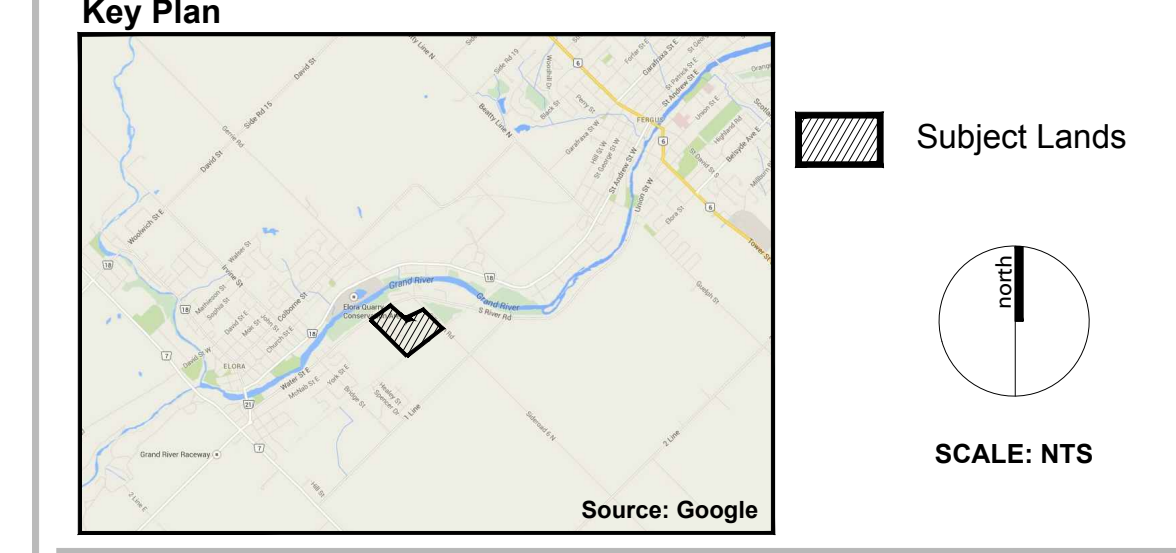
Proposed Plan of Subdivision 23T-15001

DRAFT PLAN OF SUBDIVISION

Legal Description
 PART OF LOT 4 AND 5,
 OF THE RIVER CONCESSION BROKEN FRONT NICHOL,
 PART LOT 1, 61R-2640 SAVE AND EXCEPT PT 1 61R-10981,
 PARTS 2-5, & 7, 61R-5065
 PART 7, 61R-7183
 TOWNSHIP OF CENTRE WELLINGTON,
 COUNTY OF WELLINGTON

Owner's Certificate
 I HEREBY AUTHORIZE MACNAUGHTON HERMSEN BRITTON CLARKSON PLANNING LIMITED
 TO SUBMIT THIS PLAN FOR APPROVAL.
 DATE: March 10, 2015
 Bruce Youngblood, Owner
 (Bruce & Margaret Youngblood, Samuel & Thea
 Mallett, 1238579 Ontario Limited.)

Surveyor's Certificate
 I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LAND TO BE SUBDIVIDED ON THIS PLAN AND
 THEIR RELATIONSHIP TO THE ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN.
 DATE: Jan 16, 2015
 Rod Lord, OLS, OLIP, B.Sc.
 MacDonald Tamblin Lord Surveying Limited



Additional Information Required Under Section 51(17) of the Planning Act
 R.S.O. 1990, c.P.13 as Amended

A. AS SHOWN	B. AS SHOWN	C. AS SHOWN
D. RESIDENTIAL, MULTIPLE RESIDENTIAL, PARK, OPEN SPACE, STORMWATER MANAGEMENT	E. AS SHOWN	F. AS SHOWN
G. AS SHOWN	H. MUNICIPAL WATER SUPPLY	I. LOAM
J. AS SHOWN	K. ALL SERVICES AS REQUIRED	L. AS SHOWN

Area Schedule - Youngblood

Description	PHASE 1			PHASE 2			TOTAL		
	Blocks	Area	Units	Blocks	Area	Units	Blocks	Area	Units
Residential	1-4	2,309	32-40	1-2	2,947	45-54	6	5,256	77-94
Residential Condominium	5	4,094	20-30				1	4,094	20-30
Multiple Residential	6-7	3,308	116-213				2	3,308	116-213
Park	8-9	1,154					2	1,154	
Storm Water Mgmt	10	0,339					1	0,339	
Walkway				3	0,015		1	0,015	
Open Space	11	1,462					1	1,462	
Service Corridor				4	0,034		1	0,034	
Future Development				5-6	0,352		2	0,352	
Roads		1,581				0,655		2,236	
TOTAL	11	12,666	168-282	6	4,003	45-54	17	18,250	213-336

Notes

- All dimensions are in meters unless otherwise shown.
- Boundary information provided by MTE.
- Topographical base information provided by MTE.
- Potential number of units shown on the Draft Plan represent maximum and minimum number of units for each block only. Actual units will be determined at the time of registration based on applicable zoning provisions, and final lotting configurations.

**PLANNING
URBAN DESIGN
& LANDSCAPE
ARCHITECTURE**

200-540 BINGEMANS CENTRE DR. KITCHENER, ON, N2B 3X9 | P: 519.576.3450 F: 519.576.0121 | WWW.MHBCPLAN.COM

Approval Stamp

Date: **Aug. 22, 2018**

File No.: **1285B**

Plan Scale: **1:1,000 (Arch D)**

Drawn By: **CAC/JB**

Checked By: **DA**

Project
 Youngblood Subdivision
 South River Road
 Elora, Ont

File Name **Draft Plan 23T-15003** **Dwg No.** **1 of 1**

Scale Bar
 0 10 25 50 75 100m

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