

# ADDENDUM to the EIS for Proposed Garage & Granny Flat Addition at 68 Concession St. W, Tillsonburg, ON.

# Prepared for:

John Veldman % Courtland Landscape & Grounds

# Prepared by:

Dance Environmental Inc. 807566 Oxford Rd. 29 R.R. #1 Drumbo, ON NOJ 1G0

DE-427B

September 27, 2019.

# 1.0 INTRODUCTION

In November 2018, Dance Environmental Inc. prepared an EIS for a Proposed Garage and Granny Flat Addition at 68 Concession St. W., Tillsonburg, ON, see Figure 1. The clients are Mr. and Mrs. John Veldman.

In June 2019, Dougan and Associates provided the County of Oxford with peer review comments on the EIS.

Objectives of the present addendum report are:

- (1) to address the key comments listed in the peer review;
- (2) to document more recent correspondence with the LPRCA and MECP; and
- (3) to complete an impact assessment for a more recent addition to the Scope of proposed development on the site, namely a dry shed/workshop. See Figure 2 for location of this proposed shed.

# 2.0 RESPONSES TO PEER REVIEW KEY COMMENTS

# Comment 1.

The County Planner reviewed and approved the Terms of Reference.

# Comment 2.

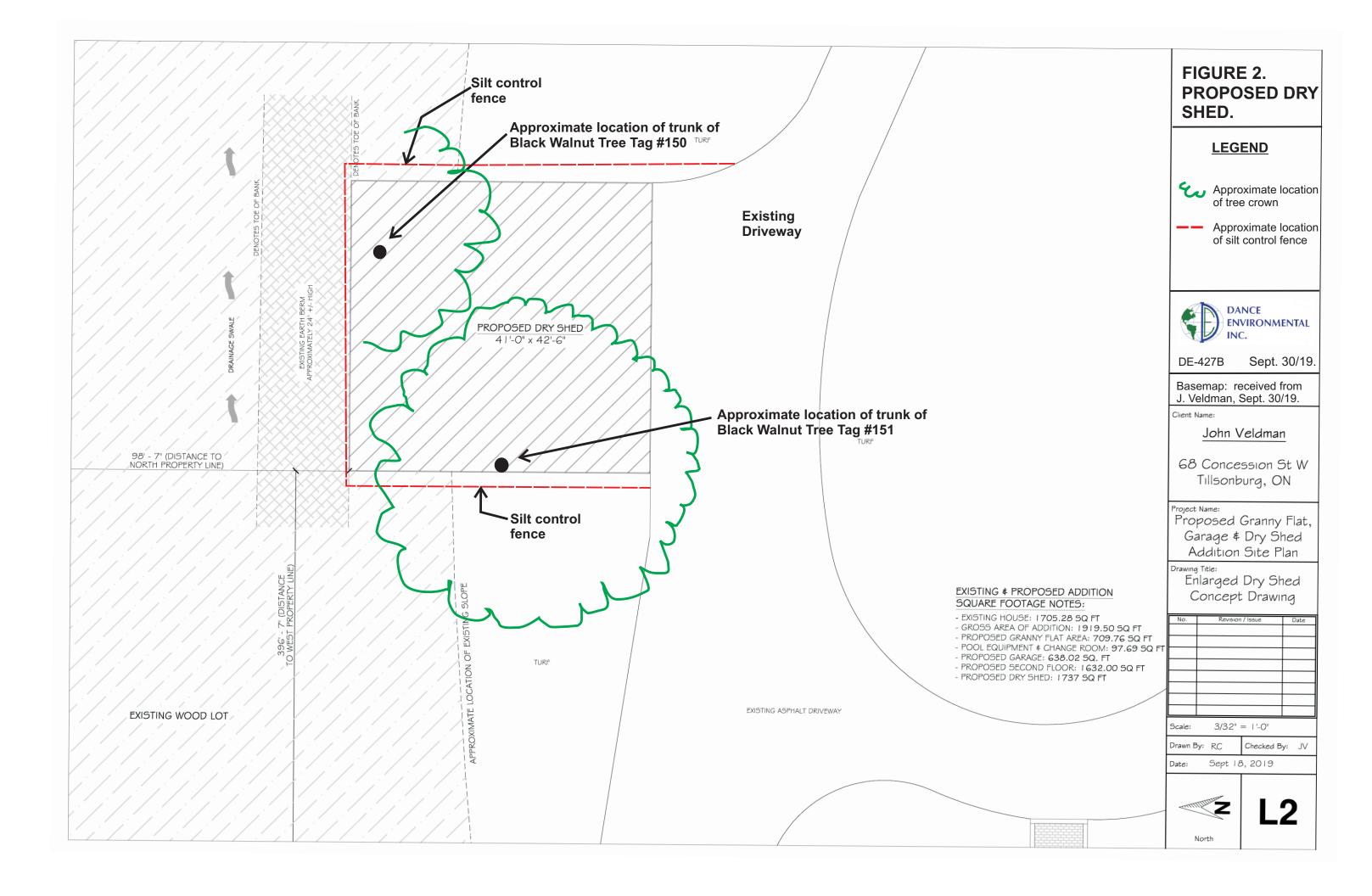
In late June 2019 the client approved setting up a site meeting with LPRCA staff. This meeting took place on July 12, 2019.

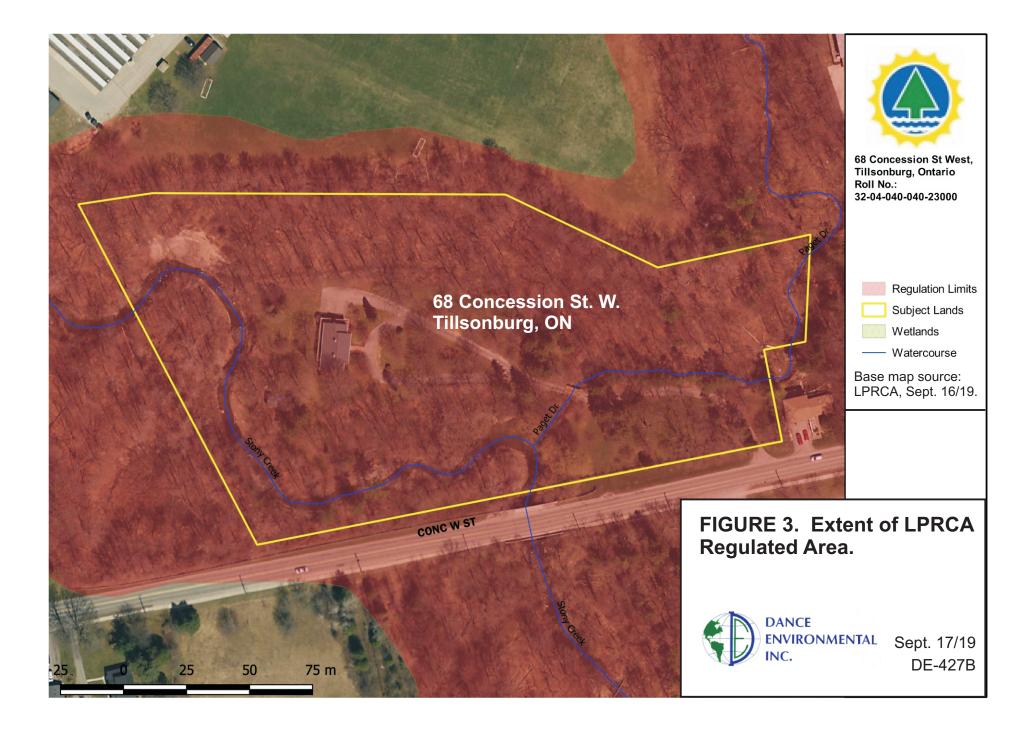
The location of the proposed building footprints including the dry shed/workshop were reviewed with LPRCA staff on site. LPRCA documented their comments in an email dated 22 July, 2019, see Appendix 1. LPRCA concluded that the proposed buildings were far enough away from Stony Creek. The client was reminded that a Permit Application Form had to be completed and submitted to the LPRCA.

Figure 2 in the present report shows the location of the dry shed/workshop fronting on the existing driveway and that the footprint of this building is approximately 4m from a small drainage swale. An existing earth berm of approximately 60cm height separates the swale from the proposed shed/workshop. No changes to the drainage or toe of the ravine slope are required to accommodate the proposed shed.

Figure 3 shows the extent of Regulated Area on the site.







# Comment 3.

The process of dealing with MNRF that had been recommended in the EIS had been suggested by the MNRF Biologist that we were corresponding with 2018. Since that time MECP has taken over responsibility for reviewing SAR issues.

Appendix 2 contains the email received following MECP's review of the proposed undertaking (which included the dry shed/workshop).

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MECP has concluded that they have "no concerns with this proposal under the Endangered Species Act".

# Comment 4.

Federal, provincial and local policies are addressed as follows:

# **Federal**

# 1. Species at Risk Act (2002)

No SAR listed federally were found during the inventories. Mitigation measures described in Tables 4 and 5 will prevent any impacts on aquatic and terrestrial habitat, so no negative impacts on federally listed SAR and their habitat are expected.

# 2. Fisheries Act (1986)

This act requires that there be no negative impact on fish habitat. Fish habitat is present in Stony Creek and possibly in Paget Drain, see Figure 3. There are adequate setbacks between the proposed undertakings and fish habitat present.

Silt control fence will prevent sediment from reaching the fish habitat and rapid introduction of vegetative cover to stabilize any disturbed soils will prevent erosion following the completion of construction. No negative impact on fish habitat is expected.

# 3. Migratory Birds Convention Act (1994)

This act requires that migratory birds, their active nests, eggs and young not be destroyed.

In the present case, there will be very little need to remove vegetation. Timing recommendations for removal of up to four trees to build the proposed structures are that tree removals be undertaken between November 1 and March 31, to avoid impacts on nesting birds.

# **Provincial**

# 1. Provincial Policy Statement

The PPS requires that natural heritage features such as fish habitat, significant woodlands, significant valleylands, endangered and threatened species, and significant wildlife habitat be considered and that no significant impacts on these features occur. PPS requirements are also reflected in the Oxford County OP. These natural heritage features were addressed in the 2018 EIS.

# 2. Endangered Species Act (2007)

This act requires that the listed species and/or their habitat not be impacted. No occurrences of endangered or threatened species were found during the 2018 or 2019 site visits. Existing information sources did not have records of occurrence for the site. SAR were addressed in the 2018 EIS.

3. Conservation Authorities Act and Ont. Reg. 178/06 and Ont. Reg. 178/07. This act and these regulations were considered during the original EIS, hence the recommendation to the client that a site meeting be held with the LPRCA. This site meeting occurred in Summer 2019 and correspondence from the LPRCA is contained in Appendix 1 of the present addendum.

The proponent is currently preparing a Permit Application under Regulation 178/06 to obtain the necessary permit to develop within the regulated area.

# Local

# 1. Oxford County Official Plan (2015)

The County of Oxford OP was cited in the 2018 EIS and a Terms of Reference for the EIS was reviewed by Eric Gilbert.

The Natural Heritage features required to be assessed and addressed in an EIS were documented in the 2018 EIS (see Sections 6.3, 6.4, 6.5, 6.6, and 6.7) and are addressed later in the present Addendum relative to the new proposal for a dry shed/workshop.

# Comment 5.

This comment relates to stormwater management and surface water/groundwater implications.

The two small buildings proposed will be fitted with eavestrough and down spouts. Rain and melt water from these roof areas will be clean and will be discharged to turf grass surfaces that are part of the residential landscape present in the yard. The roof water discharged will not be re-directed to new drainage areas.

There will be ample opportunity for infiltration in the grassed areas and there will be no direct discharge to any of the surface water bodies in the area, namely Stony Creek and Paget Drain.

Given the small scale of the new impermeable surfaces and the large green space that is available to infiltrate the small quantities of rain water and melt water, no negative impacts on surface water and groundwater quantity and quality are expected.

# Comment 6.

We agree that tree removals should occur between November 1 and March 31.

# Comment 7.

The 2018 EIS focused on the SWH categories that we believed were pertinent, see Section 6.2.

The 4 categories specifically listed by the peer reviewers are addressed in more detail below.

# **Seeps and Springs:**

This is one element in the Specialized Habitat for Wildlife category.

Small seepage zones were observed in several locations along the downslope areas of the FODM5-9 Sugar Maple woodland that is located upslope of the proposed granny flat/garage and dry shed/workshop building footprints. In all cases the surface seepage is upslope of the proposed building footprints and the seepage does not flow downslope through the proposed building footprints. The seepage is intercepted by an existing drainage channel, located upslope of the development, which conveys it easterly to the Paget Drain.

Since more than 2 seeps are present in the FODM5-9 unit that is located north of the proposed development, the area of woodland (the recharge area) and the seeps located upslope of the development should be considered to be SWH.

Since the development footprints are not within the recharge or discharge areas for the seeps we do not expect any impact on the seeps from the proposed development.

## **Woodland Raptor Nesting Habitat:**

As noted in the 2018 EIS, during 8 site visits no raptors were seen or heard. During 2 site visits in 2019 no raptors were seen or heard. No raptor stick nests were observed in the study area.

In our opinion there is not confirmed SWH for Woodland Raptor Nesting.

# **Bat Maternity Colonies:**

As noted previously, FODM5-9 Sugar Maple Woodland is present to the north and south of the proposed development, so there is Candidate SWH for this factor in locations adjacent to the development.

The development is proposed on footprints along the margins of the FODM5-9 unit, but not within it.

Each of the four trees that would need to be removed to accommodate the proposed development were evaluated for their potential to provide bat maternity colony habitat. Table 1 below summarizes the characteristics of these 4 trees.

TABLE 1. Tree Analysis, Veldman Property, 11 Sept. 2019.

Tree Tag No.	Species	Diameter at Breast Height (cm)	Condition	Bat Maternity Colony Habitat Potential	Reason for Removing Tree
150	Black Walnut	33	Poor; many cankers, leaning; no hollows, cavities, or loose bark.	None	Within footprint of dry shed/workshop.
151	Black Walnut	66	Good; is producing nuts; no hollows, cavities or loose bark.	None	Within footprint of dry shed/workshop
152	Sugar Maple	33	Good; no hollows, cavities or loose bark.	Little, is on the edge of an active driveway, play area.	On the edge of the footprint for granny suite/garage.
153	Sugar Maple	16	Poor, north half has no branches, shaded by other trees.	Little, is on the edge of an active driveway, play area.	On the edge of the footprint for granny suite/garage.

The potential for impact on Bat Maternity Colonies from the proposed undertaking is predicted to be virtually zero.

# Reptile Hibernacula

As indicated in Table 1 of the 2018 EIS, six site visits were made on Spring and Autumn season dates when snakes could have been at or near hibernacula.

Section 5.2.4 of the 2018 EIS documents that only Common Gartersnake was found in the study area and the largest number of snakes seen at one time was 2. Although the wooded slope located north of the two proposed development footprints could be considered to be candidate SWH for reptile hibernaculum based on the presence of the wooded slope and seepage areas within the woodland the defining criteria of a minimum of five individual snakes or 2 or more snake species was not met, so SWH for this factor was not confirmed.

Since the proposed development is downslope outside of the candidate SWH no impact on potential snake hibernation sites is expected.

# **Comment 8.** Tree removals and SAR bat habitat.

Table 1 in the present addendum describes the trees to be removed and the number of the aluminum tree tag that has been affixed to each tree.

Appendix 2 in the present Addendum contains the MECP's opinion on whether SAR might be affected. Appendix 3 in the present Addendum contains the information sent to MECP with the request for a SAR screening. Bullet (5) on the Findings page of the Synopsis of 2018 EIS describes the trees that need to be removed from a bat habitat perspective.

# **Comment 9.** Fish Habitat

Fish habitat was addressed in the 2018 EIS in report Section 8.2 and in Table 5. The peer reviewers have asked for additional discussion. The following text addresses elements of the PPS Section 2.1.6 and 2.1.8 and requirements of the Oxford County OP Section 3.2.4.2.3.

Regarding the PPS: yes the granny suite and garage are within lands adjacent to Stony Creek. The ecological function of the footprint area of the granny suite/garage is very limited since currently most of the footprint is paved driveway which drains away from the creek.

The proposed development will not require any removal of vegetation which shades the creek, stabilizes the creek bank or contributes leaf energy. The surface water infiltration contribution from the proposed development area will be maintained by discharging downspouts to the grassed lawn area between the new building and Stony Creek. Silt control fence and rapid revegetation of any soils disturbed by the construction footprint will prevent any potential for sediment to be washed into Stony Creek.

The silt fence will also act as a defining perimeter to prevent construction machinery from driving toward Stony Creek and to prevent stock piling between the development and Stony Creek.

With the foregoing discussion in mind, it is our opinion that there will be no negative impacts on the natural features or ecological functions of the Stony Creek fish habitat.

Regarding the Oxford County OP and fish habitat:

- (a) since it has been predicted that there will be no negative impacts on fish habitat the project does not need to be revised or modified;
- (b) appropriate mitigation measures have been described, namely: silt control fence, discharge of downspouts to the lawn, and quick revegetation of any disturbed soils;
- (c) the LPRCA has agreed that there is an appropriate setback between the building envelope and the creek bank and the creek channel has and will have vegetated margins in the future;
- (d) since there is no predicted loss of fish habitat, no compensation is required.

Given the proposed mitigation elements it is our opinion the Oxford County OP requirements relative to fish habitat have been met.

# 3.0 RECENT CORRESPONDENCE WITH LPRCA & MECP.

See Appendices 1, 2 and 3.

# 4.0 IMPACT ASSESSMENT FOR THE DRY SHED/WORK SHOP.

Figure 2 shows the location of a dry shed/workshop that has been proposed since the 2018 EIS was submitted.

The area of this shed had been inventoried during each of the 2018 site visits and it was also studied during site visits on July 12 and September 11, 2019.

# 4.1 Vegetation

The footprint for the proposed dry shed starts at the existing paved driveway and extends westerly across lawn to the base of the Sugar Maple woodland that covers the slope to the west.

The two Black Walnut trees growing in the footprint that would need to be removed are described in Table 1 and their approximate trunk and crown locations have been drawn on Figure 2. Tree number 150 is in poor condition, with many cankers and it is not producing nuts. It has no hollows or cavities of value to wildlife. Tree number 151 is healthy and is producing nuts. It has no hollows or cavities of value to wildlife.

It is recommended that a new native deciduous tree be planted within the grounds of the Veldman property to replace each of the walnuts that are removed. These trees should be cut down between November 1 and March 31 to avoid impacts on birds and other wildlife.

# 4.2 Federal, Provincial and Local Policies

# 4.2.1 Federal

# a. Species at Risk Act (2002)

The impact assessment and conclusions are the same as for the granny suite/garage footprint.

# b. Fisheries Act

The dry shed is located more than 60m from Stony Creek, so no impacts on fish or fish habitat in this watercourse are expected.

Silt fence, see Figure 1, and an existing earthen mound will separate the dry shed construction zone from the drainage swale to the west where flow was observed during Spring melt. This swale flows into the Paget Drain to the north and this Drain discharges into Stony Creek.

Revegetation of the dry shed area, as soon as is practical following construction will ensure that soil does not wash into the local watercourses, so fish habitat will be protected.

# c. Migratory Birds Convention Act (1994)

Site clearing is to occur between November 1 and March 31 to avoid impacts on nesting birds.

# 4.2.2 Provincial

# a. Provincial Policy Statement

The assessment and conclusions are the same as for the granny suite/garage footprint.

# b. Endangered Species Act (2007)

MECP has concluded that there will be no impact on SAR, see Appendix 2.

# c. Conservation Authorities Act and Ont. Reg. 178/06 and Ont. Reg. 178/07.

The LPRCA has concluded that there will not be impact. The proponent is currently preparing a Permit Application under Regulation 178/06 to obtain the necessary permit to build the dry shed within the regulated area.

# 4.2.3 Local

# a. Oxford County Official Plan (2015)

Since there are no features or functions present in the dry shed footprint and adjacent study area that were not considered in the granny suite/garage study area the impact assessment and conclusions are the same for the dry shed as they were for the granny suite/garage.

There will be no negative impact on features or functions that the Oxford County OP requires be assessed.

# 4.3 Stormwater Management

The dry shed will be fitted with eavestroughs and downspouts that will discharge to grassed areas adjacent to the shed. There will be ample opportunity for infiltration on the grassed areas. Given the small area of the dry shed roof we expect no negative impacts on surface water and groundwater quantity and quality.

# 4.4 Significant Wildlife Habitat

The impact assessment contained in the original 2018 EIS also applies to the dry shed study area since this location was inventoried and assessed in the original study as being an area where construction equipment would pass by to access the granny suite/garage footprint.

The preceding addendum text on SWH also applies to the dry shed study area.

Regarding Bat Maternity Colonies and the dry shed study area we have the following comments: as can be seen in Table 1, neither of the 2 Black Walnut trees that need to be removed to build the dry shed have hollows or cavities of value to bats and walnut leaf clusters are not known to harbour bats.

The November 1 to March 31 tree removal timing window would also help to avoid any impacts on any bat maternity colonies.

### 5.0 RECOMMENDATIONS

The following listed recommendations summarize the mitigation measures that will be implemented to avoid impacts on the important natural environment features and functions that are present in the study area:

- 1. The permit required by the LPRCA should be obtained before any earthmoving occurs.
- 2. Silt control fence should be installed in the locations shown on Figures 1 and 2 prior to any earthmoving and the silt fence should be inspected on a weekly basis and should be repaired immediately if repair or maintenance is required.

3. Turf grass should be established around the margins of each of the two construction sites as soon as is practical following completion of construction. Once the turf grass is established the silt fence can be removed.

4. Any tree removals should occur between November 1 and March 31.

5. Planting of replacement native deciduous trees (one for each tree removed) will be on the Veldman property in locations chosen by the owner.

6. A Tree Saving Plan satisfactory to the municipality should be submitted and be approved prior to removing any trees in the construction zones.

7. All other elements of the mitigation measures described in Tables 4 and 5 of the 2018 EIS should be implemented.

# 6.0 CONCLUSIONS

Assuming that the mitigation measures recommended are successfully implemented we expect no residual negative natural environment impacts from the proposed granny suite/garage or the dry shed construction.

Please contact me if there are any questions about this addendum report.

Report prepared by:

K. W. Dance, M.Sc.

President.

Dance Environmental Inc.

# **APPENDIX 1**

LPRCA email of 22 July 2019.

# 68 Concession Street W

From: Christopher Boothe (cboothe@lprca.on.ca)

To: dancenvironment@rogers.com

Cc: johnveldman@courtlandpm.com

Date: Monday, July 22, 2019, 1:01 p.m. EDT

#### Good Morning Ken

Regarding the proposal to construct a major addition to a single family dwelling and construct a non-habitable accessory building at 68 Concession Street West in Tillsonburg.

Staff will require a site plan confirming the location of the non-habitable structure and that it will not affect the drainage or alter the toe of the existing ravine slope. Staff can support the major addition as proposed.

Attached is the permit application form. Please complete the form and return it to me along with a finalized site plan and the construction details for all proposed works.

Thanks,

Chris

#### Chris Boothe, MEPP

Resource Planning Technician

Long Point Region Conservation Authority

4 Elm Street, Tillsonburg, ON N4G 0C4

Office: 519-842-4242 or 1-888-231-5408 ext.235

Email: cboothe@lprca.on.ca



2019 Permit Application - Fillable.pdf

1.5MB

# **APPENDIX 2**

MECP email of 27 August 2019.

# RE: SAR Screening - 68 Concession St., W., Tillsonburg, ON

From: Species at Risk (MECP) (SAROntario@ontario.ca)

To: dancenvironment@rogers.com

Date: Tuesday, August 27, 2019, 4:29 p.m. EDT

Hello Ken,

The Ministry of Environment, Conservation and Parks (MECP) has reviewed the information provided on the granny suite/garage addition and workshop proposal at 68 Concession Street, West, in the Town of Tillsonburg, Oxford County.

Given the that the workshop and granny suite/garage addition are proposed to constructed in an area of manicured lawn and driveway, as outlined in Figure 3, MECP has no concerns with this proposal under the Endangered Species Act.

Regards,

#### Kathryn Markham

Management Biologist

Permissions and Compliance Section, Species at Risk Branch

Ministry of Environment, Conservation and Parks

From: KENNETH DANCE <dancenvironment@rogers.com>

Sent: August 15, 2019 10:06 AM

To: Markham, Kathryn (MECP) <Kathryn.Markham@ontario.ca> Subject: SAR Screening - 68 Concession St., W., Tillsonburg, ON

# Kathryn:

Attached is information regarding this site where a granny suite/garage and workshop are proposed in the valley of Stony Creek, adjacent to an existing single family residence.

On behalf of the owner, John Veldman, we are seeking direction on how to receive MECP approval to proceed with the proposed buildings.

The attachments include:

- (1) correspondence with K. Buck , MNRF in Summer 2018;
- (2) a sketch of a proposed workshop which is an additional building not included in the 2018 correspondence to MNRF, nor in the EIS which we completed in

2018; and

(3) a synopsis of the inventory undertaken by us in 2018 and conclusions of the 6 Nov 2018 EIS which we completed.

If there are any questions please contact me.

As noted above, we are seeking direction on what needs to be done to receiver MECP clearance regarding SAR.

Thank you,

Ken Dance

Ken Dance, M.Sc.

President

Dance Environmental Inc.

807566 Oxford Rd. 29

R.R. #1, Drumbo, ON

**N0J 1G0** 

519-463-6156

Ken Dance, M.Sc. President Dance Environmental Inc. Phone: (519)-463-6156

Email: dancenvironment@rogers.com

# **APPENDIX 3**

Correspondence Sent to MECP Regarding SAR Screening Request.

# SAR Screening - 68 Concession St., W., Tillsonburg, ON

From: KENNETH DANCE (dancenvironment@rogers.com)

To: K.markham@ontario.ca

Cc: kathleen.buck@ontario.ca; johnveldman@courtlandpm.com; john@courtland.biz

Date: Thursday, August 15, 2019, 9:42 a.m. EDT

#### Kathryn:

Attached is information regarding this site where a granny suite/garage and workshop are proposed in the valley of Stony Creek, adjacent to an existing single family residence.

On behalf of the owner, John Veldman, we are seeking direction on how to receive MECP approval to proceed with the proposed buildings.

#### The attachments include:

- (1) correspondence with K. Buck , MNRF in Summer 2018;
- (2) a sketch of a proposed workshop which is an additional building not included in the 2018 correspondence to MNRF, nor in the EIS which we completed in 2018; and
- (3) a synopsis of the inventory undertaken by us in 2018 and conclusions of the 6 Nov 2018 EIS which we completed.

If there are any questions please contact me.

As noted above, we are seeking direction on what needs to be done to receiver MECP clearance regarding SAR.

Thank you,

Ken Dance

Ken Dance, M.Sc. President Dance Environmental Inc. 807566 Oxford Rd. 29 R.R. #1, Drumbo, ON NO.I 1G0

519-463-6156

Ken Dance, M.Sc. President Dance Environmental Inc. Phone: (519)-463-6156

Email: dancenvironment@rogers.com



DE-427B SAR Screening\_Response&Request 15Aug19.pdf 1.3MB



Fig A Workshop Dryshed 14Aug2019.pdf 612.9kB



DE-427B Synopsis\_of\_2018\_EIS 15Aug19.pdf 5.6MB



August 15, 2019.

# Synopsis of 2018 EIS for 68 Concession St., W. Tillsonburg.

# Site Visits

See Table 1. Eight visits occurred in 2018.

**TABLE 1.** Site Visit Dates, Times, Weather and Staff.

DATE TIMES (24 hr.)		(24 hr.)	WEATHER	STAFF	Purpose of Visit		
(2018)	Start	End					
April 23	15:10	15:42	Sunny, cloud 1%, 15°C, wind: Beaufort 1	KSD KWD	Spring vegetation,birds, snakes		
May 1	14:05	14:45	Sunny, no cloud, 22°C, wind: Beaufort 2	KWD JLD	Spring vegetation, birds, snakes		
May 8	12:50	13:20	Sunny, no cloud, 22°C, no wind	KWD JLD	Spring vegetation, birds, snakes		
May 16	13:50	14:20	Sunny, cloud 50%, 22°C, wind: Beaufort 1	KWD JLD	Spring vegetation,birds, snakes		
June 5	07:01	07:36	Sunny, bright, cloud 5%, 13°C, wind: Beaufort 1	KWD JLD	Breeding birds, snakes		
June 19	07:42	08:19	Sunny, cloud <5%, <sup>210</sup> C, wind: Beaufort 1	KWD	Breeding birds, snakes, vegetation, butterflies		
Sept. 24	13:05	14:11	100% cloud, 17°C, wind: Beaufort 1	KSD KWD	ELC, snakes, birds, vegetation		
Oct. 9	13:15	14:16	Sunny, cloud 5%, 29°C, Wind:Beaufort 2	KWD JLD	Snakes.		

# **LEGEND**

 $KSD = \overline{Kevin Dance}, M.E.S.$ 

JLD = Janet Dance

KWD = Ken Dance, M.Sc.

# **Findings**

- (1) See Table 2 bird inventory. No SAR breeding birds observed during any of the 8 site visits.
- (2) Vegetation: see Figure 3 ELC communities. Two common ELC communities present. No Butternuts present.
- (3) Snakes: only Common Gartersnake was found 2 at a time wat the largest number. No sign of a hibernaculum.
- (4) No signs of American Badger were observed.
- (5) No hollow trees or tree with loose bark are present adjacent to the proposed building locations. Two or 3 Sugar Maple trees in the 15 to 37cm dbh range would need to be removed to build the granny suite/garage. Two Black Walnut trees would need to be removed to build the workshop. All of these trees are on the outer edge of the wooded slope adjacent to the existing paved driveway so no significant impacts on bat habitat are expected.
- (6) The granny suite/garage and workshop undertaking would not impact the aquatic habitat in Stony Creek which would be protected by setbacks and silt control fence.
- (7) No Riverine Clubtails were observed in the study area and the Stony Creek habitat would not be impacted.

# **Conclusions**

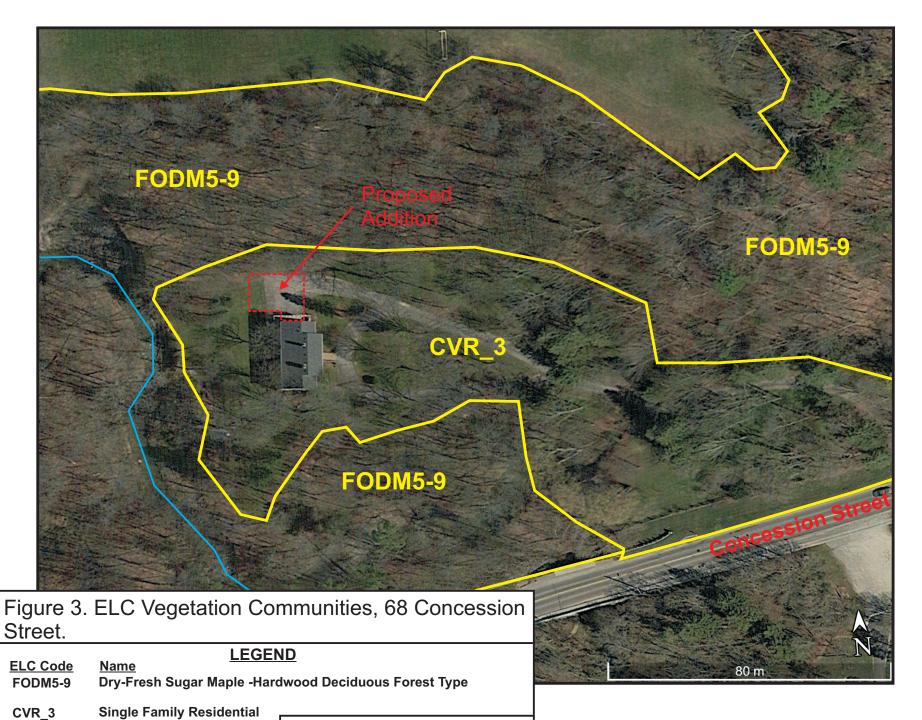
No SAR were found and no impact on SAR or their habitat is expected.

K.W. Dance. August 14, 2019.

2018 Bird Species List for 68 Concession St. W., Tillsonburg, ON. TABLE 2.

			Dance Environmental Biologist Observations					
Scientific Name	Common Name	CODE	Onsite	Offsite (Creek Valley)	GRANK	SRANK	COSEWIC	SARO
Branta canadensis	Ducks, Geese & Swans Canada Goose	CAGO	S(o)		G5	\$5		
Anas platyrhynchos	Mallard	MALL	S(o)		G5	S5		
Zenaida macroura	PIGEONS & DOVES	MODO	s		G5	<b>S</b> 5		
zenada macioura	Mourning Dove	WODO	,		G5	33		
Ceryle alcyon	KINGFISHERS Belted Kingfisher	BEKI	s	В	G5	S4B		
	WOODPECKERS							
Melanerpes carolinus	Red-bellied Woodpecker	RBWO	s		G5	S4	1	
Picoides pubescens	Downy Woodpecker	DOWO	S, B		G5	S5	I	
Colaptes auratus	Northern Flicker	NOFL	S		G5	S4B		
	TYRANT FLYCATCHERS							
Sayornis phoebe	Eastern Phoebe	EAPH	S		G5	S5B		
Myiarchus crinitus	Great Crested Flycatcher	GCFL	В		G5	S4B		
Vireo gilvis	VIREOS	WAVI			OF	CCD		
vireo giivis	Warbling Vireo	WAVI	В		G5	S5B		
Archilochus colubris	CROWS & JAYS Blue Jay	BI IA	C D	ь.	CE.	C.E.		
Corvus brachyrhynchos	American Crow	BLJA AMCR	S, B B	В	G5 G5	S5 S5B		
	CHICKADEES & TITMICE							
Poecile atricapillus	Black-capped Chickadee	вссн	s		G5	<b>S</b> 5		
	NUTHATCHES		1					
Sitta carolinensis	White-breasted Nuthatch	WBNU	s		G5	<b>S</b> 5		
	WRENS						-	
Thryothorus ludovicianus	Carolina Wren	CARW	В		G5	S4	1	
Troglodytes aedon	House Wren	HOWR	s		G5	S5B		
Turdue miaratorius	THRUSHES	AMBO		ا ي	05	050		
Turdus migratorius	American Robin	AMRO	S	В	G5	S5B		
Dumetella carolinensis	MOCKINGBIRDS & THRASH Gray Catbird	IERS IGRCA	В		G5	S4B		
Jone out officials		SHOA	"		00	G4D		
Sturnus vulgaris	STARLINGS European Starting	EUST		В	G5	SNA		
apero, zuci stanci istuana <del>, k</del> alena 156 N				-		(STATE OF THE OWNER)		
Dendroica petechia	WOOD-WARBLERS Yellow Warbler	YWAR	s		G5	S5B		
	SPARROWS		- 3x		100,000			
Melospiza melodia	Song Sparrow	SOSP	В	В	G5	S5B	1	
Junco hyemalis	Dark-eyed Junco	DEJU	s	-	G5	S5B		
	CARDINALS & ALLIES							
Cardinalis cardinalis	Northern Cardinal	NOCA	S, B	В	G5	S5	1	
Passerina cyanea	Indigo Bunting	INBU	s		G5	S4B		
Ouinochus quincuts	BLACKBIRDS	0000		_	0-	055		
Quiscalus quiscula Molothrus ater	Common Grackle Brown-headed Cowbird	COGR	S, B	В	G5	S5B S4B	1	
Moiotnrus ater Icterus galbula	Baltimore Oriole	BAOR	s	B B	G5 G5	S4B S4B		
	FINCHES							
Carduelis tristis	American Goldfinch	AMGO	B(o)		G5	S5B	1	

LEGEND S = spring (March 20, April 23 May 1.8, 16 2018) B =breeding season (June 5 and 19, 2018)



ELC polygon Boundary

Approximate Location of Stony
Creek



DE-427

Oct. 17/18