

Charle C	± -0	1 / 1		
Study Area:	Tighway 40	1/6		Observers: NS EM
Feature ID:	10-04			
		oint. Var	ntage P	oint Number: Tu-04-02
Vantage Point	UTM	Hem	~ ~ ~	Date: April 30, 2018 Start Time: 3:48 pm End Time: 41:05 pc
Easting: 054		: 4811	<u> </u>	Start Time: 3 48 pm End Time: 4.05pc
Weather Condi				(1)
Temperature (0		_Wind (f	-	NORTH WEST Wind (B.S.): 3
Cloud Cover (%	1: 5	Percipit	ation:	<u> </u>
Description of	Local Habitat Condition	one and A	diacon	t land lico
	nd SAS Surra			3 00 000
dua marsh. 1	nvasive phree	Kologo	4	Ploating loss downed trees and
other po	ssible basking	CHEC	ردی	this son of vantage point.
OTORIC PO	ssince mapping	Siles	101	ADURE SOIL OF VOILINGE PORTING
				* ,
Turtle species of	bserved during mon	itoring pe	eriod (Y	'es/No): <u>UES</u> .If yes, fill in the table below.
	Turtles Observed		•	5 , , ,
		T		Behaviour/ Description of visible traits (shape, colour,
Species	UTMs	Length	#	size, etc.)
UNKown	see about	Length	"	
CITIEOUNI	See above		-	splash off small log observed
Painted	Lt	15cm	1	P
turtle		- IJUM	<u> </u>	basking on Ing
- META		+		
		i		
			-	
		1		
		1		
				A-ra-
		<u> </u>		
		1		



Additional Notes	
Plenty of vegetestian and basishe sites insible from	
Vantage point.	
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wide to = Langed Form & ?	_
Midental: - Leonard Feog x 2	_
- piledited wood peekin	_
- mallard pair	_
	_
	_
	_
	_
Dhata Lau	
Photo Log	

NS

Photo Log	
Photo ID	Decription (locations, direction, observation, etc.)
20(16-2021	Overiew of vantage point #2
	0 1



Study Aros	4500	1161 (1		Observers F-0 /A/C
Study Area: Feature ID:	thanway !	401/10	_	Observers: EM /N(
	form for each vantage	ne noint Va	ntage D	oint Number: Transcription
Vantage Poi		e ponit. vai	uge r	Date: May 1, 2018
Easting: 05		ing: 48115	(0)	Start Time: 11:07am End Time: 11:33
Weather Co			01	potential file of all the times file say
Temperature	e(C°): 17°C	Wind (f	rom):	Wind (B.S.):
Cloud Cover		Percipit		Ø
-	of Local Habitat Cond	. 30		
				with edge communities of
	Trucket, tre	zed sw	amp	and contail mneral marsh.
Noeth	DOST OF Th	e pond		200m is trighway 401. Ket suppound the wetland.
Certific	water 100%	1 mail	TVUC	
Cherr	Jun 92 1001	· , 11100	717	16, 35% Swampthicket
Turtle specie	es observed during m	onitoring pe	eriod (Y	'es/No): NO. If yes, fill in the table below.
	of Turtles Observed			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
				Behaviour/ Description of visible traits (shape, colour,
Species	UTMs	Length	#	size, etc.)
	011113	- Length	"	3120, 6101)
				7
			/	
	/			
	/	_		
	4			
		_		
-/-				



Additional Notes
Dond has conited shrub cover and control the cover
Dead vegetation in the cattail march and swamp
thicket are present and previde backne opertuities
but this is Pairly limited. Water appears stament
and cultivert anthropospic avidence include
agelose, a large tree stand and an adjacent
trail leading to the panol.
Track Control of the

NS

Photo Log Photo ID Decription (locations, direction, observation, etc.) Overious of vantele



Study Area:	F1 (1-11) C1 . (10	111		Observers: Em /// C				
Study Area: TI Shway 401/10 Observers: Fm / \ S								
Vantage Point UTM Date: May 1, 2018								
Easting 0571 690 Northing: 4811 665 Start Time: 10:33 End Time: 10:53								
Weather Conditions								
3	-1 - 4 -	Wind (f	rom).	SW Wind (B.S.): 2				
Cloud Cover (%								
cloud cover (70	Cloud Cover (%): Percipitation:							
Description of Local Habitat Conditions and Adjacent Land Use: Open water aguatic and with 70% open water and 20%. Swamp thicket and floating debais and vegetation. Surranding and is a deciduous forest and the pand is fizhed by swamp thicket and treed swamp. Emergent vegetation not observed. Turtle species observed during monitoring period (Yes/No): NO. If yes, fill in the table below.								
Description of 1	Turtles Observed							
				Behaviour/ Description of visible traits (shape, colour,				
Species	UTMs	Length	#	size, etc.)				
			20.00					
11								
E-								
	<u> </u>							
1		1						



Additional Notes
Pand appeared to be suitable trette nabitat with
abundant basking locations in the form of flooting
Toop, and wooder debris- water colour appeared
Rusty in colour. Threa is very open without tree
conex, pasibly apeater chance of predation.

Photo ID Decription (locations, direction, observation, etc.)

2037-2060 Overnew Of Vantage Point



	7 0 1 1 2	1 (2)			ı
	tighway 40	1/6		Observers: EM NS	
Feature ID:	14-07				
	rm for each vantage po	oint. Var	itage P	100	1
Vantage Point				Date: MAY 1, 2018	
Easting: 057		4815	703	Start Time: 09:54 End Time: 10:21	
Weather Cond					
Temperature (0		_Wind (f	-		
Cloud Cover (%	5): 80%	Percipit	ation:	6	
	Local Habitat Conditio				
1				agratic pard surrended by	
	arch, and as			swamp thicket and	
Enpleyed	1, 0,		ick		
north u	- / - / - / - / - / - / - / - / - / - /	The	1	and has 80% open water	130 000
and 20	1. Vegetation.	L 141	ona	lutifolia and Phallaeis arund	inicea)
Turtle species	observed during monit	toring ne	riod (V	'es/No): UES .If yes, fill in the table below.	
	Turtles Observed	toring pe	1100 (1	'es/No): UFS .If yes, fill in the table below.	
	1	(\			
		(cm)		Behaviour/ Description of visible traits (shape, colour,	
Species	UTMs	Length		size, etc.)	
Chrysemys	71 1	15	3	- Basking on log at pands edge.	
joicter	11	20		- Basking on Strimp in pand.	
-	11		,	Entered water during approach	
	(1)	10		- Basking in cattail vegetation	



Additional Notes
Five Turtles observed from a distance as team
appeached vantere point 3 tup for were observed at
the pends edge basking on an energent los one
typite was operved parking in an adjacent
area with cattail veretation. One nietce uses observed
basker on an energent string. Upon approach all
turtles entered the world except the turtle in the
law him veretation. During the surrect three of these
turkles energed team the water to back in the
Cattail was tation with the original tixtue throt
Observed bushing there

Photo Log

Photo Log	
Photo ID	Decription (locations, direction, observation, etc.)
2073	Chrusemus Picta
2078	Overnew of vantee point
2029-10	so overview of vantage point
2032	Basky chrusemus picta.



Study Area	High war 11	01/		Observers: Em /N.S		
Feature ID:	Highway 4	ULIA		Observers: Em /N.S		
		oint Var	itage P	oint Number: TU-08-01		
Vantage Point		• •				
Vantage Point UTM Easting: 17 0570688 Northing: 4810099 Start Time: 2:33 pm End Time:						
Weather Cond		. 401	7093	Start time. & , 33 FM Lind time.		
	(C°): 17°C	\Mind (f	rom):	Wind (B.S.): ✓		
Cloud Cover (9		_ vviila (i _ Percipit		Ψ Willia (B.3.). η		
cioda cover (/	01.	rereipit	acion.	/		
Description of FOD a Shallow Vegetati	Local Habitat Condition Mod FOM a Water 0.5 en Phalasi	ons and A	eut Cous Lu d	t Land Use: to the boud pond with isted a lot of submertent in a ence		
•	observed during moni Turtles Observed	toring pe	eriod (Y	es/No): If yes, fill in the table below.		
				Behaviour/ Description of visible traits (shape, colour,		
Species	UTMs	Length	#	size, etc.)		
				ti ak y		
		1				
	/					
		<u> </u>				
Comme	The state of the s	the second particular and second second second second	A. 5	Note probability to the second		
		1		A Salanda di Billianna		
		 		and the same and the		
		+		- Thompson and the state of the		
		=				
	+	-				
	1					



Additional Not	tes
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	The second section of the second section of the second second second second section section second s
Photo Log	
Photo ID	Decription (locations, direction, observation, etc.)
2006 -	evervien from ventage paint
2004	
	



Study Area:	tial and that	11.		Observers: F. 00 /c IC
	tighway 401	10		Observers: EM/NS
Feature ID:	rm for each vantage po	nint Var	tago P	oint Number:
		Dirit. Vai	ilage P	
Vantage Point Easting: 057		U8D 8	2101:2	Date: May 1, 2018 Start Time: 12:15 pm End Time: 12:350
Weather Cond		-100 8)= ·/C	Start Time: 12:15 pm End Time: 12:35p
	c°): 23 °C	Wind (f	rom).	8w Wind (B.S.): 2
Cloud Cover (%		- Percipit		Willia (b.s.). 2
(,	7 10 6			
Description of	Local Habitat Conditio	ns and A	djacen	t Land Use:
	2	200		with 80% open water, and
	Hail marsh.			
Codarsa	nd deciduais	Pres	+. TZ	e southern edge is certiful
meada	and anthrop	openic	- hon	inu paripment storace lot.
Abundan	t basking lord	tions	ON '	the eastern odge of the and
woodly (and fallsh log	p. We	Sterr	elge has cattail vegetation mats-
Turtie species	observed during monit	foring pe	riod (Y	es/No): \bigcirc . If yes, fill in the table below.
Description of	Turtles Observed			
				Behaviour/ Description of visible traits (shape, colour,
Species	UTMs	Length	#	size, etc.)
				2
				10 No. 10
_				
				10.00

	1			
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Additional Note	S U	
0 1	appears to be suitable turtle habitat.	
Cervera P	emergant loss plenty of catterl voietation mak	
arel vap		
Praimite	to construction equipment storage may be	
in flue and	ine	
-1/1 ware		
S		
2000		
1		
/		
Photo Log		
	Decription (locations, direction, observation, etc.)	
2050-2063	Overview teem vantage point #1	
2050 2000	Overview 1291 Mail lake Holling	

NS



Study Area: 11	Schuscus 401	11-		Observers: EM / NS
Feature ID: 7	ichuscus 401	110		Observers.
	m for each vantage po	oint. Var	tage P	oint Number: TU -10 -0)
Vantage Point I				Date: WAY 1, 2018
	3408 Northing:	480	845	7 Start Time: 13:38 End Time: 13:48
Weather Condi		, 00	- 10	, 12 10 00 200 10 [8
Temperature (C	:): 24°C	Wind (f	rom):	SW Wind (B.S.):
Cloud Cover (%)	10.0	- Percipit		
Pand operates separates edge. Cut	vegetation and the two the pad	utic She pand Sw a	wind sectional	the 80% open water and 20% tailet evamp. Fieldhy lane ons anderso of cattail alone woodlend to the south
	bserved during monit Furtles Observed	oring pe	riod (Y	es/No): US .If yes, fill in the table below.
		(cm		Behaviour/ Description of visible traits (shape, colour,
Species	UTMs	Length	#	size, etc.)
Chrysemy		io	i	Basing, swimming
oicta	11	15	1	Basker
Unknaen	11	unkeens	1	moved from baskete into poid.
				- A-1
				and the control of th
				-



Additional Notes

Paral Lavalle 20 1 20 1 20 Malle Carrier State of
Pand largly without cover Anthrogenic features induced a poad (Fielding Lane), picnic table and
farem fencing.
Talon Folia .

Northern lespard fregs heald cally
The state of the s

PHOTOLOG	
Photo ID	Decription (locations, direction, observation, etc.)
2080-2080	1 Overnew vantal point #1 facing West
2083-2082	
L787	
	1



<u> </u>		-,		
Study Area:	Jahway 401	16		Observers: M / \\S
Feature ID:	U-10 3			, ————————————————————————————————————
	rm for each vantage po	oint. Va r	ntage P	
Vantage Point		1100	ر ا الا 	Date: May 1, 2018
Easting: 057		480	5456	Start Time: 13:50 End Time: HID
Weather Condi				
Temperature (C		_		Wind (B.S.):
Cloud Cover (%)): 107.	Percipit	ation:	
Pand O Veretation Cedan S Multiple	and debris	guati V. nee ul miy	c (shbo eral	t Land Use: 601. Open worke 801. Floating metry Communities include 2 marsh and Fielding lane 1 floating vegetation preside
	bbserved during monit	toring pe	eriod (Y	es/No): <u>yec</u> . If yes, fill in the table below.
		(cm)		Behaviour/ Description of visible traits (shape, colour,
Species	UTMs	Length	#	size, etc.)
	See abae	20	1	large furtle basking on faller lag
Cheysenys	Se ame	20		Carge Mid Ce Pastry or factor 104
produ				
Chaysemys	seeabore	10	Į.	trætte basking on fællen tree limb.
-				
	,			
	-			
1 /				· · · · · · · · · · · · · · · · · · ·



Additional Notes
Community is attached to cattail mineral
marsh on the east which may provide habitate
Submencent veretation, a deep layer of collected
delasis under the open water and a patially
noon canopy provide excellent habitat with variations
in temperatture, cover from predators and a food
cauxie. Submenent veletation covers over 40% of the
pand Pand is also adjacent to swamp thicket.

Photo Log

Photo Log	
Photo ID	Decription (locations, direction, observation, etc.)
2090-2094	Overnew Vantage point #2
2098-2097	Raskine turter
2106	Basking thethe 2
2107	Logs and deep debreis layer, predator protection
2108	Logs and deep debres layer predator pretection submercent veretation, food course.
-	**



Study Area: H	1101/6			Observers: A AA // A /O
		A A		Observers: A. Minielly, M. Ross
Fill in survey for	m for each vantage no	oint Var	ntage Dr	pint Number: TU - EDTH - Transect
Vantage Point	IITA	Jiii. • 61		
. "		41/A		Date: May 7,2013 Start Time: 3.42 pm End Time: 4:05 pm
Easting: N/Weather Condi		N/A		Start Time: 3.42 pm End Time: 4:05 pm
		VA/ind /f	1·	Mind D.C.
Cloud Cover (%	(°): 16°C	_ vvinu (i _ Dorcinit	rom): :ation:	N/A Wind (B.S.): 3
Cloud Cover (%	1. 10%	Percipit	ation.	Vone
Description of I	local Unhitat Canditio		diaaaa	land Haar
-	Local Habitat Conditio			
Mursh co	mounity surro	unded	by	mixed swamp community to the
North, S	outh and west	· HIM	Muly	6 NOTTH to East of march Murch
dominatel	by typhon s	p (70	90 CC	sites. Averya unter depth of 20 m
Could pre	ourde suitable	- br	sking s	sites. Averya Unter depth of 20 cm
Tumble energies a	haamiad dissina maasi		! - al /V	and the same of the same and a house
	Furtles Observed	coring pe	erioa (Ye	es/No): No .If yes, fill in the table below.
Description of	Turties Observed	ī .		
			ll	Behaviour/ Description of visible traits (shape, colour,
Species	UTMs	Length	#	size, etc.)
3				
		1		
		-		
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Additional Notes	
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Photo Log

Photo ID	Decription (locations, direction, observation, etc.)
0848	Looking NW from seduc of Mush
0849	Lookin E from 5 else of Mursh
0880	looking if for seduc of much
0851	water depth and emount cover at South else of much
0352	Looking Nil. Dead trees in morsh. Mille of Polynon
0653	Looking E. Mildle of rolygion
0855	Example of cleer trail through march
0 356	war depth is middle of pond.



Study Area:	401/06	-41		Observers: Olga Hopach
Feature ID:				ON CAST) Andrew Minielly
Fill in survey fo	orm for each vantage p	oint. Var	ntage Po	oint Number:
Vantage Point	: UTM TU - 12 -	-01		Date: May 3, 2013
Easting:	Northing	: 🐪	Comments.	Start Time: 2:30 End Time: 2:5
Weather Cond		0.0		East
Temperature ((c°):43,4502109	_Wind (f	rom): –	80. 1367819 Wind (B.S.):
Cloud Cover (9	6): 0	Percipit	ation:	Mone
	Local Habitat Condition	ons and A	\djacen ->	t Land Use:
small por	or 2 20 m	XI) M.	located in CUMI/ Buckthom this
-ringe St	ecies include	1 - 1	way	edar, Willow? Common P buck-thorn, wh
	Isters parasper o.			
IW again	TILL NORTH I	IFF)	SATHER	gent rea: phraamitis patches
U			- (
Furtle species	observed during moni	toring ne	riod (V	es/No): \(\ougle \in \) If yes fill in the table below
•	observed during moni Turtles Observed	toring pe	eriod (Y	es/No): Yes .If yes, fill in the table below.
•	observed during moni Turtles Observed	toring pe	eriod (Y	
Description of	Turtles Observed			Behaviour/ Description of visible traits (shape, colo
Description of	Turtles Observed UTMs	Length		Behaviour/ Description of visible traits (shape, colo size, etc.)
Description of ipecies	UTMs 43,4501968	Length		Behaviour/ Description of visible traits (shape, colo size, etc.) Midand Jurile Was basking m
Description of	Turtles Observed UTMs	Length		Behaviour/ Description of visible traits (shape, colo size, etc.) Midland furtle was basking an a rock in water in far rock pil
pecies	UTMs 43,4501968	Length		Behaviour/ Description of visible traits (shape, colo size, etc.)
pecies	UTMs 43,4501968 -80,1363473	Length		Behaviour/Description of visible traits (shape, colorsize, etc.) Midland turlo was basking an arock in water intar rock pill
Description of Species	UTMs 43.4501968 -\$0.1363473	Length		Behaviour/ Description of visible traits (shape, colo size, etc.) Midland furtle was basking an a rock in water what rock pill on edge. Dasking in phragmits patch;
Description of Species	UTMs 43,4501968 -80,1363473	Length		Behaviour/ Description of visible traits (shape, colo size, etc.) Midland furto was basking an arock in water intar rock in water intar rock pile on edge.
Description of Species	UTMs 43.4501968 -\$0.1363473	Length		Behaviour/ Description of visible traits (shape, colo size, etc.) Midland furthe was basking an a rock in water mear rock pilling edge. Dasking in phragmites patch,
Description of Species	UTMs 43.4501968 -\$0.1363473	Length		Behaviour/ Description of visible traits (shape, colo size, etc.) Midland furtle was basking an a rock in water wear rock pillion edge. DASKING IN phragmits patch
Description of Species	UTMs 43.4501968 -\$0.1363473	Length		Behaviour/ Description of visible traits (shape, colo size, etc.) Midland furtle was basking an a rock in water wear rock pillion edge. DASKING IN phragmits patch
Description of Species	UTMs 43.4501968 -\$0.1363473	Length		Behaviour/ Description of visible traits (shape, colo size, etc.) Midland furtle was basking on a rock in water wear rock pill on edge. Dasking in phragmits patch
Description of Species	UTMs 43.4501968 -\$0.1363473	Length		Behaviour/ Description of visible traits (shape, colo size, etc.) Midland furthe was basking an a rock in water mear rock pilling edge. Dasking in phragmites patch,
Description of Species	UTMs 43.4501968 -\$0.1363473	Length		Behaviour/ Description of visible traits (shape, colo size, etc.) Midland furtle was basking an a rock in water what rock pill on edge. Dasking in phragmits patch;
Description of Species	UTMs 43.4501968 -\$0.1363473	Length		Behaviour/ Description of visible traits (shape, colo size, etc.) Midland furtle was basking an a rock in water wear rock pillion edge. DASKING IN phragmits patch
Description of Species	UTMs 43.4501968 -\$0.1363473	Length		Behaviour/ Description of visible traits (shape, colo size, etc.) Midland furtle was basking an a rock in water what rock pill on edge. Dasking in phragmits patch;
Description of Species	UTMs 43.4501968 -\$0.1363473	Length		Behaviour/ Description of visible traits (shape, colo size, etc.) Midland furtle was basking an a rock in water wear rock pillion edge. DASKING IN phragmits patch
Description of Species	UTMs 43.4501968 -\$0.1363473	Length		Behaviour/ Description of visible traits (shape, colo size, etc.) Midland furthe was basking an a rock in water mear rock pilling edge. Dasking in phragmites patch,
Description of Species	UTMs 43.4501968 -\$0.1363473	Length		Behaviour/ Description of visible traits (shape, colo size, etc.) Midland furtle was basking an a rock in water wear rock pillion edge. DASKING IN phragmits patch



Additional Notes

Substate appear to be mineral, muck
- pond is likely a drainage feature that drains into Hease distri
least (
Ror pile on west edge man evous de suitable hosking habite
There is not a lot of evidered Mineral life; on edge &
that could precide resting habitat
y

Photo ID	Decription (locations, direction, observation, etc.)
1987	General OVERVICED shot, looking E
0988	NU comer of pond.
0889	SW corner of pond.
0890	Book pile on E side of pond.



Study Area: 4	701/6			Observers: A. Mini elly M Ross
Feature ID: 17	11 - 1805	W-13		Tu= 13 - T-
Fill in survey for	rm for each vantage po	oint. Var	ntage P	oint Number: Tu-Hoosa - of Transcot
Vantage Point	UTM Transed			Date: May 6/18
Easting: N/	A Northing:	N/A		Start Time: 10:43 End Time: 10:43
Weather Condi		19771		
Temperature (C		Wind (f	rom):	₩ind (B.S.): 3
Cloud Cover (%)		Percipit	-	None
-	Local Habitat Condition cathail mass a hate present. Re to wost		-	t Land Use: HY/Y 6 and Rural residential land porty to East and North East
-	bserved during monit	toring pe	eriod (Y	es/No): No .If yes, fill in the table below.
Species	UTMs	Length	#	Behaviour/ Description of visible traits (shape, colour, size, etc.)
Species	OTIVIS	Length	"	size, etc.)
		-		
	<u> </u>			
	384			

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Additional Notes	
Doncustable text	le habitat present within Hoosa. Materiouse present
Hoof Harten	is it is not like the from though
IN FLOORS, MECOLO	1, 14-15 MI VISCOR 1.0M HUOSA.
 	
	-
	<u>/</u>
	,
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Photo Log

Decription (locations, direction, observation, etc.)
4005a new highwar 6, looking NW. Dense Cottail march
Hoosa near hishway 6, lanting SE
Hoose near highway 6. Inokthan N
Picture of the dried up areas within mursh
Phragnites at SE corner of property
General site oholos of dence cottail marsh



	Study Area:	-luis 401/6			Observers: A. Minielly	a. Hro pach
		0-01				8
h	Fill in survey for	m for each vantage po	int. Van	tage Po	int Number: Tu-01- Trai	nsect
,		JTM Trunsect				
	Easting: N/		N/A		Date: May 8,2018 Start Time: 8,57 AM	End Time: 9:20AM
	Weather Condi		14771		0.3.	
	Temperature (C	°): 0°6	Wind (fi	rom):	Wind (B.	S.): 2
	Cloud Cover (%)		Percipit			
	Description of L	ocal Habitat Conditio	ns and A	djacent	Land Use:	
	Refer to	habitat assi	cssmer	nt fo	orm for details.	
					Market Barrer Sarr	
	***************************************		333			
				50		
	Turtle species o	bserved during monit	toring pe	riod (Ye	es/No): No .If yes, fi	ll in the table below.
	Description of 1	Turtles Observed				
					Behaviour/ Description of visib	ole traits (shape, colour,
	Species	UTMs	Length	#	size, etc	· ·
			 			
•						/
			 			
	· -··					
	617					
	er.					
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Additional Note	es
	
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Photo Log	
Photo ID	Decription (locations, direction, observation, etc.)
0.866	looking South from middle of truncet. Comerci Conditions



Chudu A	<i></i>		1.	01
Study Area:	10-02-01 H	wy 401	16	Observers: A Minicly
Feature ID:	10-02			· · · · · · · · · · · · · · · · · · ·
Fill in survey fo	orm for each vantage p	oint. Var	ntage P	Point Number: TU-62-01
Vantage Point	UTM			Date: May & 2018
Easting: 566	751 Northing	: 48111	162	Start Time: 8 12 am End Time: 8 32
Weather Cond	litions			
Temperature (C°): 15°c	_Wind (f	rom):	Wind (B.S.): 1
Cloud Cover (%	6): 5%=	— Percipit	ation:	Noos
Description of	Local Habitat Condition	ons and A	\djacer	nt Land Use:
	habitet assess			
	., 6,6,5,1	_11-1-2-1	10171	
				
				
	observed during mon	itoring pe	eriod (Y	(es/No): ye5 .If yes, fill in the table below.
Description of	Turtles Observed			•
				Behaviour/ Description of visible traits (shape, colour,
Species	UTMs	Length	#	size, etc.)
MPTU			1	
1*17 1 0		20cm	1.	Bushing on old cattail stems
		+		
	-	 		/
		+		
		-		<u> </u>
		-	<u> </u>	
			3	
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		+/		
		 		
<u>_</u>		1		
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	1			
		-		
	-	+		
		+		



Additional Notes
Byoslings observed with the mother.
3 doslings observed with the mother
9 9
Resident walked by deather after the survey and noted that he usually substructs several furthes nesting on the embankments every year.
usually substruct several furtles nesting on the embentments
every year !

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P	h	n	ŧ١	n	ш	0	σ

Photo Log		
Photo ID	Decription (locations, direction, observation, etc.)	
0B61	Looking W from Venture points General netroliew shot	
0862	LAOKING Six From Venture point. General Overview Shot	
0863	Looking NW form Ventuce point. General overviewshot	
0864	booking is vesting landa boose and 3 anslings	
OBBS	Tooking U. Location of MPTU subting	
	./	
		-



ooto Log	
noto Log	TU
hoto Log noto ID Decription (locations, direction, observation, etc.)	NTU
noto ID Decription (locations, direction, observation, etc.)	



Study Area:	401/06			Observers: Dia a Hrasach
Feature ID:	U-02			
Fill in survey for	rm for each vantage po		tage Po	oint Number: 12
Vantage Point				Date: May 8
Easting: 5667	714 Northing:	481124	7	Start Time: 15 End Time: 1:35
Weather Condi	tions			
Temperature (0		_Wind (fi		NDNF Wind (B.S.):
Cloud Cover (%): 0	Percipit	ation:	NONE
Description of Refer to	Local Habitat Condition	ns and A	djacen	t Land Use: form for details
Generally		ater 1		. The arguel noth suits as a
Suctable	Mestina holis	at or	000	unter with Public (man walking due
	observed during moni			
•	Turtles Observed	**************************************	.,,,,,	
	- Company			Behaviour/ Description of visible traits (shape, colour,
Species	UTMs	Length	#	size, etc.)
эрссісз	011413	congen	π,	3120, 000.)
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DATA-2014-09-04-Turtle Over_Bask Survey Form

Photos of rest sites on 4 potentially predated excavated turtle
1-2014-09-04-Turtle Over_Bask Survey Form 43.4507556 -80.1754094 Page Long
1-3.4507556 -80.1754094 Page Long
1-3.450756 -80.1754094 Page Long
1-3.45076 -80.1754094 Page Long
1-3.45076 -80.1754094 Page Long
1-3.45076 -80.17540 Page Long
1-3.45076 -8



_				
Study Area: μ	lighway 401/6			Observers: A minelly O. Hropach
Feature ID: 🖪	11-03		3	2
Fill in survey fo	orm for each vantage p	oint. Va r	tage P	Point Number: 10-03-01
Vantage Point				Date: May 8,2017
Easting: 569	695 Northing	: 4811	242	Start Time: (:26 PM End Time: 1:46 PM
Weather Cond				
1	(C°): 20°0	Wind (f	rom):	
Cloud Cover (%		– Percipit		None
			_	None
Description of	i I aani i lahitat Canditia		d!	Aland Has
	Local Habitat Condition		_	
Se previo	usly completed	survey	, 10	rm
	· · · · · · · · · · · · · · · · · · ·			
				/
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				The state of the s
Turtle species	observed during moni	toring pe	riod (\	(es/No): Ye S . If yes, fill in the table below.
Description of	Turtles Observed			
		1		Debesies / Desertation of stable Australia / above and as
				Behaviour/ Description of visible traits (shape, colour,
Species	UTMs	Length	#	size, etc.)
MPTU	43.450484		8	Basking on log in the center of the pond
	-80138726		,	,
MPTU	43.450517.		3	Three furtles hasting on old stump.
	43.450517, -80.139808			
MPTU	43,450251		3	Busking on fallen low
	-20.138664		19	3 60 32 12 13
	80.1 38001			
MPTU	43.450232.	 	1	Buskin on fallen los
raio	-80.138562	 		1315 RM Fallen 100
	- 00.108562			62
		-		
		 		
		-		/
			/	1
	1	1960		
		/		
	//			
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Additional Notes
Several suitable busking sites around the edge of pond. Downed tree in the
middle of none also provides suitable basking site, Poul receiving full sun
Several suitable busking sites laround the edge of pond. Downed tree in the middle of pond also provides suitable basking site. Pond receiving full sun with little Shade being cust over pond.

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\mathbf{r}	no	ITO	-114	שר

Photo Log	
Photo ID	Decription (locations, direction, observation, etc.)
0879	Looking S from Wantage point General overview.
0880	Looking Sw from Vantage point. (seneral arrich)
0881	Looking S from Vantage point Ceneral Overview. Looking Sw. from Vantage point General Overview Looking Sw. Lurge basking site in middle of pond. 2 turtles basking



	Study Area:	101/06			Observers: 0/90 Hropsih		
- 1		U-03					
ľ		m for each vantage po	int. Van	tage Po	oint Number: Z		
1	Vantage Point UTM TU-03-02 Date: May V. 2018						
	Easting: 5696	Northing:	48111	91	Start Time: 1:55 pm End Time: 2:75RM		
)	Weather Condi	tions					
	Temperature (C	°): 20	Wind (fr	rom):	Gth/h-East Wind (B.S.):		
	Cloud Cover (%)	: 0	Percipit	ation:	None		
302							
		ocal Habitat Conditio					
	See hab.	tat assessi	went.	TUT	W		
		3 6		1	A Conferment to the		
	- Ania(e)	nt lavid use	15 1	ndul	brial, com cast pipe		
	- U						
	Turtle appeies a	bserved during monit		wind /V	es/No): \(\frac{\lambde{\gamma}}{\lambde{\gamma}}\) . If yes, fill in the table below.		
	•	oserved during monit furtles Observed	oring pe	rioa (1	es/Noj:		
	Description of 1	urties Observed	1				
			'		Behaviour/ Description of visible traits (shape, colour,		
	Species	UTMs	Length	#	size, etc.)		
	MPTU	43,4506276	20(m		I midland oninted turtle bocking		
		-80.1390957			mo long		
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Additional No	ites
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Photo Log	
Photo ID	Decription (locations, direction, observation, etc.)
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	Study Area: Д	w 401/6			Observers: Andrew Minidly	
	Feature ID: 🔨	1-12				
h	Fill in survey for	oint Number: 70-63-03				
Vantage Point UTM Date: May 8, 2018						
	Easting: 56 9	618 Northing:	Start Time: 1:53 PM End Time: 1:13 PM			
	Weather Condi					
	Temperature (C	°): 20'L	Wind (f	rom):	SEWind (B.S.): 2	
	Cloud Cover (%)	: 0%	Percipit	ation:	None	
		ocal Habitat Conditio		_		
	Refer to	habitat assessi	nent	form	for details	
					The state of the s	
					Pin Danie	
					to the house of the state of th	
		bserved during monit Furtles Observed	toring pe	riod (Y	es/No): yes, fill in the table below.	
	Description of 1	urties Observed		-		
					Behaviour/ Description of visible traits (shape, colour,	
	Species	UTMs	Length		size, etc.)	
	MPTU	43.450270	Dim	2	Backing on faller branch (lound 15 cm long)	
		-80,138646			2	
	MPTU	43.450327		3	Busking on Fallen branch	
		-80,138795)	
					,	
		<u> </u>				
			i			
	-					
					-	
	/					



ditional Notes
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Photo Log

Photo Log	
Photo ID	Decription (locations, direction, observation, etc.)
0383	Looking W from Juntuge point. General overview
0884	Looking Sid from Vontage point General overview
0885	Looking Mid from Vantage , soint, General Overview
0886	Looking NW Turtle hasking on log.
	3 3



Study Aron II	1. 11.//			Observation A				
	luz 401/6			Observers: A. Minielly , O. Hropach				
Feature ID: 10-04								
Fill in survey form for each vantage point. Vantage Point Number:								
Vantage Point UTM Date: May 8,2018								
Easting: 5 7		3: 4811	318	Start Time: 0:06 End Time: \0:26				
Weather Cond								
Temperature (Wind (f						
Cloud Cover (%	6): Ø %	Percipit	ation:	Vone				
	Local Habitat Conditi							
Total a sussissi	ahaanna Laburtuu oo							
	observed during mon Turtles Observed	itoring pe	eriod (Yes/No): YeS .If yes, fill in the table below.				
Description of	Turties Observed	1	_					
				Behaviour/ Description of visible traits (shape, colour,				
Species	UTMs	Length	#	size, etc.)				
MPT() x8	43,4514137 -80,1223026	15 cm	8	8 turtles basking on log. 15 to 25 cm long.				
2011	-80,1223026	125 mary	h					
- mar like				7				
MPTU	43.45137801		2	2 tertles basking on lay 15 cm long				
* *	-20.1223999							
,	10.11							
h PT U	43.451430 /		1	Hurtle basting on log. loca long				
	-20.12275		-3-	THUT BESTUN ON TOUR TONING				
MPTU	43.4514137/		4	4 twites basking on longrowt to first				
111/0	-80.1223026	1	<u> </u>	B observed				
	801122020	 		/				
MPTU	43 44276	+	1	I tustle business on met of downed typhe stems				
1110	43,451265, -86,112386	+	-	Link share of met of any near				
	DOLL FOR	+	<u> </u>	TYPIL SONS				
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ditional Notes

Photo Log

Photo Log	
Photo ID	Decription (locations, direction, observation, etc.)
0867	Looking NW. Tustles hasking on lan
<u>0868</u>	Looking 5, General Overvice
0869	Looking NW. General Overview
0870	Looking Nid: Tuffles hasking
	J



	Study Area: 4	101/6			Observers: A. Minich, O. H. Copach		
	Feature ID: 🔨	0-04			, s		
Fill in survey form for each vantage point. Vantage Point Number: 10-04-02							
	Vantage Point l		Date: May 8,2018				
	Easting: 5 76	Start Time: 10:30 AM End Time: 10:50 AM					
Weather Conditions							
	Temperature (C°): 16°C Wind (from): East Wind (B.S.): 1						
	Cloud Cover (%): O'/- Percipitation: None						
		4					
	•	ocal Habitat Conditio.					
	Refer to	habitat asses	5mont	form	n for defails		
	Turtle species s	haamaal duulma maali		wind /V	in the table below		
		bbserved during monit Furtles Observed	toring pe	riou (1	es/No): Yes, fill in the table below.		
ı	Description of 1	lurties observed					
					Behaviour/ Description of visible traits (shape, colour,		
	Species	UTMs	Length		size, etc.)		
	MPTO	43.450526/		19_	19 tustles basking on two adjusent logs. Turtles range in size from 10 to 25 cm in		
		- 80, 173 436	_				
<u>.</u>					length.		
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Additional Note	S		
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Photo Log

Photo Log	
Photo ID	Decription (locations, direction, observation, etc.)
0871	Looking SE. General overvices.
0872	LOOKING E General Overview
0873	Looking SE. General Overview Looking SE. Multiple trustles basking on long.



	Hwy 401/6			Observers: A. Minelly M. Ross			
Feature ID:	Feature ID: (1)=05						
Fill in survey	Fill in survey form for each vantage point. Vantage Point Number: 70 -05 -0						
Vantage Po	int UTM			Date: Maz 7, 2013			
Easting: 5	71543 Northin	g: 431	777	Start Time: 12:52 PM End Time: 11:12 PM			
Weather Co	nditions						
Temperatur	e (C°): 15°2 (%): 5%	Wind (f	rom):	NE Wind (B.S.):			
Cloud Cover	(%): 5%	Percipit	ation:	None			
Description	Description of Local Habitat Conditions and Adjacent Land Use: See peulaus sun-y for						
		-		details			
		/					
		/					
			•				
Turtle speci	es observed during mor	nitoring pe	eriod (Yes/No): No .If yes, fill in the table below.			
	of Turtles Observed	0,	•				
				Behaviour/ Description of visible traits (shape, colour,			
Species	UTMs	Length	#	size, etc.)			
Species	OTIVIS	Length	π	Size, etc.)			
		+		7			
			-				
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		4					
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Additional Notes
No turtles observed. Vantage point moved to clearer location
that provided a better original visit of the pand, comparisson photos of original variage point and new point taken.
photos of orgin venture point and new point taken.

Photo Log	
Photo ID	Decription (locations, direction, observation, etc.)
821	Looklan Nat the port at original ventage point location
922	Lookha ME
423	looking Nid
824	looking SF from new ventage point
825	lanking sw from new ventage point
	3



Study Area:	Hwy 401/6		Observers: A. Minielly M. Ross					
Feature ID:	T12-06		/					
Fill in survey fo	Fill in survey form for each vantage point. Vantage Point Number: 70-06-01							
Vantage Point UTM Date: May 7 > 2018								
Easting: 57		4811843	Start Time: 1.25 PM End Time: 1.40 PM					
Weather Con	The state of the s							
Temperature	(C°): 15°(Wind (from):	N/A Wind (B.S.): ↑					
Cloud Cover (9	(C°): 15°(%): 5%	Percipitation	Noru					
		all						
Description of	f Local Habitat Condition	ons and Adjace	nt Land Use:					
See s	revised, complet	ed						
	uney complet							
	/							
		toring period	Yes/No): No and the lable below.					
Description of	Turtles Observed							
			Behaviour/ Description of visible traits (shape, colour,					
Species	UTMs	Length #	size, etc.)					
			7					
)		1						
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			1					
		O.						
			X					



Several basking sites present within pond survey was cont short due to land humaning coming from configurant property. No twites observed in pond.	Additional Notes				
to loud hummen; Coming from enlywant property. No twills observed in pond.	Spileal bastile	Sites present with	in Donal Sur	un les cut	Short due
observat in port.	to loud human	enin tomin from	n calinizat	properte No	turtles
	observed in 00	nd.		1 1 /	
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Photo Log

PHOLO LOg
Photo ID
0830
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Childre Alice	41.4	7:	Observers I am II as A
Study Area:	Hwy 401	/6	Observers: A. Minielly M. Doss
Feature ID:	TU-07	and the second	Poli-A Number
Fill in survey	form for each vanta	ge point. Vantage	Point Number: 70-07-01
Vantage Poi			Date: May 7, 2018 Start Time: 2:00 End Time: 2:23
Easting: 57	770 Nort	hing: 4811839.	Start Time: 2:25 End Time: 2:25
Weather Cor	nditions	.(4	
Temperature	e (C°): 15°c	Wind (from):	N W Wind (B.S.): 2
Cloud Cover	(%): (0)	Percipitation:	llane
-	of Local Habitat Con	-	l
Turtle specie	es observed during r	monitoring period (Yes/No): VeS .If yes, fill in the table below.
Description (of Turtles Observed		
			Rehaviour/ Description of visible traits (shape, solour
ct			Behaviour/ Description of visible traits (shape, colour,
Species	UTMs	Length #	size, etc.)
MPTU		unknown	Head sticking out of water. Turtle submerge
			shortly after it was spotted
			4 200
			
	+	- - -	
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	+		



Additional Notes
High level of background noise from highway. A number of backing sites (fallen logs and muts of vegetation) present around outer my of ponds A lot of noise was made trying to pick a new Vantage point so extra time was given to the survey to compensate.
siles (faller logs and muts of recentation) present around outer in
of ponde A lot of noise was made truin to pick a new Vantage
point so extra time I ks given to the survey to compensate.

Photo Log

T HOLO EOS	
Photo ID	Decription (locations, direction, observation, etc.)
0932	Looking NL to NW corner of pond. Turtle observed in Cathail Veg
0833	looking N to N side of pond. General Overview
0834	looking SE to 5 side of port lengul overview
	- 1/2
· · · · · · · · · · · · · · · · · · ·	



Study Area:	Huy 401/6			Observers: A. Minielly N. Simonoika					
Feature ID:	Huy 401/6 TU-08			'					
Fill in survey	form for each vantage p	oint. Var	itage Po	oint Number: TU-08-01					
Vantage Poir	nt UTM			Date: May 9th 2018					
Easting: 570	Northing	5: 4810	318	Start Time: 4:24 pm End Time: 4:44 pm					
Weather Con	ditions			4					
Temperature	(C°): 25°c	Wind (f	rom):	E Wind (B.S.): 4					
Cloud Cover	(%): 30%	 Percipit	ation:	Wind (B.S.): 4_					
Description of Local Habitat Conditions and Adjacent Land Use:									
See on	Woush Comple	tel 6	reb. te	t assessmat form					
)									
44									
		20000							
Turtle specie	s observed during mon	itoring pe	eriod (Y	es/No): \(\sum_{\omega} \) .If yes, fill in the table below.					
Description of	of Turtles Observed								
				Behaviour/ Description of visible traits (shape, colour,					
Species	UTMs	Length	#	size, etc.)					
opecies -	011113	Length	l''	5125, 613.7					
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Additional No	otes
	re pool us should over intermittently throughout survey
- 11	
	ies Surround pond but pond does still recieve sun. No
witles 0	bsened.
-	
1000	
0.27 (2001)	
Photo Log	
Photo ID	Decription (locations, direction, observation, etc.)
THOUGH	Decription (locations, direction, observation, etc.)



	Study Area:	luy 401/6			Observers: A.M.n.kla M. Ross				
		• 4							
h	Fill in survey for	m for each vantage po	oint. Van	tage Po	pint Number: To -09-01				
Feature ID: TU-04 Fill in survey form for each vantage point. Vantage Point Number: TO -09-01 Vantage Point UTM Date: May 6/18									
	Easting: 5 72	939 Northing:	480	872	Start Time: 11:05 km End Time: 11: 25am				
	Weather Condi								
	N/A Wind (B.S.): 4								
	Cloud Cover (%)	: 0	Wind (B.S.): 4						
Description of Local Habitat Conditions and Adjacent Land Use:									
Pond with commercial land to North, confer swamp to South, agriculture to NU Deciduous swamp and railway to east, conitorous swamp to west									
	Deciduous 36	vamp and railwan	to es	est. (Coniferous Strame to West				
				,					
				30.00					
			toring pe	riod (Y	es/No): If yes, fill in the table below.				
	Description of 1	Turtles Observed							
					Behaviour/ Description of visible traits (shape, colour,				
	Species	UTMs	Length	#	size, etc.)				
	SNTU		FSCM	ı	Busking in water at edge of Pord				
	SMTU		35cm		Basking an and Mandation				
	SIVIU		50cm	1	Moving account (Consense) Mar edul of Pond				
	MPTa		25 cm	2	Bashing on pond regetation Moving around (Swimming) near edge of Pond Bashing on log				
,	MPTU		25 cm	1	Basking on loa				
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Additional Notes				
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Photo Log

Photo ID	Decription (locations, direction, observation, etc.)
313	General Pond picture looking SE
814	General Pond Picture Looking SW
315	bution of first snapping turtle observation, NW corner of pond
816	Second Snappin turtle observation. Center of Pont.
817	Third supping turtle observation. NE side of Pond.
818	Two painted tertles busking on law SE corner of pond.
319	On prished furthe booking on sum log as first hope



Study Area:	Hwy 401/6			Observers: A Minielly M. Ross						
Feature ID: 1	Hwy 401/6	_		1						
Fill in survey for	m for each vantage p	oint. Van	tage Po	pint Number: TU -10 -01						
Vantage Point (JTM	2-156	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Date: May 7,2018						
Easting: 571	969 Northing:	4809	721	Date: May 7,2013 Start Time: 8:37 Am End Time: 8:57 Am						
Weather Condi	tions									
Temperature (C	c°): 10°C	Wind (f	rom):	E Wind (B.S.): 3						
Temperature (C): 5%			None						
	T 100 100 100									
Description of L	Description of Local Habitat Conditions and Adjacent Land Use:									
See previously completed survey										
		= =		=						
Turtle species o	bserved during moni	toring pe	riod (Y	es/No): Yes .If yes, fill in the table below.						
Description of 1	Turtles Observed	-								
				Behaviour/ Description of visible traits (shape, colour,						
Species	UTMs	Length	#	size, etc.)						
Painted turthe		20cm	"							
Painted turne		LUCM		Booking on log /yellow head red reck!						
	-80.09249			rel or outline of shell						
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North side of poul avercost by shalls of traces on the elgand. Alugae buildar in the middle of the pound.	Additional Notes
of pond. Alyae kniller in the middle of the pond.	North side at port overcost he should of traces on the edge
	of read Alone knillers in the willle of the sand
	of the same of the

Photo Log

Decription (locations, direction, observation, etc.)
Attempted to take photo of turtle
Aluen build up in Pond
Port looking West
Edge of mond looking N



Study Area:	Hury 401/6			Observers: A Minielly M. Ross
IFeature ID:	Car I am a series			ľ
Fill in survey f	orm for each vantage	point. Var	oint Number: TU-10-02	
Vantage Poin	t UTM	- *		Date: May 7,2018
Easting: 573	3462 Northin	ig: 480%	3656	Start Time: 8:05 End Time: 8.2.6
Weather Con	ditions			772 930
Temperature	(C°): 900	Wind (f	rom):	East Wind (B.S.): 3
Cloud Cover (%): 20%	Percipit	ation:	yone
N	f Local Habitat Condit			
(ee oral	inust ca late	1	.ajacen	e kullu 0301
SEE PIEC	form	<i>p</i> c		
- Strock	FOIM			
				
Turtle species	s observed during mo	nitoring pe	eriod (Y	'es/No): If yes, fill in the table below.
	f Turtles Observed	01	•	
				Behaviour/ Description of visible traits (shape, colour,
Species	UTMs	Longth		size, etc.)
Species	UTIVIS	Length	#	Size, etc.)
				7
(i = 1) n. ()				
-				
				
-	-			
-			7	
			/	
4.5				



80% of pond illuminated by Sun. Not very many backing site for furtles in pond. Gusty conditions during survey period.	e5
	E
Photo Log	
Photo ID Decription (locations, direction, observation, etc.)	\neg
	\neg
0756/6757 General panel photo looking N/NE	\dashv
	\dashv
	\dashv
	-
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	コ
	\neg
	\dashv



	Study Area:	Hung 401/6			Observers: A. Minielly M. ROSS			
	Feature ID: 1) -[- '		91	ί			
1	oint Number: Tu-10-03 -> Trunsect							
Vantage Point UTM Transect Date:								
	Easting: 🏑	Northing:	M	/A	Start Time: 9:15 AM End Time: O:00614			
	Weather Condi		-					
	Temperature (C	c°): (0°C	_Wind (f	•	E Wind (B.S.): 2			
	Cloud Cover (%): 0	Percipit	ation:	None			
	4 40 5	Local Habitat Conditio			40			
	Cuttal mu	ish Community	Suro	ush	by a celer swamp / torest to the			
					located at the northern tip of march			
-	Communit	y. Cuttals are	Sprea	1 or	it enough to provide suitable basky			
	SIJECO ALVE	True Walt dep	th For	COM	nominaly is approx 10+015cm duep.			
	Trunsitions	to a gracs	Cloning	Hes.	community at Vestern postion of mush			
	Turtle species o	bserved during monit	oring ne	riod (V	es/No): .If yes, fill in the table below.			
		Turtles Observed	ioi iiig pe	1) 001	es/No):			
	•				Palasta (A)			
	Species	UTMs	Longth	#	Behaviour/ Description of visible traits (shape, colour,			
	Species	OTIVIS	Length	#	size, etc.)			
					7			
	7/							
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Additional Notes	
Carter south observed on section of paised grass at me	stern
tip of Mach ().	
	-

Photo Log

Photo Log	
Photo ID	Decription (locations, direction, observation, etc.)
0763	Looking S from Northern tip of expropriated lands
0766	valer level at 1Photo 0763
0767	Looking East from the center of exproporated parcel
0768	

Project Details	Hwy 401/6	-605410	71-	10-11			Date	My 14,2018
Location Description				at to	ع ما	ah. 16 a 1	6 1 2	Photo #s
Location UTM	566(13	1812323	myne	<u> </u>	***	LITM Zo	no: 1	Map Attached □
	3:07						_	Nap Attached
	3:23						ation	
Search Duration -								3
Proportion of suita								
Wetland Type								
Wetland Size (dime	ensions, area) 🕰	proprietal	aren	~ 0.2	.5 hā	<u>x</u>	verage Wa	ater Depth <u>~ 0.15m</u>
Vegetation (check	all that apply): 🗹 R	ush/Sedge 🗖 rees 🗖 Aqua	Floating I tic Subme	vlat □Shru rged □Aqu	ıb/Thio	cket Sph	agnum/Peat	Cattail Reed/Phragmities
Terrestrial Shorelin	ne Habitat (ELC)	SWM/	Ausic	ultural	_			
Blanding's Turtle (Observations		1	Ð				/
Easting	Northing	Accuracy (m)	Time	Behavio	ur	Age/Sex	Photo #s	Notes
							_	
		-						
						<u> </u>	-	
						!		
Incidental Observa	ations of Other Si	ecies or Impo	ortant Hal	bitat Feature	es	l .		
Species / F		Easting	Τ	orthing	Acc	curacy (m)		Comments
					<u> </u>			
		/			-			
				 	├			
					1	1		
General Comment			ies, pote	ntial threats))	0 = calm, s		vertically (0-2km/hr)
Dense Cot)	. Deer to	ruits		-00	2 = Slight t	oreeze, wind	felt on face; leaves rustle (6-11) es & twigs in constant motion (12-19)
present in		crate		carsporte t	رالال		te breeze, si	mall branches moving, raises dust &
network -	through a	ush.			_	5= Fresh b	reeze, small	trees begin to sway (31-39) e branches in motion (40-50)

										May 16,2018	
	SurveyorsA_	- /									
	Location Descripti	ion $\underline{10-1}$	2	1 Justan	c po	int				Photo #s	
	Location UTM	_			•			UTM Z	one:	<u>スレ</u> Map Attached □	
		9.02 00		Air Temp	Start _	1102	_	Cloud (Cover	Sof	
		9-17 am		Air Temp				Precipi	tation <u> </u>	lone	
	Search Duration .	15 min x2	<u>x</u> op	Water Te	mp —	~5°2	_	Wind (Beaufort)	From E	
	Proportion of suita	able habitat su	ırvey	ed <u>(00</u>	70						
	Wetland Type	1AS2-1							Substrate _	mineral, muck	
	Wetland Size (dimensions, area) Average Water Depth										
	Vegetation (check all that apply): ☑Rush/Sedge ☐Floating Mat ☑Shrub/Thicket ☐Sphagnum/Peat ☑Cattail ☑Reed/Phragmities ☐Trees ☐ Aquatic Submerged ☐ Aquatic Emergent ☐ Other										
	Terrestrial Shoreli	ne Habitat (E	LC) _	CUN/C	um c	omplex					
	Blanding's Turtle	Observations				1					
	Easting	Northing	l	Accuracy (m)	Time	Behavio	ur	Age/Sex	Photo	Notes	
	None										
				a a			$\overline{}$				
							\dashv				
							\dashv				
	Incidental Observa	ations of Othe	r Sn	ocios or Impr	ortant Hal	hitat Faatura	<u>-</u>		•		
	Species / F		i Spe	Easting	T	orthing				Comments	
						-	Ι.	uracy m)			
4.17	Painted for	itle x2		450114	_	136616			_	les basking on oldrot	tal
Milland	Printed tur	tle XI	43.	450216	- 20,	136429		<u> </u>	rtle be	string on old cutta I Sten	
							r				
	General Commen	67 99		ons of	• •	2.55		0 = calm,		vertically (0-2km/hr)	
	on the S		^	pond of	dire	JMITES	-	2 = Slight	breeze, wind	s, smoke drifts (3-5) felt on face; leaves rustle (6-11)	
	-VI / FIL U	13171	-	1				4= Moder	ate breeze, s	es & twigs in constant motion (12-19) mall branches moving, raises dust &	
								5= Fresh		trees begin to sway (31-39)	
							_ [o- strong	bieeze, iarge	e branches in motion (40-50)	

Project Details High	way	ADI	2					Date	2018.	-05-14
Surveyors	Juli	e 711	15 F	France	ei	Mi	NIE	My.		
Location Description	1-(M &C	T	1-0	-	Trans	cet		Phote	o #s
Location UTM Soe	Mc	P				UTi	M Zon	e:		Map Attached □
Start Time	2	Air Temp	Start _	18		Clos	ud Co	ver _	50	_
End Time 230	9	Air Temp	End _	18		Pre	cipitat	ion	Ø	_
Search Duration	min	Water Te	mp _	010		Win	d (Bea	aufort)	79	_
Proportion of suitable hab	tat surve	yed 100	90							
Wetland Type SW					п		_ Su	ıbstrate Î	umero	ulsoi / + 19a-1
Wetland Size (dimensions,	area) <u>S</u>	e m	<u> </u>							0.25
Vegetation (check all that ap	ply): 🗖 R	ush/Sedge	Floating I	Mat Shri	ub/Thi	cket 🗖	Sphag	num/Peat	□ Cattail	Reed/Phragmities
				rged 🛮 Aqı	uatic E	mergent	☐ Ot	her		
Terrestrial Shoreline Habit		300	<u> </u>							
Blanding's Turtle Observa	ions		r .	· · · · · · · · · · · · · · · · · · ·				-		:9
Easting No.	thing	Accuracy (m)	Time	Behavio	ur	Age/	Sex	Photo #s		Notes
NOUS-		(11)						#5		
	0					<u> </u>				
Incidental Observations of	Other Sp		T			Т				
Species / Feature		Easting	No	orthing		curacy (m)		_	Comme	ents
none										
			-		_				<u>-</u> -	
			-		-					
					_					
General Comments (habita		nvasive speci	es, poter	itial threats)				nd Scale:		
Green trongs	. Ph	30111	Es-		-	1 = Lig	ht air n	novement,	ertically (0-2 smoke drifts	s (3-5)
	<u> </u>				-	3= Gen	tle bre	eze, leave	s & twigs in	leaves rustle (6-11) constant motion (12-19) s moving, raises dust &
					-	loose p	aper (:	20-30);		s moving, raises dust & co sway (31-39)
					-	6= Stro	ng bre	eze, large	branches in	motion (40-50)

16

	Project Details	Hwy Yol Minielly	16 6054). EILI	1071 5	Tu-o	2			Date	Muy 14	1,2018	<u></u>
	End Time - Search Duration -	See Ma 1:45 pm 2:20pm 40 min	Air Temp Air Temp Water Tel	Start	21°C 21°C -8°C	- - -	UT Clo Pre	M Zono oud Cor ecipitati	e: ver ion <u>N</u>		#s <u>H0616</u> ~ — Map Attached —	
	Proportion of suita Wetland Type Wetland Size (dim Vegetation (check	ensions, area) _ all that apply):	See map Rush/Sedge Trees Aqual	Floating I	Mat ☑Shru	b/Thic	ket 🗖	Luca Avi Sphag	num/Peat	☑ Cattail	Tound edges white fur	es
	Terrestrial Shoreli Blanding's Turtle (Easting		Accuracy		Pohovio	115	A = 0	10-w	Dhata		N-1	_
)	None	Northing	(m)	Time	Behavio	ur	Age/	Sex	Photo #s		Notes	
	Incidental Observa	ations of Other	Species or Impo	rtant Hai	bitat Feature	s						
	Species / F		Easting 566706		orthing	Ι.	uracy m)	4 tur	alles be	Comme	ents na fallen log	
	ponds 5 Fridence truls &	frey. Pho hor line of love	inditions programmes for selections	ound pock I a	jalons e-k. lons	-	0 = ca 1 = Lig 2 = Sli 3= Ge 4= Mo loose 5= Fre 6= Stre	Im, smooght air m ght bre- ntle bre- derate I paper (2 sh bre- ong bre-	novement, eze, wind eze, leave breeze, sn 20-30); eze, small eze, large	s & twigs in on all branches trees begin to branches in	(3-5) eaves rustle (6-11) constant motion (12- moving, raises dust o sway (31-39) motion (40-50)	
	Pro	and to b	be killed	by so	me soft	- of	_				P	4 1061

	Project Details	Huy Minielly	101/6 - 13 M. 0/son	ء الكرم	071			_	Date	May 16, 2013	
	Location Descripti	ion <u>10-0</u>	3 3 4	anta	ge pri	15				Photo #s P1000 381-35	27
	Location UTM	See n	140			_	UT	M Zon	e: <u>1</u> 2	Nap Attached □	
	Start Time	8:05 am	⊢ Air Temp	Start _	1000	_	Clo	oud Co		20%	
	End Time	8 51 am	Air Temp		1100		Pre	ecipitat	ion	Vone	
	Search Duration	46min	_ Water Te	mp ~	500	_	Wi	nd (Bea	ufort) 2	from E	
	Proportion of suita	able habitat su	veyed 100%								
	Wetland Type	Ao will	MAS relor	امر وم	nd edias			_ Su	bstrate _	leaflitter lar above mi	here I soil.
	Wetland Size (dim			\cup 1					erage Wa	ater Depth >/m	
	Vegetation (check		☑Rush/Sedge ☐ ☑Trees ☐ Aqua							Cattail Reed/Phragmities	
	Terrestrial Shoreli	ne Habitat (EL	c) FOD/	UM							
	Blanding's Turtle (Observations									
	Easting	Northing	Accuracy (m)	Time	Behavio	ur	Age	/Sex	Photo #s	Notes	
	None										
						_					
					_						
	Incidental Observa	ations of Other	Species or Impo	rtant Lla	hitat Castura	_	<u></u>		***		
	Species / F		Easting		orthing					Comments	
. /	- 4			- 1	Orthing		uracy (m)			Comments	
Midland	Painted turthe	x 2	43.450441	1 .	138403	(2+1	stles	husking anlows	
Midland	Painta fist	ex 3	13.450572		139066	1		3+	ittes	basking an humanelt	
Midland	Painted turn	HEXL	43.450154		1.130274	- 1		7 1	actos	basking on log	
Midland		Lv2	13.456257		139372	- 1		TWA	1. 1	King on log	
7 (7 (10) (10)	1017-007	UC V Z	_	00.	1373/2	/		1 + W	tles bu	with an low	
	General Comment	s (habitat note	s, invasive spec	ies, poter	ntial threats)		0 = cs 1 = Li 2 = S 3= Ge 4= Me loose 5= Fr	alm, sm ght air r light bre entle bre oderate paper (esh bre	novement, eze, wind eze, leave breeze, sn 20-30); eze, small	rertically (0-2km/hr) , smoke drifts (3-5) felt on face; leaves rustle (6-11) es & twigs in constant motion (12-19) nall branches moving, raises dust & trees begin to sway (31-39) e branches in motion (40-50)	
						_		J - · ·	,		

APPENDIX 3: Blanding's Turtle Survey Form - 2 vantage point, I transect 16 -60546071 - TU-04 Date May 14, 2018 adjusent to highway Location Description _ 4811229 Location UTM Map Attached Air Temp Start Start Time Cloud Cover **End Time** Air Temp End Precipitation Search Duration 1hr 5m Water Temp Wind (Beaufort) Proportion of suitable habitat surveyed Wetland Type _MASQ = 1 Substrate Mineral Soil and leaf litter Wetland Size (dimensions, area) _ Average Water Depth Vegetation (check all that apply): Rush/Sedge Floating Mat Shrub/Thicket Sphagnum/Peat Cattail Reed/Phragmities ☐Trees ☐ Aquatic Submerged ☐ Aquatic Emergent ☐ Other Terrestrial Shoreline Habitat (ELC) 500 /FOD/ (UN) /hinhway 6 to NE Blanding's Turtle Observations Easting Northing Ассигасу Time Age/Sex Behaviour Photo Notes (m) #s None Incidental Observations of Other Species or Important Habitat Features Species / Feature Easting Northing Accuracy Comments (m) 26 twitles Milland pointed twitle 5 71008 4811322 observed POWT. Basking 6 twiles observed at vantage point 4811237 Midland paintd Lith 5 76920 Beaufort Wind Scale: General Comments (habitat notes, invasive species, potential threats) 0 = calm, smoke rises vertically (0-2km/hr) 1 = Light air movement, smoke drifts (3-5) 2 = Slight breeze, wind felt on face; leaves rustle (6-11) 3= Gentle breeze, leaves & twigs in constant motion (12-19) 4= Moderate breeze, small branches moving, raises dust & loose paper (20-30); 5= Fresh breeze, small trees begin to sway (31-39) 6= Strong breeze, large branches in motion (40-50)



	Study Area:	lux 401/6			Observers: A. Minielly O. Hropach
	Feature ID:	12-06			A. MINICIP O MINISPER
ķ.	Fill in survey for	m for each vantage po	oint. Van	tage Po	oint Number: Tu-OS-OI
,	Vantage Point I				Date: May 2, 2012
	Easting: 5 71 5		48117	76	Date: May 8, 2018 Start Time: 12: 20 pm End Time: 12: 40 pm
	Weather Condi			_	
	Temperature (C	°): 17°C	Wind (fi	rom):	S∈ Wind (B.S.): (
	Cloud Cover (%)			ation:	noor
		Local Habitat Conditio		_	
	See previous	dy completed !	aubile+	455	cosment form
		,			
					to a second control of
		bserved during monit	toring pe	riod (Y	es/No): No .If yes, fill in the table below.
ı	Description of	Furtles Observed			
					Behaviour/ Description of visible traits (shape, colour,
	Species	UTMs	Length	#	size, etc.)
)					
		<u> </u>			
	\				
				,	/
	·				
			100		
			p. Comment		
			1		
		1			
	·	/			-
					
	1	<i>P</i>			<u> </u>
	1				
			 		



Additional Note	2S
* ***	
242	
/-	
_/	
Photo Log	
Photo ID	Decription (locations, direction, observation, etc.)
Pl 000877	agness arriver of pond
Ploon 878	general overview of pool
	<u> </u>

			Leuntage	point		
Project Details Huy	01/6-60541071	Tu-06-		Date _	May 14,2018	
Surveyors A Minielly	J. FILS					
Location Description Natur	al pond/vernl 20	ol in residen	tiel buck	yerd	Photo #s	
Location UTM <u>571689</u>	4811821		UTM Zoi	ne:1.7\	Map Attached □	
,	Air Temp Start	17°C	Cloud Co	over <u>50</u>		
End Time		17°c		tion <u>N</u>		
Search Duration	Water Temp	~ 0'0	Wind (Be	eaufort)2		
Proportion of suitable habitat	surveyed 105/					
Wetland Type _OAO			s	ubstrate <u>5</u>	oftwith some large o	coloble
Wetland Size (dimensions, area	1) ~ 1.5 La		A	verage Wate	er Depth v. O. 5 m	
Vegetation (check all that apply)						
			Emergent 🗖 (Other		
Terrestrial Shoreline Habitat (ELC) <u>FOD</u>					
Blanding's Turtle Observation	s			1 1		
Easting Northin	ng Accuracy Time	e Behaviour	Age/Sex	Photo #s	Notes	
Vone	(III)			1 "5		
			59			
4						
	2					
			1			
Incidental Observations of Otl					_	
Species / Feature	Easting	Northing A	(m)		Comments	
None						
				····		
						_
General Comments (habitat n	otes, invasive species, po	otential threats)		Vind Scale:	rtically (0-2km/hr)	
	1-1		1 = Light ai	r movement, s	smoke drifts (3-5) elt on face; leaves rustle (6-11)	
Lots of woody A	e bis in pond	of pond.	3= Gentle I	reeze, leaves	& twigs in constant motion (12-19) all branches moving, raises dust &	
Abaront to	idential property +	CIA/	loose pape	r (20-30);	rees begin to sway (31-39)	
Jers little anners	to be a condina	in pant.			pranches in motion (40-50)	
Rond C. CC - 1-1	he king lass	and sev	m. I			d.
Short surrounded	of mye frees	16	0 -1		1.5	
shrubs.	9 25 7166	16	(1.5	

Palet



	Study Area:	-lw4 401/6			Observers: A. Minielly O. Hropach
	reature id: 👍 y	-0/	,		•
ĺ.	Fill in survey for	m for each vantage po	oint. Van	tage Po	pint Number: TU ~07 -01
,	Vantage Point U				Date: May 8, 2018
	Easting: 5717	Northing:	48118	32	Start Time: 11:53 am End Time: 12:13 pm
	Weather Condit				
	Temperature (C	°): 17°C	_Wind (fr	om):	SF Wind (B.S.):
	Cloud Cover (%)	· 0'/-	Percipita		
	15 5000	ocal Habitat Conditio			
	Refer to	habitat asse	Snont	10	on for details
	Tumble energies -	haamaad dawina maani			and Nation 1998 If you fill in the table below
		bserved during monit urtles Observed	toring pe	τιοα (τ	es/No): Yes .If yes, fill in the table below.
	Description of 1	urties Observed			
			37		Behaviour/ Description of visible traits (shape, colour,
	Species	UTMs	Length	#	size, etc.)
	MAPTO	43.456989/	15cm		Basking on old cattail stems. Went under
		-80.112842			water when we arrived at the vostage
					SHE & Poked its had back out of water
)					at the end of the survey
	MARTU	43.45(995	Unknown	1	Only head sticking out of water
		-80.112781			
	to .				
				-	
	-				



dditional Notes			2		
High level of b	ackersonal no	rise from Hi	ahway 401 Dif	fielt to	
access site w	ithout makin	a some noi	se Pond in ful	Sun.	
	35 E		18:1		
				200-20	
		*			-
				1305-150	
				- 119	
			9393		
		240			
					* * * * * * * * * * * * * * * * * * * *

Photo Log

Photo Log	
Photo ID	Decription (locations, direction, observation, etc.)
0874	General Site whole looking ul
0875	11 looking Sw
0876	(seneral Site photo looking w) 11 looking Sw 11 looking No
	3.7

Project Details Hwy	401/6 - 600	54107(Date	May 16,2013	
Surveyors A. M.	nielly M. 01	San			ı	
Location Description 1	J-03 110	Atare poin	,+		Photo #s Plooo 9 01 - 9	03
Location UTMSe	e map				7 N Map Attached □	
	Air Temp	Start	Cld	oud Cover	20%	
End Time				ecipitation	vone	
Search Duration 15 Aug				nd (Beaufort)	2	
Proportion of suitable hab						
Wetland Type <u>MAS</u>				Substrate _	Soft muky Substra	4
Wetland Size (dimensions,	area) ~ 0.25	ha		Average Wa	ater Depth <u>6.25 m</u>	
Vegetation (check all that a	pply): Rush/Sedge D	☐Floating Mat ☐S	rub/Thicket [Sphagnum/Peat	Cattail Reed/Phragmities	
	▼Trees □ Aqui	atic Submerged 🗖	quatic Emerger	at 🗖 Other		
Terrestrial Shoreline Habi	tat (ELC) FoD F	ON			<u></u>	
Blanding's Turtle Observa	ations					,
Easting No.	orthing Accuracy (m)	Time Behav	riour Age	/Sex Photo	Notes	
None						
Incidental Observations o	f Other Species or Imp	ortant Habitat Feat	ıres	,		
Species / Feature	Easting	Northing	Accuracy		Comments	
None			(m)			
NO GILO						
65						
						ļ
General Comments (habit	at notes, invasive spe	cies, potential threa	ts) Beau	rfort Wind Scale:		1
Only auess to	a small poll		0 = c		vertically (0-2km/hr) t, smoke drifts (3-5)	
pond Pond orac	& would be !	suitable for	— 3= G	entle breeze, leav	felt on face; leaves rustle (6-11) es & twigs in constant motion (12-19)	
transect if we	- had access	to pond	loose	paper (20-30);	mall branches moving, raises dust &	
Oray treeting	heard culling	3			trees begin to sway (31-39) e branches in motion (40-50)	

	Project Details _	Huy Yol	/6 N	-6054	1/07/				Date	May 16,2018		
	Location Descript						<u> </u>			Photo #s/		
	Location UTM				5	Pein		UTM Zor) O.)	ttached	
		10:30 an		Air Temp	Start	16°		Cloud Co		o/	ttacried 🗖	
		10:50 %			_	16°0		Precipita		lone		
	Search Duration					12°6		Wind (Be	(2 from E		
	Proportion of suita	able habitat s	urveye	ed 100	<i>}-</i>							
	Wetland Type/	445/0A	0					s	ubstrate \(\)	cefitter a	ser milieral	101
	Wetland Size (dim	ensions, area)	~	-1.5 ha				A	erage Wa	ater Depth O.S	m	
		all that apply):	Rus	sh/Sedge 🗖	Floating i		b/Thicket	□ Spha	num/Peat	Cattail Reed/P		
	Terrestrial Shoreli			,								
	Blanding's Turtle	Observations										
	Easting	Northing		Accuracy (m)	Time	Behavio	ur A	ge/Sex	Photo #s	Notes		
	None		_									
			\dashv				$\overline{}$					
			\rightarrow			· ·						
							_					
	Incidental Observa	ations of Othe	r Spec	cies or Impo	rtant Hal	oitat Feature	s					
	Species / F	eature	E	Easting	No	orthing	Accurac (m)	су	_	Comments		
	Snapping tur			127723	_	098412		m Ploce	ing new	s wets Surface	head and of	wat
1 11/ 1	Snapping Fur			127687	-	09844	Lm			1 Sufface Tobo St.		
Midland	Painted turtle	٤	43.4	127758	-100,	098500	In	busk	ingon	Gattails		
								+				
	General Comment			rasive specie	es, poten	tial threats)	0 = 1 = 2 = 3 = 4 = loo	calm, sm Light air i Slight bre Gentle bre Moderate se paper (novement, eze, wind t eze, leave breeze, sm 20-30);	ertically (0-2km/hr) smoke drifts (3-5) felt on face; leaves rustle s & twigs in constant mot nall branches moving, rais trees begin to sway (31-3	tion (12-19) ses dust &	
							6=	Strong bre	eze, large	branches in motion (40-5	iO)	

	Project Details L	Ellis		605910	71	- Tu-1	0_			Date	My 10	4,2018	_
	Location Description (On Fe Out Location UTM — Start Time End Time End Time Search Duration —	57348 1:03 pm	7 4 —	Air Temp Air Temp Water Ter	Start _ End _	21°C 21°C 21°C	, Д _с	UT Clo Pre	M Zone oud Cov	e:	7.1	o#s (61305 m Map Attached	/
	Proportion of suita		1			Suitable		hab.		Sur	7		
	Wetland Type	315		44M2	-/ 80	. Parche la	3 11			bstrate _	ter Depth	Mineral Subs	3+6+e
	Vegetation (check	all that apply):	Rush	h/Sedge 🗖		Mat ☑ Shru			Sphag	num/Peat			
	Terrestrial Shoreli			UM /S	WC	/Foc	/ /	tyri	cult.	New			
	Blanding's Turtle (\neg
	Easting	Northing	,	Accuracy (m)	Time	Behavio	ır	Age	/Sex	Photo #s		Notes	8
			_										
												-	
			\dashv									.	
	Incidental Observa	ations of Othe	er Spec	ies or Impo	rtant Hai	oitat Feature	s						
	Species / F			Easting	1	orthing	Acc	uracy			Comm	nents	
hulki	Painted tur	He	573	3441	420	8676		m)	1. tu	stle l	nskina	onlar	
												<u> </u>	\Box
			-										\dashv
				N	<u> </u>				<u></u>				
	General Comments Survey Consider Small poor Dear trails provide es Networks leport from	de for tur-	the mederal	mests of point with control fr	t a n co	two mmunity ities	-	0 = ca 1 = Lig 2 = Si 3= Ge 4= Mo loose 5= Fre	alm, sme ght air r ight bre entle bre oderate paper (esh bre	movement, leze, wind leze, leave breeze, sr 20-30); leze, small	es & twigs in nall branche trees begin	ts (3-5) leaves rustle (6-11) constant motion (12- es moving, raises dust to sway (31-39) n motion (40-50)	8.
_	Survey on 1.	1 took	place	e in e	ex prog	riuted	10	inds				Polof	- 1

Project Details #	wy 401/6	-6054	11071			-	_ Date	May 1	7,2018
Surveyors M. C	-	/							
Location Description									#s <u>P1600848-</u> 95
Location UTM								- 7	Map Attached □
	1:37 am						Cover	•	
	1:59 am						tation <u> </u>	Jone	
Search Duration 2							Beaufort)		
Proportion of suital	ole habitat surve	yed 100/	To.	area	_(.)	ithin e	XDOP	riched	and
Wetland Type M	As 2-1	<u> </u>					Substrate _	SOFF ,	nineral soil
Wetland Size (dime	nsions, area) 👱	Kproprial	ela	rece ~	0.1	-5 hr.	Average Wa	ater Depth	~0.25m
	ll that apply): 년 유	ush/Sedge 🗖] Floating	Mat 🗖 Shr	ub/Th	icket Sph	nagnum/Peat	Cattail	☐ Reed/Phragmities
Terrestrial Shoreling									
Blanding's Turtle O				, — —					
Easting	Northing	Accuracy (m)	Time	Behavio	our	Age/Sex	Photo #s		Notes
		2	_				#5	= 11 =	
									
		-							
	<u> </u>					<u> </u>		_	
Incidental Observat		ecies or Impo	rtant Hal	bitat Feature	es				
Species / Fe	ature	Easting	No	orthing		curacy (m)		Comme	ents
						(11)			
<u> </u>					ļ				
				 	_	- 12			
			+		_				
General Comments Green frog		nvasive speci	es, poter	ntial threats)		0 = calm, s 1 = Light a	Vind Scale: moke rises ve ir movement,	smoke drifts	(3-5)
					-	3= Gentle t 4= Modera loose pape	breeze, leave te breeze, sm r (20-30);	s & twigs in o all branches	eaves rustle (6-11) constant motion (12-19) moving, raises dust &
					-	5= Fresh b 6= Strong b	reeze, small t oreeze, large	rees begin to branches in r	o sway (31-39) motion (40-50)

Pr	oject Details A	wy 401/4	<u></u>						_	Date _	May 17, 2012		
S	urvevors A	linielly	<u>M.</u>	olson							Dlogg 67, 950	L	
Lo	ocation Descripti	on <u>TU-12</u>	.	vuntage	poir	+				\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Photo #s Plono #57, 95	>	
L	ocation UTM	See	M	20				UTM Z	Zone:		Viap Attached		
S	tart Time	1:10 pm	-	Air Temp S	tart _2	4/2		Cloud Cover 10°P Precipitation None					
Е	ind Time -	1:30 pm	7	Air Temp E				Precip	oitatio	n <u>100</u>	Paris		
	earch Duration .				Р —	Loc	•	Wind	(Beaut	Fort)	from SE		
F	Proportion of suita	able habitat sui	veye	d 100%							ward much		
٧	Vetland Type	MAS2	_1_						Sub	strate	mineral much		
٧	Vetland Size (dim	nensions, area)		~0.121	<u> </u>				Ave	rage vvat	ter Depth O. Sm		
١	egetation (check	all that apply):	X Rus	sh/Sedge	Floating M	lat 🖸 Shrub/	Thick	cet □S nergent !	phagn □ Oth	um/Peat er	Cattail Reed/Phragmities		
	Terrestrial Shore		□Tre	Aquati	C Submer	comple	X	noigoni -					
			.C) _	20007		,						_	
ا آ	Blanding's Turtle	T	_		Time	Behaviou	,	Age/S	Sex	Photo	Notes		
	Easting	Northing		Accuracy (m)	Time	Bellaviou				#s	<u>.</u>		
	Wonc						_						
)													
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]	
	Incidental Obser	ryations of Othe	er Sp	ecies or Impo	ortant Ha	ıbitat Feature	s					٦.	
	Species /		1	Easting	- 1	lorthing		curacy			Comments		
		95	11.	3.450123	-9.	136287		(m)	Tin	+1c 61	simming from one si	10	
his.	Painter	tustle	14	(,450/2)		213050			20	pond	1 to other	4	
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		0.										_	
	General Comm	ents (habitat n	otes,	invasive spe	cies, pot	ential threats) — —	0 = c 1 = L 2 = S 3= G 4= M loose	alm, si ight ai Slight b ientie t lodera e pape	r movemen preeze, wind preeze, lea te breeze, pr (20-30);	s vertically (0-2km/nr) ont, smoke drifts (3-5) ont felt on face; leaves rustle (6-11) aves & twigs in constant motion (12-15 small branches moving, raises dust &	*)	
										•			



Project Details	Hwy 401.	16					_	Date _	May 16, 2013			
Surveyors A. Minielly M. Olson												
Location Description		<u> +</u>	ronsec	+					_ Photo #s			
Location UTM	Nap Attached □											
Start Time	2.45	Air Temp	Clou	d Cov	er	20/'						
End Time	:30	Air Temp	End	21,0	_		ipitatio		Jone			
Search Duration _	115min	Water Ter	mp —	~ 120		Wind	d (Beau	ufort)	2 from E			
Proportion of suita	ble habitat survey	ed 100/										
Wetland Type	Swo						Sul	ostrate 🖺	lincol soil and leaf 1: Ho			
Wetland Size (dime	ensions, area) <u>~ 0,</u>	75 ha					. Ave	erage Wa	iter Depth <u>Ø.25</u>			
	all that apply): 🗹 Ru	rsh/Sedge 🔲	Floating N	Mat Shrub	/Thick	et 🗖	Sphagr	num/Peat				
	Ģ∕fr	ees 🗖 Aqua	tic Subme	rged 🗖 Aqua	tic Em	nergent	Otl	ner				
Terrestrial Shoreli	ne Habitat (ELC) .	SWD										
Blanding's Turtle	Observations											
Easting	Northing	Accuracy (m)	Time	Behaviou	ır	Age/	Sex	Photo #s	Notes			
None		(.,,										
			Yes									
							-					
						_						
Incidental Observ	ations of Other Sp	ecies or Imp	ortant Ha	bitat Feature	s							
Species / F	eature	Easting	\ \ \	lorthing		uracy m)			Comments			
Snuppin tu	LIa UZ	450557	-80	.176583	 	111)	Rub.	, bas	King on cuttails.			
Shimping	actles	11		16			1 .	menin T	through organic lobres "			
3113	<u> </u>								nmunity,			
General Commer	ats (habitat notes,	invasive spec	cies, pote	ential threats)	- -	0 = c: 1 = L: 2 = S 3= G 4= M loose 5= Fr	alm, sn ight air light br entle br oderate paper	movement reeze, wind reeze, leave e breeze, s (20-30); eeze, sma	: vertically (0-2km/hr) ht, smoke drifts (3-5) d felt on face; leaves rustle (6-11) ves & twigs in constant motion (12-19) small branches moving, raises dust & fill trees begin to sway (31-39) ge branches in motion (40-50)			
					_	L						

	,		071 Mine	بال			Date	My 16, 7018
			1c-tac	AC Poin	ts			Photo #s 130 439 - 1323
Location UTM Start Time End Time	See m 12:45 11:30	Air Temp	End _	2100	_ C	loud Co	ion	12N Map Attached □ 207 Janu from E
Proportion of suita	ble habitat sun	reyed 100%						
Wetland Size (dime	ensions, area) _	Nush/Sedge □	~ Floating №	Mat 🗹 Shrul	o/Thicket	Av □Sphag	erage Wa	ater Depth
Terrestrial Shoreli					alic Emerge			
		-,	-					
Easting	Northing	Accuracy (m)	Time	Behavio	ır Ag	e/Sex	Photo #s	Notes
None								
Incidental Observa	ations of Other	Species or Impo	ortant Ha	bitat Feature	s			
Species / F	eature	Easting	N	orthing	Accurac (m)	у		Comments
Painted tost Painted tost Painted tos	/a 9	566825		40		Flo Ba	ating sking sking	on los
General Commen	ts (habitat note	s, invasive spec	ies, pote	ntial threats)	0 = 1 = 2 = 3 = 4 = loos 5 =	calm, sr Light air Slight bi Gentle b Moderate se paper Fresh br	noke rises movement reeze, wind reeze, leav e breeze, s (20-30); eeze, smal	vertically (0-2km/hr)
	Surveyors Location Description Location UTM Start Time End Time Search Duration Proportion of suitate Wetland Type Wetland Size (dimental Size) Fasting Location UTM Start Time End Time Froportion of suitate Wetland Type Wetland Type Wetland Size (dimental Shoreling) Fasting Location (check in the start of th	Surveyors	Surveyors M. O(Son A. Location Description TU-02 2 Location UTM Start Time 12:45 Air Temp End Time Air Temp End Time Air Temp Search Duration 45 Water Ter Proportion of suitable habitat surveyed 100 Wetland Type 100 Wetland Size (dimensions, area) 100 Rush/Sedge 100 Trees 100 Aqual Terrestrial Shoreline Habitat (ELC) 100 M Blanding's Turtle Observations Easting Northing Accuracy (m) None Species / Feature Easting Punt of further Shoreline Feature 566825 Rainful further S66825 Rainful further S66825	Surveyors M. O(SON A. Minical Location Description 10-02 2 Jackson Location UTM See May Start Time 12:45 Air Temp Start	Surveyors M. O(son A. Minely Location Description 10-02) Judiese Point Location UTM Start Time 12:45 Air Temp Start 21°C End Time 130 Air Temp End 21°C Search Duration 45 Mair Temp End 21°C Wetland Type AO with Frings MAS (some Wetland Type AO with Frings MAS (some MAS (some MAS (dimensions, area)) Augustic Submerged 49 Aquatic Submerged 49 A	Surveyors M. Olson A. Minelly Location Description 10-02 Location Description 10-02 Location UTM See Many Location UTM Start Time 12-45 End Time 13-45 Rearch Duration Water Temp Air Temp End 21-6 Wetland Type AO with Fringe MAS (emmunities) Wetland Size (dimensions, area) Vegetation (check all that apply): Rush/Sedge Floating Mat Shrub/Thicket Increased Aquatic Emerge Aquatic Submerged Aquatic Emerge Terrestrial Shoreline Habitat (ELC) UM /Sull Blanding's Turtle Observations Easting Northing Accuracy Time Behaviour Ag (m) None Incidental Observations of Other Species or Important Habitat Features Species / Feature Easting Northing Accuracy (m) Paintal turtle S66895 4811395 Raintal turtle S66976 1311337 General Comments (habitat notes, invasive species, potential threats) Beau Sala Sala Sala Sala Sala Sala Sala Sa	Surveyors	Surveyors Mo(son A Minely Location Description 10-02) Jetage Points Location UTM See Mair Temp Start 21°C Cloud Cover End Time 12.9°S Air Temp End 21°C Precipitation Moderate Search Duration 95 Mair Temp End 21°C Precipitation Moderate Search Duration 95 Mair Temp End 21°C Precipitation Moderate Search Duration 95 Mair Temp End 21°C Precipitation Moderate Search Duration 95 Mair Temp MAS (emmunities Substrate, and the Substrate Moderate Substrate) 100 Moderate Mair Substrate 100 Moderate Mair Substrate 100 Moderate M

Project Details	elson	16 -60S	41071					Date	May 17,2018	
Location Description	on 11 -	03 3,	Lunter		v. j	<			Photo #s Ploso955,956	6 0-0
Location UTM	See mu	, , , , , , , , , , , , , , , , , , ,	777410	5 10	1011	LITA			Map Attached □	7) 757
Start Time _		•					id Cov		O /	
End Time	•								one	
Search Duration _									2 fron ES	
Proportion of suital							u (bea	u10(1)	3 (10 x 2)	
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		. ~	- 1	_						, 01 1
				_					ater Depth 7/m	
vegetation (check a									☑ Cattail ☐ Reed/Phragmities	
Terrestrial Shorelin									1.0	
Blanding's Turtle C		•	1							
Easting	Northing	Accuracy	Time	Behaviou	IF.	Age/S	Sev	Photo	Notes	
	- Horamig	(m)	Time	Bellavio	41	- NgcA		#s	Notes	
None										
										
Incidental Observa	tions of Other	r Species or Impo	ortant Ha	bitat Feature	s					
Species / Fe	eature	Easting	N	orthing	Acc	uracy			Comments	
	1/	112 116		120/25		(m)	1 .	(11 (, ,)	
Painted toot	I	43,450773 4 3 ,450318	1	, 139083		M	7 min	Hed to	othe basking on los	
1	1	43.450114		13947	- 1		₽pu L p.	· Led	tatle Dasking on lay	
0		43.450479		138723	10	<u>~</u>	1 000	ated !	turtle busking on lan	
Pained turt	1c x2	13.450461	-80	,139398	1,	~	2 n	ninted	twiles busking only	
General Comments	s (habitat note	es, invasive speci	ies, poter	ntial threats)	-	0 = cal 1 = Lig 2 = Sli	m, sm ht air r ght bre	novement, eze, wind	vertically (0-2km/hr) , smoke drifts (3-5) felt on face; leaves rustle (6-11) es & twigs in constant motion (12-19)	
					-	loose p 5= Fre	oaper (sh bre	20-30); eze, small	trees begin to sway (31-39) branches in motion (40-50)	

Project Details <u>H</u>	wy 401	16	- 606	11071					Date	may L	7,2018
Location Descripti	on <u>70 -</u>	04	2 ver	Lage	points	}	tran:	sect		Phot	10 #s P160091-8-
						_					
Start Time	10:05pw	1	Air Temp	Start _	2100	_	Clo	ud Co	ver	0	
End Time	11 02 ar	<u>n</u>					Pre	cipitat	ion	1E,	1ane
Search Duration _	57min		Water Te	mp ~ <u>_</u>	0°(Win	d (Bea	ufort) _	from	E
Proportion of suita	ble habitat s	survey	red Rot								
Wetland Type	MASS	2-1						_ Su	bstrate £	Mineral S	isil and least 1.
Wetland Size (dime	ensions, area)										
		. □ Rı	ush/Sedge □	Floating I	Mat 🖸 Shru	ıb/Thic	ket 🗖	Sphag	num/Peat		/
Terrestrial Shorelin	ne Hahitat (F										
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/			A 0.01170.014	Time	Dahavia		A == /	C	Dhata		Neter
	Northin	9	(m)	Time	Benavio	ur	Age/	Sex	#s		Notes
Nonc											
					<u> </u>						.
Incidental Observa	ntions of Othe	er Sp	ecies or Impo	ortant Hal	bitat Feature	es					
Species / Fe	eature		Easting	N	orthing	Acc	uracy			Comm	nents
P.C.I.I.	1/	173	401200	0- 4	20.200	$\overline{}$		11.1	11 . 1.	(1-1-1	:1(: 0
0.11	+1C.	42				1	5)	
Painted for	He	43				5			1	-	
Painted tour	He	43.	450140		227	5			vHe5	busking	
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			<u></u>	-		-					
General Comment	c (habitat	tos :		ion note:	atial than at -	1	Peru-f	ort \All-	nd Scalar		
General Comments Gray File	0 /		•	ies, poter	ntial threats)		0 = ca	lm, sm		vertically (0-	
/	frag ob		•	ies, poter	ntial threats)		0 = cal 1 = Lig 2 = Sli	lm, sm ght air r ght bre	oke rises v novement eze, wind	, smoke drift felt on face;	ts (3-5) leaves rustle (6-11)
Gray tice	frag ob		•	ies, poter	ntial threats)	-	0 = ca 1 = Lig 2 = Sli 3= Ge 4= Mo	lm, smo ght air r ght bre ntle bre derate	oke rises v novement eze, wind eze, leave	, smoke drift felt on face; es & twigs ir	ts (3-5)
	Surveyors Location Descripti Location UTM — Start Time — End Time — Search Duration — Proportion of suita Wetland Type — Wetland Size (dime Vegetation (check in Terrestrial Shorelin Blanding's Turtle (Check in Easting — Vonc Incidental Observation (Check in Easting — Incidental Observation — Incidental Observation (Check in Easting — Incidental Observation — Incidental Observa	Surveyors Location Description Location UTM Start Time End Time Search Duration Proportion of suitable habitates Wetland Type Wetland Size (dimensions, area) Vegetation (check all that apply) Terrestrial Shoreline Habitat (Balanding's Turtle Observations Easting Northin Nonc Incidental Observations of Oth Species / Feature	Surveyors A. Miniell Location Description To -04 Location UTM See my Start Time 10:05am End Time 11:02 am Proportion of suitable habitat survey Wetland Type MAS 2-1 Wetland Size (dimensions, area) Vegetation (check all that apply): Proportions Easting Northing Northing Nonc Incidental Observations of Other Species / Feature Paintal tartle 43 Paintal tartle 43 Paintal tartle 43	Location Description TO -04 2 Very Location Description TO -04 2 Very Location UTM See Main Temp Start Time 100 Search Duration 57 Min Water Temp Search Duration 57 Min Water Temp Proportion of suitable habitat surveyed Wetland Type MAS 2-1 Wetland Size (dimensions, area) Vegetation (check all that apply): Wetland Size (dimensions, area) Trees Paqua Terrestrial Shoreline Habitat (ELC) Swo / Blanding's Turtle Observations Easting Northing Accuracy (m) Nonc Incidental Observations of Other Species or Important Part of the Habitat Habit	Surveyors A Minietty M Olson Location Description TO -OH 2 Ventes Location UTM See Main Temp Start Lend Time 1005 M Air Temp Start Lend Time 1005 M Air Temp End Search Duration 57 Min Water Temp Proportion of suitable habitat surveyed Wetland Type MAS 2-1 Wetland Type MAS 2-1 Wetland Size (dimensions, area) Trees Aquatic Submer Terrestrial Shoreline Habitat (ELC) Swo Foo Manager Terrestrial Shoreline Habitat Shoreline Habi	Surveyors A Minielly M Olson Location Description TO - OH 2 Ventee Points Location UTM Sec may Start Time 10 05 pm Air Temp Start 11°C End Time 11°02 cm Air Temp End 23°C Search Duration 77min Water Temp Proportion of suitable habitat surveyed 40 f Wetland Type MAS 2-1 Wetland Size (dimensions, area) 1.46 Vegetation (check all that apply): 12 Rush/Sedge 15 Floating Mat 15 hru Trees 12 Aquatic Submerged 12 Aqu Terrestrial Shoreline Habitat (ELC) 500 / FoD / (0 un) / Blanding's Turtle Observations Easting Northing Accuracy Time Behavio (m) NONC Incidental Observations of Other Species or Important Habitat Feature Species / Feature Easting Northing Painted fathe 43, 450726 - 80,12349 Painted fathe 43, 450726 - 80,123178 Painted fathe 43, 450726 - 80,123178	Surveyors A Minielly M Olson Location Description TO -04 2 Venture Points Location UTM See May Start Time 10 05 pm Air Temp Start 1 0 0 End Time 11 02 cm Air Temp End 23 0 0 Search Duration 77 min Water Temp Proportion of suitable habitat surveyed Wetland Type MAS 2-1 Wetland Type MAS 2-1 Wetland Size (dimensions, area) Floating Mat Shrub/Thice Trees Aquatic Submerged Aquatic E Terrestrial Shoreline Habitat (ELC) Swo Foo / Cuw / his Blanding's Turtle Observations Easting Northing Accuracy Time Behaviour NONC NONC Incidental Observations of Other Species or Important Habitat Features Species / Feature Easting Northing Accuracy Accurac	Surveyors A. Minielly M. Olson Location Description To -04 2 vents points France Location UTM Sec many UTI Start Time 10.05 Am Air Temp Start 1.16 Clo End Time 11.02 am Air Temp End 23°C Pre Search Duration 57 min Water Temp Win Proportion of suitable habitat surveyed Gof Wetland Type MAS 2-1 Wetland Size (dimensions, area) Proportion (check all that apply): Rush/Sedge Floating Mat Aquatic Emergent Terrestrial Shoreline Habitat (ELC) Swo Foo (Cum) hishon Blanding's Turtle Observations Easting Northing Accuracy Time Behaviour Age/ MONC Time Behaviour Age/ MONC Easting Northing Accuracy Time Behaviour Age/ MONC Habitat Features Species / Feature Easting Northing Accuracy (m) Painted textle 43,451321 -80.12239 20 Painted textle 43,450726 -80.123178 5 Painted textle 43,450726 -80.123178 5	Surveyors A. Minielly M. Olson Location Description 10-04 2 vertex Points Frence + Location UTM See May UTM Zone Start Time 10.05 pm Air Temp Start 11.0 Cloud Cor End Time 11.02 cm Air Temp End 23.0 Precipitat Search Duration 5.7 min Water Temp Wind (Bea Proportion of suitable habitat surveyed 20.1 Wetland Type MAS 2-1 Su Wetland Size (dimensions, area) Floating Mat Shrub/Thicket Sphag Trees Aquatic Submerged Aquatic Emergent Or Terrestrial Shoreline Habitat (ELC) Suo Foo (Cun) / hishing 6.1 Blanding's Turtle Observations Easting Northing Accuracy Time Behaviour Age/Sex NONC (m) Painted Father 43, 45 (321 - 80, 123 99 20 11 fm Painted Father 43, 45 (726 - 80, 123 17 8 5 1 bc) Painted Father 43, 45 (726 - 80, 123 17 8 5 1 bc) Painted Father 43, 44 (787 4 - 80, 123 37 7 5 1 bc)	Surveyors A. Minielly M. Olson Location Description To -04 2 ventes Points trensent Location UTM See may UTM Zone:	Location Description To -04 2 ventee Points Frencet Photo Location UTM Sec many UTM Zone. Start Time 10.05 gam Air Temp Start 21°C Cloud Cover Cloud Co

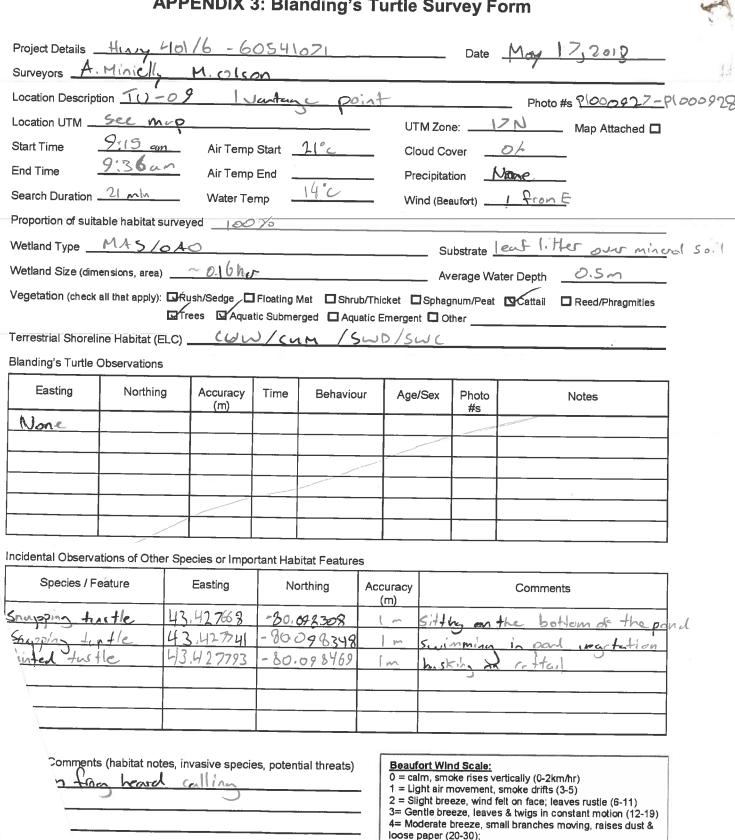
I vantage point _____ Date _ Project Details Hwy 401/6 + 60541071 - Tu-05 Photo #s 11 1558, 111 600 Location Description Marsh with SMLI 571533 4811768 Location UTM _ ___ Map Attached 🗖 UTM Zone: . Cloud Cover Start Time Air Temp Start **End Time** Air Temp End Precipitation Search Duration 10 min X2 geofic Water Temp Wind (Beaufort) Proportion of suitable habitat surveyed 1007 Substrate Soft - oily smell Wetland Type 5AS1/501 _____ Average Water Depth Vegetation (check all that apply): ☑Rush/Sedge ☐Floating Mat ☑Shrub/Thicket ☐Sphagnum/Peat ☑Cattail ☐ Reed/Phragmities ☑Trees ☑Aquatic Submerged ☑Aquatic Emergent ☐ Other Terrestrial Shoreline Habitat (ELC) <u>_____</u> Blanding's Turtle Observations Photo Easting Northing Accuracy Time Behaviour Age/Sex Notes (m) #s NONC Incidental Observations of Other Species or Important Habitat Features Accuracy Comments Species / Feature Northing Easting (m) None Beaufort Wind Scale: General Comments (habitat notes, invasive species, potential threats) 0 = calm, smoke rises vertically (0-2km/hr) boulders to the NE 1 = Light air movement, smoke drifts (3-5) 2 = Slight breeze, wind felt on face; leaves rustle (6-11) 3= Gentle breeze, leaves & twigs in constant motion (12-19) 4= Moderate breeze, small branches moving, raises dust & loose paper (20-30); 5= Fresh breeze, small trees begin to sway (31-39) 6= Strong breeze, large branches in motion (40-50)

Project Details _	Huy 401	16 605	11071				Date	My 17, 2018
Surveyors	4. Minelly		6.6					
Location Descript	ion <u>10-e</u>	06 1	venta	e Poi	1			Photo #s P1000922 - 924
Location UTM	Sec mu	?			_	UTM Zo	ne:	17N Map Attached □
Start Time .	8:00 um	Air Temp	Start _	110	_	Cloud C	over _	01.
End Time .	8:20 pm	Air Temp	End _	11°C	_	Precipita	ation <u> </u>	Vone.
Search Duration .	20min	Water Te	mp -	W/A		Wind (B	eaufort)	0
Proportion of suita	able habitat surve	yed 80	/•	2 = 12 1 <u></u>				
Wetland Type	0A0						Substrate =	Soft with some large cobbles
								ater Depth ~ 0.5m
								☐ Cattail ☐ Reed/Phragmities
Terrestrial Shoreli	ine Habitat (ELC)	FOD						
Blanding's Turtle	Observations							
Easting	Northing	Accuracy (m)	Time	Behavio	ur	Age/Sex	Photo	Notes
None								
In aid aut at Olivera	100					I		
Incidental Observa					Т			
Species / F	eature	Easting	N	orthing		curacy (m)		Comments
None								
							· · · · · · · · · · · · · · · · · · ·	
				 :				
		<u> </u>						
				· · · · · · · · · · · · · · · · · · ·				
eneral Comment	ts (habitat notes, i	nvasive spec	ies, poter	ntial threats)			/ind Scale:	
inited	access +	o boug			_	1 = Light ai	r movement	vertically (0-2km/hr) t, smoke drifts (3-5)
ond sail	heavily	shaled (8022)),	_	3= Gentle b	reeze, leave	felt on face; leaves rustle (6-11) es & twigs in constant motion (12-19)
mens	that p	and w	Pluo	€€ (1 € U €	_	loose paper	(20-30);	mall branches moving, raises dust &
nimal !	oht dulin) Put	on s	eo-son				trees begin to sway (31-39) e branches in motion (40-50)



Project Details	Highway !	401/6	40	-67	-	vanta	9°	Point	May 14,2018	
Surveyors	Minielly	J. E11.3		**						
Location Descrip	tion <u>Port</u> re	est to	high	my 4					Photo #s 103124 to 10	3143
Location UTM _	571789	4811935			_	UTM	Zone	: <u> </u>	7 N Map Attached □	
Start Time	10:27	Air Temp	Start _	17°C		Cloud	d Cov	er _	30/	
End Time	10147	Air Temp	End _	170		Preci	pitatio	on <u>1</u>	one	
Search Duration	20 min	Water Te	mp <u> </u>	~10°C		Wind	(Beau	ufort)	2	
Proportion of suit	able habitat surve	eyed <u>90</u> 2	6 lin	nifed	acc	c 55 -	0	pond		
Wetland Type 🧕	sto with f	Mindiva	muist	Comm	uni	ty	Sub	า ostrate _	soft substrate	
Wetland Size (dim		~ 0.16					Ave	erage Wa	ater Depth	
Vegetation (check	all that apply):	∕ Rush/Sedge □	Floating I	Mat 🖾 Shr	ub/Thi	cket 🗖 S	phagn	ium/Peat	☐ Cattail ☐ Reed/Phragmities	
	<u> </u>	Trees 🖸 Aqua								
Terrestrial Shorel	ine Habitat (ELC)	FOD								
Blanding's Turtle	Observations									
Easting	Northing	Accuracy	Time	Behavid	our	Age/S	ex	Photo	Notes	
Vone		(m)					\dashv	#s		
							_			
Incidental Observ	ations of Other S	pecies or Impo	rtant Hal	bitat Featur	es					
Species / F	eature	Easting	No	orthing		curacy			Comments	
Mirelland pain	ted twilling	71 776	4811	941		(m) /:	Sum	length	basking on downed cutt	1510-
44 4	nted futle (5)	71773		1939		1	Sem 1	easta	besking on Stick could	0,407
				-						
								-		
			-		_					
					<u> </u>					
General Commen	ts (hahitat notes	invasive speci	es noter	atial threate	٠١	Reguifor	t Win	d Scale:	1, 1	
Open Mass	1	with	took		<u>7</u>	0 = calm	ı, smo	ke rises v	vertically (0-2km/hr) , smoke drifts (3-5)	
Typhu SP	ture o	lownel	Las	pieso	nt	2 = Sligh	nt bree	ze, wind	felt on face; leaves rustle (6-11) es & twigs in constant motion (12-19)	
for bus	King. Hin	y Yol dis	rett.	NOF	_	4= Mode loose pa	erate b	reeze, sr	mall branches moving, raises dust &	
pond.					_	5= Fresh	bree	ze, small	trees begin to sway (31-39) branches in motion (40-50)	

Project Details _	Huy bil Olson A	6 -60°	1.	1		***	_ Date	May	17,2018
			4						121 122 224 424
Location Descript	See mar	1 Ve	n teg	e poin	7				o#s <u>Plood 925, 9</u> 26
	8:45			.70					Map Attached □
	9:00		-	17°C			Cover		
				21°C			tation <u>U</u>		
Search Duration		Water Te	b _	12°C	_	Wind (Beaufort)	0	
Proportion of suita	able habitat survey	/ed <u>587</u>	Ф						
Wetland Type									unky substite
Wetland Size (dim	ensions, area)	~0.25	her				Average Wa	ater Depth	0.25m
Vegetation (check	all that apply); ☐Ri	ush/Sedge □ ees □ Aqua	Floating I	Mat Shr erged Aq	ub/Thio	cket Sph mergent D	nagnum/Peat Other	⊡ Cattail	Reed/Phragmities
Terrestrial Shoreli	ne Habitat (ELC)	FOD/F	OM						
Blanding's Turtle	Observations								2
Easting	Northing	Accuracy (m)	Time	Behavio	our	Age/Sex	Photo #s		Notes
None				-			-		
3.							_		
						·			
		1	<u> </u>	L					
Incidental Observa	ations of Other Sp	ecies or Impo	ortant Hal	bitat Feature	es				
Species / F	eature	Easting	N	orthing		uracy m)		Comme	ents
None					 	,			
,									
					ļ				
			-		_				
General Comment	a a	55.	es, poter	Surse y	_	0 = calm, s 1 = Light at 2 = Slight b 3 = Gentle b 4 = Moderat loose pape	breeze, leave te breeze, sn r (20-30);	smoke drifts felt on face; es & twigs in nall branches	s (3-5) leaves rustle (6-11) constant motion (12-19) s moving, raises dust &
					-	5= Fresh b 6= Strong t	reeze, smail i oreeze, large	trees begin t branches in	o sway (31-39) motion (40-50)





5= Fresh breeze, small trees begin to sway (31-39) 6= Strong breeze, large branches in motion (40-50)

Project Details _	Hwy 401/	6 - 600 A.	54107 Minie	الر	_			Date	My 16, 201 B				
						2 ++	cose	15	Photo #sPlace 904 to Pla	000011			
Location UTM			3	1					7 Map Attached	77/1			
	2.15 pm	Air Temp	Start	21°C	_		oud Co		lo/				
	3.17 pm	•	-	12°C			ecipitat		Jone				
Search Duration	1hr 2min	Water Te		~10°C					2 from E				
Proportion of suita	able habitat surve	E .	<u></u>				(50.	adioit)					
Wetland Type	MAM3-2	/14AM	2-7				Sı	ubstrate	Soft miner I substate				
									ater Depth 0.2 60.5m				
									☐ Cattail ☐ Reed/Phragmities				
☑Trees ☐ Aquatic Submerged ☐ Aquatic Emergent ☐ Other													
Terrestrial Shoreline Habitat (ELC) CUM /SWC/Foc/agricution													
Blanding's Turtle Observations													
Easting Northing Accuracy Time Behaviour Age/Sex Photo Notes													
None		(11)											
-					_								
In add to 1 Of					_	<u> </u>							
Incidental Observa			T										
Species / F	eature	Easting	N	orthing		curacy (m)			Comments				
None													
			-										
			 		-								
		(2)		F									
General Comments		nvasive speci	es, poter	ntial threats)				nd Scale:	ertically (0-2km/hr)				
-> America	tout heard observed				-	1 = Lig	ght air n	novement,	smoke drifts (3-5) felt on face; leaves rustle (6-11)				
	son observed	.l			-	3= Ge	ntle bre	eze, leave:	s & twigs in constant motion (12-19) all branches moving, raises dust &				
-> aray free	elon head	rd		121		loose 5= Fre	paper (2 esh bree	20-30); eze, small t	rees begin to sway (31-39)				
0 /						6= Str	ong bre	eze, large	branches in motion (40-50)				

Project Details _	thry 401	/6						Date	May 23,2018				
Surveyors A. Minielly K. Mckenzie Location Description 10-11 + Cansect Photo #s Place 960-P1000964													
Location Descript	tion $\sqrt{10-11}$	<u>+</u>	anse	ct					Photo #s Ploco 9 60 - Pl	000964			
Location UTM	See Mcp				_	UT	M Zon	e:	ZN Map Attached □				
Start Time	3 48 non	Air Temp	Start _	15 ° c	Cloud Cover								
End Time	9:10 am	Air Temp	End _	15°C	_	Pre	ecipitat	ion	None				
Search Duration	12 min	Water Te	mp ~	10°C	_	Wi	nd (Bea	aufort) <u>2</u>	from SE				
Proportion of suita	able habitat surve	/ed 100/	e of	area	W	thin	ex	(pro Pr	intel land				
Wetland Type	Mas 2-1		·				_ Su	ıbstrate _	Soft minural soil				
Wetland Size (dim	nensions, area) 🌉	propriek	ed a	rea 1	0.	25L.	_ Av	erage Wa	ater Depth				
Vegetation (check	all that apply); ☑Ri	ush/Sedge □ rees □ Aqua	Floating I	Mat □Shru erged □Aqu	ıb/Thi ıatic E	cket C Emergen	Sphag	num/Peat	☑Cattail ☐ Reed/Phragmities				
Terrestrial Shorel	ine Habitat (ELC)	SWIM	2//	Insicol	tu	sal							
Blanding's Turtle	Observations												
Easting	Northing	Accuracy (m)	Time	Behavio	ur	Age	/Sex	Photo #s	Notes				
none													
													
						-							
120													
Incidental Observ	ations of Other Sp	ecies or Impo	ortant Ha	bitat Feature	s								
Species / F	eature	Easting	N	orthing		curacy			Comments				
none			†			(m)	,						
				<u> </u>									
			┼										
							<u> </u>						
General Comment Licen fr	ts (habitat notes, in	/ '	ies, poter	ntial threats)	_	0 = ca 1 = Li 2 = Si	ılm, sm ght air r ight bre	novement, eze, wind	rertically (0-2km/hr) smoke drifts (3-5) felt on face; leaves rustle (6-11)				
					_	4= Mc	derate		es & twigs in constant motion (12-19) nall branches moving, raises dust &				
					_	5= Fre	esh bre	eze, small	trees begin to sway (31-39) branches in motion (40-50)				

Project Details _	Hwy 401	/6					_ Date	May	25,2018
Surveyors <u>A.</u>				<u> </u>					
Location Descript	tion $\sqrt{10-12}$	- 10	antac	c poi	nt			Phot	:0 #s [1070],
Location UTM	See mus)		· · ·					Map Attached □
Start Time End Time	11.15 Am	Air Temp	Start _	14°C			Cover _		
End Time	11.35.AM	Air Temp	End _	25°C					
Search Duration	10 min	Water Te	emp -	V18 2		Wind (E	ation	2 fcom	SF
Proportion of suita	able habitat surve	eyed <i>[6</i> ,	0 /2						
Wetland Type	MAS2-	-(- :	Substrate b	uheral	muck
Vetland Size (dim	ensions area)	20.12 he	~			/	Average Wa	ater Depth	0.5m
									Reed/Phragmities
		rees 🗖 Aqua	itic Subme	erged 🗖 Aq	uatic Em	nergent 🗖	Other		
Ferrestrial Shoreli	ne Habitat (ELC)	<u></u>	ω/c	um (c	mpl	ex			
Blanding's Turtle	Observations	_							
Easting	Northing	Accuracy (m)	Time	Behavio	our	Age/Sex	Photo #s		Notes
Vone							#3		
		ļ							
						-			
		-			-				
oidantal Obsessi								<u></u>	
ncidental Observa					\Box				
Species / F	eature	Easting	No.	orthing	Accu (m	. * 1		Comm	ents
Nonc									
					}				
			 		-				
			 		-				
eneral Comment			es, poter	ntial threats)	[]		/ind Scale:		
epold to	S opsano	<u> </u>	-		_ / '	1 = Light ai	moke rises v r movement,	smoke drifts	s (3-5)
					- ;	3≕ Gentle b	reeze, leave	s & twigs in	leaves rustle (6-11) constant motion (12-19)
					-	oose paper	(20-30);		s moving, raises dust &
					- 8	o= Fresh br 6= Strong b	eeze, small (reeze, large	trees begin t branches in	to sway (31-39) motion (40-50)

Project Details 44	401/6				_ Date .	May 23, 208	
Surveyors A. Miniell	K. Mcke	nzie		- 41			
Location Description $\overline{\mathcal{I}\mathcal{U}}$	-01 tra	unsect		Ĭ		Photo #s 21000968 +0	21000477
Location UTMSee						Map Attached □	
Start Time 10:95	Air Temp	Start _	18°C	_ Cloud (Cover	0	
End Time 10:56	Air Temp	End _	20°C		tation		
Search Duration LI min	Water Te	emp <u></u>	~15°C	Wind (E	Beaufort)	3 from St	
Proportion of suitable habita	surveyed 100	10					
Wetland Type					Substrate 🗅	thoral Soil and leaf 1:	t-ler
Wetland Size (dimensions, are	a) <u>~0.75</u>	ha			Average Wat	ter DepthO.25m	
Vegetation (check all that appl	/		/			☐ Cattail ☐ Reed/Phragmities	
			erged Maquat	tic Emergent 🗖	Other		
Terrestrial Shoreline Habitat							
Blanding's Turtle Observatio	ns		I		1		I
Easting North	ing Accuracy (m)	Time	Behaviou	r Age/Sex	Photo #s	Notes	
None							-
					-		
					+ +	2022	
Incidental Observations of O	than Crasica as Irro		hitat Factures				1
Incidental Observations of O						Comments	1
Species / Feature	Easting	N	lorthing	Accuracy (m)	ū!	Comments	
Done		21					
			4				
				20			
					<u> </u>		
							32
General Comments (habitat		cies, pote	ntial threats)		Wind Scale:	ertically (0-2km/hr)	
Green trun ob	spruel		<u>-</u>	. 1 = Light 8	air movement,	smoke drifts (3-5) felt on face: leaves rustle (6-11)	
				3= Gentle	breeze, leave	s & twigs in constant motion (12-19) hall branches moving, raises dust &	
	·,			loose pap	er (20-30);	trees begin to sway (31-39)	
	-		 .			branches in motion (40-50)	

)	Project Details _					. Date	May 23, 201	May 23, 2013		
		4. Minielly					**		2, 23966	
	Location Descripti	ion()(52 1	Vant	age poin	<u>1</u>			Photo #s Plow965	
	Location UTM		1		70,	_	UTM Zo	ne:	Map Attached	l
	Start Time _	948 am	'	_	1/0	_	Cloud C	over		
	End Time	10.08	Air Temp	End _	180	_	Precipit	ation	None	
	Search Duration -	20mis	- Water Te	mp 🖺	120	_	Wind (B	eaufort)	3 fromsE	
	Proportion of suita	ıble habitat surv	reyed 100%	7		_				= =
	Wetland Type _O	AO with	fringe 1	Mas	(ommun	itic	<u> </u>	Substrate _	Course substrate on	else of parl
									ater Depth	
		all that apply);	Rush/Sedge 🗖	Floating	Mat Shrub	b/Thic	ket 🗖 Sph	agnum/Peat	Cattail Reed/Phragmities	
	Terrestrial Shoreling			/						
	Blanding's Turtle	Observations				80				
	Easting	Northing	Accuracy (m)	Time	Behaviou	ır	Age/Sex	Photo #s	Notes	
	None						-			1
										_
				-				-		
				-				 		4
	Incidental Observa	ations of Other S	Species or Impo	rtant Ha	bitat Features	s				¬
	Species / Fo	eature	Easting	N	orthing		uracy m)		Comments	
	Milland paints	d turtle 4	3.450158	-80,	175102		11	finiflee	bucking on cutta. K	1
	Midlandpain	'	•		74174			ustles 1	ansking on latter!	
	Milland paid	nted tertlet	3,450670	-20	175423		1+	whe b	rsking	
		1	3,450260	1	175020		L+	urtle	Swimmita	
	Midland quist	el tustle 4	-110		75712		810	wtles	busking	
	Midland pain	tel +w +64	3.451722	-80	175409		1) 4	notle	Swimming	
	General Comments	s (hahitat notes	invasive speci	es noto:	ntial threats)	ſ	Beaufort W	find Sealer		
	Large Snap		1	es, poiei	welkin	2	0 = calm, si	noke rises v	vertically (0-2km/hr)	
	along for		s active	ent	to)	2 = Slight b	reeze, wind	s, smoke drifts (3-5) felt on face; leaves rustle (6-11) as & bying in constant metion (43-40)	
	1 3	•					4= Moderat	e breeze, sr	es & twigs in constant motion (12-19) mall branches moving, raises dust &	'
							5= Fresh br	eeze, small	trees begin to sway (31-39) b branches in motion (40-50)	
							o- Subing D	reeze, iarge		

Project Details _	Huy Yol	/6	50					Date	2018-05-25	ı
Surveyors	AM	inielly	K. 1	Mckenzi	e					
Location Descripti	on 10-03	3	Va	tage.	De	ints	<u>.</u>		Photo #s 11 2362 - 1	2359
Location UTM	see mus								Map Attached 🗖	
Start Time	0:21 im	Air Temp	Start _	23°C	_	Clo	ud Cov	ver	077	
End Time -	11:05 am	Air Temp		2300	9	Pre	cipitati	ion C	Done	
Search Duration	44min	Water Te		ヘアレ			•		BA O	
Proportion of suita	able habitat survey	red 100%	12							
Wetland Type				pond	el	ac	Su	bstrate	leaf 1. Heral min	erel so
Wetland Size (dime									ater Depth //	_
				_					□ Cattail □ Reed/Phragmities	-
v ogotaton (onton		ees 🗖 Aqua							Total Troop magnitos	_
Terrestrial Shoreli	ne Habitat (ELC)	FODIC	UM							
Blanding's Turtle (
Easting	Northing	Accuracy	Time	Behaviou	ır	Age	/Sev	Photo	Notes	7
	Northing	(m)	Time	Dellavio	<i>a</i> 1	Age	- CEX	#s	Notes	_
None										-
										-
			_							-
										1
										-
								1	· · ·	_
Incidental Observa			\top							٦
Species / F	eature	Easting	N	orthing		curacy (m)			Comments	
Milland pa	stelfully3	450271	-80,1	38691			4ta	st65	basking on log	
Hidand pan	ted turtle 43	1450591	-80	138815			8 ta	+45	hasting on loss Thuma	pock
Millond pain	Hed Instead?	1450286	-80,	138665	_		4+c	rtles	basking on lays	_
milland par	ted furtle43	. 450497	- 80	138736			4 t.	urfles	basking on logs	4
Midland Paint	eltarte 43	1450160	-30	139497	_	-	7 +1	redles	basking on by	-
Midland Pa	antal tite 4	12.16.184	-30.				5+	WHLS	basking on lag	
General Comment	ts (habitat notes i	3,4504 62		NISP388		Веац	fort Wi	<i>∞ೆ+ೀ≲</i> nd Scale:	basking on long	
Green fra	bras (allia.	100, poto			0 = ca	alm, sm	oke rises v	vertically (0-2km/hr) , smoke drifts (3-5)	
)	J			_	2 = S	light bre	eze, wind	felt on face; leaves rustle (6-11) es & twigs in constant motion (12-19)	.
		= 0.00				4= M	oderate		mall branches moving, raises dust &	
						5= Fr	esh bre	eze, small	trees begin to sway (31-39) branches in motion (40-50)	
					_		119 011			



Project Details <u></u>	10 - /	1/6						Date	May 2	9,2018	
Surveyors 4	Minielly	5,50	oft								lde - I
Location Descript	ion 10-0	4							_ Photo	#s 12 0906 to 12	4701
Location UTM	See n	100			_					_ Map Attached □	
	11:58					Clou	ud Cov	/er	0	_	
End Time .	12:45 pm	- Air Temp	End _	2500	_	Pred	cipitati	on N	one		
Search Duration .	47 min	. Water Te	mp ~	16°		Win	d (Bea	ufort)	From	E	
Proportion of suita	able habitat surv	reyed 909	1								
Wetland Type							_ Su	bstrate L	rinocls	oil althick on	<i>بساد</i>
Wetland Size (dim	ensions, area) _	1.4hn					_ Av	erage Wa	ter Depth	<u>lm</u>	
Vegetation (check		/ /							_	Reed/Phragmities	
	I.	VTrees □ Aqua	tic Subme	rged 🗖 Aqu	atic Er	mergent	Ot Ot	her			
Terrestrial Shoreli	ne Habitat (ELC	C)									
Blanding's Turtle	Observations			, <u>-</u>							
Easting	Northing	Accuracy (m)	Time	Behavio	ur	Age/	Sex	Photo #s		Notes	
None											
								\square			
					\dashv						
	<u> </u>				l						
Incidental Observa	N .	Species or Impo	ortant Ha	bitat Feature	es T						l
Species / F	eature	Easting	N	orthing		uracy m)			Comm	ents	1
Midland said	Helterthe	13,451465	-20.	(2279			2te	Ales	busk	in m lon	
Midland paint	d turtle	13.451323	-80	1122420			24	volles	Float	- nor confac	٦
Millenlpa	Itel 4	13,48316	-80	122259			1 to	stle	floutin.	al sortace	l
					ļ						l
							1 10	l			
General Commen	ts (habitat notes	s, invasive spec	ies, pote	ntial threats)				nd Scale:			1
	_	1 = Lig	ght air r	novement,	ertically (0-2 , smoke drift	s (3-5)	-				
				_	3= Ge	ntle bre	eeze, leave	es & twigs in	leaves rustle (6-11) constant motion (12-19)		
					-	loose	paper ((20-30);		s moving, raises dust &	
		 			-					to sway (31-39) n motion (40-50)	
	_				_						

Project Details	1 11						Ē	Date	May 2	1,7012	
Surveyors A. J	,	-								2/	
Location Descripti	_		age	Point						#s Pl 000 990 to	P1000991
Location UTM		ب			_	UTM	Zone	e:(7N	Map Attached □	
	9:52 am	Air Temp	Start _	20°C		Cloud	d Cov	ver	0%	_	
End Time	0.15 am	Air Temp		20°C		Preci	ipitati	on	None	_	
Search Duration	17min	Water Te	mp –	210'6	_	Wind	d (Bea	ufort)	0		
Proportion of suita	ıble habitat surve	yed <u>1007</u>	,							 	
Wetland Type <u></u>	As1/Sh	172					Su	bstrate _	Soft s	abstrale	
Wetland Size (dime	ensions, area)	0.2 ha					Av	erage Wa	ter Depth	~0.Sm_	
Vegetation (check										☐ Reed/Phragmities	
Terrestrial Shoreli	ne Habitat (ELC)	CUW									
Blanding's Turtle	Observations										
Easting	Northing	Accuracy (m)	Time	Behavio	ur	Age/S	Sex	Photo #s		Notes	
None											
		+									
]	1	<u> </u>								i
Incidental Observa	ations of Other S _I	pecies or Impo	ortant Ha	bitat Feature	es T						1
Species / F	eature	Easting	N	orthing		curacy (m)			Comm	ents	
None											
					_						
			_		-					· · · · · · · · · · · · · · · · · · ·	
					<u> </u>		,				J
General Commen	ts (habitat notes,	invasive spec	cies, pote	ntial threats)	0 = calr 1 = Ligi	m, sm ht air i	movement	vertically (0-:	ts (3-5)	
					_	3= Gen 4= Mod loose p 5= Fres	ntle broderate baper o sh bre	eeze, leave breeze, sr (20-30); eze, small	es & twigs in mall branche trees begin	leaves rustle (6-11) constant motion (12-19) es moving, raises dust & to sway (31-39)	
					_	6= Stro	ong br	eeze, large	branches i	n motion (40-50)	

16

Project Details ±								Date	May	24,2018	
SurveyorsA	Minielly	M. Ro	55						·		
Location Descripti	on <u>T(1 - 0</u>	6		- <u>-</u>					Phot	0#s P10009861	, Ploo
Location UTM	See mg	<u> </u>			_	UTM	Zone	e: <u> </u>	7N	Map Attached □	
	9:30	Air Temp	Start _	20°C		Clou	d Cov	/er	0-/=		
End Time	9:45	Air Temp	End _	20'6		Prec	ipitati	on <u>M</u>	one	_	
Search Duration	15 min	Water Te	mp _	N/A	_	Wind	d (Bea	ufort)	2		
Proportion of suita	able habitat surve	yed 80%							_		_
Wetland Type	OAO						Su	bstrate _	Soft w	1th some cobbles	L,
Wetland Size (dim	ensions, area)	1-1.5n					Ave	erage Wa	iter Depth	\sim 0.5m	_
Vegetation (check	all that apply): GR	ysh/Sedge	Floating I	Mat 🗹 Shru	b/Thic	ket 🗆 S	Sphag	num/Peat	☐ Cattail	Reed/Phragmities	
		_	tic Subme	rged 🖸 Aqu	atic E	mergent	Ot	her			-
Terrestrial Shoreli	ne Habitat (ELC)	FOD									-
Blanding's Turtle	Observations									·	_
Easting	Northing	Accuracy (m)	Time	Behavio	ur	Age/S	Sex	Photo #s		Notes	
None]
											4
											-
											-
						<u> </u>					-
Incidental Observa	ations of Other Sp	ecies or Impo	ortant Ha	l bitat Feature	es				1		
Species / F		Easting		orthing	Ι	шгасу			Comn	nents	7
					1	m) 1					-
None			+		-	\longrightarrow					-
		_								-	1
								_			7
		-									
General Comment Pond 70				ntial threats)	- -	0 = cal 1 = Lig 2 = Sli 3= Ger 4= Mor loose p 5= Fre	m, sm th air ght bre ntle br derate paper sh bre	movement eeze, wind eeze, leav breeze, s (20-30); eeze, small	vertically (0 t, smoke dri felt on face es & twigs i mall branch)

Project Details	- (Date	Nay 23, 2012
Surveyors	_ {								- 91 - 92 1 31003
Location Descripti									
Location UTM)		A : 26	_	UTI	M Zone	e:	Nap Attached □
	12:34 pm	•		2100			ud Cov		<u> </u>
	2.54 pm	•		21.0	_				None
Search Duration									from S
Proportion of suita									
Wetland Type 💇	6 with fr	inging Ma	MRY	Commu	ily		_ Su	bstrate 🚅	Soft mineral soil substrate
Wetland Size (dime	ensions, area) 💆	-0.16ha					_ Av	erage Wa	ater Depth O.Smtolm
Vegetation (check									Cattail Reed/Phragmitles
Terrestrial Shoreli	ne Habitat (ELC	·)							
Blanding's Turtle (Observations								
Easting	Northing	Accuracy (m)	Time	Behavio	ur	Age/	Sex	Photo #s	Notes
None									
					-				
In aid and a Observe									
Incidental Observa					Ī				
Species / F	eature	Easting	I. N	orthing		uracy m)			Comments
Milland pris	led to He 4	3.457022	-80,	112,807			3 to	votles 1	were alterted while
-1			ļ		<u> </u>		besk	The on	Cattais. All 3 drapped
					-		inta	wate	,
General Comment	s (habitat notes	i, invasive speci	es, pote	ntial threats)	-	0 = ca 1 = Lig 2 = Sl 3= Ge 4= Mo loose	Im, sm ght air r ight bre ntle bre derate paper (novement eze, wind eze, leave breeze, sr 20-30);	vertically (0-2km/hr) , smoke drifts (3-5) felt on face; leaves rustle (6-11) es & twigs in constant motion (12-19) mall branches moving, raises dust & trees begin to sway (31-39)

Project Details _	Hwy Hal	16					Date	May 18,2018
Surveyors A.	Minielly	K. Mcke	nzie					
Location Descripti	on <u>10-08</u>							Photo #s
Location UTM	See map					UTM Zo	ne: <u>17</u>	N Map Attached □
Start Time						Cloud C	over	0
End Time -	11:65	Air Temp	End _	20°C	_	•		None
Search Duration -	Ismin	Water Te	mp <u> </u>	-14°C	_	Wind (Be	eaufort) 🔼	SfiomsE
Proportion of suita	ble habitat survey	red <u>50%</u>						
Wetland Type	MAS					s	ubstrate 2	off mucky substrate
Wetland Size (dime	ensions, area)	~0.25h				A	verage Wa	ater Depth <u>0.25m</u>
Vegetation (check								☑ Cattail ☑ Reed/Phragmities
Terrestrial Shoreli								
Blanding's Turtle (Observations							
Easting	Northing	Accuracy (m)	Time	Behavio	ur	Age/Sex	Photo #s	Notes
None		(***)						
							-	
		<u> </u>						
Incidental Observa	ations of Other Sp	ecies or Impo	ortant Hal	bitat Feature	es T	1		
Species / F	eature	Easting	N	orthing		curacy (m)		Comments
Mone						()		
					_			
					ļ			
General Comment		nvasive spec)	0 = calm, s 1 = Light a	r movemen	vertically (0-2km/hr) t, smoke drifts (3-5)
Enstern , 20	oal Pewe	e hear	1 cal	11/2	_	3= Gentle I	oreeze, leav te breeze, s	d felt on face; leaves rustle (6-11) yes & twigs in constant motion (12-19) small branches moving, raises dust &
					_	5= Fresh b	reeze, smal	ll trees begin to sway (31-39) e branches in motion (40-50)

Project Details _	Huy 401/6							Date	May 24, 7013	
Surveyors	V	MIR	055						<i>(</i>	
Location Descript	ion 4	J-09		untage	00	PINT			Photo #s Ploop 992 to	1000 994
Location UTM						UT	M Zone	e: <u>17</u>	Map Attached □	
Start Time .	10:38 AM	Air Temp	Start _	22°C	_	Clo	ud Co	ver	0	
End Time .	11:12 AM	Air Temp	End _	23°C		Pre	cipitati	ion <u>N</u>	lone	
Search Duration .	BARIA	Water Te	mp <u>~</u>	-18°C	_	Wir	nd (Bea	ufort)		
Proportion of suits	able habitat surve	yed 100%	•							
Wetland Type	MAS/OF	40					_ Su	bstrate L	ent little over mineral se	i (
Wetland Size (dim	ensions, area)	-0.16	ha	 .			_ Av	erage Wa	ater Depth O.S.	
Vegetation (check									☑Cattail ☐ Reed/Phragmities	
							t 🗖 Ot	her		
Terrestrial Shoreli		Con	700	17500	<u> / S</u> (N C	= ;			
Blanding's Turtle	Observations T	<u> </u>		1						
Easting	Northing	Accuracy (m)	Time	Behaviou	ır	Age	/Sex	Photo #s	Notes	
None										
				_						
Incidental Observa	ations of Other Sn	ocios or Impo	rtant Ha	hitat Eastura		L				
Species / F		Easting	T	orthing					Comments	
		•			۱ (uracy (m)			Comments	
Snapping to	artle 4		-6	0.698402			buck	13 M	ent Surface of weeks	
Encepping .	rustle 15	.42700	-60	.618397			bus	King	new survey of newor	
									· ·	
28										
General Comment			ies, pote	ntial threats)		0 = ca	lm, sm		vertically (0-2km/hr)	
3120	· VIAFOC (C.)	"5		-	- 1	2 = SI	ight bre	eze, wind	, smoke drifts (3-5) felt on face; leaves rustle (6-11)	
						4= Mc	derate	breeze, sn	es & twigs in constant motion (12-19) mall branches moving, raises dust &	
						5= Fre	sh bre		trees begin to sway (31-39)	
						०= ऽध	ong bre	eze, large	branches in motion (40-50)	

	A. Miniel		· ·			<u></u> -		Date	May 24, 2019	3	
Surveyors	ription 10-(points 2	Lo). a. 1 @cd	4<		Photo #s 210	0099510	P101 (2020)
	See n		"" (201118 2			/ Zone		17.1	Attached	1 1 000
Start Time	11:26	Air Temp	Ctod	24°C	_				Iviap i	Attached 🔟	
End Time	12:31	All TempAir Temp	_	25°C	_		ıd Cov		one		
	on thrsm	,		-13-20°	C		cipitati	···	I from 5		
			- A			vvin	d (Bea	ufort)	HOVE		
		urveyed <u>loo/</u>	7							c 1 -101	
		MAM 2-7					_		soft mineral		
		- 2 ha							iter Depth <u>0.2</u>		
Vegetation (ch		☑ Rush/Sedge ☐ ☐ Trees ☐ Aqua							☑ Cattail ☐ Reed	Phragmities	
Terrestrial Sho		LC) CUM/S		,	/						
	tle Observations	= '				7					
			T:	D-b		A 10	2	Dhata	Notes		1
Easting	Northing	Accuracy (m)	Time	Behaviou	ır	Age/S	sex	Photo #s	Notes		
None											
				,							-
											-
											-
											1
Incidental Obs	ervations of Othe	er Species or Impo	ortant Ha	bitat Feature	s						_
Species	s / Feature	Easting	N	orthing		шгасу			Comments		
Aeleste	I dilect	43.42726	· -20	2.69 240 7	(m)	امدا	م اد	racher Sult	- ()	lakh.
Milland	what kalle	43. 427424	1-80	092916					of veg met	ye wad	= Street
							r.KA.S	CINS C	* 163 mai		1
]
			-								-
					-50]
General Comp	nents (hahitat no	tes, invasive spec	ies note	ntial threate\	[Beauti	ort Wir	nd Scale:			
			ies, pote	mar meats)	_	0 = cal	m, sm	oke rises v	vertically (0-2km/hr) , smoke drifts (3-5)		
bull from	from obs				_	2 = Sli	ght bre	eze, wind	felt on face; leaves rus es & twigs in constant r		
					_	4= Mod	derate		nall branches moving,		
					_	5= Fre	sh bre	eze, small	trees begin to sway (3) branches in motion (4)		
										,	

)	Project Details 4.	/ 1.	M. Res					Date	May 24, 2018	
	Location Descripti		111 K 02	>					Photo #s <u>Plo100*9 to P</u>	1010020
	Location UTM _						LITM Zo	ne:		
	Start Time	I: OR OM	Air Temp	Stort	1 G°C		Cloud C		107°	
	End Time	1:27 PM	Air Temp		26°C		Precipita		Jone	
	Search Duration	22 min	Water Te		~15°C		-		from S	
	Proportion of suita									
	Wetland Type		1 1000			- 1.		1 1	Soff mineral soil	-
			proprieted	are	~02S	ha			ater Depth <u>~0.25m</u>	-
			. •						Cattail Reed/Phragmities	•
			rees 🖸 Aqua	tic Subme	rged 🖫 Aqı					-
	Terrestrial Shoreli	ne Habitat (ELC)	Swin /A	tarieu	Itural					-
	Blanding's Turtle	Observations								_
	Easting	Northing	Accuracy (m)	Time	Behavio	our	Age/Sex	Photo #s	Notes	
	None									
			ļ							
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										-
				<u></u>						1
	Incidental Observa	ations of Other S	necies or Imry	ortant Hal	hitat Feature	96				_
	Species / F		Easting	1	orthing	Acc	curacy		Comments]
	nane					'	(m)			+
	719									-
				-		-		,		4
						<u> </u>				-
										_
	General Comment	ts (habitat notes,	invasive spec	ies, pote	ntial threats))		/ind Scale:		
	Green Ro	y obser	iel			_	1 = Light ai	r movement	vertically (0-2km/hr) , smoke drifts (3-5)	
						_	3= Gentle b	reeze, leave	felt on face; leaves rustle (6-11) es & twigs in constant motion (12-19)	
			 -	6		-	loose paper	(20-30);	mall branches moving, raises dust & trees begin to sway (31-39)	
						_	6= Strong b	reeze, large	branches in motion (40-50)	

Project Details		· •	/	<u></u>		(1)	Date	Ny 29,2018
SurveyorsA			xot+			L-		Numa and
Location Description			/W/H	age p	701			Photo #s 111222,111224
Location UTM	1				—	UTM Zo	ne:	7 N Map Attached □
	11:07 BW					Cloud C	over	0
	1:22 pm	Air Temp	End _	23°C	—	Precipita		Jone
Search Duration	20 min	Water Te	mp ~	18.0		Wind (B	eaufort) $\underline{\mathcal{L}}$	from E
Proportion of suita	ble habitat survey	red 00	10					
Wetland Type	MAS 2-1					s	Substrate _	Mineral Muk
Wetland Size (dime	ensions, area)	~0.12h	~				verage Wa	ater Depth <u>0.15m</u>
Vegetation (check a		ush/Sedge ☑ ees ☑ Aqua						Cattail Reed/Phragmities
Terrestrial Shorelin	ne Habitat (ELC)	LUW	learn	1 Com	dox			
Blanding's Turtle C	Observations							
Easting	Northing	Accuracy (m)	Time	Behavio	our	Age/Sex	Photo #s	Notes
None			,					
220	\						4	
Ž.							ļ <u> </u>	
Incidental Observa	tions of Other Sp	ecies or Impo	ortant Hal	bitat Feature	es			
Species / Fe	eature	Easting	N	orthing		uracy		Comments
None			-		(1	m)		
100170								
General Comments Vater Lev Visit	1 1		ies, poter	ntial threats)) [0 = calm, si 1 = Light ai 2 = Slight bi 3 = Gentle bi 4 = Moderat loose pape 5 = Fresh bi	r movement reeze, wind reeze, leave e breeze, sr (20-30); eeze, small	vertically (0-2km/hr) , smoke drifts (3-5) felt on face; leaves rustle (6-11) es & twigs in constant motion (12-19) mall branches moving, raises dust & trees begin to sway (31-39) e branches in motion (40-50)





Attachment D

Summary of Results

Attachment D: Results of Surveys



	Commence		Round 1			Round 2			Round 3			Round 4			Round 5	
	Survey Method	Weather and Date	Species Observed	Individuals	Weather and Date	Species Observed	Individuals	Weather and Date	Species Observed	Individuals	Weather and Date	Species Observed	Individuals	Weather and Date	Species Observed	Individuals
TU-01	Transect	Date: 30/04/2018 Temp °C: 16 Precip: None Wind (BS): 1	None	0	Date: 08/05/2018 Temp °C: 10 Precip: None Wind (BS): 2	None	0	Date: 14/05/2018 Temp °C: 18 Precip: None Wind (BS): 2		0	Date: 16/05/2018 Temp °C: 21 Precip: None Wind (BS): 2	Snapping Turtle (Chelydra serpentina)	2	Date: 23/05/2018 Temp °C: 18 Precip: None Wind (BS): 3	None	0
TU-02	Vantage points	Date: 30/04/2018 Temp °C: 13 Precip: None Wind (BS): 3	Midland Painted Turtle (<i>Chrysemys</i> picta marginata)	5	Date: 08/05/2018 Temp °C: 10 Precip: None Wind (BS): 2	Midland Painted Turtle	1	Date: 14/05/2018 Temp °C: 21 Precip: None Wind (BS): 4	Midland Painted Turtle	4	Date: 16/05/2018 Temp °C: 21 Precip: None Wind (BS): 2	Midland Painted Turtle	3	Date: 23/05/2018 Temp °C: 17 Precip: None Wind (BS): 3	Midland Painted Turtle Snapping Turtle	17
TU-03	Vantage points	Date: 30/04/2018 Temp °C: 6 Precip: None Wind (BS): 2	Midland Painted Turtle	2	Date: 08/05/2018 Temp °C: 20 Precip: None Wind (BS): 1	Midland Painted Turtle	19	Date: 16/05/2018 Temp °C: 20 Precip: None Wind (BS): 2	Turtle	10	Date: 17/05/2018 Temp °C: 24 Precip: None Wind (BS): 3	Midland Painted Turtle	7	Date: 25/05/2018 Temp °C: 23 Precip: None Wind (BS): 0	Midland Painted Turtle	36
TU-04	Vantage points	Date: 30/04/2018 Temp °C: 16 Precip: None Wind (BS): 3	Midland Painted Turtle Unconfirmed Turtle Species	15	Date: 08/05/2018 Temp °C: 16 Precip: None Wind (BS): 1	Midland Painted Turtle	35	Date: 14/05/2018 Temp °C: 19 Precip: None Wind (BS): 3	Midland Painted Turtle	34	Date: 17/05/2018 Temp °C: 21 Precip: None Wind (BS): 1	Midland Painted Turtle	31	Date: 29/05/2018 Temp °C: 25 Precip: None Wind (BS): 3	Midland Painted Turtle	5
TU-05	Vantage points	Date: 01/05/2018 Temp °C: 17 Precip: None Wind (BS): 1	None	0	Date: 07/05/2018 Temp °C: 15 Precip: None Wind (BS): 1	None	0	Date: 08/05/2018 Temp °C: 17 Precip: None Wind (BS): 1	None	0	Date: 14/05/2018 Temp °C: 18 Precip: None Wind (BS): 1	None		Date: 24/05/2018 Temp °C: 20 Precip: None Wind (BS): 0	None	0
TU-06	Vantage points	Date: 01/05/2018 Temp °C: 17 Precip: None Wind (BS): 2	None	0	Date: 07/05/2018 Temp °C: 15 Precip: None Wind (BS): 1	None	0	Date: 14/05/2018 Temp °C: 17 Precip: None Wind (BS): 2	None	0	Date: 17/05/2018 Temp °C: 11 Precip: None Wind (BS): 0	None		Date: 24/05/2018 Temp °C: 20 Precip: None Wind (BS): 0	None	0
TU-07	Vantage points	Date: 01/05/2018 Temp °C: 14 Precip: None Wind (BS): 2	Midland Painted Turtle	5	Date: 07/05/2018 Temp °C: 15 Precip: None Wind (BS): 2	Midland Painted Turtle	1	Date: 08/05/2018 Temp °C: 17 Precip: None Wind (BS): 1	Midland Painted Turtle	2	Date: 14/05/2018 Temp °C: 17 Precip: None Wind (BS): 2	Midland Painted Turtle	2	Date: 23/05/2018 Temp °C: 21 Precip: None Wind (BS): 3	Midland Painted Turtle	3
TU-08	Vantage points	Date: 30/04/2018 Temp °C: 17 Precip: None Wind (BS): 1	None	0	Date: 09/05/2018 Temp °C: 25 Precip: None Wind (BS): 4	None	0	Date: 16/05/2018 Temp °C: 14 Precip: None Wind (BS): 2	None		Date: 17/05/2018 Temp °C: 17 Precip: None Wind (BS): 0	None	0	Date: 25/05/2018 Temp °C: 20 Precip: None Wind (BS): 3	None	0
TU-09	Vantage points	Date: 01/05/2018 Temp °C: 23 Precip: None Wind (BS): 2	None	0	Date: 06/05/2018 Temp °C: 14 Precip: None Wind (BS): 4	Midland Painted Turtle Snapping Turtle	3	Date: 16/05/2018 Temp °C: 16 Precip: None Wind (BS): 2	Midland Painted Turtle Snapping Turtle	3	Date: 17/05/2018 Temp °C: 21 Precip: None Wind (BS): 1	Midland Painted Turtle Snapping Turtle	2	Date: 24/05/2018 Temp °C: 22 Precip: None Wind (BS): 1	Snapping Turtle)	2
TU-10	Vantage points	Date: 01/05/2018 Temp °C: 24 Precip: None Wind (BS): 1	Midland Painted Turtle Unconfirmed Turtle Species	1	Date: 07/05/2018 Temp °C: 10 Precip: None Wind (BS): 3	Midland Painted Turtle	1	Date: 14/05/2018 Temp °C: 21 Precip: None Wind (BS): 3	Midland Painted Turtle	1	Date: 16/05/2018 Temp °C: 21 Precip: None Wind (BS): 2	None	0	Date: 24/05/2018 Temp °C: 24 Precip: None Wind (BS): 1	Midland Painted Turtle Red Eared Slider (Trachemys scripta)	1
TU-11	Transect	Date: 07/05/2018 Temp °C: 16 Precip: None Wind (BS): 3	None	0	Date: 14/05/2018 Temp °C: 21 Precip: None Wind (BS): 3	None	0	Date: 17/05/2018 Temp °C: 22 Precip: None Wind (BS): 0	None	0	Date: 23/05/2018 Temp °C: 15 Precip: None Wind (BS): 2	None	0	Date: 24/05/2018 Temp °C: 25 Precip: None Wind (BS): 2	None	0
TU-12	Vantage points	Date: 08/05/2018 Temp °C: 20 Precip: None Wind (BS): 1	Midland Painted Turtle	2	Date: 16/05/2018 Temp °C: 11 Precip: None Wind (BS): 3	Midland Painted Turtle	3	Date: 17/05/2018 Temp °C: 24 Precip: None Wind (BS): 3	Turtle	1	Date: 25/05/2018 Temp °C: 24 Precip: None Wind (BS): 2	None	0	Date: 24/05/2018 Temp °C: 24 Precip: None Wind (BS): 4	None	0
TU-13	Transect	Date: 06/05/2018 Temp °C: 10 Precip: None Wind (BS): 3	None	0					Site deemed un	nsuitable due	e to lack of water					



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To: Kirstie Houston
Senior Environmental Planner
Ministry of Transportation (MTO)
3rd Floor, 659 Exeter Road
London, ON N6E 1L3

Date: August 23, 2019
Project #: 60541071

From: Jessica Piette (AECOM)

Matthew Ross (AECOM)

Memorandum

Subject: Eastern Whip-poor-will and Common Nighthawk 2019 Additional Stations Survey Results, Highways 6 & 401 Improvements (G.W.P. 3042-14-00)

Introduction

AECOM Canada Ltd. (AECOM) has been retained by the Ministry of Transportation (MTO) to undertake the Preliminary Design Update, Detail Design and Class Environmental Assessment Study for Highways 6 & 401 (the Project). The Study Area is shown in **Figure 1**. Targeted surveys were completed to confirm the presence or absence of Eastern Whip-poor-will (Caprimulgus vociferus) and Common Nighthawk (Chordeiles minor) in 2018 as documented in the Eastern Whip-poor-will and Common Nighthawk Survey Results Memorandum (AECOM, 2018). Eastern Whip-poor-will is Threatened in Ontario and is afforded protection under the Endangered Species Act (ESA) (2007). Common Nighthawk is designated as Special Concern.

Subsequently in 2019, the Limits of Work were expanded, resulting in the need for additional Eastern Whippoor-will and Common Nighthawk surveys. The Limits of Work consist of the proposed and existing infrastructure associated with the development of the Project plus MTO Right-of-Way (ROW) and MTO owned properties where work may occur as part of the Project.

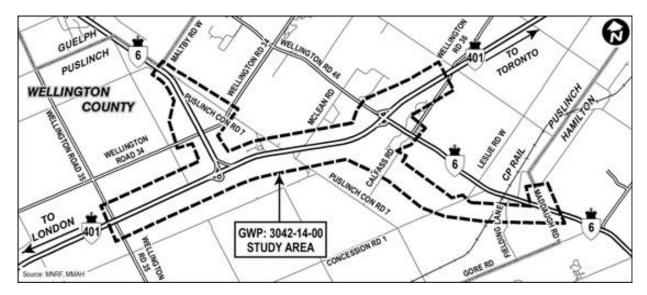


Figure 1: Study Area



Methods

AECOM undertook targeted surveys to determine the presence or absence of Eastern Whip-poor-will and Common Nighthawk within the Study Area in accordance with the Eastern Whip-poor-will and Common Nighthawk Survey Protocol (MNRF Guelph District, 2018). Surveys were conducted at two (2) additional features in 2019 that were identified as candidate crepuscular bird SAR habitat within or immediately adjacent to the revised Limits of Work. These features were previously identified through air photo interpretation and were ground-truthed during Ecological Land Classification surveys (Lee et al., 1998) in 2019.

Two (2) survey stations were then identified to survey the two (2) features (**Attachment A**, **Figure 1**). A survey window of June 10 – June 24 for the breeding season was determined for these investigations in accordance with the survey guidelines in the *Eastern Whip-poor-will and Common Nighthawk Survey Protocol* (2018) and a lunar calendar for June 2019 (Time and Date 2019). Surveys were conducted when the moon was visible between 30 minutes after sunset and 30 minutes prior to sunrise, and under suitable weather conditions: little or no cloud cover, calm or light winds, no precipitation and temperatures above 10°C. Field observers conducted a three-minute listening point count a few minutes after arriving at a given station. They recorded the total number of Eastern Whip-poor-will and Common Nighthawk present, including the distance and direction of any calls heard. The data was recorded on AECOM's Eastern Whip-poor-will Survey Form, which is consistent with MNRF Guelph District (2018) requirements.

Results

A total of two (2) features, covered through two (2) stations were surveyed for presence of Eastern Whip-poor-will and Common Nighthawk. A summary of survey dates is provided in **Table 1**. No Eastern Whip-poor-will or Common Nighthawk were recorded during field investigations. Field forms noting conditions of each survey are provided in **Attachment B**.

Round 1 Round 2 **Feature** ID Date **Survey Conditions** Results **Date Survey Conditions** Results CR-01 06/11/2019 Moon Illumination (%): 70 None 6/18/2019 Moon Illumination (%): 95 None Temperature °C: 15 Temperature °C: 20 Wind (BF):1 Wind (BF): 1 Cloud Cover (%): 5 Cloud Cover (%): 0 Precipitation: none Precipitation: none 06/11/2019 Moon Illumination (%): 70 CR-02 None 6/18/2019 Moon Illumination (%): 95 None Temperature °C: 15 Temperature °C: 20 Wind (BF):1 Wind (BF): 1 Cloud Cover (%): 5 Cloud Cover (%): 0 Precipitation: none Precipitation: none

Table 1: 2019 Eastern Whip-poor-will and Common Nighthawk Survey Results

Conclusions and Recommendations

- No Eastern Whip-poor-will or Common Nighthawk were recorded during field investigations.
- Although no SAR were observed at the identified locations, it is recommended that vegetation removal occur outside of the breeding bird season of April 1st to August 31st of any calendar year.



References

AECOM, 2018:

Eastern Whip-poor-will and Common Nighthawk Survey Results Memorandum. Prepared for the MTO October 2018.

Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurrary, 1998: Ecological Land Classification for Southern Ontario: First Approximation and its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.

Ministry of Natural Resources and Forestry (MNRF) Guelph District, 2018:

Eastern Whip-poor-will (*Caprimulgus vociferous*) and Common Nighthawk (*Chordeiles minor*) Survey Protocol.

Time and Date AS, 2019. Moon phases and lunar calendar for Guelph, Ontario, Canada. Available at: https://www.timeanddate.com/moon/phases/canada/guelph

Attachments

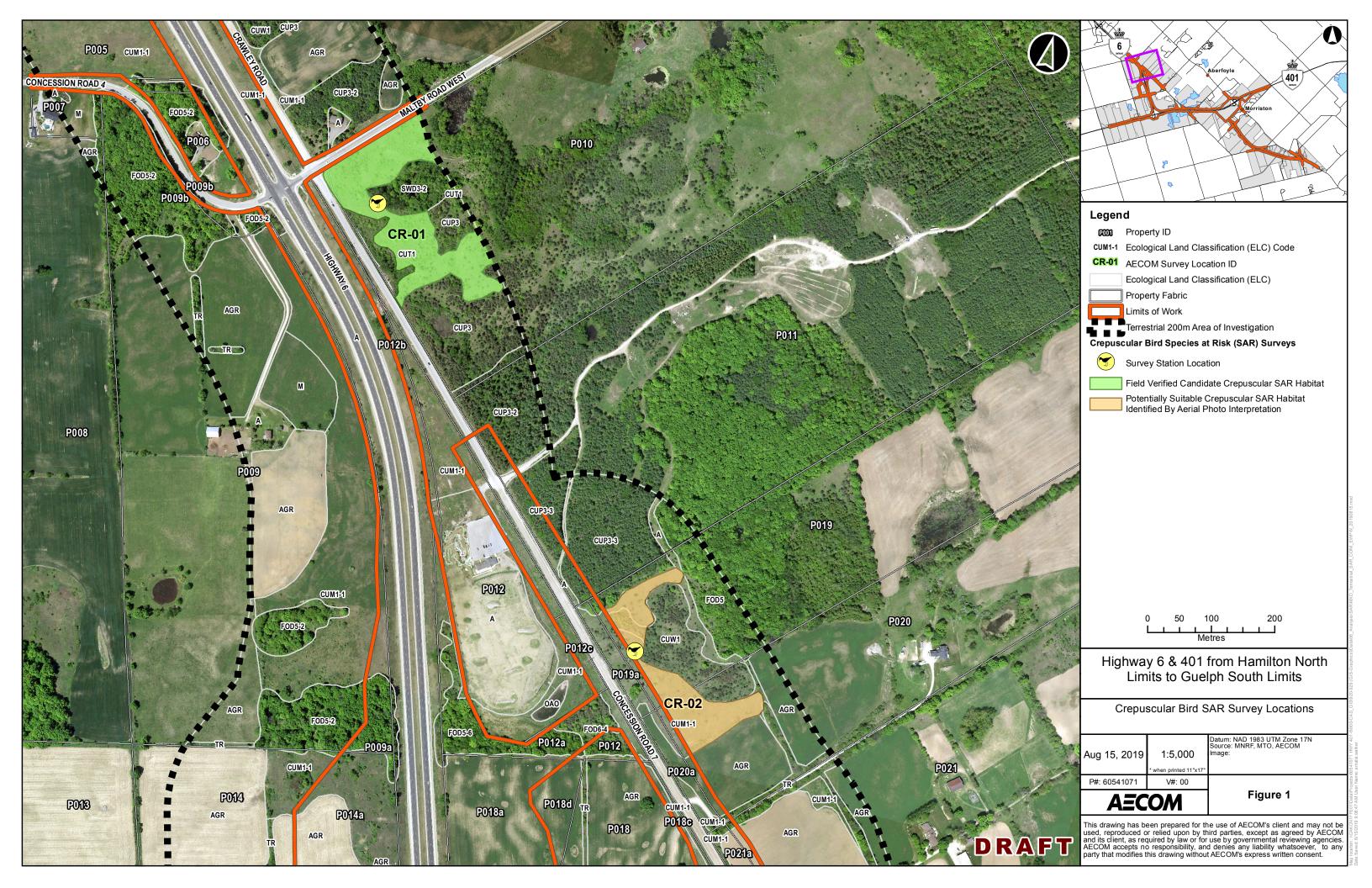
Attachment A: Figure 1

Attachment B: Field Forms



Attachment A

Figure 1





Attachment **B**

Field Forms



Project Name: HWY 401 6	Surveyors: M. 2055/M.Ol&n.
Project Number: 6054(07)	
Survey Date: June 18, 2019	Official Sunsent Time: 9.05 pm
% Moon Illumination:	Official Moonrise Time: 10.24pm
Weather Conditions Temperature (C°):	5 Wind (B.S.):
Description of Local Habitat Conditions and Adjacent Land Use	sce mapsi

Survey Point Information (Spend at least 5 minutes listening for Whip-poor-wills at each survey point. For point with Whip-poor-will fill in the additional information on page 2 of the survey form and record the location on the field map.

	Trecord the location of		# EWPW	Moon Visible?		
Survey Point ID	GPS Co-ordinates	Start Time	heard	(Y/N)	Noise Leve	el (circle one)
02-01 CR-03	565694 4813727	11:28pm	N	4	Slight Kigh	Moderate Excessive
CR-03	966267 481315	11:30pm	N	7	Slight High	Moderate Excessive
	,				Slight	Moderate
					High	Excessive
					Slight	Moderate
					High	Excessive
					Slight	Moderate
					High	Excessive
			1		Slight	Moderate
1					High	Excessive
		- "			Slight	Moderate
					High	Excessive
					Slight	Moderate
					High	Excessive
					Slight	Moderate
					High	Excessive
					Slight	Moderate
					High	Excessive
		20			Slight	Moderate
					High	Excessive
					Slight	Moderate
					High	Excessive
					Slight	Moderate
					High	Excessive



Whip-poor-will Bird Information - fill in one line per each bird heard

		mone line per eden bird			
Survey Point ID	EWPW ID	Repeat from Last Survey Point? (Y/N)	Distance	Direction	Comments
		24			
	/				

Other species of Interest:

Survey Point ID	Species	Distance	Direction	Comments
		*2		
			28	



Project Name: HWY KIOII6 #	Surveyors: M. 2055 M. 0(86 N		
Project Number: (005407)			
Survey Date: 11, 2019	Official Sunsent Time: 2(;0)		
% Moon Illumination:	Official Moonrise Time: 14:218		
Weather Conditions Temperature (C°): \(\sum \) Wind (from): Cloud Cover (%): \(\sum \) Percipitation:	Wind (B.S.):		
Description of Local Habitat Conditions and Adjacent Land Use: PERHONAL SER MOD			

Survey Point Information (Spend at least 5 minutes listening for Whip-poor-wills at each survey point. For point with Whip-poor-will fill in the additional information on page 2 of the survey form and record the location on the field map.

			Ħ	Moon		
			EWPW	Visible?		
Survey Point ID	GPS Co-ordinates	Start Time	heard	(Y/N)	Noise Level (circle one)	
c0 01	51051094	01.01	1	2	Slight	Moderate
CR-01	565694 4813727	21:36	N	1	High	Excessive
cn -na	566267 4813151	21:41	N		Slight	Moderate
CK 00	4813151	01:41	10	1	High	Excessive
					Slight	Moderate
					High_	Excessive
					Slight	Moderate
					High	Excessive
					Slight	Moderate
					High	Excessive
					Slight	Moderate
					High	Excessive
				1	Slight	Moderate
					High	Excessive
					Slight	Moderate
			<u> </u>		High	Excessive
		l l			Slight	Moderate
					High	Excessive
					Slight	Moderate
					High	Excessive
					Slight	Moderate
					High	Excessive
					Slight	Moderate
					High	Excessive
					Slight	Moderate
			<u> </u>		High	Excessive



Whip-poor-will Bird Information - fill in one line per each bird heard

		Repeat from Last			
Survey Point ID	EWPW ID	Survey Point? (Y/N)	Distance	Direction	Comments
				1	
		0			
2000	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				
			28.25		
			(설문) [1]		

Other species of Interest:

Survey Point ID	Species	Distance	Direction	Comments
)	



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Date:

To: Kirstie Houston
Senior Environmental Planner
Ministry of Transportation (MTO)
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Project #: 60541071

From: Jessica Piette (AECOM)

Andrew Minielly (AECOM)

Julie Ellis (AECOM)

November 1, 2019

cc: Clairissa Myschowoda
Regional Species at Risk Specialist
Ministry of Environment, Conservation and Parks (MECP)

Graham Buck, Management Biologist Ministry of Natural Resources and Forestry (MNRF) Guelph District

Memorandum

Subject: Results of 2019 Jefferson Salamander Surveys undertaken for the Preliminary Design Update, Detail Design and Class Environmental Assessment Study for the Highways 6 & 401 Improvements (G.W.P. 3042-14-00) under Permit No. GU-B-004-18 issued under 17(2)(b) of the ESA (2007), Wildlife Scientific Collectors Authorization #1092051

1. Introduction

AECOM Canada Ltd. (AECOM) has been retained by the Ministry of Transportation (MTO) to undertake the Preliminary Design Update, Detail Design and Class Environmental Assessment (EA) Study for the Highways 6 & 401 Improvements from Hamilton North Limits to Guelph South Limits including a New Alignment of a Segment of Highway 6 (G.W.P. 3042-14-00), hereafter the Project. The Project's Study Area is illustrated on **Figure 1**.

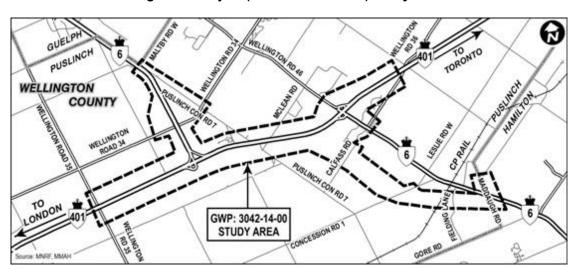


Figure 1: Project (G.W.P. 3042-14-00) Study Area



A second year of species-specific surveys to confirm the presence or absence of Jefferson Salamander (*Ambystoma jeffersonianum*) and Unisexual Ambystoma (Jefferson Salamander dependent population), species which are afforded protection under the *Endangered Species Act* (*ESA*) (2007), were undertaken in 2019 within the Project's Study Area in accordance with the following permits:

- Wildlife Animal Care Protocol (#19-417), renewal date December 10, 2018;
- Wildlife Scientific Collectors Authorization (#1092051),dated February 28, 2019; and,
- ESA 17(2)(b) permit (GU-B-004-18), dated February 14, 2018.

The following memorandum outlines the results of the second year of species-specific surveys for Jefferson Salamander within the Study Area. Results of the 2018 surveys (i.e., Year One) are documented in the Results of Jefferson Salamander Surveys undertaken for the "Preliminary Design Update, Detail Design and Class Environmental Assessment Study for the Highways 6 & 401 Improvements under Permit No. GU-B-004-18 issued under 17(2)(b) of the ESA (2007), Wildlife Scientific Collectors Authorization #1088798 Technical Memorandum (AECOM, 2018), which is provided in **Attachment A**. This memo was submitted to the Ministry of Natural Resources and Forestry (MNRF) in August 2018.

2. Methods

AECOM undertook sampling and subsequent genetic testing to determine the presence of Jefferson Salamander and Jefferson Complex Salamanders in accordance with the Sampling Protocol for Determining the Presence of Jefferson Salamanders (Ambystoma jeffersonianum) in Ontario prepared by the Jefferson Salamander Recovery Team (JSRT) (June, 2013), henceforth referred to as the 2013 Sampling Protocol. The locations of each pool are illustrated in **Attachment B, Figure 1**.

The 2013 Sampling Protocol prescribes live trapping of individuals and tissue collection for genetic testing. Generally, the 2013 Sampling Protocol involves setting minnow traps, of the recommended mesh size of 1/8", within vernal pools or ponds considered to be suitable breeding habitat for the Jefferson Salamander in order to live trap individuals present. Commercially available traps had a larger mesh size than 1/8"; therefore, to ensure compliance with the permits and the 2013 Sampling Protocol, AECOM affixed a fine mesh to all traps to reduce the likelihood of injury to captured wildlife. In addition, AECOM used glow sticks within each trap in an effort to attract salamanders to the traps (Grayson & Row, 2007).

Traps were set on or immediately after evenings of suitable weather (i.e., rain and above freezing temperatures). Trapping began after a warm rain event on March 13, 2019, however the majority of the vernal pools were not thawed, with initial trapping events occurring as late as March 28, 2019. Trapping continued during or immediately after evenings of suitable weather until April 23, 2019 when all sites had received at least 5 nights of trapping or 20 tail clippings in a single pond were collected. Precise sampling dates per pool are provided in **Table 1**.

The traps which were unbaited, with the exception of the glow sticks, were installed on the pond substrate within 2 to 3 metres (m) of egg mass attachment sites, within the ponds identified in **Attachment B, Figure 1**. All traps were set completely submerged under water. In general, traps were set at 15-20 m intervals around the perimeter of the breeding pond. A minimum of three (3) traps per pond were installed, in some cases, abundant ice coverage in the ponds hindered the installation of greater than three (3) traps. Traps were tethered to trees or other vegetation and marked with the name of permit holder and contact information, permit number and dates. UTM co-ordinates and a photo of each trap in situ were collected (Refer to **Attachment C** for a photographic log showing examples of traps in situ).



Traps were removed within 12 hours of being set, at which time any captured salamanders suspected to be a Jefferson Salamander or Unisexual Ambystoma (Jefferson Salamander dependent population) were photographed and a 3 – 5 mm portion of the tail tip was removed as tissue sample. Tissue samples were stored in 70% ethanol solution to be preserved for genetic testing. After tissue sample collection, all salamanders were released back into the pond. Any non-target species found within the traps were immediately released into the ponds. For each survey event, a Jefferson Salamander Field Collection Form, provided by the MNRF, was completed. A Jefferson Salamander Field Collection Form for each sampling event at each pond is provided in **Attachment D**. Tissue samples were provided to the Dr. Bogart laboratory at the University of Guelph along with copies of the associated Jefferson Salamander Field Collection Forms.

All equipment, including traps, and boots were sterilized with an alcohol mist (70% ethanol) between collecting sites. As well, cutting utensils and cutting surfaces were sterilized between Salamanders undergoing tissue sample collection.

2.1 Future Sampling Program Efficiencies Endorsed by MNRF

In early 2019, the MNRF confirmed that any sites determined to still be dry or unable to provide sufficient water for the duration of Jefferson Salamander larval development will be considered unsuitable for the species and no further surveys will be undertaken (Pers. Com Anne Marie Laurence, MNRF). Similarly, any sites where no salamanders were captured in two years of survey can be removed from future sampling events (i.e., the Year Three surveys in 2020).

3. Results

A total of 25 pools were sampled for presence of Jefferson Salamander and Jefferson Complex Salamanders in 2019. Of those, seven (7) pools (Pool-02, Pool-03, Pool-04, Pool-29, Pool-31, Pool-33 and Pool-34) were deemed unsuitable breeding habitat because of insufficient water depths; therefore, no further surveys will be undertaken at these locations. At the remaining 18 pools deemed suitable, a total of five (5) surveys were completed at 16 pools. Of the remaining two (2) pools, only four (4) surveys were completed at Pool-32 as the 20 tail clipping threshold was reached on April 9, 2019. A total of seven (7) surveys were completed at Pool-18 to increase the search effort based on the size of the pool. No injuries or fatalities occurred during any of the surveys.

In total, 46 individual salamanders were captured and tail clippings were obtained as tissue samples for 39 of those individuals. Two (2) recaptured individuals were collected at Pool-12; these individuals were released as tissue collection was unnecessary. A total of 25 individuals were captured at Pool-18, as only 20 tissue samples per pond is permitted, five (5) of the individuals were released unsampled. Genetic testing, conducted by Dr. Bogart of the University of Guelph, has confirmed that 22 individuals were Blue Spotted Salamanders (*Ambystoma laterale*) and 16 individuals were Blue-spotted Salamander dependant unisexual (Ambystoma (2) laterale – jeffersonianum). Neither Jefferson Salamander nor Unisexual Ambystoma (Jefferson Salamander dependent population) were detected in either 2018 or 2019. One (1) sample collected at Pool-32 was too small to undergo genetic testing, however based on current and past results, the individual is considered to be either Blue Spotted Salamander (*Ambystoma laterale*) or Blue spotted Salamander dependant unisexuals (*Ambystoma laterale* – *jeffersonianum*). Neither of these species receive protection under the ESA.

Table 1 provides a summary of the surveys undertaken at each site as well as the results of the genetic testing of captured salamanders.



Table 1: Summary of the 2019 Surveys within the Study Area

POOL ID Survey Completion Status	Date Sampled	Date Removed	# of Traps	# of Salamanders Captured and Clipped	Laboratory Results	Notes
POOL-01 Complete	28/03/2019	29/03/2019	4	0		Attempted sampling event on March 13. Ice too thick to sample.
'	30/03/2019	31/03/2019	6	0		Site visited on March 19, 2019 to check site conditions. Site still covered in ice.
	05/04/2019	06/04/2019	6	0		
	07/04/2019	08/04/2019	5	0		
	13/04/2019	14/04/2019	3	0		
POOL-02 Unsuitable	13/03/2019					Insufficient water levels to set traps, deemed unsuitable going forward.
POOL-03 Unsuitable	13/03/2019					Insufficient water levels to set traps, deemed unsuitable going forward.
POOL-04 Unsuitable	13/03/2019					Attempted sampling event on March 13. Ice too thick to sample.
	07/04/2019					Insufficient water levels to set traps on second visit, deemed unsuitable going forward.
POOL-09 Complete	14/03/2019	15/03/2019	3	0		Attempted sampling event on March 13. Ice too thick to sample.
	21/03/2019	22/03/2019	3	0		
	30/03/2019	31/03/2019	3	0		
	08/04/2019	09/04/2019	4	0		
	12/04/2019	13/04/2019	3	0		
POOL-11 Complete	28/03/2019	29/03/2019	4	0	4 Blue Spotted Salamanders	Attempted sampling event on March 14. Ice too thick to sample.
1 GOL 11 Complete	29/03/2019	30/03/2019	4	0	- Pluc opolica Galamanacis	The inplica sampling event of materials. Let too thick to sample.
	05/04/2019	06/04/2019	5	0		
	05/04/2019	08/04/2019	5	0	\dashv	
	13/04/2019	14/04/2019	5	4	\dashv	
POOL 42 Complete				'	E Divo Cnotted Colomoradore	Attempted compling event on March 14, les toe thick to comple
POOL-12 Complete	28/03/2019	29/03/2019	5	1	5 Blue Spotted Salamanders	Attempted sampling event on March 14. Ice too thick to sample.
	29/03/2019	30/03/2019	5	0		Wood frog observed, spring peepers heard calling
	05/04/2019	06/04/2019	6	0		
	07/04/2019	08/04/2019	7	0		
	13/04/2019	14/04/2019	7	4		
POOL-13 Complete	14/03/2019	15/03/2019	6	0		Attempted sampling event on March 14. Ice too thick to sample.
	21/03/2019	22/03/2019	6	0		Tadpoles observed
	30/03/2019	31/03/2019	6	0		
	08/04/2019	09/04/2019	7	0		
	12/04/2019	13/04/2019	7	0		
POOL-14 Complete	14/03/2019	15/03/2019	3	0		Attempted sampling event on March 13. Ice too thick to sample.
	21/03/2019	22/03/2019	3	0		Tadpoles observed
	30/03/2019	31/03/2019	6	0		
	08/04/2019	09/04/2019	6	0		
	12/04/2019	13/04/2019	6	0		
POOL-15 Complete	28/03/2019	29/03/2019	3	0		Attempted sampling event on March 14. Ice too thick to sample.
	29/03/2019	30/03/2019	3	0		Site visited on March 19, 2019 to check site conditions. Site still covered in ice.
	05/04/2019	06/04/2019	5	0		
	07/04/2019	08/04/2019	5	0		
	13/04/2019	14/04/2019	5	0		
POOL-16 Complete	21/03/2019	22/03/2019	4	0	3 Blue Spotted Salamanders	Attempted sampling event on March 14. Ice too thick to sample.
	29/03/2019	30/03/2019	4	0		Site visited on March 19, 2019 to check site conditions. Site still covered in ice.
	06/04/2019	07/04/2019	5	0	_	The state of the s
	08/04/2019	09/04/2019	5	2		
	09/04/2019	10/04/2019	6	1	-	
POOL-17 Complete	21/03/2019	22/03/2019	4	0		Attempted sampling event on March 14. Ice too thick to sample.
- COL-17 Complete	29/03/2019	30/03/2019	4	0	\dashv	Site visited on March 19, 2019 to check site conditions. Site still covered in ice.
	06/04/2019	07/04/2019	5	-	-	one visited on ividion 13, 2013 to theta site conditions. Site still covered in ite.
				0	\dashv	
	08/04/2019	09/04/2019	5	0	-	
BOOL 40 Commission	13/04/2019	14/04/2019	6	0	4 Dive Coetted Colomo : : :	Attenuated complian event on Manch 44 lee too thirty to comple
POOL-18 Complete	28/03/2019	29/03/2019	3	0	1 Blue Spotted Salamander	Attempted sampling event on March 14. Ice too thick to sample.
	30/03/2019	31/03/2019	5	0	2 Blue spotted Salamander	Site visited on March 19, 2019 to check site conditions. Site still covered in ice.
	05/04/2019	06/04/2019	5	0	dependent unisexuals	Wood frog and spring peepers heard calling
	07/04/2019	08/04/2019	5	1		
	08/04/2019	09/04/2019	6	1		
	09/04/2019	10/04/2019	8	1		
	13/04/2019	14/04/2019	3	0		

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Table 1: Summary of the 2019 Surveys within the Study Area

POOL ID Survey Completion Status	Date Sampled	Date Removed	# of Traps	# of Salamanders Captured and Clipped	Laboratory Results	Notes
POOL-20 Complete	28/03/2019	29/03/2019	3	0		Attempted sampling event on March 14. Ice too thick to sample.
	30/03/2019	31/03/2019	3	0		PTE access was revoked on April 4 by property owner. PTE access regained on April 12.
	13/04/2019	14/04/2019	3	0		
	17/04/2019	18/04/2019	3	0		
	22/04/2019	23/04/2019	3	0		
POOL-22 Complete	28/03/2019	29/03/2019	3	1	3 Blue Spotted Salamanders	Attempted sampling event on March 14. Ice too thick to sample.
	29/03/2019	30/03/2019	3	0		Site visited on March 19, 2019 to check site conditions. Site still covered in ice.
	05/04/2019	06/04/2019	3	0		
	08/04/2019	09/04/2019	4	0		
	12/04/2019	13/04/2019	4	2		
POOL-23 Complete	28/03/2019	29/03/2019	4	0	1 Blue Spotted Salamander	Attempted sampling event on March 14. Ice too thick to sample.
· '	29/03/2019	30/03/2019	4	0	-	Site visited on March 19, 2019 to check site conditions. Site still covered in ice.
	05/04/2019	06/04/2019	3	1		Spring peepers heard calling
	08/04/2019	09/04/2019	4	0		
	12/04/2019	13/04/2019	5	0		
POOL-26 Complete	28/03/2019	29/03/2019	4	0		Attempted sampling event on March 14. Ice too thick to sample.
COL 20 Complete	29/03/2019	30/03/2019	4	0	_	Site visited on March 19, 2019 to check site conditions. Site still covered in ice.
	05/04/2019	06/04/2019	4	0	_	The violed on major 10, 2010 to chook old conditions. Old call covered in 100.
	07/04/2019	08/04/2019	4	0	_	
	12/04/2019	13/04/2019	4	0	_	
POOL-27 Complete	28/03/2019	29/03/2019	4	0		Attempted sampling event on March 14. Ice too thick to sample.
Complete	29/03/2019	30/03/2019	4	0		Site visited on March 19, 2019 to check site conditions. Site still covered in ice.
	05/04/2019	06/04/2019	4	0		one visited on March 13, 2013 to check site conditions. One still covered in ice.
	07/04/2019	08/04/2019	4	0	_	
	12/04/2019	13/04/2019	4	0	_	
2001 20 Commists			3	0		Attaurated compline event on March 4.4. Lee too this lete comple
POOL-28 Complete	28/03/2019	29/03/2019			_	Attempted sampling event on March 14. Ice too thick to sample.
	29/03/2019	30/03/2019	3	0	_	Attempted sample event on March 22. Ice too thick to sample.
	05/04/2019	06/04/2019	5	0		
	07/04/2019	08/04/2019	3	0		
	12/04/2019	13/04/2019	4	0		
POOL-29 Unsuitable	13/03/2019	14/03/2019	2	0		Insufficient water levels to set traps on third visit, deemed unsuitable going forward.
	21/03/2019	22/03/2019	3	0		
	08/04/2019					
POOL-30 Complete	28/03/2019	29/03/2019	3	0		Attempted sample event on March 13. Ice too thick to sample.
	29/03/2019	30/03/2019	4	0	_	Green frog observed, wood frog and spring peepers heard calling
	05/04/2019	06/04/2019	4	0		
	08/04/2019	09/04/2019	6	0		
	12/04/2019	13/04/2019	6	0		
POOL-31 Unsuitable	08/04/2019					Attempted a sampling event on March 14. Still too much snow and ice to sample. Insufficient water levels to set traps, deemed unsuitable going forward.
POOL-32 Complete	14/03/2018	15/03/2019	3	0	5 Blue Spotted Salamander	Caught 10 Eastern Newts during the April 9 sampling event. Spring peepers were calling during both the
·	21/03/2019	22/03/2019	3	0	14 Blue spotted Salamander	evening and morning visits.
	29/03/2019	30/03/2019	5	0	dependent unisexuals	
	08/04/2019	09/04/2019	6	20	1 tail clipping was too small to complete DNA analysis	
POOL-33 Unsuitable	08/04/2019		-			Attempted a sampling event on March 14. Still too much snow and ice to sample. Pool was deemed unsuitable for sampling. Site is a small shallow water marsh dominated by <i>Carex strict</i> . Water not deep enough to set traps.
	08/04/2019					Attempted a sampling event on March 14. Still too much snow and ice to sample.
POOL-34 Unsuitable						Pool was deemed unsuitable for sampling. No standing water present. Small creek following through the site.



4. References

AECOM, 2018:

Results of Jefferson Salamander Surveys undertaken for the "Preliminary Design Update, Detail Design and Class Environmental Assessment Study for the Highways 6 & 401 Improvements under Permit No. GU-B-004-18 issued under 17(2)(b) of the ESA (2007), Wildlife Scientific Collectors Authorization #1088798. Prepared for the MTO. July 2018.

Grayson, K.L. and A.W., Row, 2007:

Glow Sticks as Effective Bait for Capturing Aquatic Amphibians in Funnel Traps. Herpetological Review 38, no. 2 (2007): 168-170.

Jefferson Salamander Recovery Team (JSRT), 2013:

Sampling Protocol for Determining the Presence of Jefferson Salamanders (*Ambystoma jeffersonianum*) in Ontario. Prepared June 2013

Attachments

Attachment A: Results of 2018 Jefferson Salamander Surveys undertaken for the "Preliminary

Design Update, Detail Design and Class Environmental Assessment Study for the Highways 6 & 401 Improvements under Permit No. GU-B-004-18 issued under 17(2)(b) of the ESA (2007), Wildlife Scientific Collectors Authorization #1088798 Technical

Memorandum

Attachment B: Figure 1

Attachment C: Photographic Log

Attachment D: Field Notes



Attachment A

Results of 2018 Jefferson Salamander Surveys undertaken for the "Preliminary Design Update, Detail Design and Class Environmental Assessment Study for the Highways 6 & 401 Improvements under Permit No. GU-B-004-18 issued under 17(2)(b) of the ESA (2007), Wildlife Scientific Collectors Authorization #1088798 Technical Memorandum



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Date: July 6, 2018

Project #: 60541071

From: Jessica Piette (AECOM)

Julie Ellis (AECOM)

To: Anne Marie Laurence
Management Biologist
Ministry of Natural Resources and Forestry (MNRF)
Guelph District

Graham Buck, Management Biologist
Ministry of Natural Resources and Forestry (MNRF)
Guelph District

Sarah Fraser, Chair Wildlife Animal Care Committee Ministry of Natural Resources and Forestry (MNRF)

Memorandum

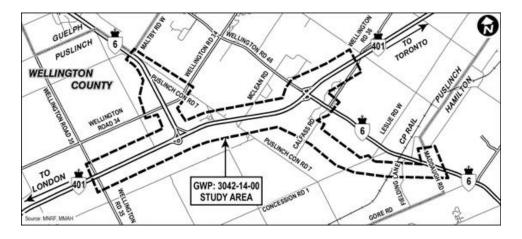
Subject: Results of Jefferson Salamander Surveys undertaken for the "Preliminary Design Update, Detail Design and Class Environmental Assessment Study for the Highways 6 & 401 Improvements under Permit No. GU-B-004-18 issued under 17(2)(b) of the ESA (2007), Wildlife Scientific Collectors Authorization #1088798

1. Introduction

AECOM has been retained by Ministry of Transportation (MTO) to undertake the Preliminary Design Update, Detail Design and Class Environmental Assessment (EA) Study for the Highways 6 & 401 Improvements from Hamilton North Limits to Guelph South Limits including a New Alignment of a Segment of Highway 6 (G.W.P. 3042-14-00). Species-specific surveys to confirm the presence or absence of Jefferson Salamander (*Ambystoma jeffersonianum*), a species that is afforded protection under the *Endangered Species Act* (*ESA*) (2007), was completed within the Project's Study Area in according with the following permits:

- § Wildlife Animal Care Protocol (#18-417), dated January 25, 2018;
- § Wildlife Scientific Collectors Authorization (#1088798),dated February 20, 2018; and,
- § ESA 17(2)(b) permit (GU-B-004-18), dated February 14, 2018.

A map indicating the location of the Project's study area is provided below.





2. Methods

2.1 Identification of Suitable Habitat and Presence/Absence Survey Locations

The existing conditions within the project study area were assessed to identity the location of vernal pools that were likely to require presence/absence surveys for Jefferson Salamander, as follows:

- § 2017 field verification work within the proposed highway right-way where property owner permission to enter was granted for access during appropriate field conditions;
- § Photo-interpretation for other pool locations within and outside the proposed right-of-way.
- § Consulted with MNRF during the November 2017 through January 2018 period regarding additional ESA, 2007 permitting efforts required within distances of 300m and 1km (based on Section 28 of O. Reg 242/08 of the ESA (2007) and cited in the Jefferson Salamander Recovery Strategy).

The foregoing determined that there were 26 pools that were likely to require presence/absence surveys for Jefferson Salamander. Each of these 26 pools was assessed for breeding habitat suitability of Jefferson Salamander and Jefferson Complex Salamanders. Of those, 10 pools were deemed unsuitable breeding habitat due to either insufficient water depths or the presence of predatory fish species, leaving 16 that were deemed suitable.

2.2 Salamander Sampling Protocol

Sampling and subsequent genetic testing was undertaken to determine the presence of Jefferson Salamander and Jefferson Complex Salamanders in accordance with the Sampling Protocol for Determining the Presence of Jefferson Salamanders (*Ambystoma jeffersonianum*) in Ontario prepared by the Jefferson Salamander Recovery Team (JSRT) (June, 2013), henceforth referred to as the 2013 Sampling Protocol. The locations of each pool where sampling occurred are illustrated in **Figure 1**.

The 2013 Sampling Protocol includes live trapping of individuals and tissue collection for genetic testing. Generally, the 2013 Sampling Protocol involves setting minnow traps, of the recommended mesh size of 1/8", within vernal pools or ponds considered to be suitable breeding habitat for the Jefferson Salamander in order to live trap individuals present. Commercially available traps had a larger mesh size than 1/8"; therefore to ensure compliance to the permits and the 2013 Sampling Protocol, AECOM affixed a fine mesh to all traps to reduce the likelihood of injury to captured wildlife. In addition, AECOM used glow sticks within each trap in an effort to attract salamanders to the traps.

2.3 Salamander Trapping

At each of the 16 pools that were deemed suitable, traps were set on or immediately after evenings of suitable weather (i.e., rain and above freezing temperatures). Trapping began after an unseasonably warm rain event on February 20, 2018, and continued during or immediately after evenings of suitable weather until April 27, 2018. A summary of when each pool was sampled including dates is provided in **Section 3** in **Table 1**. The early initiation sampling was based on the weather conditions, daytime temperature of 13.8°C and 19.7 mm of precipitation recorded (The Weather Network 2018) and correspondence with MNRF as well as confirmed observations of salamanders in the Hamilton Area on the night of February 20, 2018.



The traps which were unbaited, with the exception of the glow sticks were installed on the pond substrate within 2 to 3 metres (m) of egg mass attachment sites, within the ponds identified in **Figure 1**. All traps were set completely submerged under water. In general, traps were set at 15 to 20 m intervals around the perimeter of the breeding pond. A minimum of three traps per pond were installed, in some cases, abundant ice coverage in the ponds hindered the installation of greater than three traps. Traps were tethered to trees or other vegetation and marked with name of permit holder and contact information, permit number and dates. UTM co-ordinates and a photo of each trap in situ were collected.

Traps were removed within 12 hours of being set, with captured salamanders documented as outlined below.

All equipment, including traps, boots were sterilized with an alcohol mist (70% ethanol) between collecting sites. As well, cutting utensils and cutting surfaces were sterilized between Salamanders undergoing tissue sample collection.

Visual surveys for the presence of egg masses were be undertaken, but no egg masses were collected.

2.4 Photographs, Tissue Sampling and Genetic Testing of Captured Salamanders

Captured salamanders suspected to be a Jefferson Salamander or Unisexual Ambystoma (Jefferson Salamander dependent population) were photographed and a 0.3-0.5 mm portion of the tail tip was removed as tissue sample. Tissue samples were stored in 70% ethanol solution to be preserved for genetic testing. After tissue sample collection all salamanders were released back into the pond. Any non-target species found within the traps were immediately released into the ponds. After each survey event a Jefferson Salamander Field Collection Form, provided by the MNRF was completed. A Jefferson Salamander Field Collection Form for each sampling event at each pond is provided in **Attachment A**. Tissue samples were provided to the Dr. Bogart's laboratory at the University of Guelph along with copies of the Jefferson Salamander Field Collection Form completed for each night of sampling that resulted in salamander capture and tissue collection. Photographs showing field procedure are provided in **Attachment B**.

3. Results

In total, 18 individual salamanders were captured and tail clippings were obtained as tissue samples. Genetic testing, conducted by Dr. Bogart of the University of Guelph, has confirmed that 8 individuals were Blue Spotted Salamanders (*Ambystoma laterale*) and 10 individuals were Blue-spotted Salamander dependant unisexual (*Ambystoma (2)laterale – jeffersonianum or LLJ*).

Table 1 below provides a detailed summary of the surveys undertaken at each site as well as the results of the genetic testing of captured salamanders.

No injuries or fatalities occurred during the surveys. One salamander was lethargic upon removal from the traps at Pool-23 on morning of April 27, 2018. It was placed in wet leaf litter near the edge of the pond and permitted to rest.

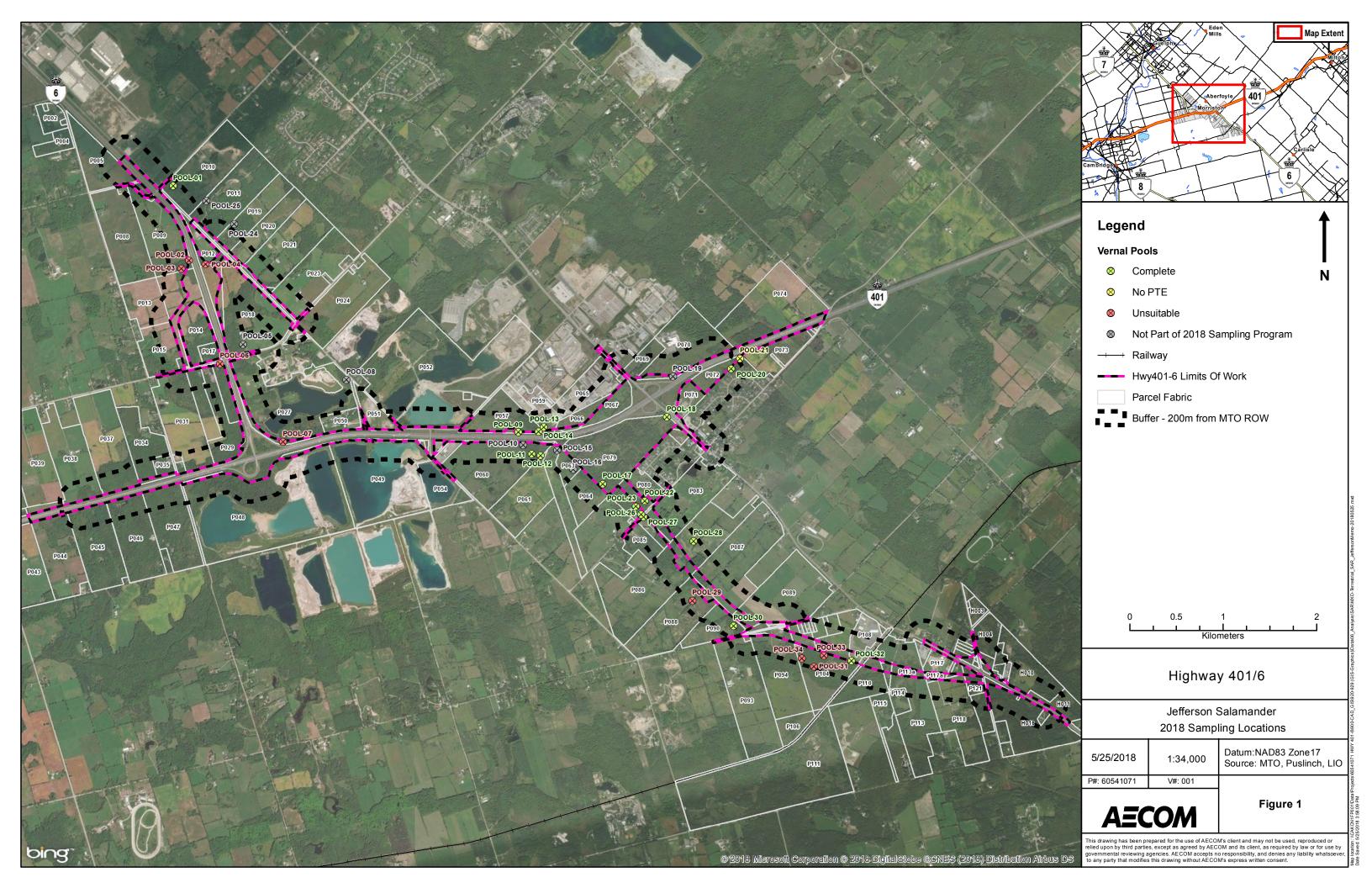




Table 1: Detailed Summary of the Surveys

POOL ID	Survey Completion Status	Date Sampled	Date Removed	# of Traps	# of Salamanders Captured and Clipped	Laboratory Results	Notes
		28/02/2018	1/3/2018	8	0		
		12/4/2018	13/04/2018	7	0		
POOL-01	Complete	13/04/2018	14/04/2018	7	0		
		18/04/2018	19/04/2018	7	0		
		19/04/2018	20/04/2018	7	0		
POOL-02	Unsuitable	28/02/2018					Dry, traps could not be set, unsuitable going forward
POOL-03	Unsuitable	28/02/2018					Dry, traps could not be set, unsuitable going forward
		24/02/2018	25/02/2018	3	0		Insufficient water depth on third
POOL-04	Unsuitable	28/02/2018	1/3/2018	3	0		sampling event, traps could not be set
		27/03/2018	28/03/2018				sampling event, traps could not be set
POOL-06	Unsuitable	1/3/2018	2/3/2018	6	0		Carp in pond, predatory fish, pond
POOL-06	Unsuitable	27/03/2018	28/03/2018	3	0		unsuitable
		24/02/2018	25/02/2018	4	0		Unsuitable due to central mud
POOL-07	Unsuitable	27/03/2018	28/03/2018	3	0		minnow
		28/03/2018	29/03/2018	3	0		miniow
		28/02/2018	1/3/2018	3	0		
		27/03/2018	28/03/2018	3	0		
POOL-09	Complete	28/03/2018	29/03/2018	3	0		
		3/4/2018	4/4/2018	3	0		
		13/04/2018	14/04/2018	3	0		
		28/02/2018	1/3/2018	3	0	2 Blue Spotted Salamanders (Ambystoma laterale),	
POOL-11	Complete	27/03/2018	28/03/2018	4	1	2 Blue-spotted Salamander dependant unisexual (Ambystoma (2)laterale – jeffersonianum or LLJ)	
		28/03/2018	29/03/2018	5	1	,	1
		29/03/2018	30/03/2018	5	2		1
		3/4/2018	4/4/2018	5	0		1
		28/02/2018	1/3/2018	3	0		
		27/03/2018	28/03/2018	4	0	0.51 - 0 - 11 - 12 - 1	
POOL-12	Complete	28/03/2018	29/03/2018	5	1	2 Blue Spotted Salamanders	
		29/03/2018	30/03/2018	5	0	(Ambystoma laterale)	
		3/4/2018	4/4/2018	6	1		



Table 1: Detailed Summary of the Surveys

POOL ID	Survey Completion Status	Date Sampled	Date Removed	# of Traps	# of Salamanders Captured and Clipped	Laboratory Results	Notes
		24/02/2018	25/02/2018	6	0		
		27/03/2018	28/03/2018	6	0		
POOL-13	Complete	28/03/2018	29/03/2018	6	0		Multiple bullfrog larvae found
		3/4/2018	4/4/2018	7	0		
		13/04/2018	14/04/2018	7	0		
		28/02/2018	1/3/2018	5	0		
		27/03/2018	28/03/2018	7	0		
POOL-14	Complete	28/03/2018	29/03/2018	7	0		Multiple bullfrog larvae found
		3/4/2018	4/4/2018	7	0		-
		13/04/2018	14/04/2018	7	0		
		3/1/2018	2/3/2018	5	0		
		27/03/2018	28/03/2018	5	0		
POOL-17	Complete	28/03/2018	29/03/2018	6	0		Leopard frog found
		29/03/2018	30/03/2018	7	0		
		3/4/2018	4/4/2019	6	0		
		1/3/2018	3/3/2018	7	0		
		27/03/2018	28/03/2018	5	0		
POOL-18	complete	28/03/2018	29/03/2018	5	0		
		5/4/2018	6/4/2018	5	0		
		13/04/2018	14/04/2018	5	0		
		28/03/2018	29/03/2018	3	0		
		29/03/2018	30/03/2018	3	0		
POOL-20	Complete	5/4/2018	6/4/2018	3	0		
		12/4/2018	13/04/2018	3	0		
		13/04/2018	14/04/2018	3	0		
POOL-21	No PTE						
		23/02/2018	24/02/2018	3	0		
		24/02/2018	25/02/2018	6	0		
POOL-22	Complete	27/03/2018	28/03/2018	3	0		
		29/03/2018	30/03/2018	4	0		
		3/4/2018	4/4/2019	3	0		



Table 1: Detailed Summary of the Surveys

POOL ID	Survey Completion Status	Date Sampled	Date Removed	# of Traps	# of Salamanders Captured and Clipped	Laboratory Results	Notes
		18/04/2018	19/04/2018	3	0		
		19/04/2018	20/04/2018	3	0	1 Blue Spotted Salamanders	
POOL-23	Complete	24/04/2018	25/04/2018	3	0	(Ambystoma laterale),	
		25/04/2018	26/04/2018	3	0	(Ambystoma laterale),	
		26/04/2018	27/04/2018	3	1		
		23/02/2018	24/02/2018	3	0		
		24/02/2018	25/02/2018	6	0		
POOL-26	Complete	27/03/2018	28/03/2018	3	0		
		29/03/2018	30/03/2018	5	0		
		3/4/2018	4/4/2019	3	0		
		24/02/2018	25/02/2018	3	0		
		27/03/2018	28/03/2018	3	0	1 Blue-spotted Salamander	
POOL-27	Complete	28/03/2018	29/03/2018	3	1	dependant unisexual (<i>Ambystoma</i> (2)laterale – jeffersonianum or LLJ)	
		29/03/2018	30/03/2018	3	0		
		3/4/2018	4/4/2019	3	0		
		28/02/2018	1/3/2018	3	0		
		27/03/2018	28/03/2018	3	1	3 Blue-spotted Salamander dependant unisexuals (<i>Ambystoma</i> (2)laterale – jeffersonianum or LLJ)	
POOL-28	Complete	28/03/2018	29/03/2018	3	0		
		29/03/2018	30/03/2018	4	2		
		3/4/2018	4/4/2019	3	0		
POOL-29	Unsuitable	28/02/2018					Dry, Traps could not be set, unsuitable going forward
		1/3/2018	2/3/2018	4	0		
		27/03/2018	28/03/2018	4	0		
POOL-30	Complete	28/03/2018	29/03/2018	4	0		
	-	29/03/2018	30/03/2018	6	0		
		3/4/2018	4/4/2018	4	0		
		1/3/2018					Pool entirely frozen during first four
		27/03/2018	28/03/2018				visits and traps could not be set. At
POOL-31	Unsuitable	3/4/2018					time of fifth visit, the pond had
		4/13/2018					melting and was deemed unsuitable
		1/5/2018					due to insufficient water depth.



Table 1: Detailed Summary of the Surveys

POOL ID	Survey Completion Status	Date Sampled	Date Removed	# of Traps	# of Salamanders Captured and Clipped	Laboratory Results	Notes
		24/02/2018	25/02/2018	3	0	3 Blue Spotted Salamanders (Ambystoma laterale),	
POOL-32	Complete	27/03/2018	28/03/2018	3	1	4 Blue-spotted Salamander dependant unisexuals (<i>Ambystoma</i> (2)laterale – jeffersonianum or LLJ)	2 newts also captured
		28/03/2018	29/03/2018	4	0		
		29/03/2018	30/03/2018	5	1		
		3/4/2018	4/4/2018	4	5		
		1/3/2018					Pool frozen during first sampling
POOL-33	Unsuitable	27/03/2018	28/03/2018				event. When ice melted, area documented as sedge hummocks with insufficient water depth to set traps, pool deemed unsuitable
POOL-34	Unsuitable	1/3/2018					Dry, Traps could not be set, unsuitable going forward
	•		Total # of	Salamander	18		



Attachment **A**

Jefferson Salamander Field Data Collection Forms

Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

Search Result (circle one): Positive Negative
PROJECT TITLE:Highway 401/6
CONTACT INFORMATION:
Name of observer(s): Andrew Miniely / Alex MacLeod
Name of observer(s): Andrew Miniely / Alex MacLeod Affiliation: AECOM
Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3,
Canada
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
PROPERTY INFORMATION:
Site name: Pond ID: <u>Pond ID: Pond ID: Po</u>
one riame.
Property Address:
Property Address:
Property Address:
Property Address: UTM Coordinates (NAD83): 565725 E 4813782 N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: □Public □Private □Both LANDOWNER INFORMATION:
Property Address:
Property Address:

Jefferson Salamander Presence/Absence Reporting Form

SAMPLING INFORMATION:
Date(s) of sampling: $\frac{\sqrt{3}}{\sqrt{3}}$ $\frac{\sqrt{3}}{\sqrt{2018}}$ $\frac{\sqrt{3}}{\sqrt{3}}$ $\frac{\sqrt{3}}{\sqrt{3}}$
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.): 8 fraps set
of salamanders observed: Zero
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae:
of larvae tail tips: # roadkills:
HABITAT INFORMATION:
Average Pond Depth (m): >0.45
Pond Description: large of pool surround by large silver
maples
Terrestrial Vegetation Community Type: Samuel by SWD
Other amphibians observed or heard: NONE
Egg Attachment Sites Present: ☑Yes □No □Unknown
Suitable Hydroperiod for Breeding: □Yes □No ☑Unknown
Photos Taken: Yes No Photo #: 18424 - 184359
063010-064301
SECTION B — TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Instructions:

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

Search Result (circle one): Positive Negative PROJECT TITLE: Highway 401/6_____ **CONTACT INFORMATION:** Name of observer(s): A. Minielly /T. Shorney Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: Pond ID: 7001-0 Property Address: UTM Coordinates (NAD83): <u>565725</u> E <u>4913782</u> N (**NOT** Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) Private Land Ownership: □Public □Both LANDOWNER INFORMATION: Name: Marlene Walker Mailing Address: Page 1 Last updated: January 2016

SAMPLING INFORMATION:
Date(s) of sampling: 13/04/20(9 (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
Saven traps set, 12 hours
of salamanders observed: Ø Zero
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae:
of larvae tail tips: # roadkills:
HABITAT INFORMATION:
Average Pond Depth (m): <u>0.75</u>
Pond Description: Large open pool Surrounded by decideous vegethertion
Terrestrial Vegetation Community Type: 5い03-2
Other amphibians observed or heard: No
Egg Attachment Sites Present: ☐Ýes ☐No ☐Unknown
Suitable Hydroperiod for Breeding: ☐Yes ☐No ☐Unknown
Photos Taken: □Yes □No Photo #: 073202 - 674947
SECTION B – TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.
 - Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

SECTION A — TO BE FILLED OUT BY THE COLLECTOR Megative Positive Search Result (circle one): PROJECT TITLE: ____ Highway 401/6____ **CONTACT INFORMATION:** Name of observer(s): A. Minielly N. Simonous A. Minielly N. Simonous Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Canada Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: PolO Pond ID: Pool O Property Address: ____ UTM Coordinates (NAD83): <u>565725</u> E <u>4813782</u> N (**NOT** Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: □Public □Both LANDOWNER INFORMATION: Name: Murlene Walker Mailing Address:

SAMPLING INFORMATION:	
Date(s) of sampling: 14/04/2018 (dd/mm/yy	ууу)
Survey Type (circle one):	
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental	
Sample Type (circle all that apply):	
Tail Tip Roadkill Larvae Egg Mass Visual Observation	
Search Effort (time spent, number of minnow traps etc.):	
Seven trops set, 12 hours	
# of salamanders observed: Zero	
# of adult tail tips: # mortalities: # of larvae:	
# of larvae tail tips: # mortalities: # of larvae: # with the state of larvae tail tips: # roadkills: # roadkills: # mortalities: # and the state of larvae: # and the state of larvae tail tips: # roadkills:	
HABITAT INFORMATION: Average Pond Depth (m): 0.75 Pond Description: Large open pool Surround by decidious vegetid	i an
Terrestrial Vegetation Community Type: <u>5いりら</u> 2	
Other amphibians observed or heard: No	
Egg Attachment Sites Present:	
Suitable Hydroperiod for Breeding:	
Photos Taken:	
SECTION B – TO BE FILLED OUT BY DR. BOGART	
Date samples received:(dd/mm/yy	уу)
Condition of samples received:	
JPB #(s):	



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.
 - Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR Search Result (circle one): Positive Negative PROJECT TITLE: ____Highway 401/6_____ **CONTACT INFORMATION:** Name of observer(s): Andrew Minelly Johanna Perz Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Phone Number: 905.886.7022 Email: iulie.ellis@aecom.com PROPERTY INFORMATION: Site name: ______ Pond ID: 100 - 0 | Property Address: _____ UTM Coordinates (NAD83): E _____ N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: □Public **⊠**Private □Both LANDOWNER INFORMATION: Name: ____ Mailing Address:

SAMPLING INFORMATION: 18/04/2018
Date(s) of sampling: 19/04/2018 (340pm - (dd/mm/yyyy))
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
12 hours (7:40 pm - 7:40 am) 7 traps
of salamanders observed:
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae:
of larvae tail tips: # roadkills:
HABITAT INFORMATION:
Pond Description:
Terrestrial Vegetation Community Type:
Other amphibians observed or heard:
Egg Attachment Sites Present: ☑Yes □No □Unknown
Suitable Hydroperiod for Breeding: □Yes □No ☑Unknown
Photos Taken:
SECTION B - TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):
or 5 //(0)



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

Search Result (circle one): Positive (Negative) PROJECT TITLE: ____Highway 401/6_____ **CONTACT INFORMATION:** Name of observer(s): A. Miniely T. Shonney Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: ______Po10 ______Pond ID: Pool-01 Property Address: Polo UTM Coordinates (NAD83): 56 5725 E 4813782 N (**NOT** Lat, Long) (**Do not** record UTM of each minnow trap, only one coordinate per pond or road location is required) **Private** Land Ownership: □Public □Both LANDOWNER INFORMATION: Name: Marlene Walker Mailing Address:

SAMPLING INFORMATION:
Date(s) of sampling: 20/04/2018 (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
7 traps set for 12 hours
of salamanders observed: Zero
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae: # of larvae: # roadkills: # roadkills:
of larvae tail tips: # roadkills:
HABITAT INFORMATION: Average Pond Depth (m): 0.75 Pond Description: Large open pool surrounded by deciduous surrounded by deciduous surrounded.
Terrestrial Vegetation Community Type: 5003-2
Other amphibians observed or heard:
Egg Attachment Sites Present:
Suitable Hydroperiod for Breeding: Yes □No □Unknown
Photos Taken:
SECTION B — TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Jefferson Salamander Presence/Absence Reporting Form

Wildlife Scientific Collector's Authorization # 10 8798
ESA Permit #6U-8-001-18

Instructions:

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.
 - Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR			
Search Result (circle one): Positive Vegative			
PROJECT TITLE: 4016			
CONTACT INFORMATION:			
Name of observer(s): Julie Elis Affiliation: Mailing Address: Phone Number: Mailing Address: Mail	rellise alcon.		
PROPERTY INFORMATION:			
Site name: \$\frac{100}{00} = 000000000000000000000000000000	Pond ID:		
UTM Coordinates (NAD83): E N (Do not record UTM of each minnow trap, only one coordinate per pon			
Land Ownership: □Public □Private ☑Both			
LANDOWNER INFORMATION: Name:	reperly section		
Last updated: January 2016	Page 1		

Jefferson Salamander Presence/Absence Reporting Form

Wildlife Scientific Collector's Authorization # ______ ESA Permit # _____

SAMPLING INFORMATION:	0 05 10	10-60 80)	
Date(s) of sampling: 2018-0	2-28/2	018-3-07		(dd/mm/yyyy)
Survey Type (circle one):				
Minnow Trap Cover Board	Road Pit	fall Trap Visual	Incidental	
Sample Type (circle all that apply):				
(Tail Tip) Roadkill Larvae	Egg Mass	Visual Observation		
Search Effort (time spent, number of r				
3 traps @ 12h	ours eac	<u>h</u>		
# of salamanders observed:				
Number of Samples Taken:				
# of adult tail tips: 🧖	# morta	alities: Ø	# of larvae: _C	_
# of larvae tail tips: _��_	# roadk	ills: <u>Ø</u>	,	
HABITAT INFORMATION:		,		
••••				
Average Pond Depth (m):	~ 15k / Cano	1040 VEOR	loog In	arsosonon
Pond Description: See pre Vi	man can	PIETE VEIT	ice peci	"Ca_ai i"
T			*	
Terrestrial Vegetation Community Ty				
Other amphibians observed or heard Egg Attachment Sites Present:		□Linknown		
Suitable Hydroperiod for Breeding:				
		Photo #:		
Photos Taken:	APTES LINO	1 110t0 #.		50
·				
SECTION B - TO BE FILLED OUT	BY DR. BOG	ART		
Date samples received:				(dd/mm/yyyy)
Condition of samples received:				
JPB #(s):				



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

Search Result (circle one): Positive Negative
PROJECT TITLE:Highway 401/6
CONTACT INFORMATION:
Name of observer(s): Juli Ellis James Vamstra Affiliation:
Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3,
Canada
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
PROPERTY INFORMATION:
Site name: Pool - 09 Pond ID: Pool - 09
Property Address: P057
UTM Coordinates (NAD83): E N (NOT Lat, Long)
(Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
Land Ownership: ⊠Public ⊠Private □Both
Name: MTO CIO Property Section
Nation Address.
Mailing Address:

Jefferson Salamander Presence/Absence Reporting Form

SAMPLING INFORMATION: Set trops: Pick up			
Date(s) of sampling: March 27, 2018 March 28, 2018 (dd/mm/yyyy)			
Survey Type (circle one):			
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental			
Sample Type (circle all that apply):			
Tail Tip Roadkill Larvae Egg Mass Visual Observation			
Search Effort (time spent, number of minnow traps etc.):			
3 trap + 12 hours each.			
# of salamanders observed:			
Number of Samples Taken:			
# of adult tail tips: 🧷 # mortalities: 🔑 # of larvae: 💋			
# of larvae tail tips: # roadkills:			
HABITAT INFORMATION:			
Average Pond Depth (m): • 15			
Pond Description: See Nemal Dool assessment tom			
Dand in thicket near mosdiand			
Terrestrial Vegetation Community Type: See akus			
Torrockidi Togotalion Octimization			
Other amphibians observed or heard:			
Other amphibians observed or heard:			
Other amphibians observed or heard: Egg Attachment Sites Present: Suitable Hydroperiod for Breeding: WYes INO IUnknown			
Other amphibians observed or heard:			
Other amphibians observed or heard: Egg Attachment Sites Present: Suitable Hydroperiod for Breeding: WYes INO IUnknown			
Other amphibians observed or heard: Egg Attachment Sites Present: Suitable Hydroperiod for Breeding: Photos Taken: DYes INo IUnknown Unknown Photo #: 2018 0 324 _ 19 2507 - 19 3525			
Other amphibians observed or heard: Egg Attachment Sites Present: Suitable Hydroperiod for Breeding: Photos Taken: Section B – To Be Filled Out By Dr. Bogart Section B – To Be Filled Out By Dr. Bogart			
Other amphibians observed or heard: Egg Attachment Sites Present: Suitable Hydroperiod for Breeding: Photos Taken: DYes INo IUnknown Unknown Photo #: 2018 0 324 _ 19 2507 - 19 3525			
Other amphibians observed or heard: Egg Attachment Sites Present: Suitable Hydroperiod for Breeding: Photos Taken: Section B – To Be Filled Out By Dr. Bogart Section B – To Be Filled Out By Dr. Bogart			
Other amphibians observed or heard: Egg Attachment Sites Present: Suitable Hydroperiod for Breeding: Photos Taken: Section B – To BE FILLED OUT BY DR. BOGART Date samples received: (dd/mm/yyyy)			



Maps (Please ensure road names and UTM coordinates are clearly visible)



Instructions:

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- · All conditions as per the WSCA and ESA permits must be followed.

Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

	Search Result (circle one): Positive Negative
	PROJECT TITLE:Highway 401/6
	CONTACT INFORMATION:
)	Name of observer(s): James Kernstra, Julie Ellis Affiliation:
	Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3,
	Canada Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
	PROPERTY INFORMATION:
	Site name: Pool - 09
	Property Address: P057
	UTM Coordinates (NAD83): E N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
	Land Ownership: ☑Public □Private □Both
	Name: MTO CO Property Section.
	Mailing Address:
	Last updated: January 2016 Page 1

SAMPLING INFORMATION: The Remain
Date(s) of sampling: Trep Set Narch 28,2018, Narch 29, 2018 (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
3 trops x 12 hours each
of salamanders observed:
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae:
of adult tail tips: # mortalities: # of larvae: # of la
HABITAT INFORMATION:
Average Pond Depth (m): 0.75
Pond Description: See previous semal pad assessment
Pond in thicket near woodlind
Terrestrial Vegetation Community Type: See above
Terrestrial Vegetation Community Type: See Gboole Other amphibians observed or heard: WN2
Other amphibians observed or heard: The Attackwent Sites Present: The The Present T
Terrestrial Vegetation Community Type: See Glocule Other amphibians observed or heard: ONE Egg Attachment Sites Present: Wes INo IUnknown D20180328 _192623 Suitable Hydroperiod for Breeding: Wes INO IUnknown -192221
Terrestrial Vegetation Community Type: See Glo OUP Other amphibians observed or heard: OND Egg Attachment Sites Present: Wes DNo DUnknown D20180328_192623 -192239
Terrestrial Vegetation Community Type: See Glocole Other amphibians observed or heard: ONE Egg Attachment Sites Present: Wes INo IUnknown 120180328 1921023 - 192259 Suitable Hydroperiod for Breeding: IVes INO IUnknown 192221
Terrestrial Vegetation Community Type: See Glocole Other amphibians observed or heard: ONE Egg Attachment Sites Present: Wes INo IUnknown 120180328 1921023 - 192259 Suitable Hydroperiod for Breeding: IVes INO IUnknown 192221
Terrestrial Vegetation Community Type: See Glocule Other amphibians observed or heard: Wes INo IUnknown ID20180328 _192623 Egg Attachment Sites Present: IVes INo IUnknown ID20180328 _192623 Suitable Hydroperiod for Breeding: IVes INo IUnknown ING 221 Photos Taken: IVes INO Photo #:
Terrestrial Vegetation Community Type: See Gloope Other amphibians observed or heard: Wes INo IUnknown D20180328 _192623 Egg Attachment Sites Present: IVes INo IUnknown



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

Positive Negative Search Result (circle one): PROJECT TITLE: Highway 401/6 **CONTACT INFORMATION:** Name of observer(s): S. Ghafavri J. Ellis, J. Perz Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Canada Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: Pool 09 Pond ID: Pool 09 Property Address: POS 7 N (NOT Lat, Long) UTM Coordinates (NAD83): _____ E (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) N/Private Land Ownership: □Public □Both LANDOWNER INFORMATION: Name: Property Section Mailing Address: NA

SAMPLING INFORMATION:
Date(s) of sampling: Tak set: 03/04/2018 Trap removed 04/04/7 (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
3 tops x 12 hrs pach
of salamanders observed:
Number of Samples Taken:
of adult tail tips: 🥒 # mortalities: 💆 # of larvae: 🔏
of adult tail tips: # mortalities: # of larvae: # of larvae: # which is the state of larvae is # of larvae is
HABITAT INFORMATION:
Average Pond Depth (m): 1-2 m
Pond Description: Seu Lornal Pool form
Terrestrial Vegetation Community Type: Resultance College Coll
Other amphibians observed or heard: NA
Egg Attachment Sites Present: □Yes □No □Unknown
Suitable Hydroperiod for Breeding: 🖫Ýes 🗆 No 🗆 Unknown
Photos Taken: Photos Taken:
SECTION B — TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Instructions:

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.
 - Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

	SECTION A — TO BE FILLED OUT BY THE COLLECTOR
	Search Result (circle one): Positive Negative
	PROJECT TITLE:Highway 401/6
	CONTACT INFORMATION:
9	Name of observer(s): Julie FIIIS/ Olga thropach
	Affiliation:
	Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3,
	Canada
	Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
	PROPERTY INFORMATION:
	Site name: <u>Pool-09</u> Pond ID: <u>Pool-0</u> 9
	Property Address: PO57
	JTM Coordinates (NAD83): EN (NOT Lat, Long)
	Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
	and Ownership: □Public □Private □Both
	ANDOWNER INFORMATION:
	vame: MTO C/O Property Section
	Mailing Address: N/A
	ast updated: January 2016 Page 1

SAMPLING INFORMATION:	Da	Ы.		
Date(s) of sampling: 2018-64-	13 201	18-04-14		_ (dd/mm/yyyy)
Survey Type (circle one):		•		
Minnow Trap Cover Board	d Road P	itfall Trap Visual	Incidental	
Sample Type (circle all that apply):				
Tail Tip Roadkill Larvad	e Egg Mass	Visual Observation	n	
Search Effort (time spent, number of 3 trops 0 12 hou	•	4 7		
# of salamanders observed:				
Number of Samples Taken:		- 4		•
# of adult tail tips:	# mor	talities: <u>Ø</u>	# of larvae:	_
# of larvae tail tips:	# road	kills:	,	
HABITAT INFORMATION:		·		
Average Pond Depth (m): 0:75	\sim	_		
Pond Description: Small Fo	and ad	jacent te	highwa	ap Pou
Terrestrial Vegetation Community Ty	pe: CUT, Fl	M		
Other amphibians observed or heard	: NIA			
Egg Attachment Sites Present:	ØŶes □No	□Unknown		
Suitable Hydroperiod for Breeding:	⊠Yes □No	□Unknown		
Photos Taken:	DYes □No	Photo #: See	philalog	sheet
SECTION B — TO BE FILLED OUT	BY DR. BOG	ART		
Date samples received:				(dd/mm/yyyy)
Condition of samples received:				
JPB #(s):	- 1 - 100	1774 A-		



Maps (Please ensure road names and UTM coordinates are clearly visible)



SAMPLING INFORMATION:	
Date(s) of sampling: 28/02/2018 - 01/03/2018 (dd/mm/s	/ууу)
Survey Type (circle one):	
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental	
Sample Type (circle all that apply):	
Tail Tip Roadkill Larvae Egg Mass Visual Observation	
Search Effort (time spent, number of minnow traps etc.):	
3 traps set for 12 hours	
# of salamanders observed:	
Number of Samples Taken:	
# of adult tail tips: # mortalities: # of larvae:	
# of larvae tail tips: # roadkills:	
HABITAT INFORMATION:	
Average Pond Depth (m): 1/2 ice cover too thick to tell	
Pond Description: open water in centre 90%; trees I should an adges 10%	
Terrestrial Vegetation Community Type: forest	
Other amphibians observed or heard:	
Egg Attachment Sites Present: □Yes ☑No □Unknown	
Suitable Hydroperiod for Breeding:	
Photos Taken:	
SECTION B - TO BE FILLED OUT BY DR. BOGART	
SECTION B — TO BE FILLED OUT BY DR. BOGART Date samples received:(dd/mm/y	ууу)
	ууу)

Page 1

Instructions:

Last updated: January 2016

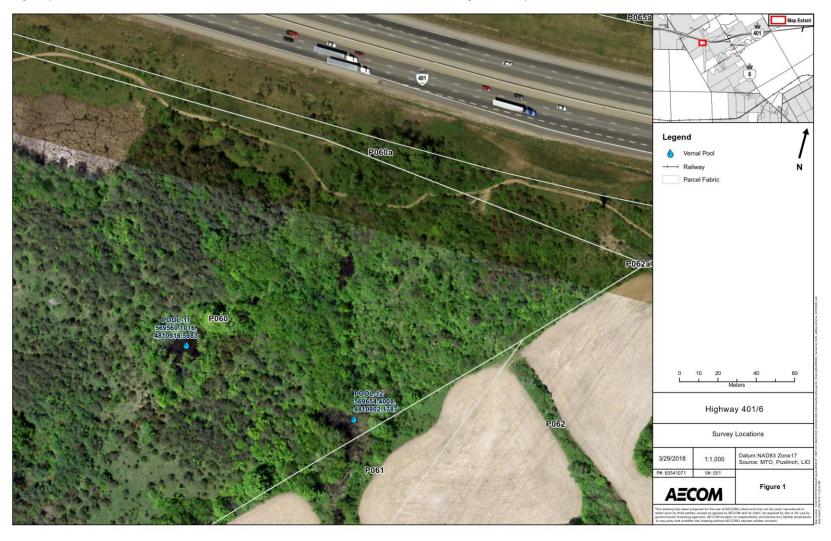
- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.
 - Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR Negative Search Result (circle one): Positive PROJECT TITLE: Highway 401/6 **CONTACT INFORMATION:** Name of observer(s): ____Mark Pomeron . Karen Martens Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3. Phone Number: 905.886.7022 Email: julie.ellis@aecom.com **PROPERTY INFORMATION:** Site name: ______ Pond ID: _____ Property Address: _____N (NOT Lat, Long) UTM Coordinates (NAD83): _____ E (**Do not** record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: □Public □Private □Both LANDOWNER INFORMATION: Name: _____ _ _ ____ Mailing Address:



Maps (Please ensure road names and UTM coordinates are clearly visible)



Instructions:

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

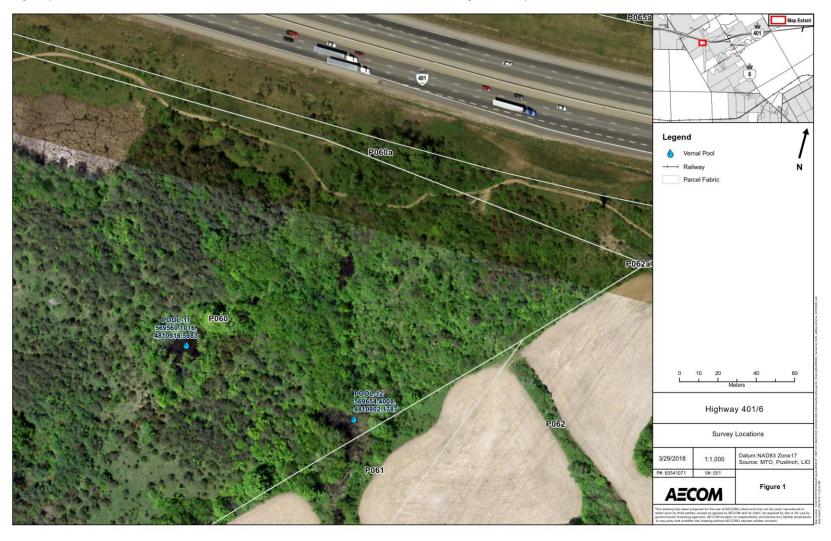
- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Search Result (circle one): Positive Negative
PROJECT TITLE:Highway 401/6
CONTACT INFORMATION:
Name of observer(s): E. M. May with, L. Martens
Affiliation: AECOM DCS.
Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3,
Canada
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
PROPERTY INFORMATION:
Site name: P060 Pond ID: P004-11.
Property Address: 4329 Conscession # 7
UTM Coordinates (NAD83): 056586 E 482679 N (NOT Lat, Long)
(Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
Land Ownership: □Public ♥Private □Both
LANDOWNER INFORMATION:
Name: John Ferrero
Mailing Address: Phone # 905-475-1049
4329 Concession 7
Puslingh On
Last updated: January 2016 Page 1

SAMPLING INFORMATION:	· · · · ·
Date(s) of sampling: March 28, 20, 8	(dd/mm/yyyy)
Survey Type (circle one):	
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental	
Sample Type (circle all that apply):	
Tail Tip Roadkill Larvae Egg Mass Visual Observation	
Search Effort (time spent, number of minnow traps etc.):	
TRUPS in place for 12 hours, Four traps.	
# of salamanders observed: One Salamonder	
Number of Samples Taken:	*
# of adult tail tips: # mortalities: # of larvae:	<u>-</u> Ø
# of larvae tail tips: # roadkills: #	
HABITAT INFORMATION:	
Average Pond Depth (m): 2m	
Pond Description: Vernal pool & within forest, adjacen	1 to argicul
tom by 30m.	fib 1
Terrestrial Vegetation Community Type: Treed Swamp -> Please St	2e vernal p
Other amphibians observed or heard: Speing Peepers in adjach	t aleas.
Egg Attachment Sites Present: Dives DNO Unknown Potential fine	eff
Suitable Hydroperiod for Breeding: ✓ ☑Yes □No □Unknown	
Photos Taken: WYes No Photo #: 1/5, 1/6, 1/7	118, 119,
120, 121, 122, 123, 124, 125.	
SECTION B — TO BE FILLED OUT BY DR. BOGART	
Date samples received:	(dd/mm/yyyy)
Condition of samples received:	
JPB #(s):	



Maps (Please ensure road names and UTM coordinates are clearly visible)



SAMPLING INFORMATION:				
Date(s) of sampling: March	29	2018		(dd/mm/yyyy)
Survey Type (circle one):	,	2 - 10		
Minnow Trap Cover Board	Road	Pitfall Trap (Visual Incidenta	I
Sample Type-(circle all that apply):				
Tail Tip Roadkill Larvae	Egg Ma	ss Visual Ob	servation	
Search Effort (time spent, number of r				
12 hours 5 traps	1.			
# of salamanders observed:	-	Salaw	anolk	
Number of Samples Taken:				
# of adult tail tips:	# r	nortalities:	, _ # of larvae:	Ø
# of larvae tail tips:	# r	nortalities: Ø		7
7		<i>F</i>	_	
HABITAT INFORMATION:				
Average Pond Depth (m): 2m				
Pond Description:	11 80	of within	Ferest argic	interest Field
20.0.	(XO-			adjac
Terrestrial Vegetation Community Typ	e: Tre	ed Swam	P	
Other amphibians observed or heard:	Sorne	DELBERS	hoard on u	zekin inan
	MYes □N		n Potential ar	tach ment sit
Suitable Hydroperiod for Breeding:	Marges □N		Opoces t	
Photos Taken:	Øres □N	No Photo #: _	146, 147,	148,149,15
				,
SECTION B — TO BE FILLED OUT	BY DR B	OGART		
CLOSION D TO BE TILLED OUT	DI DIN DI	COAILI		
Date samples received:				(dd/mm/yyyy)
Condition of samples received:				
JPB #(s):				

Wildlife Scientific Collector's Authorization # 1088798 ESA Permit # GU-B-004-18

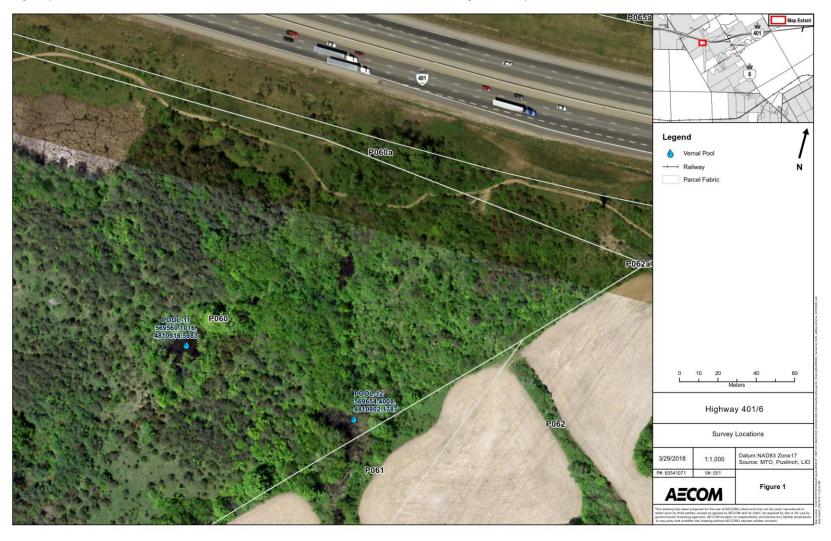
Instructions:

- · You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.
 - Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

SECTION A – TO BE FILLED OUT BY THE COLLECTOR
Search Result (circle one): Positive Negative
PROJECT TITLE:Highway 401/6
CONTACT INFORMATION:
Name of observer(s): E. Managhtn; K. Marten
Affiliation: A=CCM DCC
Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3,
Canada
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
PROPERTY INFORMATION:
Site name: Poot Pow Pond ID: Pool -//
Property Address: 4329 Consession #7_
UTM Coordinates (NAD83): 05 6586 E 48/2679. N (NOT Lat, Long)
(Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
Land Ownership: □Public □Private □Both
LANDOWNER INFORMATION:
Name: John Ferrero.
Mailing Address: _1
4329 Concession 7
Last updated: January 2016 Page 1



Maps (Please ensure road names and UTM coordinates are clearly visible)



Instructions:

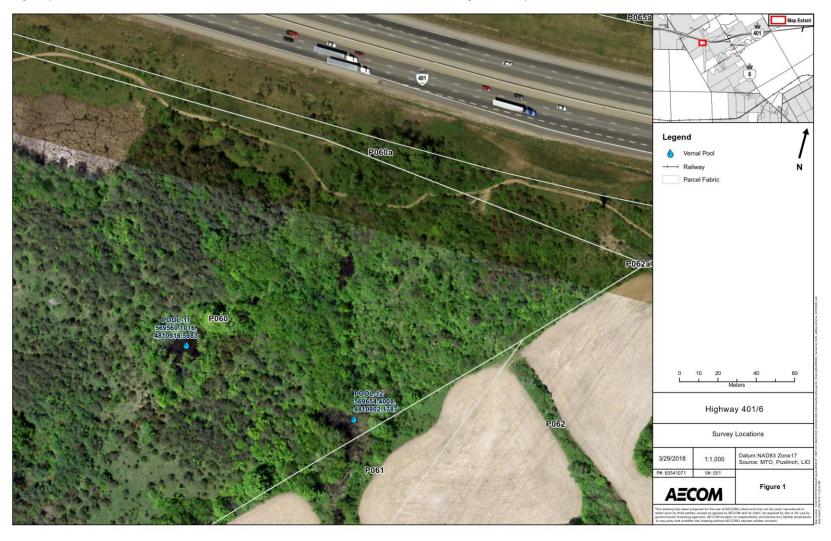
- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.
 - Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

SECTION A — TO BE FILLED OUT BY THE COLLECTOR
Search Result (circle one): Positive Negative
PROJECT TITLE:Highway 401/6
CONTACT INFORMATION:
Name of observer(s): E. MCNQUQNTON, B. MULGOD. Affiliation: DCS. Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor, Markham, ON L3T 7W3, Canada
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
PROPERTY INFORMATION: Site name: Power Pond ID: Pool Property Address: 4329 Consession # 7
UTM Coordinates (NAD83): <u>USGGGE</u> <u>USGGS</u> N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
Land Ownership: □Public ☑Private □Both
Name: John Ferrero. Mailing Address: Dhone # 905-475-1044 4329 Cincession 7 Puslinch on NOB 2JO
Last updated: January 2016 Page 1

SAMPLING INFORMATION:	
Date(s) of sampling: $30/03/201$ (dd/mm/yyyy)	
Survey Type (circle one):	
(Minnow Trap) Cover Board Road Pitfall Trap Visual Incidental	
Sample Type (circle all that apply):	
Tail Tip Roadkill Larvae Egg Mass Visual Observation	
Search Effort (time spent, number of minnow traps etc.):	
5 TRAPS FOR 12 HOURS.	
# of salamanders observed: 3 Adults OBSERVED I WAS A RECAPTURE	
Number of Samples Taken:	
# of adult tail tips: # mortalities: # of larvae: # of larvae:	
# of larvae tail tips: # roadkills:	
HABITAT INFORMATION:	
Average Pond Depth (m): 1-2 m	
Pond Description: POND Surpounded by deciduous Prest with Should lining the edges and ample leaf little	
with Sheubs lining the edges and ample leat little	R
Terrestrial Vegetation Community Type:	
Other amphibians observed or heard: Spring Peepers during evening Egg Attachment Sites Present: Yes No Unknown Trap setting	
No. of the contract of the con	
Suitable Hydroperiod for Breeding: Yes No Unknown Occurred Proceeding: Occurred Proceding: Occurred Proceding: Occurred Proceding: Occurred Proceeding: Occurred Proceeding: Occurred Proceeding: Occurred Proceding: Occurred Proceding: Occurred Proceeding: Occurred Proceding: Occ	~^
Photos Taken: MYes ONo Photo #: POSITIVE RESULTS RECURDED	70
POOL-11-063: 192-200 POOL-11-004: 210-218	
SECTION B — TO BE FILLED OUT BY DR. BOGART	
Date samples received:(dd/mm/yyyy)	
Condition of samples received:	
JPB #(s):	



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.
 - Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
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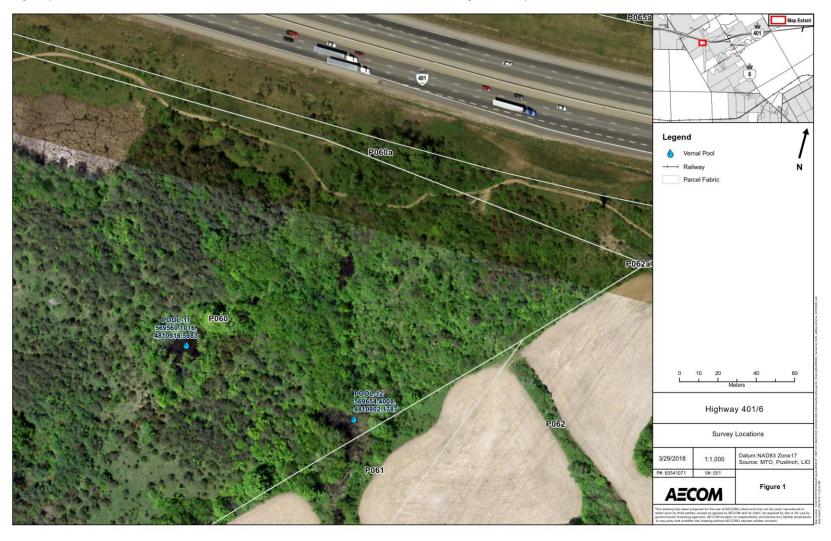
Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR Search Result (circle one): Positive Negative PROJECT TITLE: ____Highway 401/6________ CONTACT INFORMATION: Name of observer(s): Heather Kime Karm Martin Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: ______ Pond ID: _____ Property Address: _____ UTM Coordinates (NAD83): E N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: □Public □Private □Both LANDOWNER INFORMATION: Mailing Address:

			·	
SAMPLING INFORMATION:				
Date(s) of sampling:	1/2018			_(dd/mm/yyyy)
Survey Type (circle one):	r			
Minnow Trap Cover Boar	d Road F	itfall Trap Visua	l Incidental	
Sample Type (circle all that apply): Y	Jone			
Tail Tip Roadkill Larva	e Egg Mass	Visual Observation	on	
Search Effort (time spent, number of	minnow traps e	tc.):		
12 hours 5 traps.				
# of salamanders observed:				
Number of Samples Taken:				
# of adult tail tips: 🏽 🎉	# mor	talities: <u>%</u>	# of larvae: 💆	_
# of larvae tail tips:	# road	talities:		
HABITAT INFORMATION:	March 2	Oly holto.	only change	is (ce has
Average Pond Depth (m):			,	
Pond Description:				
Terrestrial Vegetation Community Ty	pe:			
Other amphibians observed or heard	<u> </u>			
Egg Attachment Sites Present:	□Yes □No	□Unknown		
Suitable Hydroperiod for Breeding:				
Photos Taken:	⊡Yes □No	Photo #:	<u> </u>	
SECTION B — TO BE FILLED OU	T BY DR. BOG	ART		
Date samples received:	3(4			(dd/mm/yyyy)
Condition of samples received:				
JPB #(s):				



Maps (Please ensure road names and UTM coordinates are clearly visible)



Date(s) of sampling:	SAMPLING INFORMATION:		8
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental Sample Type (circle all that apply): Tail Tip Roadkill Larvae Egg Mass Visual Observation Search Effort (time spent, number of minnow traps etc.): 3 traps set for 12 hours # of salamanders observed: 0 Number of Samples Taken: # of adult tail tips: # mortalities: # of larvae: # of larvae: # # of larvae tail tips: # roadkills: # roadkills: HABITAT INFORMATION: Average Pond Depth (m): # roadkills: # roadkills: Terrestrial Vegetation Community Type: # forest Other amphibians observed or heard: # of larvae:	Date(s) of sampling: 28/02/2019	- 01/03/2018	(dd/mm/yyyy)
Sample Type (circle all that apply): Tail Tip Roadkill Larvae Egg Mass Visual Observation Search Effort (time spent, number of minnow traps etc.): # of salamanders observed: # of salamanders observed: # of adult tail tips: # of larvae tail tips: # of larvae tail tips: # roadkills: # roadkills: # roadkills: # and larvae tail tips: # of larvae tail tips: # roadkills: # roadkills:	Survey Type (circle one):		
Tail Tip Roadkill Larvae Egg Mass Visual Observation Search Effort (time spent, number of minnow traps etc.): 3	Minnow Trap Cover Board Ro	ad Pitfall Trap Visual	Incidental
Search Effort (time spent, number of minnow traps etc.): 3	Sample Type (circle all that apply):		
# of salamanders observed:	Tail Tip Roadkill Larvae Eg	g Mass Visual Observation	n
# of salamanders observed:	Search Effort (time spent, number of minnow	v traps etc.):	
Number of Samples Taken: # of adult tail tips: # mortalities: # of larvae: # of larvae tail tips: # roadkills: HABITAT INFORMATION: Average Pond Depth (m): # forget Pond Description: # 0	3 traps set for 12	hours	
# of adult tail tips: # mortalities: # of larvae: # of larvae tail tips: # roadkills: # roadkil	# of salamanders observed:		
# of larvae tail tips: # roadkills: HABITAT INFORMATION: Average Pond Depth (m):	Number of Samples Taken:		
HABITAT INFORMATION: Average Pond Depth (m):	# of adult tail tips:	# mortalities:	# of larvae:
Average Pond Depth (m):	# of larvae tail tips:	# roadkills:	
Other amphibians observed or heard:	1. 7	; 15% standing trees	5% shubs (emigent)
Egg Attachment Sites Present:	Terrestrial Vegetation Community Type:	Forest	
Suitable Hydroperiod for Breeding: Photos Taken: SECTION B — TO BE FILLED OUT BY DR. BOGART Date samples received: Condition of samples received: (dd/mm/yyyy)	Other amphibians observed or heard:	. No	
Photos Taken:	_33		
SECTION B — TO BE FILLED OUT BY DR. BOGART Date samples received:(dd/mm/yyyy) Condition of samples received:			
Date samples received:(dd/mm/yyyy) Condition of samples received:	Photos Taken:	s □No Photo #:	
	Date samples received:		
JPB #(s):			

Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

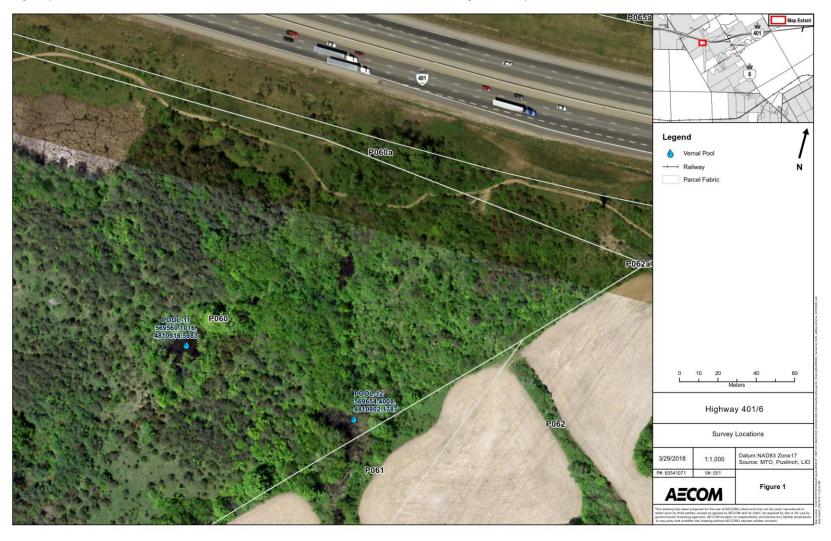
- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

Search Result (circle one): Positive Negative PROJECT TITLE:____Highway 401/6_____ **CONTACT INFORMATION:** Name of observer(s): Mark Pomeron Karen Martens Affiliation: AECOM Canada Ltd Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: ______ Pond ID:______ Property Address: UTM Coordinates (NAD83): _____ E ____ N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: □Public □Private □Both LANDOWNER INFORMATION: Name: Mailing Address:



Maps (Please ensure road names and UTM coordinates are clearly visible)



Instructions:

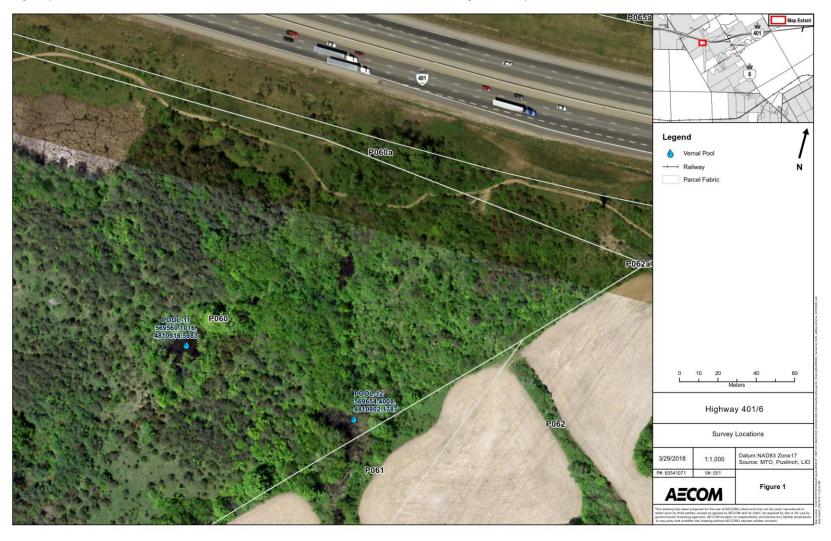
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- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
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- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR	
Search Result (circle one): Positive Negative	
PROJECT TITLE:Highway 401/6	_
CONTACT INFORMATION:	
Name of observer(s): Emchasha, K. Mantens. Affiliation: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W Canada	 /3,
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com	
PROPERTY INFORMATION:	
Site name: Pole Pond ID: Pool - 12 Property Address: 4329 Consission # 7-	
Property Address: 4329 Consussion # 7-	
UTM Coordinates (NAD83): 0509039 E 4870095 N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: □Public ☑Private □Both	
Name: John Ferrero. Mailing Address: Phone #: 905 - 475 - 1044	
Last undated: January 2016 Page 1	

SAMPLING INFORMATION:
Date(s) of sampling: March 28, 2018 (dd/mm/yyyy
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.): TRAPE IN HALL FOR 12 hours, 4 TRAPS IN HALL # of salamanders observed: NWL Observed.
of salamanders observed: NOVE Observed.
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae: # of larvae tail tips: # roadkills:
of larvae tail tips: # roadkills:
HABITAT INFORMATION:
Average Pond Depth (m): 2m -
Pond Description: place see vernal pool form
Terrestrial Vegetation Community Type: Theed Swamp
Other amphibians observed or heard:
Egg Attachment Sites Present:
Suitable Hydroperiod for Breeding: ☐Yes ☐No ☐Unknown
Photos Taken: 4n Hors Kino Photo #: No Photos taken for negative result.
SECTION B — TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Wildlife Scientific Collector's Authorization # 1088798 ESA Permit # GU-B-004-18

Instructions:

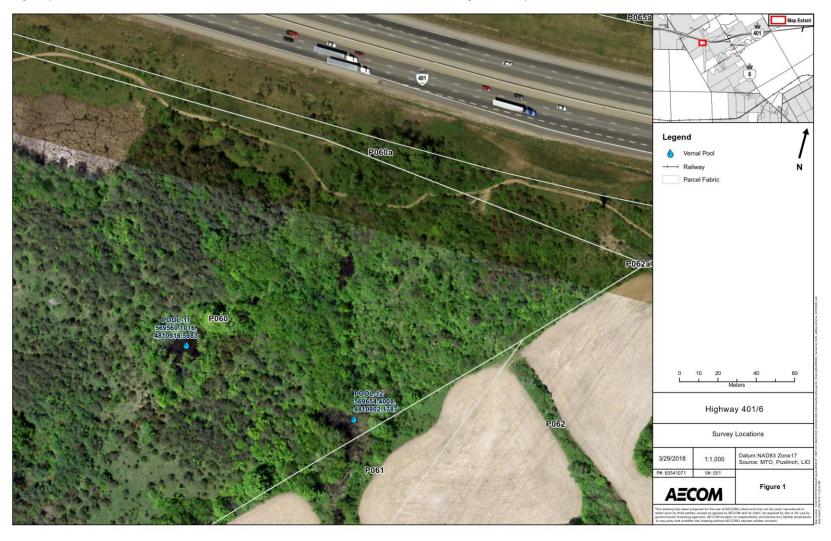
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- All conditions as per the WSCA and ESA permits must be followed.

report.
SECTION A – TO BE FILLED OUT BY THE COLLECTOR
Search Result (circle one): Positive Negative
PROJECT TITLE:Highway 401/6
CONTACT INFORMATION:
Name of observer(s): E.M. Wartens. Affiliation: AECAN ACTION
Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3,
Canada
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
PROPERTY INFORMATION:
Site name: Poul ID: Poul ID: Poul ID:
Property Address: 4329 Consission #7
UTM Coordinates (NAD83): 569637 E 4810 (601 N (NOT Lat, Long)
(Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
Land Ownership: □Public □Private □Both
LANDOWNER INFORMATION:
Name: John Ferrero
Mailing Address: Photo # 905-475-1014
4329 Concesion 7
Pustingh On
Last updated: January 2016 Page 1

SAMPLING INFORMATION:				
Date(s) of sampling: $\frac{\sqrt{29}}{\sqrt{29}}$ $\frac{\sqrt{9}}{\sqrt{29}}$ $\frac{\sqrt{9}}{\sqrt{9}}$ $\sqrt{$				
Survey Type (circle one):				
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental				
Sample Type (circle all that apply):				
Tail Tip Roadkill Larvae Egg Mass Visual Observation				
Search Effort (time spent, number of minnow traps etc.):				
STRAPS FOR 12 hours.				
# of salamanders observed:				
Number of Samples Taken:				
# of adult tail tips: # mortalities: # of larvae:				
# of larvae tail tips: # roadkills:				
HABITAT INFORMATION:				
Average Pond Depth (m): 1-2m				
Pond Description: Vernal pool at the edge of a deciduous				
Forest, agricultural field, with ample should cover, localithered				
Terrestrial Vegetation Community Type: Deviction Swamp				
Other amphibians observed or heard: Spring Peepers during evening trup				
Egg Attachment Sites Present:				
Suitable Hydroperiod for Breeding: Yes DNo DUnknown				
Photos Taken: Yes DNo Photo #:				
SECTION B – TO BE FILLED OUT BY DR. BOGART				
Date samples received:(dd/mm/yyyy)				
Condition of samples received:				
JPB #(s):				
"·*				



Maps (Please ensure road names and UTM coordinates are clearly visible)



Wildlife Scientific Collector's Authorization # 1088798 ESA Permit # GU-B-004-18

Instructions:

- You must complete a separate form for each pond sampled.
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- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.
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- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

	report.
	SECTION A - TO BE FILLED OUT BY THE COLLECTOR
	Search Result (circle one): Positive Negative
	PROJECT TITLE:Highway 401/6
	CONTACT INFORMATION:
1	Name of observer(s): EMCNOUGHTON B. MCLECOL. Affiliation: HECOM DCC. Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor, Markham, ON L3T 7W3, Canada
	Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
	Site name: PO60 Pond ID: POUL - 12
	Property Address: 4329 Consession #7.
	UTM Coordinates (NAD83): 0569639 E 48.70695 N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
	Land Ownership: □Public ▼XPrivate □Both
C	Name: John Ferrero Mailing Address: Phone # 905-475-1044 4329 Concession 7 Purunch ON NUB 2-10
7	Last updated: January 2016 Page 1

Last updated: January 2016

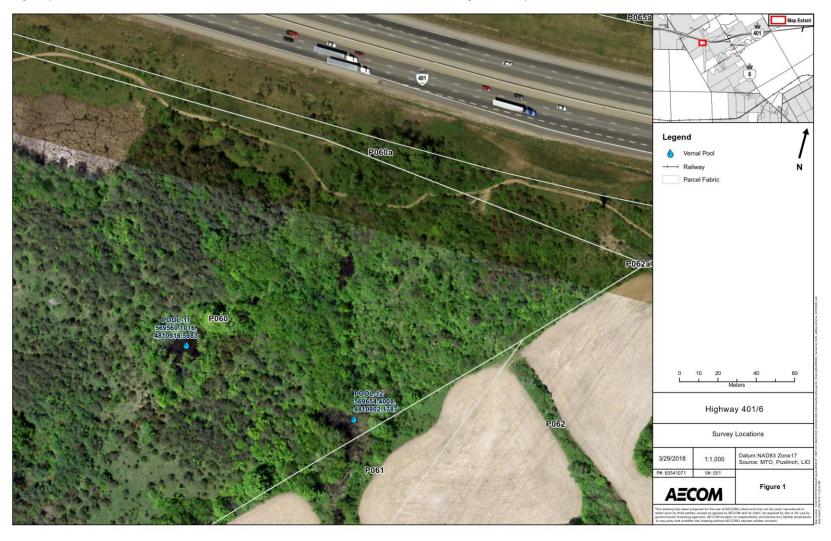
Wildlife Scientific Collector's Authorization # 1088798 ESA Permit # GU-B-004-18

Page 2

SAMPLING INFORMATION:	
Date(s) of sampling: 30/03/2018	(dd/mm/yyyy)
Survey Type (circle one):	
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental	
Sample Type (circle all that apply):	
Tail Tip Roadkill Larvae Egg Mass Visual Observation	
Search Effort (time spent, number of minnow traps etc.):	
STRAPS FOR 12 Hours.	
# of salamanders observed:	
Number of Samples Taken:	^
# of adult tail tips: # mortalities: # of larvae:	<u>Y</u> .
# of larvae tail tips: # roadkills:	
HADITAT INFORMATION	
HABITAT INFORMATION:	
Average Pond Depth (m): 1m	(a.f.d
Pond Description: Find appears to be vernal but would	VIQICA
water until late July Surranded by Decide	ious tixos
Terrestrial Vegetation Community Type	
Other amphibians observed or heard: Speng Peopees on walk in	•
Egg Attachment Sites Present:	
Suitable Hydroperiod for Breeding: Yes \(\subseteq \text{No } \subseteq \text{Unknown} \)	i.e
Photos Taken: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	3
Recorded: Photo # 220-235.	
SECTION B - TO BE FILLED OUT BY DR. BOGART	
Date samples received:	(dd/mm/yyyy)
Condition of samples received:	(GG/IIIII/yyyy)
Condition of samples received.	
JPB #(s):	



Maps (Please ensure road names and UTM coordinates are clearly visible)





Instructions:

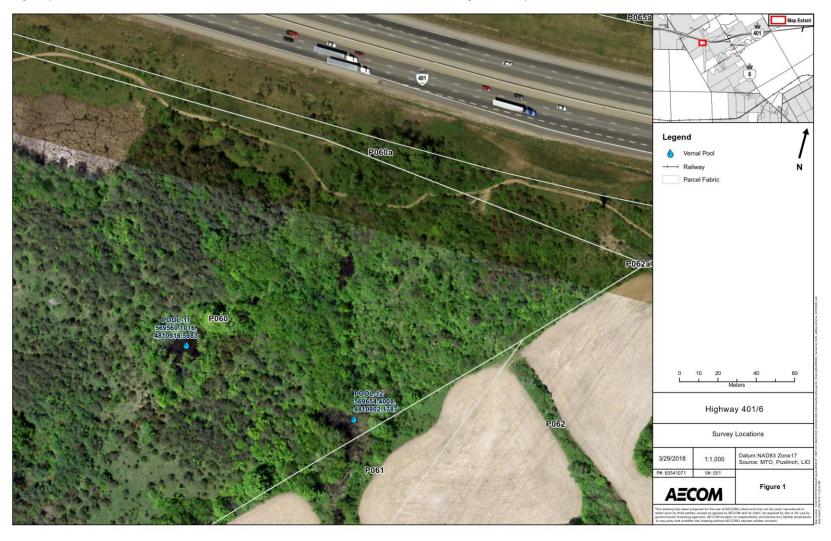
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- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.
 - Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

SECTION A — TO BE FILLED OUT BY THE COLLECTOR
Search Result (circle one): Positive Negative
PROJECT TITLE:Highway 401/6
CONTACT INFORMATION:
Name of observer(s): Heather Kime Kuren Murtens
Affiliation: AECOM
Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3,
Canada
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
PROPERTY INFORMATION:
Site name: Pond ID: Pool-12
Property Address: 4329 (oncession 7
UTM Coordinates (NAD83): 569637 E 48.0661 N (NOT Lat, Long)
(Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
Land Ownership: □Public ☑Private □Both
LANDOWNER INFORMATION:
Name: John Ferrero
Mailing Address: 4329 (oncecsion 7 Puslinh ON NOB2)0
Last updated: January 2016 Page 1

SAMPLING INFORMATION:
Date(s) of sampling: $04/04/2018$ (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
6 6 traps set for 12 hows
of salamanders observed: / One
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae:
of adult tail tips: # mortalities: # of larvae: # of larvae tail tips: # roadkills:
HABITAT INFORMATION:
Average Pond Depth (m): 1-2 m
Pond Description: Vernal Pool at the edge of a deciduous forest,
acytical terrel field with cample thrub lover, leaf litter and debris
Terrestrial Vegetation Community Type: Deciduous Swamp
Other amphibians observed or heard: No
Egg Attachment Sites Present: ☐Yes ☐No ☐Unknown
Suitable Hydroperiod for Breeding: ☐Yes ☐No ☐Unknown
Photos Taken:
SECTION B — TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

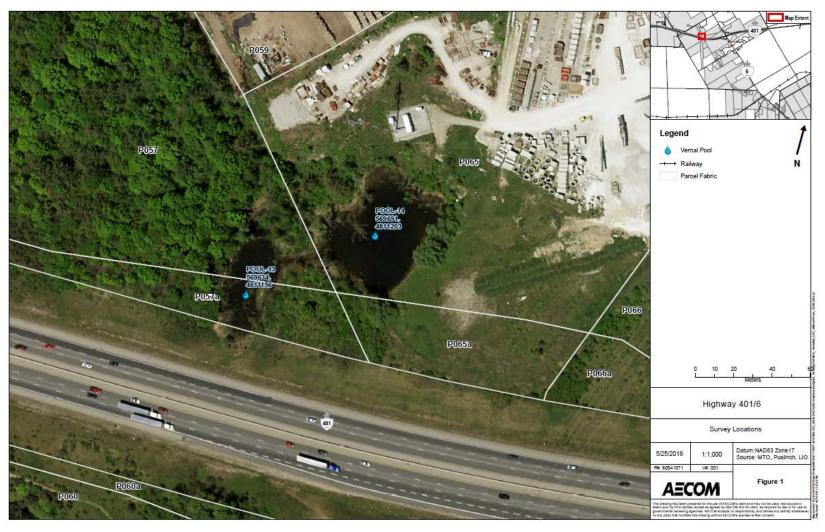
Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

Search Result (circle one): Positive Negative PROJECT TITLE: Highway 401/6 **CONTACT INFORMATION:** Name of observer(s): Jesua Piete + Andrew Minie Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Property Address: UTM Coordinates (NAD83): 569 434 4811156 N (**NOT** Lat, Long) (**Do not** record UTM of each minnow trap, only one coordinate per pond or road location is required) ☑Private Land Ownership: □Public □Both LANDOWNER INFORMATION: Mailing Address:

SAMPLING INFORMATION:
Date(s) of sampling: 66 24, 25 2017 (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
6 trups placed around pond
of salamanders observed: Zero
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae:
of larvae tail tips: # roadkills:
HABITAT INFORMATION:
Average Pond Depth (m): Unknown -> (ce on pond
Pond Description: large pond (approx. (00mx 50m) - 3 sarrould by forested aren with correction to adjoint pont via channel to the East
forested area with convection to adjoint pont via channel to the East
Terrestrial Vegetation Community Type: FODS
Other amphibians observed or heard:
Egg Attachment Sites Present: ☑Yes ☑No ☐Unknown
Suitable Hydroperiod for Breeding: 🗹Yes 🗆No 🖾Unknown
Photos Taken:
SECTION B - TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
Condition of samples received:



Maps (Please ensure road names and UTM coordinates are clearly visible)



SAMPLING INFORMATION: The premare
Date(s) of sampling: The premote waren 28,2017 (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
6 trops x 12 hours each
of salamanders observed:
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae:
of larvae tail tips: # roadkills:
LIABITAT INFORMATION.
HABITAT INFORMATION:
Average Pond Depth (m): 1-2-m
Pond Description: permanent pendo industracil Sik
Fretwoodland adjanent
Terrestrial Vegetation Community Type:
Other amphibians observed or heard: Bull from lawae +1
Egg Attachment Sites Present: DYes DNo DUnknown D 20180327 - 195014, - 200135
Suitable Hydroperiod for Breeding: Wes No Unknown -195354 - 20224/
Photos Taken:
SECTION B - TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):

Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

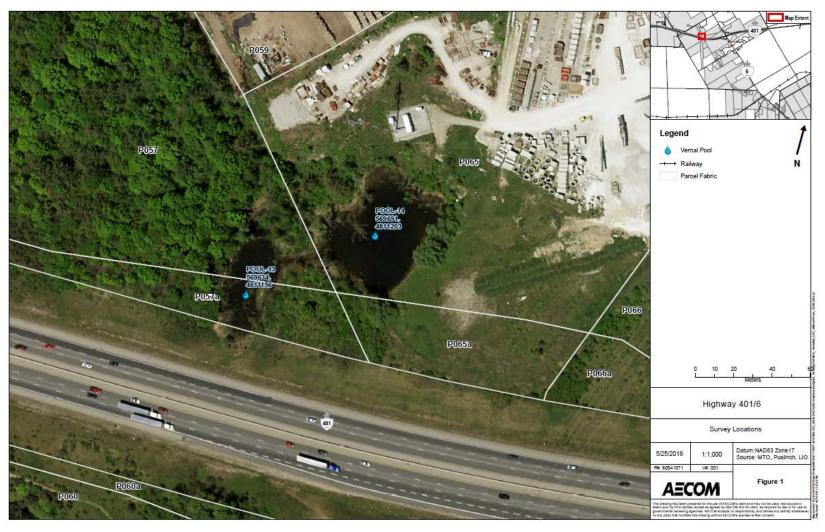
SECTION A - TO BE FILLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Search Result (circle one): Positive Negative
PROJECT TITLE:Highway 401/6
CONTACT INFORMATION:
Name of observer(s): Julie Ello Danos Kom stra
Affiliation:
Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3,
Canada
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
PROPERTY INFORMATION:
Site name: Pool -13 Pond ID: 1001 +3
Site name: Pond ID: 4001+3 Property Address: P05+7
Property Address: P057
Property Address: P05 7 UTM Coordinates (NAD83): E N (NOT Lat, Long)
Property Address: P057 UTM Coordinates (NAD83): E N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
Property Address: PO5 7 UTM Coordinates (NAD83): E N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: DPublic DPrivate DBoth
Property Address: PO57 UTM Coordinates (NAD83): E N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: DPublic DPrivate DBoth LANDOWNER INFORMATION:



Maps (Please ensure road names and UTM coordinates are clearly visible)



Wildlife Scientific Collector's Authorization # 1088798 ESA Permit # GU-B-004-18

Page 1

Instructions:

Last updated: January 2016

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 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

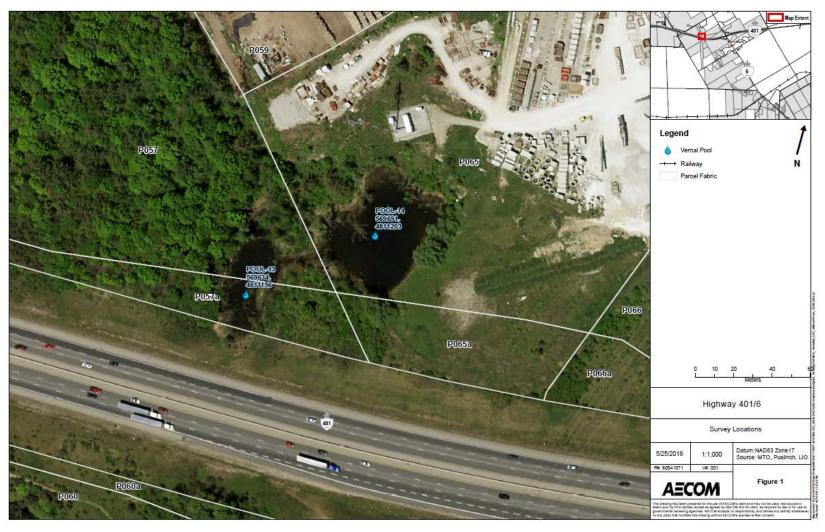
- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Search Result (circle one): Positive Negative
PROJECT TITLE:Highway 401/6
CONTACT INFORMATION:
Name of observer(s): Julie His James Kamstrer Affiliation:
Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3, Canada
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
PROPERTY INFORMATION:
Site name: P001-13 Pond ID: P001-13
Property Address: P057
UTM Coordinates (NAD83): E N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
Land Ownership: □Private □Both
Name: Mto Property Section.
Mailing Address:

Date(s) of sampling: March 28,2018 March 29,2018 (dd/mm/yyyy)
Date(s) of sampling: March 28,2018 March 29, 2018 (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
6 traps x 12 hours each
of salamanders observed:
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae:
of larvae tail tips: # roadkills:
HABITAT INFORMATION:
Average Pond Depth (m): 1-2 W
Pond Description: perment permanent pond @ industrial
Pond Description: perment opermanent pond @ industrial Site to between waalland forest & highway 40
Pond Description: perment opermanent pond @ industrial Site total Detween was land forest & highway 40 Terrestrial Vegetation Community Type:
Pond Description: perment of conduction of the perment of conduction of the perment of the perme
Pond Description: perment of conduction of the perment of conduction of the perment of the perme
Pond Description: Principal Opermonent pond @ industrial Site between woodland Forest & highway 40 Terrestrial Vegetation Community Type: Other amphibians observed or heard: Description
Pond Description: perment of conduction of the perment of conduction of the perment of the perme
Pond Description: Principal Opermonent pond C industrial Site between woodland forest & highway 40 Terrestrial Vegetation Community Type: Other amphibians observed or heard: Description
Pond Description: Perment Thermonent pond C industrial Still that between wasland forest & highway for Terrestrial Vegetation Community Type: Other amphibians observed or heard: DX Bull frog Larvae Egg Attachment Sites Present: DYes DNo Dunknown 72080328-193404, -194221 Suitable Hydroperiod for Breeding: DYes DNo Dunknown 1930 19 -1946 13 Photos Taken: DYes DNo Photo #: 1939 29 -194949
Pond Description: Process of the Street of Description of the Street of



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
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- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

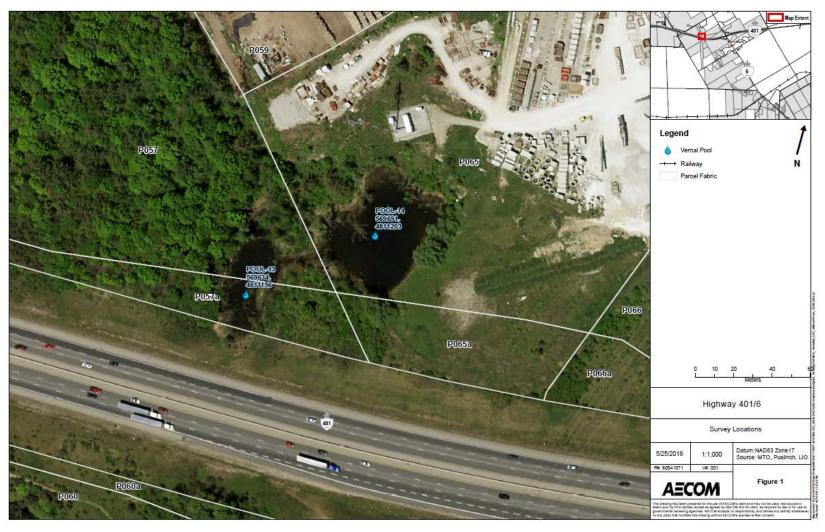
Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

Positive Search Result (circle one): (Negative) PROJECT TITLE: ____Highway 401/6_____ CONTACT INFORMATION: Name of observer(s): S. Chosouri, J. Eliis, J. Rite Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3. Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: <u>Pool 13</u> Pond ID: <u>Pool 13</u> Property Address: POS7 _____ N (**NOT** Lat, Long) UTM Coordinates (NAD83): _____E (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) ☑Private Land Ownership: □Public □Both LANDOWNER INFORMATION: Name: MTO CO Proportion Section _____ Mailing Address: _N/A

SAMPLING INFORMATION:			
Date(s) of sampling: TODS Set 03/04/2018 Trops # removed 04/04/2018 (dd/mm/yyyy)			
Survey Type (circle one):			
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental			
Sample Type (circle all that apply):			
Tail Tip Roadkill Larvae Egg Mass Visual Observation			
Search Effort (time spent, number of minnow traps etc.):			
3 traps x 12 hours each			
# of salamanders observed:			
Number of Samples Taken:			
# of adult tail tips: # mortalities: # of larvae:			
# of adult tail tips: # mortalities: # of larvae: # of la			
HABITAT INFORMATION: Average Pond Depth (m): 1-2 m			
Pond Description: Re viscol pool form			
Terrestrial Vegetation Community Type: 122 Varial pool form			
Other amphibians observed or heard: HAR ONE bullfrag technole Source			
Egg Attachment Sites Present: ☐Yes ☐No ☐Unknown			
Suitable Hydroperiod for Breeding: ☐Yes ☐No ☐Unknown			
Photos Taken: Yes No Photo #: See 50 harma 's Cam			
SECTION B — TO BE FILLED OUT BY DR. BOGART			
Date samples received:(dd/mm/yyyy)			
Condition of samples received:			



Maps (Please ensure road names and UTM coordinates are clearly visible)



Last updated: January 2016

Page 1

Instructions:

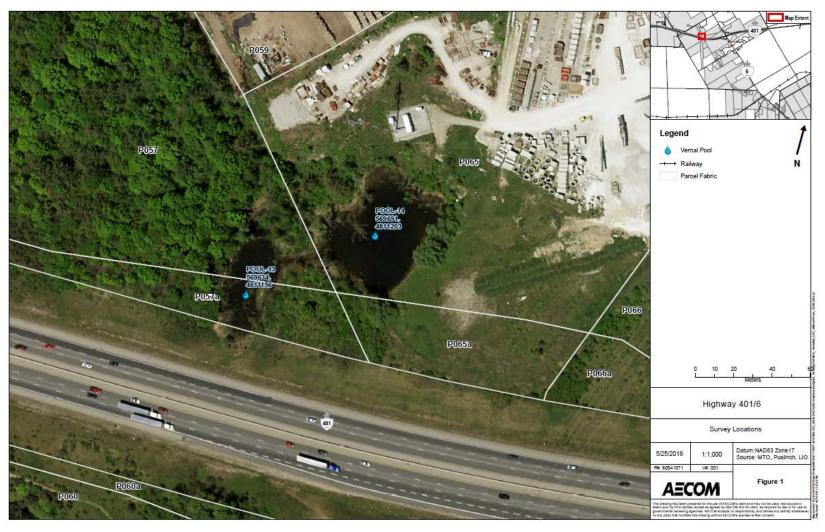
- You must complete a separate form for each pond sampled.
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- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

	SECTION A – TO BE FILLED OUT BY THE COLLECTOR
	Search Result (circle one): Positive Negative
	PROJECT TITLE: Highway 401/6
	CONTACT INFORMATION:
P	Name of observer(s): Julie FIS 10(ga hnpach) Affiliation:
	Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3,
	Canada
	Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
	PROPERTY INFORMATION:
	Site name: <u>Pool - 13</u> Pond ID: <u>Pool - 13</u>
	Property Address: Po57
	UTM Coordinates (NAD83): EN (NOT Lat, Long)
	(Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
	Land Ownership: □Public □Private □Both
	LANDOWNER INFORMATION:
	Name: MTO C/O Property Section
	Mailing Address:
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

SAMPLING INFORMATION:	4	AM			
Date(s) of sampling: 2018 - 64	-B	2018-6	24-14	<u> </u>	(dd/mm/yyyy)
Survey Type (circle one):					
Minnow Trap Cover Board	l Road F	Pitfall Trap \	Visual	Incidental	
Sample Type (circle all that apply):					
Tail Tip Roadkill Larvae	Egg Mass	Visual Obse	ervation		
Search Effort (time spent, number of a					
# of salamanders observed:					
Number of Samples Taken:					
# of adult tail tips:	# mor	talities:		# of larvae:	1
# of larvae tail tips: 💋	# road	Ikills: /		7	
HABITAT INFORMATION:		9			
Average Pond Depth (m): 1-2-W)				
Pond Description: Large D	· .	Liacon o	dia	cent 40	highway
near woodtond	an n	oransi	<u>& </u>		
Terrestrial Vegetation Community Typ	oe: <u>0AP)</u>				
Other amphibians observed or heard:	Bullfrox	j lane	<u>Q</u>	_	
Egg Attachment Sites Present:	ØYes □No	□Unknown			
Suitable Hydroperiod for Breeding:	Yes □No	□Unknown	_	.	0
Photos Taken:	DXes □No	Photo #:(Sel	photoloc	sheet
				1	
SECTION B — TO BE FILLED OUT	BY DR. BOG	ART			
Date samples received:					(dd/mm/yyyy)
Condition of samples received:					
IPR #/e):					



Maps (Please ensure road names and UTM coordinates are clearly visible)



Instructions:

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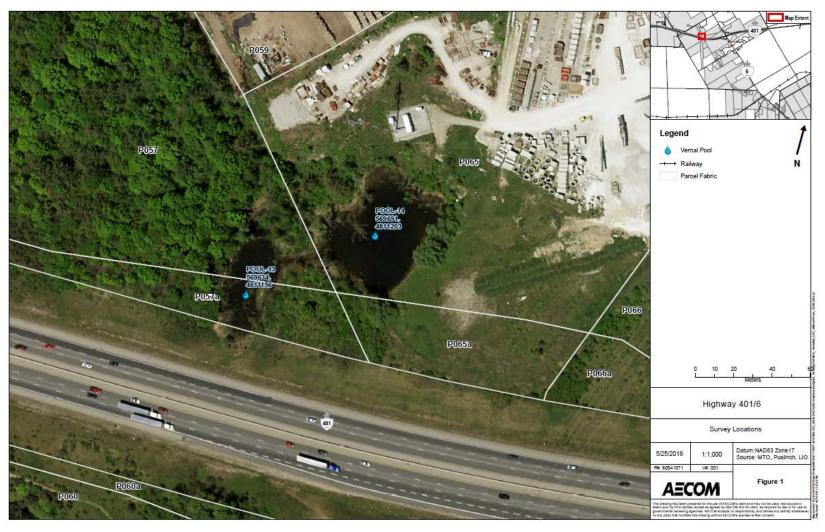
SECTION A - TO BE FILLED OUT BY THE COLLECTOR
Search Result (circle one): Positive Negative
PROJECT TITLE: 40 / 6
CONTACT INFORMATION:
Name of observer(s): Affiliation: Mailing Address: Phone Number: AECOM 105 Commerce Valley Drive wythichem 416 476 -6413 Email: julie.ellis@aecom.
PROPERTY INFORMATION:
Site name: Pond ID: pool - 14
Property Address: P665
UTM Coordinates (NAD83): E N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
Land Ownership: □Public ☑Private □Both
Name: Concast Pipe Mark Wetselaar Mailing Address: TBD
Last updated: January 2016 Page 1

Wildlife Scientific Collector's Authorization # ______ ESA Permit # _____

SAMPLING INFORMATION:
Date(s) of sampling: 2618 -02 -28 2018 -03 -01 (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
5 traps x 12 hous each
of salamanders observed:
Number of Samples Taken:
of adult tail tips: # mortalities: # # of larvae:
of adult tail tips: # mortalities: # # of larvae: # # of larvae
HABITAT INFORMATION:
Average Pond Depth (m):
Pond Description:
Pond Description: See previously completed venal pool assessmen Torrestrial Venatation Community Type:
Terrestrial Vegetation Community Type:
Other amphibians observed or heard:
Egg Attachment Sites Present:
Suitable Hydroperiod for Breeding: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Photos Taken: No Photo #:
SECTION B — TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Date samples received:(dd/mm/yyyy) Condition of samples received:



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

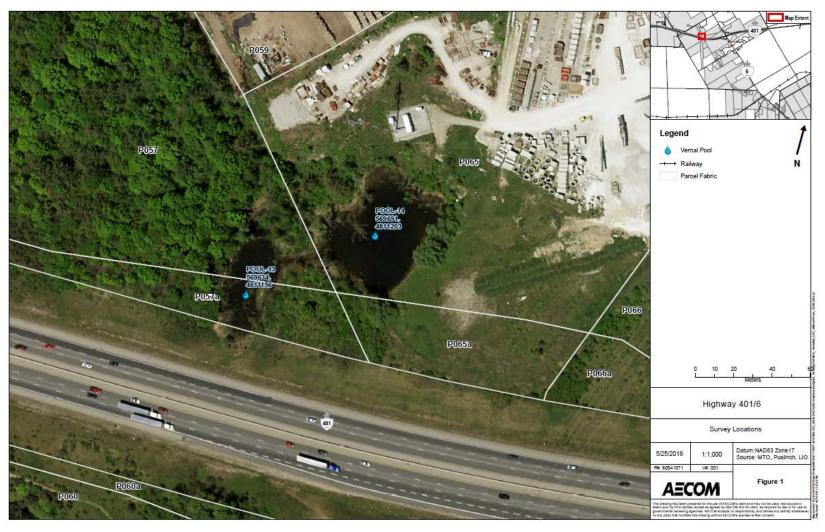
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SECTION A - TO BE FILLED OUT BY THE COLLECTOR
Search Result (circle one): Positive Negative
PROJECT TITLE:Highway 401/6
CONTACT INFORMATION:
Name of observer(s): JWIE Elis James Kamstra Affiliation:
Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3, Canada
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
PROPERTY INFORMATION:
Site name: POOL-IY Pond ID: Pool-IY
Property Address: Pobo
UTM Coordinates (NAD83): E N (NOT Lat, Long)
(Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
Land Ownership: □Public □Private □Both
Name: Michael Thompson Engineering Mailing Address:

SAMPLING INFORMATION: Trop sed trop Remared
Date(s) of sampling: March 27, 2018 March 28, 29(dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.): The trop of 12 hours
of salamanders observed:
Number of Samples Taken:
of adult tail tips: # mortalities: # # of larvae: Ø
of larvae tail tips: # roadkills:
HABITAT INFORMATION:
Average Pond Depth (m): 1—2 m Pond Description: See very pool assessment Permenon pond a industrial site Forest upond Terrestrial Vegetation Community Type: See above Other amphibians observed or heard: Rull frog Ia W Egg Attachment Sites Present: Present: In Industrial site Forest upond Other amphibians observed or heard: Rull frog Ia W Egg Attachment Sites Present: In Industrial site Forest upond Other amphibians observed or heard: Rull frog Ia W Egg Attachment Sites Present: In Industrial site Forest upond Other amphibians observed or heard: Rull frog Ia W Egg Attachment Sites Present: In Industrial site Forest upond Other amphibians observed or heard: Rull frog Ia W Egg Attachment Sites Present: In Industrial site Forest upond Other amphibians observed or heard: Rull frog Ia W Egg Attachment Sites Present: In Industrial site Forest upond Other amphibians observed or heard: Rull frog Ia W Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Forest upond Egg Attachment Sites Present: In Industrial site Fore
SECTION B — TO BE FILLED OUT BY DR. BOGART Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

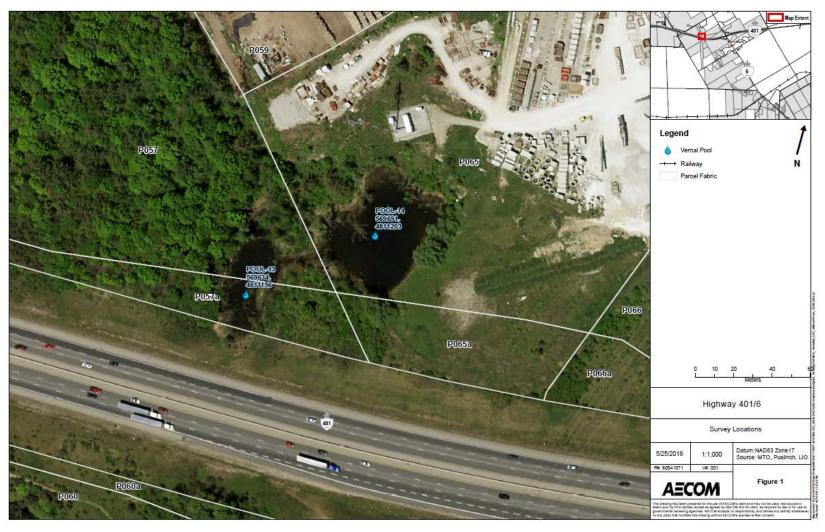
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	SECTION A - TO BE FILLED OUT BY THE COLLECTOR				
	Search Result (circle one): Positive Negative				
	PROJECT TITLE:Highway 401/6				
	CONTACT INFORMATION:				
)	Name of observer(s): Julie EMIS James Komstra				
	Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3, Canada				
	Phone Number: 905.886.7022 Email: julie.ellis@aecom.com				
	PROPERTY INFORMATION:				
	Site name:				
	Property Address: P060				
	UTM Coordinates (NAD83): EN (NOT Lat, Long)				
	(Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)				
	Land Ownership: ☐Public ☐Private ☐Both				
	Name: Michael Thompson Chain-Gering				
	Name: Michael Thompson Engineering Mailing Address:				

Date(s) of sampling: There 28,2018 There 29,2018 (dd/mm/yyyy)				
Date(s) of sampling: Theren 28,2018 Wareh 29,2018 (dd/mm/yyyy)				
Survey Type (circle one):				
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental				
Sample Type (circle all that apply):				
Tail Tip Roadkill Larvae Egg Mass Visual Observation				
Search Effort (time spent, number of minnow traps etc.):				
7 trops x 12 hours each.				
# of salamanders observed:				
Number of Samples Taken:				
# of adult tail tips: # mortalities: # of larvae:				
# of larvae tail tips: # roadkills:				
HABITAT INFORMATION:				
Average Pond Depth (m): 1-2m Pond Description: See vernou pod assessment form, Permanent pand and and strait site, near forest woodland				
Terrestrial Vegetation Community Type: SLE QUIL				
Other amphibians observed or heard: 1 × Bull-froa kuva-				
Egg Attachment Sites Present:				
Suitable Hydroperiod for Breeding: Ayes INo IUnknown -202050 203302 -20211 -203613 203613				
Thotas raken.				
SECTION B – TO BE FILLED OUT BY DR. BOGART				
Date samples received:(dd/mm/yyyy)				
Condition of samples received:				
JPB #(s):				



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

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SECTION A - TO BE FILLED OUT BY THE COLLECTOR

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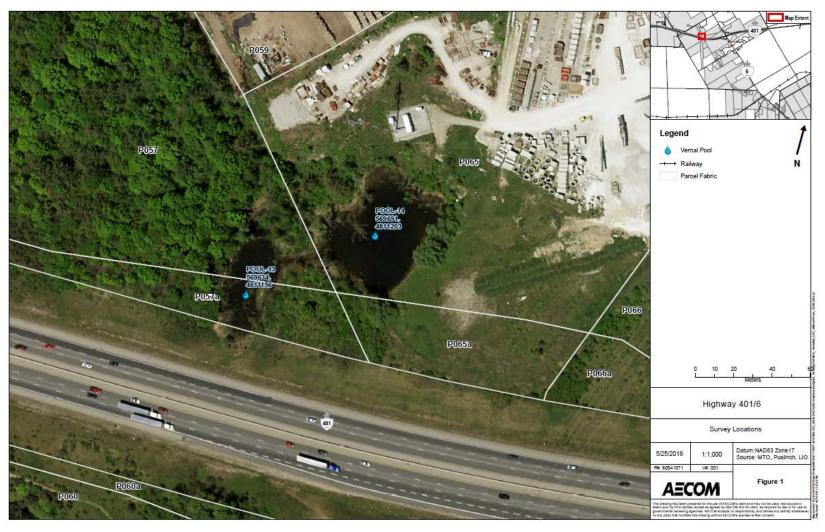
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Search Result (circle one): Positive Negative PROJECT TITLE: Highway 401/6 **CONTACT INFORMATION:** Name of observer(s): S. Ghasan, J. Ellis, J. Perz Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Property Address: Pobs UTM Coordinates (NAD83): _____ E N (NOT Lat, Long) (**Do not** record UTM of each minnow trap, only one coordinate per pond or road location is required) ☑Private □Public □Both Land Ownership: LANDOWNER INFORMATION: Name: MID VO property be whom Mailing Address: N/A

SAMPLING INFORMATION:					
Date(s) of sampling: Trup set: 03/04/2018 459pt removed: 04/04/2018 (dd/mm/yyyy)					
Survey Type (circle one):					
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental					
Sample Type (circle all that apply):					
Tail Tip Roadkill Larvae Egg Mass Visual Observation					
Search Effort (time spent, number of minnow traps etc.):					
3 Mort x 12 hours each					
# of salamanders observed:					
Number of Samples Taken:					
# of adult tail tips: # mortalities: # of larvae:					
# of adult tail tips: # mortalities: # of larvae: # of larvae: # roadkills:					
HABITAT INFORMATION:					
Average Pond Depth (m): \\\ \rac{\rackless}{2} \rackless					
Pond Description: See yerral pool Formi					
Terrestrial Vegetation Community Type: See vernal pool forms					
Other amphibians observed or heard: One bullton today todayou					
Egg Attachment Sites Present:					
Suitable Hydroperiod for Breeding: □Ŷes □No □Unknown					
Photos Taken: DYes DNo Photo #: See Solenne's Camera					
SECTION B — TO BE FILLED OUT BY DR. BOGART					
Date samples received:(dd/mm/yyyy)					
Condition of samples received:					
JPB #(s):					



Maps (Please ensure road names and UTM coordinates are clearly visible)



Instructions:

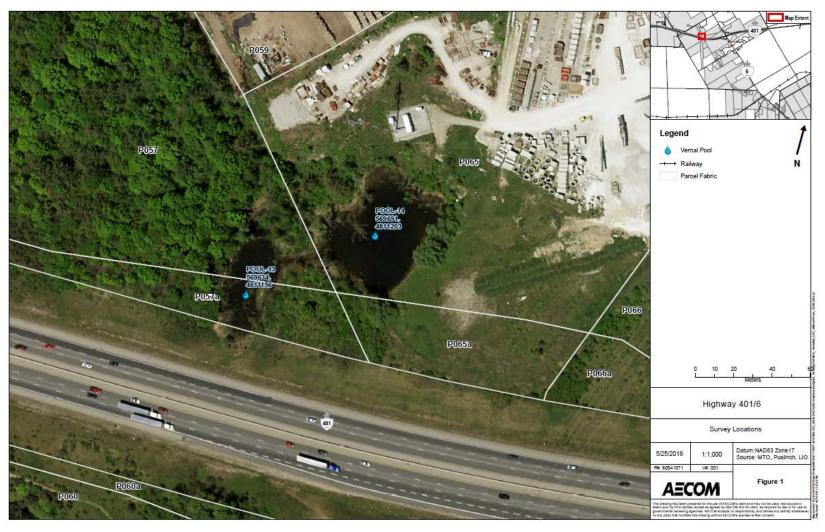
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- · All conditions as per the WSCA and ESA permits must be followed.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR					
	Search Result (circle one): Positive Negative				
	PROJECT TITLE:Highway 401/6				
	CONTACT INFORMATION:				
)	Name of observer(s): Julie Elis olga Hrapach Affiliation:				
	Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3, Canada				
	Phone Number: 905.886.7022 Email: julie.ellis@aecom.com				
	PROPERTY INFORMATION:				
	Site name: Pool - 14 Pond ID: Pool - 14				
	Property Address: P065				
	UTM Coordinates (NAD83): E N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)				
	Land Ownership: □Public □Private □Both				
LANDOWNER INFORMATION: Name: Wichiel Thompson					
	Name: Michael thompsen Mailing Address: 299 Brock And S, Greelph, ON WH 1049				
)					
	Last updated: January 2016 Page 1				

SAMPLING INFORMATION:	AM			
Date(s) of sampling: 2018-04	-13 2018-04-14	_(dd/mm/yyyy)		
Survey Type (circle one):				
Minnow Trap Cover Board	l Road Pitfall Trap Visual Incidental			
Sample Type (circle all that apply):				
Tail Tip Roadkill Larvae	Egg Mass Visual Observation			
Search Effort (time spent, number of	minnow traps etc.):			
7 trops x 12 1	rurs each			
# of salamanders observed:				
Number of Samples Taken:				
# of adult tail tips:	# mortalities: # of larvae:	_		
# of larvae tail tips:	# roadkills:			
HABITAT INFORMATION:	/			
Average Pond Depth (m): 1-2-1)	,		
Pond Description: Samelattached to Dend-B lange deep				
part adjacent te	highware bount woold	lond		
Terrestrial Vegetation Community Typ				
Other amphibians observed or heard:	Bulfrog lana			
Egg Attachment Sites Present:	©Yes □No □Unknown			
Suitable Hydroperiod for Breeding:	☐Yes ☐No ☐Unknown			
Photos Taken:	Tyes INO Photo #: Sel photo 105			
		<i></i>		
SECTION B - TO BE FILLED OUT BY DR. BOGART				
Date samples received:		(dd/mm/yyyy)		
Condition of samples received:				



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

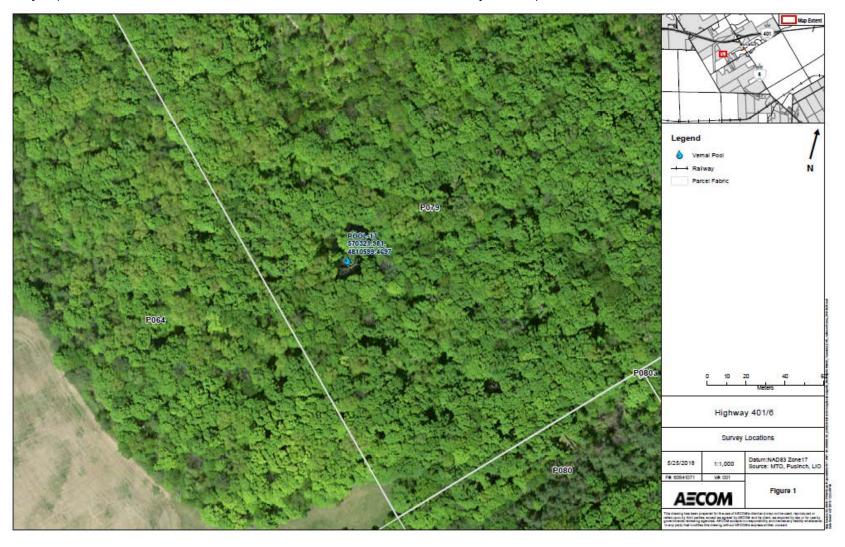
- You must complete a separate form for each pond sampled.
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- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.
 - Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR				
Search Result (circle one): Positive Negative				
PROJECT TITLE:Highway 401/6				
CONTACT INFORMATION:				
Name of observer(s):ohanna Perz + Karen Martens				
Name of observer(s): Johanna Perz + Karen Mattens Affiliation: AECOM				
Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3, Canada				
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com				
PROPERTY INFORMATION:				
Site name: 1079 Pond ID: 100-17				
Property Address:				
UTM Coordinates (NAD83): 570307 E 4810598 N (NOT Lat, Long)				
Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)				
Land Ownership: □Public □Private □Both				
LANDOWNER INFORMATION:				
Name: Transportation Muistry C/O Property Section				
Mailing Address:				

SAMPLING INFORMATION:	
Date(s) of sampling:(dd/n	mm/yyyy)
Survey Type (circle one):	
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental	
Sample Type (circle all that apply):	
Tail Tip Roadkill Larvae Egg Mass Visual Observation	
Search Effort (time spent, number of minnow traps etc.):	
# of salamanders observed;	
Number of Samples Taken:	
# of adult tail tips: # mortalities: # of larvae:	
# of larvae tail tips: # roadkills:	
HABITAT INFORMATION:	
· Pond Description: Peanut Shaped vernal pool w/ abundant woody de	bric
Pond Description: Peanor Shaped Verhal por Wy abondante door of	20113
approximately 35m long by 10m	
Terrestrial Vegetation Community Type: FOD	
Other amphibians observed or heard: None	
Egg Attachment Sites Present:	
Suitable Hydroperiod for Breeding:	
Photos Taken:	
SECTION B — TO BE FILLED OUT BY DR. BOGART	
Date samples received: (dd/i	mm/yyyy)
Condition of samples received:	
JPB #(s):	
	1



Maps (Please ensure road names and UTM coordinates are clearly visible)



Last updated: January 2016

Page 1

Instructions:

- You must complete a separate form for each pond sampled.
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- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.
 - Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

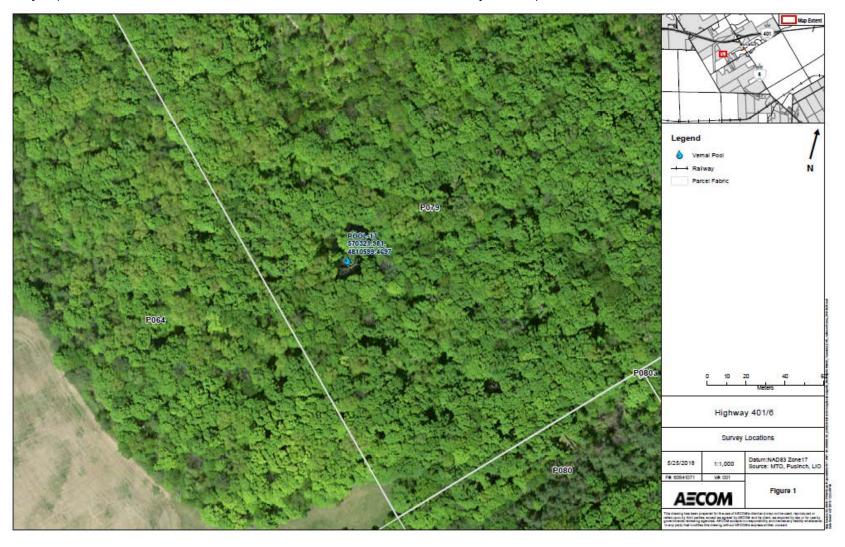
Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

SECTION A — TO BE FILLED OUT BY THE COLLECTOR Search Result (circle one): Positive Negative PROJECT TITLE: __ Highway 401/6 **CONTACT INFORMATION:** Name of observer(s): Heather Kim Bill McLeod Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Canada Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: <u>PO79</u> Pond ID: <u>/7</u> Property Address: ____ ___ ____ UTM Coordinates (NAD83): _____ E ____ N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) **⊠**Both □Private □Public Land Ownership: LANDOWNER INFORMATION: Transportation Ministry C/O Property Section Mailing Address:

SAMPLING INFORMATION:
Date(s) of sampling: $\frac{28/63/2018}{}$ (dd/mm/yyy
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply): // / A
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.): le traps installed in portion of prod u/o lee cover to edges.
of salamanders observed: nowl
Number of Samples Taken:
of adult tail tips: <u>n/a</u> # mortalities: <u>n/a</u> # of larvae: <u>n/a</u>
of larvae tail tips: # roadkills: /_a
HABITAT INFORMATION:
Average Pond Depth (m): 50cm
Pond Description: long narrow pond in valley with tree cover and worky of bis
Terrestrial Vegetation Community Type: FOD
Other amphibians observed or heard:
Egg Attachment Sites Present: DYes DNo DUnknown Potential, Name confirmed
Suitable Hydroperiod for Breeding: □Yes □No □Unknown Tikely
Photos Taken: ☐Yes ☐No Photo #:
SECTION B — TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyy
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
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- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A TO BE FULLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

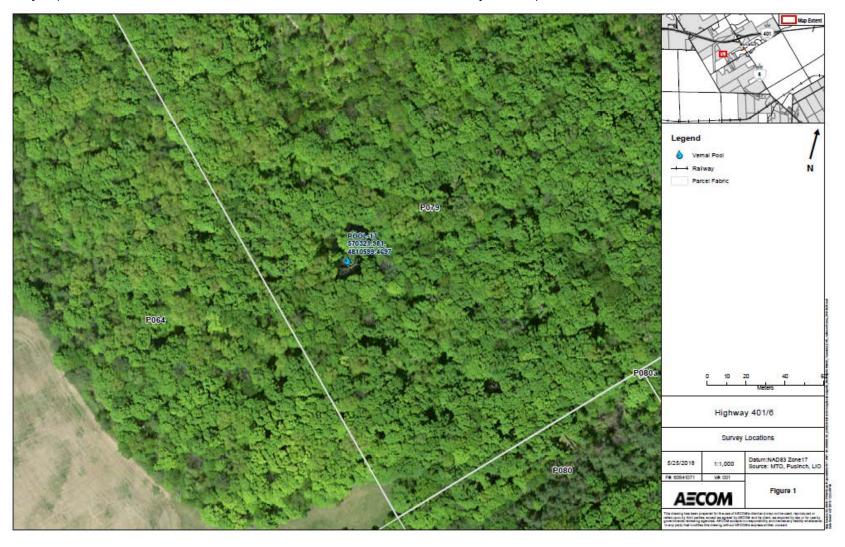
Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR
Search Result (circle one): Positive Negative
PROJECT TITLE:Highway 401/6
CONTACT INFORMATION:
Name of observer(s): Heather Kime Johanna Pere
Affiliation:
Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3,
Canada
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
PROPERTY INFORMATION:
Site name: P079 Pond ID: 17
Property Address:
UTM Coordinates (NAD83): E N (NOT Lat, Long)
(Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
Land Ownership: □Public □Private ☑Both
LANDOWNER INFORMATION:
Name: Transportation Ministry C/O Property Section
Mailing Address:

SAMPLING INFORMATION:
Date(s) of sampling: 29 03 2018 (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply): \(\Lambda / \alpha\)
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
6 traps 12 hrs
of salamanders observed:
Number of Samples Taken: n/a
of adult tail tips: <u>n/a</u> # mortalities: <u>n/a</u> # of larvae: <u>n/a</u>
of larvae tail tips: # roadkills:
Average Pond Depth (m): Pond Description:
Terrestrial Vegetation Community Type:
Other amphibians observed or heard:
Egg Attachment Sites Present:
Suitable Hydroperiod for Breeding:
Photos Taken: Yes No Photo #: Se 18 03 248 photo department Photos Taken: Photos Taken: Photos Taken: Photos Tak
SECTION B — TO BE FILLED OUT BY DR. BOGART
250 HOM P - 10 BE LIFFED OOT BY DIVERSONIE!
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Jefferson Salamander Presence/Absence Reporting Form

Wildlife Scientific Collector's Authorization # 1088 798
ESA Permit # (1088 798)

Instructions:

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.
 - Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR	
Search Result (circle one): Positive Negative	
PROJECT TITLE:	g:
CONTACT INFORMATION:	
Name of observer(s): Julie Flis, Alay Maol	eod
Affiliation:	
Mailing Address: 105 Connerce Valley Dr	wp Uses 3
Phone Number: 905-747-760 Email: 110.011	so geromic
PROPERTY INFORMATION:	**************************************
Site name: Pool 17 Pon	d ID: Pac 1-17
Property Address: PO 79	
UTM Coordinates (NAD83): E N (NOT Lat	, Long)
(Do not record UTM of each minnow trap, only one coordinate per pond or road	location is required)
Land Ownership: Public Private Both	
LANDOWNER INFORMATION:	
Name: Mto CO Preperty Section	
Mailing Address: D	
Last updated: January 2016	Page 1

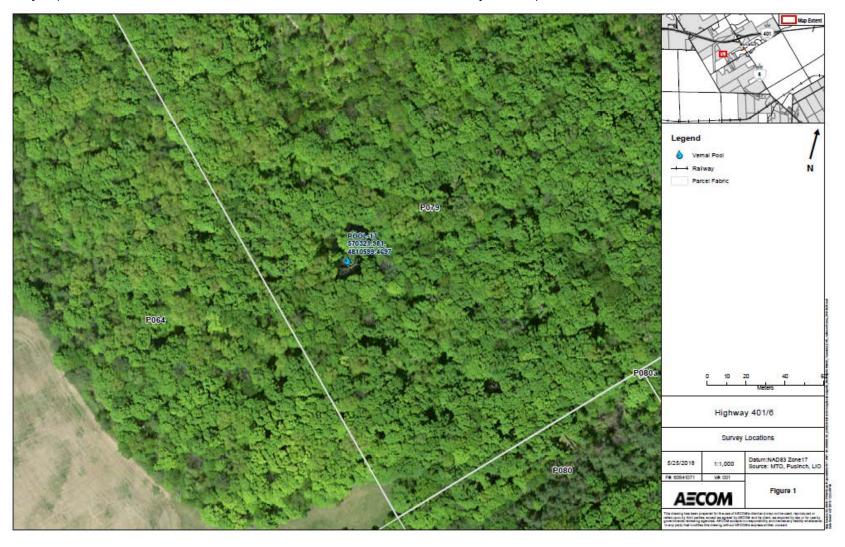
Jefferson Salamander Presence/Absence Reporting Form

Wildlife Scientific Collector's Authorization # ______ ESA Permit # _____

SAMPLING INFORMATION: Demoved
Date(s) of sampling: 03/29/2018 03/30/2019 (dd/mm/yyyy
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
6 trass y 11.5 hours
of salamanders observed:
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae:
of adult tail tips: # mortalities: # of larvae: # of la
HABITAT INFORMATION:
Average Pond Depth (m): Y
Pond Description: Vernal pont in Fold
minimal very in ordered Dorl
Terrestrial Vegetation Community Type:
Other amphibians observed or heard: 1 x 1-2000x d fr C C
Egg Attachment Sites Present:
Suitable Hydroperiod for Breeding:
Photos Taken:
SECTION B – TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
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- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.
 - Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

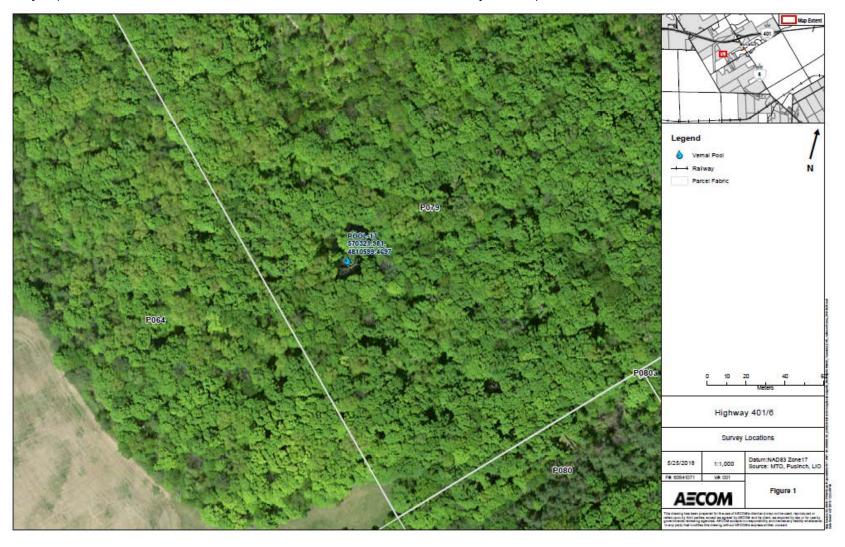
Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

SECTION A — TO BE FILLED OUT BY THE COLLECTOR Positive Search Result (circle one): Negative PROJECT TITLE: Highway 401/6 **CONTACT INFORMATION:** Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Canada Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: ______ Pond ID: Po0/ - 17 Property Address: ____N (NOT Lat, Long) UTM Coordinates (NAD83): _____ E (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) 7 Private Land Ownership: □Public □Both LANDOWNER INFORMATION: Name: _____ Mailing Address:

SAMPLING INFORMATION:	
Date(s) of sampling: April 4 4018 (dd/mm/yyy	/y)
Survey Type (circle one):	
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental	
Sample Type (circle all that apply):	
Tail Tip Roadkill Larvae Egg Mass Visual Observation	
Search Effort (time spent, number of minnow traps etc.): 6 Haps X II hows	_
# of salamanders observed:	_
Number of Samples Taken:	
# of adult tail tips: # mortalities: # of larvae: #	
# of larvae tail tips: # roadkills:	
HABITAT INFORMATION:	
Average Pond Depth (m): 1 m	
Pond Description:	_
Terrestrial Vegetation Community Type: FOD	-
Other amphibians observed or heard: NO	_
Egg Attachment Sites Present: DYes DNo DUnknown	-
Suitable Hydroperiod for Breeding: □Yes □No □Unknown	
Photos Taken:	_
SECTION B — TO BE FILLED OUT BY DR. BOGART	
Date samples received:(dd/mm/yyyy	/)
Condition of samples received:	_
JPB #(s):	_



Maps (Please ensure road names and UTM coordinates are clearly visible)



Last updated: January 2016

Wildlife Scientific Collector's Authorization # 1088798 ESA Permit # GU-B-004-18

Page 1

Instructions:

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

Search Result (circle one): Positive PROJECT TITLE: Highway 401/6 CONTACT INFORMATION: Name of observer(s): Julie Alb. Andrew Minielly Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Canada Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Pond ID: 18 Site name: + Property Address: Po 79 _____N (NOT Lat, Long) UTM Coordinates (NAD83): _____ E (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) **⊠**Both Land Ownership: □Public □Private LANDOWNER INFORMATION: Mailing Address: ___

SAMPLING INFORMATION:
Date(s) of sampling: 2018-03-0/2018-03-02 (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.): 7 +rcps x 12 hours each
of salamanders observed:
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae:
of adult tail tips: # mortalities: # of larvae: # of larvae: # roadkills:
HABITAT INFORMATION:
Average Pond Depth (m):
Average Pond Depth (m): Pond Description: See verned pod Form
Terrestrial Vegetation Community Type:
Other amphibians observed or heard:
Egg Attachment Sites Present:
Suitable Hydroperiod for Breeding:
Photos Taken: □Ýes □No Photo #:
SECTION B — TO BE FILLED OUT BY DR. BOGART
Date samples received: (dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Instructions:

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Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

SECTION A — TO BE FILLED OUT BY THE COLLECTOR Search Result (circle one): Positive (Negative) PROJECT TITLE: Highway 401/6_____ **CONTACT INFORMATION:** Name of observer(s): Johanna Pary, Jon Shorren Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Phone Number: 905.886.7022 Email: iulie.ellis@aecom.com PROPERTY INFORMATION: Pool - 18 Pond ID: 18 Property Address: \$079 UTM Coordinates (NAD83): E N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: □Public □Private **B**Both LANDOWNER INFORMATION: Transportation Munitry C/O Property Section Mailing Address: Last updated: January 2016 Page 1

SAMPLING INFORMATION:
Date(s) of sampling: $\frac{27/03/2018}{28/03/2018}$ (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation \mathcal{N}/\mathcal{P}
Search Effort (time spent, number of minnow traps etc.): 5 to get 17 hrs Dpm - Dam
of salamanders observed:
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae:
of larvae tail tips: # roadkills:
HABITAT INFORMATION:
Average Pond Depth (m):
Pond Description: Cattail Shallow Marsh
Terrestrial Vegetation Community Type: MAS Surrounded by 5WM
Other amphibians observed or heard:
Egg Attachment Sites Present: ☑Yes □No □Unknown
Suitable Hydroperiod for Breeding:
Photos Taken:
17T 571062, 4811279
SECTION B - TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
.IPR #/s)·



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

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- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- · Pond nomenclature must be consistent for all maps and reports.
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Search Result (circle one): Posit	ive Negative	
PROJECT TITLE:Highway 401/6		
CONTACT INFORMATION:		
Name of observer(s): Heather Kims Affiliation:	Johanna	Pert-
Mailing Address: AECOM Canada Ltd.,105 C	ommerce Valley Driv	ve West, 7 th Floor,Markham, ON L3T 7W3,
Canada		
Phone Number: 905.886.7022 Email: julie.el	lis@aecom.com	
PROPERTY INFORMATION:) web.
Site name: PO79		Pond ID; <u>\</u> \ <u>\</u> \ <u>\</u>
Property Address:		
UTM Coordinates (NAD83):	E	N (NOT Lat, Long)
(Do not record UTM of each minnow trap, o	nly one coordinate (per pond or road location is required)
Land Ownership: □Public □Private	⊞Both	
LANDOWNER INFORMATION: Name: Transportation Minist	ry C/O Pr	operty Section
Mailing Address:		
		-

SAMPLING INFORMATION:
Date(s) of sampling: 29/03/2018 a.m. (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
12 his 5 traps.
of salamanders observed: NOVO
Number of Samples Taken:
of adult tail tips: <u>Ma</u> # mortalities: <u>Ma</u> # of larvae: <u>Ma</u>
of larvae tail tips: # roadkills:
Average Pond Depth (m): See 28 03 / 2018 notes = Pond Description:
Terrestrial Vegetation Community Type:
Other amphibians observed or heard: Spring Peeper(3) heard 78/03/70/8
Egg Attachment Sites Present:
Suitable Hydroperiod for Breeding:
Photos Taken:
SECTION B - TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

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SECTION A - TO BE FILLED OUT BY THE COLLECTOR Search Result (circle one): Positive Negative PROJECT TITLE: Highway 401/6 CONTACT INFORMATION: Name of observer(s): Nat Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3. Canada Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: 1 Property Address: Po79 UTM Coordinates (NAD83): <u>5710 2 8.223</u> Ε <u>42 13 4.029</u> Ν (**NOT** Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) ™Private Land Ownership: □Public □Both LANDOWNER INFORMATION: Ministry of Transportation (MTO) Mailing Address:

SAMPLING INFORMATION:					
Date(s) of sampling:	1/2018			155	(dd/mm/yyyy)
Survey Type (circle one):					
Minnow Trap Cover Board	d Road F	Pitfall Trap	Visual	Incidental	
Sample Type (circle all that apply):					
Tail Tip Roadkill Larvae	Egg Mass	Visual Obs	servation		
Search Effort (time spent, number of	minnow traps e	tc.):			
12 hours, 5 traps set					
# of salamanders observed:	zero			-7.4	
Number of Samples Taken:			1		
# of adult tail tips:	# mor	talities: 💯	./	# of larvae:	<u> </u>
# of larvae tail tips:	# road	lkills:	-	7	
HABITAT INFORMATION:					
Average Pond Depth (m):					
Pond Description: (attail sha	llow Mu	rsh_			
Terrestrial Vegetation Community Ty	pe: MAS Sc	urroundel	pg 50	M	
Other amphibians observed or heard	1 1		*		
Egg Attachment Sites Present:	⊡Yes □No	□Unknow	n		
Suitable Hydroperiod for Breeding:	¹⊡Yes □No	□Unknow			1
Photos Taken:	⊠Yes □No	Photo #: _	439-1	46, 1456	- 1474
SECTION B — TO BE FILLED OUT	r BY DR. BOG	ART			
Date samples received:					(dd/mm/yyyy)
Condition of samples received:					
JPB #(s):					



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

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- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR Search Result (circle one): Positive Negative PROJECT TITLE: Highway 401/6 **CONTACT INFORMATION:** Name of observer(s): A.Minielly N. Simonaly Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3. Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: P079 Pond ID: P001-18 Property Address: Po79 UTM Coordinates (NAD83): 57 028,223 E 48\1304.629 N (NOT Lat, Long) (**Do not** record UTM of each minnow trap, only one coordinate per pond or road location is required) D'Private Land Ownership: □Public □Both LANDOWNER INFORMATION: Name: Ministry of transportation (MTO) Mailing Address: _____

SAMPLING INFORMATION:
Date(s) of sampling: 4/04/208 (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
5 traps set, 12 hours
of salamanders observed: 200
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae:
of larvae tail tips: # roadkills:
HABITAT INFORMATION:
Average Pond Depth (m):
Pond Description: Coftail Shallow Marsh
Terrestrial Vegetation Community Type: Mrs Surrould by Scott
Other amphibians observed or heard: Ve 5 (Spring Respons)
Egg Attachment Sites Present:
Suitable Hydroperiod for Breeding: Yes No Unknown
Photos Taken: ☐Yes ☐No Photo #: 1500-1505/1530-1546
SECTION B — TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
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- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.
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Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR Search Result (circle one): Positive Negative PROJECT TITLE: Highway 401/6______ CONTACT INFORMATION: Name of observer(s): A. Minielly / N. Simonova Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Canada Phone Number: 905.886.7022 Email: julie.ellis@aecom.com **PROPERTY INFORMATION:** Pond ID: Pool 20 Site name: Property Address: Locales Drive Locales Dr. Morriston ON UTM Coordinates (NAD83): _____ N (**NOT** Lat, Long) (**Do not** record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: □Public □Both LANDOWNER INFORMATION: Name: Jack Nadodu 9 ochs pr. Morriston ON Mailing Address:

SAMPLING INFORMATION:					
Date(s) of sampling: $\frac{29/03/2018}{}$ (dd/mm/yyyy)					
Survey Type (circle one):					
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental					
Sample Type (circle all that apply):					
Tail Tip Roadkill Larvae Egg Mass Visual Observation					
Search Effort (time spent, number of minnow traps etc.):					
3 Traps Set / 12 hours					
# of salamanders observed: Ø					
Number of Samples Taken:					
# of adult tail tips: # mortalities: # of larvae: #					
# of larvae tail tips: # roadkills:					
HABITAT INFORMATION:					
Average Pond Depth (m): 0 • 5 m					
Pond Description: Small horse-shoe shapel pond, Commenty 100%					
open vater. Approx. 50% of pand filed with dead logs.					
Terrestrial Vegetation Community Type: FOD 7 and Thicket surrounding pond					
Other amphibians observed or heard: NO					
Egg Attachment Sites Present:					
Suitable Hydroperiod for Breeding: □Ýes □No □Unknown					
Photos Taken:					
SECTION B — TO BE FILLED OUT BY DR. BOGART					
Date samples received:(dd/mm/yyyy)					
Condition of samples received:					
IPR #/s)·					



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

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Last updated: January 2016

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SECTION A - TO BE FILLED OUT BY THE COLLECTOR Positive Negative Search Result (circle one): PROJECT TITLE: ____Highway 401/6_____ **CONTACT INFORMATION:** Name of observer(s): A. Minielly / N. Simonova Affiliation: A.E. C.M. Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Canada Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: _____ Pond ID: Pool 12 Property Address: 9 Ochs Dr. Morriston Ontario UTM Coordinates (NAD83): _____ E N (**NOT** Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) ☑Private Land Ownership: □Public □Both LANDOWNER INFORMATION: Name: Jack Nadlan 9 Ochs Dr. Morriston ON. Mailing Address:

SAMPLING INFORMATION:						
Date(s) of sampling: 30/03/2019 (dd/mm/yyyy)						
Survey Type (circle one):						
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental						
Sample Type (circle all that apply):						
Tail Tip Roadkill Larvae Egg Mass Visual Observation						
Search Effort (time spent, number of minnow traps etc.):						
3 Traps set / 12 hours						
# of salamanders observed: <u>Zero</u>						
Number of Samples Taken:						
# of adult tail tips: # mortalities: # of larvae: #						
# of larvae tail tips: # roadkills:						
HABITAT INFORMATION:						
Average Pond Depth (m): 65						
Pond Description: Small horse shoe shapped pond. Currently 100%						
open water. Approx 50% at pand filed with looks						
Terrestrial Vegetation Community Type: FoD7 and thicket surrounder pond						
Other amphibians observed or heard:						
Egg Attachment Sites Present: ☑Yes □No □Unknown						
Suitable Hydroperiod for Breeding:						
Photos Taken:						
SECTION B — TO BE FILLED OUT BY DR. BOGART						
Date samples received:(dd/mm/yyyy)						
Condition of samples received:						
JPB #(s):						



Maps (Please ensure road names and UTM coordinates are clearly visible)



Jefferson Salamander Presence/Absence Reporting Form

Wildlife Scientific Collector's Authorization # 1088798 ESA Permit # GU-B-004-18

Page 1

Instructions:

Last updated: January 2016

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- Each form must be completed in its entirety (including permit numbers).
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 - Map 1 must show the pond and local roads or features.
 - Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
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	SECTION A — TO BE FILLED OUT BY THE COLLECTOR				
	Search Result (circle one): Positive Negative				
	PROJECT TITLE:Highway 401/6				
	CONTACT INFORMATION:				
	Name of observer(s): A. Minielly N. Simonova Affiliation:				
	Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3, Canada				
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com					
	PROPERTY INFORMATION:				
	Site name: Pond ID:				
	Site name: Pond ID: Pool 20 Property Address: 9 Ochs Dr. Morriston Ontario				
	Site name:				
	Property Address: 9 Ochs Dr. Morriston Ontario UTM Coordinates (NAD83): 571690.72 E 481187.337 N (NOT Lat, Long)				
	UTM Coordinates (NAD83): 571690.72 E 481187.337 N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)				

SAMPLING INFORMATION:						
Date(s) of sampling: 06/04/	2013	**************************************	(dd/mm/yyyy)			
Survey Type (circle one):						
Minnow Trap Cover Board	d Road F	itfall Trap Visual	Incidental			
Sample Type (circle all that apply):						
Tail Tip Roadkill Larvae Egg Mass Visual Observation						
Search Effort (time spent, number of	minnow traps e	tc.):				
3 traps set, 12 hour	3					
# of salamanders observed:	zero					
Number of Samples Taken:		/				
# of adult tail tips:	# mor	talities: <u>Ø</u>	# of larvae:			
# of larvae tail tips:	# road	kills: <u>Ø</u>				
HABITAT INFORMATION:						
Average Pond Depth (m):						
Pond Description: Pond no longer horse-shoe shapped as water was alld						
After run event. Paul went from o. Sn was depth to Im my depth. Agax Soir Terrestrial Vegetation Community Type: FOD? and thicket surrounds pand.						
Other amphibians observed or heard:	LOCAL DATE OF THE	***************************************				
Egg Attachment Sites Present:	⊡Yes □No	□Unknown				
Suitable Hydroperiod for Breeding:		□Unknown				
Photos Taken:	☑Yes □No	Photo #: 1429-	438 1447-1455			
SECTION B — TO BE FILLED OUT	BY DR. BOG	ART				
Date samples received:			(dd/mm/yyyy)			
Condition of samples received:						
JPB #(s):						



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
- Each form must be completed in its entirety (including permit numbers).
- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
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Search Result (circle one): Positive Negative **PROJECT TITLE:**____Highway 401/6______ **CONTACT INFORMATION:** Name of observer(s): A. Minichly / T. Shorney Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Canada Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: Pond ID: Pool - 20 Property Address: 9 ochs Drive Marriston Ontario UTM Coordinates (NAD83): 5716 90.72 E 48[1217.337 N (**NOT** Lat, Long) (**Do not** record UTM of each minnow trap, only one coordinate per pond or road location is required) MPrivate. □Both □Public Land Ownership: LANDOWNER INFORMATION: Name: Jack Nadean Mailing Address: 9 ochs Drive Marristan Ontoria

SAMPLING INFORMATION:
Date(s) of sampling: $13/64/2012$ (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
3 trups set, 12 haves
of salamanders observed: <u>Ø 200</u>
Number of Samples Taken:
of adult tail tips: Ø # mortalities: Ø # of larvae: Ø
of adult tail tips: # mortalities: # of larvae: # with the state of larvae for each of
HABITAT INFORMATION:
Average Pond Depth (m): O. Ton
Pond Description: Horse-Shoe Shoped pond Approx. So lo of pond filled with logs of Various Sizes Terrestrial Vegetation Community Type: FOD 7 and thicket Surrounding pond
filled with logs of Various Sizes
Terrestrial Vegetation Community Type: FOD 7 on thicket Surrounding pond
Other amphibians observed or heard: No
Egg Attachment Sites Present:
Suitable Hydroperiod for Breeding: ☐Yes ☐No ☐Unknown
Photos Taken: □Yes □No Photo #: <u>070003 - 070925</u>
SECTION B — TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

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Last updated: January 2016

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SECTION A - TO BE FILLED OUT BY THE COLLECTOR Search Result (circle one): Positive Negative PROJECT TITLE: Highway 401/6 **CONTACT INFORMATION:** Name of observer(s): A. Minielly W. Simonova Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Canada Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: 9 ochs Drive Pond ID: Pool - 20 Property Address: 9 ochs Drive Morristan Ontario UTM Coordinates (NAD83): <u>571690.72</u> E <u>4911817.337</u> N (**NOT** Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) ☑Private Land Ownership: □Public □Both LANDOWNER INFORMATION: Name: Luk Nadean Mailing Address: I Ochs Drive Marriston Ontario

SAMPLING INFORMATION:					
Date(s) of sampling: 4/04	/2016			J785	_(dd/mm/yyyy)
Survey Type (circle one):					
Minnow Trap Cover Board	Road Pit	fall Trap Vi	sual	Incidental	
Sample Type (circle all that apply):					
Tail Tip Roadkill Larvae	Egg Mass	Visual Obser	vation		
Search Effort (time spent, number of r	ninnow traps etc	.):			
3 traps set, 2 hours				<u>.</u>	
,	Zero			<u> </u>	
Number of Samples Taken:		/			_/
# of adult tail tips: 💋	# morta	lities: Ø		# of larvae: 👤	2
# of larvae tail tips:	# roadk	ills:			
HABITAT INFORMATION:					
Average Pond Depth (m): 0.75m					
Pond Description: Hase-Shoe S	hused good	· Appeax	50%	o of pour	al filled
Pond Description: Hase-shoe s	us sizes.	,,,			
Terrestrial Vegetation Community Typ	e: FOD7 can	1 thicket	SACC	ounding P	onl
Other amphibians observed or heard:	NO				
Egg Attachment Sites Present:		□Unknown			
Suitable Hydroperiod for Breeding:	⊡Yes □No	□Unknown		1	
Photos Taken:	☑Yes □No	Photo #: 5	0-15	05/1530.	1540
		147	5-1	483 / 1500	5 - 1512
SECTION B — TO BE FILLED OUT	BY DR. BOGA	IRT			
Date samples received:					_(dd/mm/yyyy)
Condition of samples received:		·			
JPB #(s):					



Maps (Please ensure road names and UTM coordinates are clearly visible)



Wildlife Scientific Collector's Authoriz	ration #
ESA Pe	ermit #

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SECTION A - TO BE FILLED OUT BY THE COLLECTOR
Search Result (circle one): Positive Negative
PROJECT TITLE: highway 2016
CONTACT INFORMATION:
Name of observer(s): Julie E1115 Weather King
Affiliation: AECCM
Mailing Address: 105 Commarce Vally Arme west tr
Phone Number: Email:
PROPERTY INFORMATION: Site name: Pool -2Z Pond ID: Pool -2Z
Property Address: P880a - Calfass 2rd
LITM Consideration (NADOC)
UTM Coordinates (NAD83): E N (NOT Lat, Long)
(Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
· · · · · · · · · · · · · · · · · · ·
(Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)

Wildlife Scientific Collector's Authorization	#
ESA Permit	#

SAMPLING INFORMATION:	
Date(s) of sampling: 24 / 02 / 2018 (dd/mm/yyy	/y)
Survey Type (circle one):	•
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental	
Sample Type (circle all that apply):	
Tail Tip Roadkill Larvae Egg Mass Visual Observation	
Search Effort (time spent, number of minnow traps etc.): 3 minnow traps 45 thours + 45 min each	
# of salamanders observed:	_
Number of Samples Taken:	
# of adult tail tips: 💆 # mortalities: 💆 # of larvae: 💋	
# of larvae tail tips: # roadkills: #	
HABITAT INFORMATION: Average Bond Donth (m): ICE cont tell depth	
Average Pond Depth (m): ICE cont tell depth	
Pond Description: N 20 MW RO X 50 M long Fingled in woody we some shows in pe	_ 2nc
Terrestrial Vegetation Community Type: FOD/FOM	_
Other amphibians observed or heard: NYNE	_
Egg Attachment Sites Present: □Ýes □No □Unknown	
Suitable Hydroperiod for Breeding: ☑√es □No □Unknown	
Photos Taken: □Yes □No Photo #:	_
SECTION B – TO BE FILLED OUT BY DR. BOGART	_
Date samples received:(dd/mm/yyy	y)
Condition of samples received:	-
JPB #(s):	_



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

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SECTION A - TO BE FILLED OUT BY THE COLLECTOR Search Result (circle one): Positive (Negative PROJECT TITLE:____Highway 401/6_____ CONTACT INFORMATION: Name of observer(s): Heather kime + Mark Pomerou Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: ______Pool-22 _____Pond ID: <u>P0-22</u> Property Address: PO80a UTM Coordinates (NAD83): E N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: □Public □Private **⊠**Both LANDOWNER INFORMATION: Transportation Ministry C10 Property Section Mailing Address:

SAMPLING INFORMATION:	
Date(s) of sampling: 25 / 02 / 2018	(dd/mm/yyyy)
Survey Type (circle one):	
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental	
Sample Type (circle all that apply): \(\lambda/\infty\)	
Tail Tip Roadkill Larvae Egg Mass Visual Observation	
Search Effort (time spent, number of minnow traps etc.): // hours 50 min 3 traps	
# of salamanders observed: Ø	
Number of Samples Taken:	
# of adult tail tips: # mortalities: # of larvae: _	6_
# of larvae tail tips: # roadkills:	
HABITAT INFORMATION:	
Average Pond Depth (m):	
Pond Description:	<u> 24</u>
Terrestrial Vegetation Community Type:	
Other amphibians observed or heard:	
Egg Attachment Sites Present:	
Suitable Hydroperiod for Breeding:	
Photos Taken:	
SECTION B - TO BE FILLED OUT BY DR. BOGART	
Date samples received:	(dd/mm/yyyy)
Condition of samples received:	
JPB #(s):	



Maps (Please ensure road names and UTM coordinates are clearly visible)



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Last updated: January 2016

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SECTION A - TO BE FILLED OUT BY THE COLLECTOR Search Result (circle one): Positive (Negative) PROJECT TITLE: __ Highway 401/6 **CONTACT INFORMATION:** Name of observer(s): Heather Kim Bill Melesd Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Phone Number: 905.886.7022 Email: iulie.ellis@aecom.com PROPERTY INFORMATION: Site name: Pool - 22 Pond ID: 22 Property Address: PONOa UTM Coordinates (NAD83): _____ E ____ N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) **⊠**Both □Public □Private Land Ownership: LANDOWNER INFORMATION: Name: Transportation Ministry C/O Property Section Mailing Address: Mailing Address: Page 1

SAMPLING INFORMATION:
Date(s) of sampling: 28/03/2018(dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
of salamanders observed: none
Number of Samples Taken:
of adult tail tips: <u>\(\sigma \lambda \)</u> # mortalities: <u>\(\sigma \lambda \)</u> # of larvae: <u>\(\sigma \lambda \)</u>
of larvae tail tips: # roadkills: &
HABITAT INFORMATION:
Average Pond Depth (m): 0.40
Pond Description: 35 m x 20 m Marshy with lots of amargent year tration
and downed grapes. hordered by FOC and shrubs.
Terrestrial Vegetation Community Type: FOM
Other amphibians observed or heard: NOVU
Egg Attachment Sites Present:
Suitable Hydroperiod for Breeding:
Photos Taken: Yes No Photo #:
SECTION B — TO BE FILLED OUT BY DR. BOGART
Date samples received: (dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



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- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
- All conditions as per the WSCA and ESA permits must be followed.

partition and the same and the
Search Result (circle one): Positive Negative
PROJECT TITLE:Highway 401/6
CONTACT INFORMATION:
Name of observer(s): Julie Ells, Alex MacLoad Affiliation:
Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3,
Canada
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
PROPERTY INFORMATION: Site name: Pool - 22 Property Address: P800
UTM Coordinates (NAD83): E N (NOT Lat, Long)
(Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
Land Ownership: ☑Public □Private □Both
Name: Ministry of Tronsportation C/O Property October Mailing Address: NIP
Last updated: January 2016 Page 1

SAMPLING INFORMATION:
Date(s) of sampling: 03/20/2018 03/2019 (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
of salamanders observed:
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae:
of larvae tail tips: # roadkills:
HABITAT INFORMATION:
Average Pond Depth (m): 1 M Pond Description: MAM fringld in Forest
Terrestrial Vegetation Community Type:
Other amphibians observed or heard: 34 Spring perpers
Egg Attachment Sites Present: ☐Yes ☐No ☐Unknown
Suitable Hydroperiod for Breeding: □Yes □No □Unknown
Photos Taken:
SECTION B – TO BE FILLED OUT BY DR. BOGART
Date samples received: (dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Instructions:

Last updated: January 2016

- You must complete a separate form for each pond sampled.
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SECTION A - TO BE FILLED OUT BY THE COLLECTOR Search Result (circle one): Positive Negative PROJECT TITLE: Highway 401/6___ **CONTACT INFORMATION:** Name of observer(s): Nataliya Simonova, Ulga Hopach Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: _____Pond ID: Property Address: UTM Coordinates (NAD83): N (**NOT** Lat, Long) (**Do not** record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: □Public □Private □Both LANDOWNER INFORMATION: Name: Mailing Address:

SAMPLING INFORMATION:
Date(s) of sampling: April 4, 2018 (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trag Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.): 3 +taps x 12 hours
of salamanders observed:
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae: # of la
of larvae tail tips: # roadkills:
HABITAT INFORMATION:
Average Pond Depth (m): O 7 M
Pond Description:
Terrestrial Vegetation Community Type: FOD
Other amphibians observed or heard: Spring Peeper
Egg Attachment Sites Present:
Suitable Hydroperiod for Breeding: √□Yes □No □Unknown
Photos Taken:
SECTION B — TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

Last updated: January 2016

Instructions:

- You must complete a separate form for each pond sampled.
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- Attach two orthophotos showing the location of the pond labelled with UTM coordinates (see example provided):
 - Map 1 must show the pond and local roads or features.

SECTION A - TO BE FILLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
- Pond nomenclature must be consistent for all maps and reports.
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Submit this form along with any samples to Dr. Jim Bogart (with permission) at the University of Guelph; 519-824-4120 (extension 58728). Copies of this form (including forms containing negative observations) must also be submitted to the authorizing MNRF District Office along with the ESA permit and WSCA report.

Search Result (circle one): Positive PROJECT TITLE: ____ Highway 401/6______ **CONTACT INFORMATION:** Name of observer(s): Andrew Minnelly + Johanna Perz Affiliation: Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Canada Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: ______Pool - 23 ______Pond ID: Pool - 23 Property Address: _____ UTM Coordinates (NAD83): _____ E _____N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: □Public ☑Private □Both LANDOWNER INFORMATION: Name: Mailing Address: _____

Date(s) of sampling: 19/04/2018 Survey Type (circle one): Minnow Trap Cover Board Road Pitfall Trap Visual Incidental Sample Type (circle all that apply):
Survey Type (circle one): Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (aircle all that apply)
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
3 traps for 12 hours (7:05 am - 7:05 pm)
of salamanders observed:
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae:
of larvae tail tips: <u>\(\bigcirc\)</u> # roadkills: <u>\(\bigcirc\)</u>
Average Pond Depth (m): 0.3 Pond Description: MAS within FOD/FOM abundant energent vegetation moderately abundant downed woody debris Terrestrial Vegetation Community Type:
Other amphibians observed or heard: No
Egg Attachment Sites Present: ☑Yes □No □Unknown
Suitable Hydroperiod for Breeding: □Yes □No ☑Unknown
Photos Taken:
SECTION B — TO BE FILLED OUT BY DR. BOGART Date samples received:



Maps (Please ensure road names and UTM coordinates are clearly visible)





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SECTION A - TO BE FILLED OUT BY THE COLLECTOR Negative> Search Result (circle one): Positive **PROJECT TITLE:** Highway 401/6_______ **CONTACT INFORMATION:** Name of observer(s): A. Minielly T. Shorney Affiliation: Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7th Floor,Markham, ON L3T 7W3, Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Pond ID: <u>Pool - 23</u> Site name: Po 91 Property Address: 7374 Culfass Rd. Paslinch DN UTM Coordinates (NAD83): 570674.651 E 48(0356.6(4 N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) ™ rivate Land Ownership: □ Public **□**Both LANDOWNER INFORMATION: Name: Michael Andrade Mailing Address: 7374 Last updated: January 2016 Page 1

SAMPLING INFORMATION:	
Date(s) of sampling: 20/01/2018 (dd/r	nm/yyyy)
Survey Type (circle one):	
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental	
Sample Type (circle all that apply):	
Tail Tip Roadkill Larvae Egg Mass Visual Observation	
Search Effort (time spent, number of minnow traps etc.):	
3 traps set for 12 hours	
# of salamanders observed: Sero	
Number of Samples Taken:	
# of adult tail tips: # mortalities: # of larvae:	
# of adult tail tips: # mortalities: # of larvae: # of larvae: # roadkills: # roadkills:	
HABITAT INFORMATION:	
Average Pond Depth (m): Whown like still on pont)	
Pond Description:	
Terrestrial Vegetation Community Type: FOD	
Other amphibians observed or heard: No	
Egg Attachment Sites Present:	
Suitable Hydroperiod for Breeding: ☐Yes ☐No ☐Unknown	
Photos Taken:	
SECTION B — TO BE FILLED OUT BY DR. BOGART	
Date samples received:(dd/m	ım/yyyy)
Condition of samples received:	
JPB #(s):	



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

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Last updated: January 2016

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SECTION A — TO BE FILLED OUT BY THE COLLECTOR
Search Result (circle one): Positive Negative
PROJECT TITLE:Highway 401/6
CONTACT INFORMATION:
Name of observer(s): J. Kamstra, O. Butty Affiliation: A ECOM
Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3, Canada
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
PROPERTY INFORMATION:
Site name: P081 Pond ID: P001-23
Property Address: 7374 Calfass Rd. Ruslinch ON
Property Address: 7374 Calfass Rd . Ruslinch ON UTM Coordinates (NAD83): 57068 E 4610329 N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
UTM Coordinates (NAD83): <u>57068</u> E <u>4610329</u> N (NOT Lat, Long)
UTM Coordinates (NAD83): 57068 E 4610329 N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)

SAMPLING INFORMATION:
Date(s) of sampling: 24/04/2018 (dd/mm/yyy
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.): 3 + aps set - be 12 hours # of salamanders observed: 2 en
of salamanders observed: <u> </u>
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae: # of larvae: # of larvae
of larvae tail tips: $\underline{\hspace{.1in}}$ # roadkills: $\underline{\hspace{.1in}}$
HABITAT INFORMATION:
Average Pond Depth (m):
Pond Description: densely regetated and NO.35 m deep within upland forest; woody material abundant; water temp 6.4°C
Terrestrial Vegetation Community Type:
Other amphibians observed or heard: NO
Egg Attachment Sites Present:
Suitable Hydroperiod for Breeding: ☐Yes ☐No ☐Unknown
Photos Taken:
SECTION B - TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy
Condition of samples received:
JPB #(s):



Maps (Please ensure road names and UTM coordinates are clearly visible)



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SECTION A - TO BE ELLED OUT BY THE COLLECTOR

- Map 2 will be a close-up of the pond (suggested scale 1:1000).
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SECTION A TO BE TILLED OUT BY THE COLLEGIST
Search Result (circle one): Positive Negative
PROJECT TITLE:Highway 401/6
CONTACT INFORMATION:
Name of observer(s): Affiliation: Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3,
Canada
Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
PROPERTY INFORMATION:
Site name: Post Pond ID: Rol - 23
Property Address: 1314 Calfass Rd , Puclinch ON
UTM Coordinates (NAD83): 570 00 E 2600 N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
Land Ownership: □Public ☑Private □Both
LANDOWNER INFORMATION:
Name: <u>Hickael Andrade</u>
Mailing Address: 1374 Calfass Pd., Puslinch on
Last updated: January 2016 Page 1

SAMPLING INFORMATION:	4			
Date(s) of sampling:	139-	26,201	<i>'</i>	(dd/mm/yyyy)
Survey-Type (circle one):				_ `
Minnow Trap Cover Board	d Road	Pitfall Trap Visual	Incidental	
Sample-Type (circle all that apply):		·		
Tail Tip Roadkill Larvae	Egg Mass	Visual Observation	n	
Search Effort (time spent, number of	minnow traps	etc.):		
3 traps x	12 ha	er 5 co		
# of salamanders observed:				
Number of Samples Taken:				
# of adult tail tips: 🔑	# mo	rtalities: 🖳	# of larvae.	<u>5</u>
# of larvae tail tips:	# roa	dkills:	/	
7		7		
HABITAT INFORMATION:				
Average Pond Depth (m):				
Pond Description:	.			
	26			
Terrestrial Vegetation Community Type	oe:	>		
Other amphibians observed or heard:				
Egg Attachment Sites Present:	□Yes □No	□Unknown		
Suitable Hydroperiod for Breeding:	□Xes □No	□Unknown		
Photos Taken:	□Yes □Mo	Photo #:		
SECTION B - TO BE FILLED OUT	BY DR. BOO	GART	2	
Date samples received:				_(dd/mm/yyyy)
Condition of samples received:				
JPB #(s):		7107		



Maps (Please ensure road names and UTM coordinates are clearly visible)



Page 1

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Last updated: January 2016

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	SECTION A – TO BE FILLED OUT BY THE COLLECTOR
	Search Result (circle one): Positive Negative
	PROJECT TITLE:Highway 401/6
	CONTACT INFORMATION:
)	Name of observer(s): Natalina Simonova Karen Martens AECOM Canada Ltd.
	Mailing Address: AECOM Canada Ltd.,105 Commerce Valley Drive West, 7 th Floor,Markham, ON L3T 7W3, Canada
	Phone Number: 905.886.7022 Email: julie.ellis@aecom.com
	PROPERTY INFORMATION:
	Site name: <u>Po81</u> Pond ID: <u>Pool 13</u>
	Property Address: 7374 Calfass Rd Puslinch ON
	UTM Coordinates (NAD83): 570674, 05 E 4810356,614 N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required)
	Land Ownership: □Public ☑Private □Both
	Name: Michael Andrade Mailing Address: 7374 Calfass Rd., Puslinch DW

SAMPLING INFORMATION:
Date(s) of sampling: 26/04/2018 - 27/04/2018 (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply):
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.): 31 traps set at 7:08 PM - 7:05 AM
of salamanders observed:
Number of Samples Taken:
of adult tail tips: # mortalities: # of larvae:
of larvae tail tips: # roadkills:
HABITAT INFORMATION:
Average Pond Depth (m): <u>0.5</u>
Pond Description: MAS with FOD/FOM, abundant emergent Vegetation moderately abundant downed woody debris
Vegetation moderately abundant downed woody debris
Terrestrial Vegetation Community Type:
Other amphibians observed or heard: Sering peepers tree frog
Egg Attachment Sites Present: ☐Yes ☐No ☐Unknown
Suitable Hydroperiod for Breeding: ☐Yes ☐No ☐Unknown
Photos Taken:
,
SECTION B — TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPB #(s):



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Wildlife Scientific Collector's Authorization #	
ESA Permit # _	

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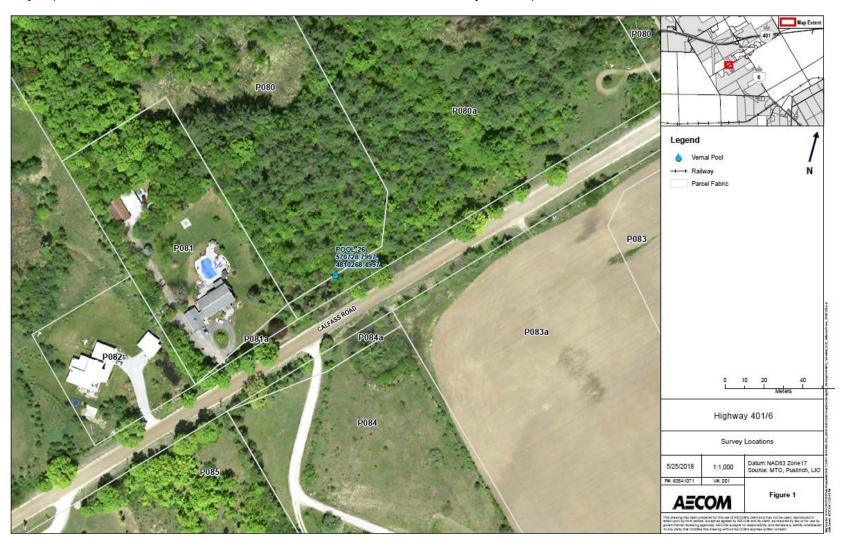
SECTION A - TO BE FILLED OUT BY THE COLLEC	CTOR
Search Result (circle one): Positive N	egative
PROJECT TITLE: 4016	
CONTACT INFORMATION:	
Name of observer(s): Julie Ellis Head Affiliation:	
Mailing Address: 105 (onevce Va	allow drive
Mailing Address: 105 (onevce or property) Phone Number: Email:	Julie. elli I Caecon con
PROPERTY INFORMATION: Site name: POOL - 26	Pond ID: Pool - 26
Property Address: POSOa - Calfass R	d
UTM Coordinates (NAD83): E	N (NOT Lat, Long)
(Do not record UTM of each minnow trap, only one coor	_
Land Ownership: □Public □Private □Both	
LANDOWNER INFORMATION: Name: MTO CIO Propert	y Section
Mailing Address:	
Last updated: January 2016	Page 1

Wildlife	Scientific Collector's Authorization #	
	ESA Permit #	

SAMPLING INFORMATION:		
Date(s) of sampling:	4 2018	(dd/mm/yyyy)
Survey Type (circle one):		
Minnow Trap Cover Board	I Road Pitfall Trap Visual Incidental	
Sample Type (circle all that apply):	·	
Tail Tip Roadkill Larvae	Egg Mass Visual Observation	
Search Effort (time spent, number of 3 min to work) # of salamanders observed:	each 11 hours 35 min.	
Number of Samples Taken:		
# of adult tail tips:	# mortalities: # of larvae:	
# of larvae tail tips:	# roadkills:	_
HABITAT INFORMATION:		
Average Pond Depth (m): 100	roads edge of road	
Pond Description: SwD 6	roads edgle of road	
moples elms as	n snacis	
Terrestrial Vegetation Community Ty	pe: <u>SCOP</u>	
Other amphibians observed or heard	Lovo	<u></u>
Egg Attachment Sites Present:	Yes □No □Unknown	
Suitable Hydroperiod for Breeding:	⊠Ýes □No □Unknown	
Photos Taken:	✓ Yes □No Photo #:	
<u> </u>	0	
SECTION B - TO BE FILLED OU	T BY DR. BOGART	
Date samples received:		(dd/mm/yyyy)
Condition of samples received:		
JPB #(s):		



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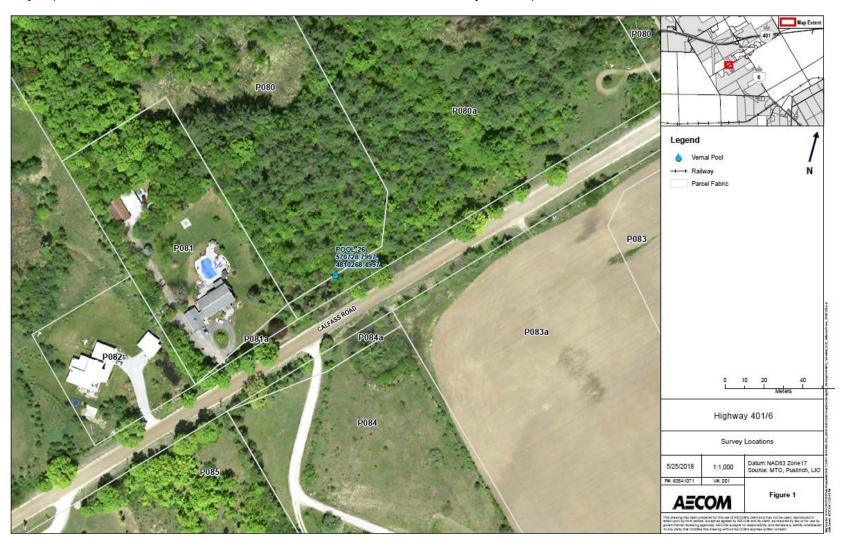
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Search Result (circle one): Positive Negative PROJECT TITLE: ____ Highway 401/6______ CONTACT INFORMATION: Name of observer(s): Heather kime + Mark Pomerov Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: Pool - 26 Pond ID: P0-26 Property Address: POSOA UTM Coordinates (NAD83): ___ E N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: Public □Private ■Both LANDOWNER INFORMATION: Name: Transportation Ministry C/O Property Section Mailing Address:

SAMPLING INFORMATION:	
Date(s) of sampling:	ld/mm/yyyy)
Survey Type (circle one):	
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental	
Sample Type (circle all that apply):	
Tail Tip Roadkill Larvae Egg Mass Visual Observation	
Search Effort (time spent, number of minnow traps etc.):	
11 hours 55 min	
# of salamanders observed:	
Number of Samples Taken:	
# of adult tail tips: # mortalities: # of larvae:	
# of larvae tail tips: # roadkills:	
HABITAT INFORMATION:	
Average Pond Depth (m):	
Pond Description:	
Terrestrial Vegetation Community Type:	
Other amphibians observed or heard:	
Egg Attachment Sites Present:	
Suitable Hydroperiod for Breeding: Yes No Unknown	
Photos Taken:	
SECTION B - TO BE FILLED OUT BY DR. BOGART	
SECTION B - TO BE FILLED OUT BY DR. BOGART	
Date samples received:(c	ld/mm/yyyy)
Condition of samples received:	
JPB #(s):	



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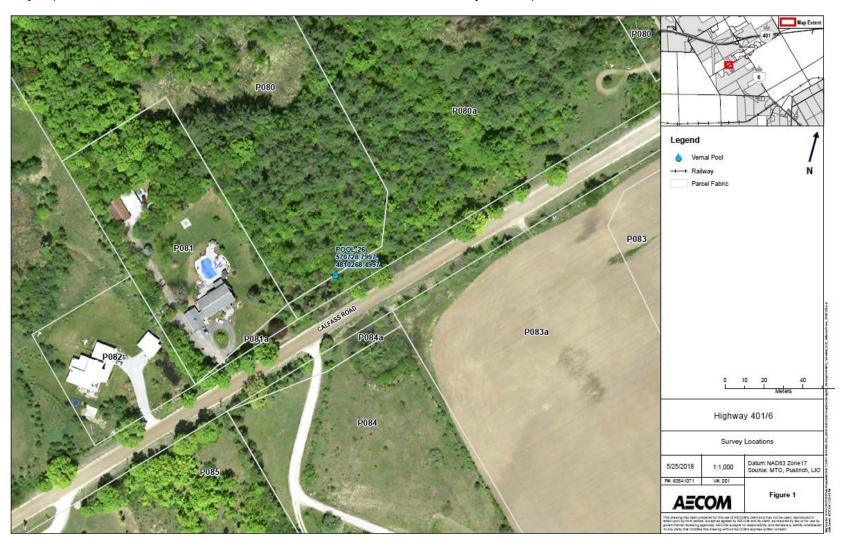
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SECTION A — TO BE FILLED OUT BY THE COLLECTOR Search Result (circle one): Positive Negative PROJECT TITLE:____Highway 401/6____ CONTACT INFORMATION: Name of observer(s): Heather Kim Bill Males d Affiliation: Mailing Address: AECOM Canada Ltd., 105 Commerce Valley Drive West, 7th Floor, Markham, ON L3T 7W3, Phone Number: 905.886.7022 Email: julie.ellis@aecom.com PROPERTY INFORMATION: Site name: ________ Pond ID: _______ Property Address: P0%0a UTM Coordinates (NAD83): _____ E ____ N (NOT Lat, Long) (Do not record UTM of each minnow trap, only one coordinate per pond or road location is required) Land Ownership: □Public □Both □Private LANDOWNER INFORMATION: Name: Transportation Ministry CO Property Section Mailing Address: _____ Mailing Address:

SAMPLING INFORMATION:
Date(s) of sampling: 28/03/2018 (dd/mm/yyyy)
Survey Type (circle one):
Minnow Trap Cover Board Road Pitfall Trap Visual Incidental
Sample Type (circle all that apply): None
Tail Tip Roadkill Larvae Egg Mass Visual Observation
Search Effort (time spent, number of minnow traps etc.):
3 trapos
of salamanders observed: Now
Number of Samples Taken:
of adult tail tips: 1/4 # mortalities: 1/4 # of larvae: 1/4
of adult tail tips: 1/9 # mortalities: 1/9 # of larvae:
HABITAT INFORMATION:
Average Pond Depth (m): _0.40 m
Pond Description: L-shaped pond north of calfus form to NTE: tordence, laun baca
treed pand al danned nordy debris
Terrestrial Vegetation Community Type: Form
Other amphibians observed or heard:
Egg Attachment Sites Present: Suitable Hydroperiod for Breeding:
Suitable Hydroperiod for Breeding:
Photos Taken:
· · · · · · · · · · · · · · · · · · ·
SECTION B — TO BE FILLED OUT BY DR. BOGART
Date samples received:(dd/mm/yyyy)
Condition of samples received:
JPR #/s)·



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Search Result (circle o	ne): Positive	Negative	
PROJECT TITLE: 40	1/6	D.	
CONTACT INFORMAT	TION:		
Name of observer(s):	Heather Kime	Johanna Perz	
Affiliation:	AECOM		
Mailing Address:	AECOM Canada L	td., 105 Commerce Valley Drive West, 7th	Fic
Phone Number:	905-886-7022	Email: whe ellis@ aecom.com Markham	0
PROPERTY INFORMA	1 0/	L3T 7W:	5
	1/3	Pond ID:	
UTM Coordinates (NAI	D83):E	N (NOT Lat, Long)	
(Do not record UTM of	each minnow trap, only o	one coordinate per pond or road location is required)	
Land Ownership: □F	Public □Private 🖪	Both 1801	
LANDOWNER INFORM		C/O Property Section	

SAMPLING INFORMATION:										
Date(s) of sampling: 29/03/20	18 OY	n	30/03	12018	am	_ (dd/mm/yyyy)				
Survey Type (circle one):	1									
Minnow Trap Cover Board	Roa	ad P	itfall Trap	Visual	Incidental					
Sample Type (circle all that apply): n	one									
Tail Tip Roadkill Larvae	Egg	Mass	Visual Ob	servatior	า					
Search Effort (time spent, number of	minnow	traps el	tc.):							
# of salamanders observed: nove										
Number of Samples Taken:			,			ş.				
# of adult tail tips: <u>Ma</u>			talities: <u>M/</u>	<u> </u>	# of larvae: M/G					
# of larvae tail tips:			kills: /							
HABITAT INFORMATION: See 28+29/03/2018 notes										
Average Pond Depth (m):										
Pond Description:										
Terrestrial Vegetation Community Typ	oe:									
Other amphibians observed or heard:										
Egg Attachment Sites Present:	□Yes	□No	□Unknow	/n						
Suitable Hydroperiod for Breeding:	□Yes	□No	□Unknow	n _						
Photos Taken:	□Yes	□No	Photo #: _		<u>.</u>					
SECTION B — TO BE FILLED OUT	BY DF	R. BOG	ART							
Date samples received:				22		_(dd/mm/yyyy)				
Condition of samples received:										
JPB #(s):					1,000					



Maps (Please ensure road names and UTM coordinates are clearly visible)

