NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists

January 5, 2018 Project 2025

Daniel Hrycyna
HRYCYNA LAW GROUP
200-1081 Bloor Street West
Toronto, Ontario
M6H 1M5

Dear: Mr. Hrycyna,

RE: Woodland Assessment at Scott Street, Grand Valley

On behalf of Natural Resource Solutions Inc. (NRSI), I am pleased to provide the following summary of the tree and woodland assessment undertaken by NRSI Certified Arborists at the 20 Scott Street property in Grand Valley, Ontario (Map 1). The property area assessed by NRSI is comprised of Part 1, Part 2 and Part 4 in a Plan of Survey (PLAN 7R-5603) prepared by P.J. Williams, O.L.S. (December 21, 2006) and is herein referred to as the "subject property". The subject property slopes from the west to east, and is comprised of conifer stands with naturalizing meadow beneath, maintained lawns, isolated landscape and hedgerow trees, a small woodland feature, with one residence and associated out-buildings. It is near to the Grand River but outside the floodplain and the area regulated by the Grand River Conservation Authority (GRCA). A small wooded area is located in the northeast corner of the subject property that is identified on Schedule B-1, Natural Heritage of Grand Valley's Official Plan (2006) as 'wooded area <=4 ha'. The inclusion of this feature in Schedule B-1 means it is a Significant Woodland as per the criterion in section 4.2.1.5(c) of the Official Plan (2006).

During a Pre-Consultation Meeting with the Town of Grand Valley, the Town requested that an assessment of the on-site wooded feature be undertaken to inform the proposed development submission for the property. A description of NRSI's assessment of the subject property and findings are provided below.

Field Surveys

NRSI Certified Arborists visited the subject property on November 22, 2017 and January 3, 2018 to document existing conditions. These site visits consisted of observing vegetation communities and individual trees on site, noting species composition and relative density, noting any vascular plant Species at Risk (SAR) observed, and searching for potential wildlife habitat features, including trees

with candidate bat maternity roost sites. Any trees that warrant consideration for retention during preparation of the proposed Site Plan (i.e. large, mature trees in good condition, candidate bat cavity roosting trees, etc.) were noted.

Results

Observations showed that many of the trees on the subject property are hedgerow or remnant plantation trees, without a great diversity of species (Map 1). Some mature specimens exhibited potential for use by wildlife, particularly SAR bat species known to roost in suitable tree cavities. No vascular plant SAR was observed during the site visits, though seasonality certainly limited the ability to identify herbaceous plants. Table 1 describes in more detail each tree polygon, as labeled on Map 1. Photographs of these areas are shown in Appendix I.

Table 1. Description of tree polygons

Polygon	Approximate # of Woody Stems >10cm DBH	Description
A	30	A semi-open stand of Scots Pine (*Pinus sylvestris*), with a footpath running through. Canopy not fully closed.
B	10	A hedgerow of mostly Manitoba Maple (*Acer negundo*) with 2 Norway Maple (*A. platanoides*), 1 Sugar Maple (*A. saccharum* ssp. *saccharum*) and 1 Black Cherry (*Prunus serotina*). At the western edge of Part 1, along Crozier Street.
C	6	A hedgerow of mature Sugar Maples and 1 Black Cherry. Some of the maples are in decline but potential wildlife habitat exists, in particular, candidate bat maternity roost cavities for SAR. Two large, mature maples were noted to be in good condition. At the western edge of Part 1, along Crozier Street.
D	9	A hedgerow comprised of 5 Black Cherry, 2 Sugar Maple, 1 White Elm (*Ulmus americana*) and 1 Manitoba Maple. Most are in good condition; the westernmost Sugar Maple is a large, mature specimen to be retained if at all possible. Along northern edge of Part 2, bordering a path.
E	45	Predominantly Scots Pine, with understorey of Black Cherry and Alternate-Leaved Dogwood (*Cornus alternifolia*) regeneration. Ground layer is open and grassy, appearing maintained. The row pattern of the Pines and the understorey trees suggest that this is a plantation remnant that had begun to regenerate naturally before being cleared and mowed. This polygon comprises the western part of the 'Significant Woodland'.
F	65	Woodland area with canopy dominated by Manitoba Maple and Black Cherry, with a small number of Sugar Maple, White Elm, and Common Apple (*Malus domestica*). The understorey has some regeneration of the canopy species, but is also comprised of Alternate-Leaved Dogwood, Tartarian Honeysuckle (*Lonicera tatarica*) and a few White Spruce (*Picea glauca*). The groundcover layer is dominated by Zigzag Goldenrod (*Solidago flexicaulis*), with a significant amount of Garlic Mustard (*Alliaria petiolata*) and Periwinkle (*Vinca minor*), and some Avens (*Geum* sp.) and raspberry species (*Rubus* sp.). There is a local depression in this polygon where a history of dumping refuse is evident. The Periwinkle is likely an escapee from the adjacent backyard and the Apple trees may be escapees or

Polygon	Approximate # of Woody Stems >10cm DBH	Description
		suggest past cultivation. This polygon comprises the central part of the 'Significant Woodland' as identified in the OP. One Common Apple (*Malus domestica*) was identified as having a cavity that may be suitable habitat for SAR bats.
G	unknown	A hedgerow of Eastern White Cedar (*Thuja occidentalis*) in a backyard at the eastern edge of Part 4.
H	unknown	A mid-aged Eastern White Pine (*Pinus strobus*) plantation. No access was granted for this plantation off-property, so the characterization of this polygon is based on observation of the southern and western edges.

Discussion

Woodland Significance

The County of Dufferin Tree By-law (2006-15) has been rescinded; however, its definition of woodland was as such:

> *" 'woodlands' means lands with at least,*
> *(i) 1,000 trees of any size per hectare or 500 such trees per 0.5 ha,*
> *(ii) 750 trees, measuring over five centimetres in diameter, per hectare or 375 such trees per 0.5 ha,*
> *(iii) 500 trees, measuring over 12 centimetres in diameter, per hectare or 250 such trees per 0.5 ha; or*
> *(iv) 250 trees, measuring over 20 centimetres in diameter, per hectare or 125 such trees per 0.5 ha."*

The wooded area identified as Significant on Schedule B-1 in the Town's OP is comprised of Polygons E and F, in addition to some yard and hedgerow trees outside of the subject property (Map 1), totaling 0.34ha in size. A count of trees ≥10cm Diameter at Breast Height (DBH) in Polygons E and F was approximately 110. If the trees of the Significant Woodland that fall outside the subject property are given a generous estimate of 25, that yields 135 trees ≥10cm DBH in 0.34ha, or 397 trees/hectare.

Therefore, the woodland within and immediately adjacent to the subject property does not meet the density criteria of a woodland as previously defined by the County of Dufferin. Furthermore, this woodland area does not meet the criteria of significance for total area nor area of interior habitat as found in Grand Valley's OP (Section 4.2.1.5). As far as species composition, part of the woodland is former Scots Pine plantation without natural understorey or groundcover (Polygon E), and the other portion is disturbed woodland dominated by Manitoba Maple with several invasive understorey and groundcover species (Polygon F). The woodland is separated from the mid-aged White Pine plantation to the north by a mowed path. Both stands are unlikely to provide high-quality habitat functions for wildlife due to the level of disturbance and number of non-native / invasive plant species present, or the uniformity of species, age, and stratification in the plantation.

One Common Apple tree in the woodland was observed to have a cavity that is potentially suitable for bat maternity roosting and warrants further evaluation. Aside from this potential habitat tree, and despite the woodland's designation in the OP, this wooded feature is not considered ecologically significant.

Potential Species at Risk Habitat

The Sugar Maples making up most of Polygon C are large, mature trees. Some of the Sugar Maples are exhibiting signs of decline such as broken branches, sloughing bark, bracket fungus, and

wounds revealing some rot, while 2 of the trees appear in good condition. This row of trees serves as a screen from Crozier Street, and the northern-most Sugar Maple may be a boundary tree on or near the property line.

A bat cavity assessment within the subject property found that 2 of these Sugar Maples contain cavities that may be suitable as roosting sites for SAR bats that are known from the area (i.e. Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and Tri-coloured Bat (*Perimyotis subflavus*)). If these Sugar Maples and the Common Apple mentioned from Polygon F are proposed for removal to accommodate the Site Plan, the Ministry of Natural Resources and Forestry (MNRF) may require focused acoustic surveys in June to determine presence/absence of SAR bats at these habitat features. Based on the MNRF guidelines (2014), it may be requested that acoustic monitoring be conducted at the Common Apple tree in the woodland for at least 10 nights with suitable weather conditions in June. For the isolated Maple trees, 2 nights of audio/video recordings may be required by the MNRF to observe potential cavity use by SAR bats (MNRF 2017).

It is recommended that the trees in Polygon C be considered for retention and that surveys during the bat maternity roosting period (June) be conducted. If candidate cavity trees are proposed for removal, NRSI can discuss these with the MNRF to define the scope of monitoring. Furthermore, slope should be measured on the subject property, especially where it is steepest in the western portion near Polygons B and C, because Section 4.2.1.5.1 of the OP specifies that existing tree cover and vegetation on slopes greater than 25% (1:4) should be maintained as a stabilizing force.

Tree Protection and Other Constraints

The trees in Polygon D are all well-established, native species that are in good condition. The western-most Sugar Maple is an especially nice specimen. Trees within this Polygon are recommended for retention and could function as a natural screen and landscape feature in the rear of lots 13-15 in the proposed Site Plan. For any trees retained in Polygons C and D, proactive pruning by qualified personnel (Arborist) is recommended to decrease the likelihood of failure of declining scaffold branches. This work must be completed after any surveys that may be required by the MNRF for the candidate bat cavities. When site works begin, retained trees and their root zones should be protected by appropriate tree protection measures such as tree hoarding or protection fencing. It is recommended that the tree protection measures be installed at a minimum distance of 1m from the dripline of retained trees, where ‘dripline’ is defined as that line on the ground surface directly below the outermost extent of a tree’s branches. Restricted activities within the tree protection zone include, but are not limited to, grading or any soil disturbance, traffic or parking of any machinery, refuelling of machines, and storage of construction materials or fill. It is

recommended that a Certified Arborist observe and approve tree protection measures prior to works beginning on site.

According to the Canadian Wildlife Service (CWS), the peak breeding period for migratory birds that nest in treed habitat in southern Ontario is between May 1 and August 31 (CWS 2013). During this period they recommend that no clearing of vegetation within simple and/or complex habitats occur. The *Migratory Birds Convention Act* protects migratory birds, their eggs and nests from being harmed or destroyed at any time of the year. However, nest searches, as a means of mitigation during the core breeding period, may be undertaken in "simple" habitats such as hedgerows, isolated trees, or constructed features (e.g. bridges, barns, etc.) where the potential to observe all active nests is relatively high. It is therefore recommended that tree and vegetation removal occur outside the peak breeding bird period, where possible.

Conclusion

NRSI Biologists and Certified Arborists conducted a site walk and bat cavity assessment survey to observe the woodlands and vegetation communities on the subject property at the west end of Scott Street, Grand Valley. An assessment of the species composition and density of the wooded area identified as Significant Woodland in Schedule B-1 of the Town's Official Plan concluded that the woodland is a disturbed site with non-native / invasive vegetation species in the understorey and groundcover layer. A history of refuse being dumped in the feature was also documented and some of the Manitoba Maples that dominate the canopy were noted to be in relatively poor condition, with a number of fallen trees and failed limbs present.

The wooded area within Polygons E and F does not provide a high-quality intact community and is not considered ecologically significant, though acoustic surveys in June may be required to conclude that SAR bats are not utilizing this feature. A hedgerow of 6 Sugar Maple along the west side of the subject property, and a hedgerow of 9 mature trees along the north side are recommended for retention based on the species and quality of specimens, or their potential for provision of wildlife habitat features to Species at Risk. Acoustic surveys targeting SAR bats that may use cavities in some of the Sugar Maples of Polygon C may also be required in June.

Tree protection measures should be implemented to protect retained trees from site works associated with the proposed development, as described above. Other vegetation polygons or individual landscape trees identified on site are not considered significant. Any approved tree removals should take place outside of peak bird breeding season between approximately May 1 – August 31.

I trust that the above information is sufficient to satisfy the Town of Grand Valley's request for a preliminary assessment of the woodland feature on the subject property. Should you have any questions or comments, please do not hesitate to contact the undersigned.

Sincerely,
Natural Resource Solutions Inc.

Joseph Lance, B.E.S.
Certified Arborist, Terrestrial and Wetland Biologist

References

Canadian Wildlife Service (CWS). 2013. Migratory Birds Convention Act (MBCA) and Regulations, May 3, 2013. Accessed January 4, 2018 from http://www.ec.gc.ca/nature/default.asp?lang=En&n=7CEBB77D-1

Ministry of Natural Resources and Forestry (MNRF), Guelph District. 2014. Use of Buildings and Isolated Trees by Species at Risk Bats—Survey Methodology.

Ministry of Natural Resources and Forestry (MNRF), Guelph District. 2017. Survey Protocol for Species at Risk Bats within Tree Habitats.

Town of Grand Valley. 2006. Official Plan for the Town of Grand Valley.

APPENDIX I

Photo Log

Appendix I: Photo Log, Scott Street, Grand Valley

Photo 1: Stand of Scots Pine and cultural meadow (Polygon A)

Photo 2: Looking west toward Crozier Street at hedgerow trees (Polygon B)

Photo 3: Some of the mature Sugar Maples (Polygon C)

Photo 4: Northern hedgerow, looking west (Polygon D)

Photo 5: Stand of Scots Pine (Polygon E)

Photo 6: Eastern White Pine plantation, at southwest corner (Polygon H)

Photo 7 (a) and (b): Manitoba Maple-Black Cherry woodland (Polygon F)

MAPS

555000 555100 555200 555300

4861400 4861300 4861200

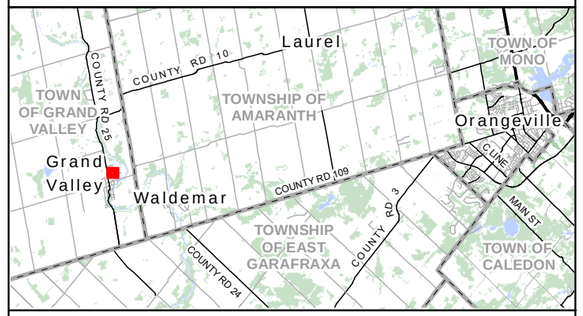
BAKER CRT
CROZIER ST
WEBB ST
SCOTT ST

H
D
F
E
G
C
A
B
Part 1
Part 2
Part 4
Manicured Lawn

Map 1

Scott Street, Grand Valley

Woodland Assessment



Legend

- Subject Property
- Surveyed Lot Parts
- Candidate Bat Cavity
- Woodland <=4ha, Schedule B-1 of Official Plan
- Vegetation Polygons

A - Semi-open Scots Pine Stand

B - Manitoba Maple Dominated Hedgerow

C - Sugar Maple Dominated Hedgerow

D - Black Cherry Dominated Hedgerow

E - Scots Pine Stand

F - Manitoba Maple - Black Cherry Woodland

G - Eastern White Cedar Dominated Hedgerow

H - Eastern White Pine Plantation

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Project:2025
Date: January 5, 2018

NAD83 - UTM Zone 17
Size: 11x17"
1:1,000

N

0 20 40 60 Metres

Path: X:\2025_ScottStreetGrandValley_WoodlandStudy\NRSI_2025_Map1_WoodlandAssessment_2018_01_05_KEF.mxd