

PEST ALTO

## Town of Georgina

Final Report: 2015

## Mosquito Nuisance Abatement Program



Table of Contents	Page
Introduction	4
Preparation	4
Notification	5
Description of the Proposed Treatment Area	5
Approvals/Objectors	
Letter of Approval	
Permits	6
Base of Operations	6
Pre-Treatment Larval Monitoring	6
Comments	7
Larviciding Activities	8
Aerial Treatments	8
Post-Treatment Larval Monitoring	8
Ground Treatments	
Post-Treatment Larval Monitoring	9
Conclusions	
Adult Sweep Net Surveillance	10
Results	10
Program Overview	11
Discussion	11
Suggestions	13

## List of Appendices

Appendix 1.	Copies of Published Public Notifications, Homeowner Mailing & E.M.S. Flyer
Appendix 2.	Maps of the Larval Mosquito Treatment Area & Aerial and Ground Applications
Appendix 3.	Copy of Ministry of Environment Permits
Appendix 4.	Standing Water Surveillance Data & Treatments
Appendix 5.	Map of Adult Sweep Net Locations

## List of Figures

Figure 1.	Helicopter used fo	r aerial applications

Figure 2. Ground application with truck mounted sprayer

## List of Tables

Table 1. Standing Water Surveillance Summary

Table 2. Summary of Adult Sweep Net Results

## Introduction

The community of Pefferlaw within the Town of Georgina has dealt with a nuisance mosquito problem for many years. The snow melt – spring mosquito abatement program continued in 2015 and involved a one-time aerial application with B.t.i. together with ground applications of B.t.i., repeated as necessary. Larval monitoring, treatments and reporting occurred between April 2 and May 15.

The primary objective of the program was to achieve 100% larval control in all of the treated larval habitats in order to reduce the number of adult nuisance mosquitoes in the late spring. Sweep net monitoring of adult mosquitoes occurred two times at weekly intervals after the larviciding program to determine the success of the program.

Our findings showed that mosquito egg hatch and larval development was delayed by prolonged cold weather; larvicide was applied at the optimal time when the larval populations were at peak 3<sup>rd</sup> larval stage and before pupation; and larval control was achieved at the treated sites. Adult monitoring on May 14 revealed that the number of adult mosquitoes at three of the eight sites in town were not significantly different from the numbers caught at the two sites outside of the program area. Adult mosquitoes were not caught at the other sites in town.

We would like to acknowledge the support and cooperation provided by both the Town of Georgina and MOE personnel to get the program underway in a timely fashion.

## Preparation

The preparation of the program began with the application for permit from the Ontario Ministry of Environment (MOE) policies and requirements. Information flyers were mailed out to all affected property owners within the treatment boundary on January 23<sup>rd</sup> with a cut-off date of February 27<sup>th</sup> for a reply. Since more than 30 days notice was given, only *objectors* had to register and collection of consent was not required.

The MOE requires two forms of public notification in large municipal programs for mosquito nuisance control. The first form was the *information flyer* mailed out to affected property owners and the second form was accomplished by publishing a *newspaper notification*.

## **Notification**

Several public notifications were published in The Georgian Advocate starting on March 19<sup>th</sup> through April 24<sup>th</sup>. Information including the treatment boundary was provided on the Town of Georgina website. A copy of the information flyer and published notifications can be found in Appendix 1.

## Description of the Proposed Treatment Area

Andrew Fung (Town of Georgina) provided Kevin Taylor (Pestalto) with digital orthophotos, parcel lot boundaries and road networks. This enabled shape files to be produced of properties who gave consent for treatment as well as those who did not. These images were then provided to the pilot for the 2015 treatment program. The final map of the 2015 proposed larval mosquito treatment areas is in Appendix 2.

## Approvals/Objectors

Prior to the application (April 20<sup>th</sup>) there were 87 objectors within the proposed treatment area. The Region of York provided permission to treat York Forest lands. The property boundaries of objecting landowners were loaded into the helicopter's GPS system so that the application swaths targeted only those properties who gave consent at the time that the application began. A list of objector's properties which was organized by street name was used by the Pestalto ground applicators to conduct ground applications. Ditches and culverts adjacent to such properties were considered public property and were larvicided in most situations.

## Letter of Approval

Mr. Gagan Sandhu (Town of Georgina) provided a Letter of Support for the program from the Town of Georgina. This was required to obtain a M.O.E. larviciding permit.

## **Permits**

Kevin Taylor was responsible for the timely submission of applications for permits to the Ontario Ministry of Environment (MOE) and addressing subsequent requirements and concerns. Separate permit applications for aerial and ground applications were submitted.

The application for permits was submitted on January 27<sup>th</sup> and the MOE permits were received on March 30<sup>th</sup>. Pestalto's permits allowed for the larviciding of up to 2,200 hectares by air and 250 hectares by ground. The Ontario Ministry of Environment Permits can be seen in Appendix 3.

## **Base of Operations**

Approval was obtained to use the fenced and gated aggregate pit off Smith Road as the main base for aerial applications as well as storage of equipment and larvicide. This site was used for helicopter take offs and landings and increased the efficiency of the program well as reduced interference with Town works staff. Application equipment, larvicide and the helicopter arrived at the base on April 21<sup>st</sup>. Pestalto very much appreciates the use of the aggregate pit and would like to thank the staff for their cooperation during the application.

## Pre-Treatment-Larval Monitoring

The purpose of pre-treatment monitoring is to determine the presence of mosquito larvae and their growth stage. The optimum time for larviciding snow melt mosquito species is when the majority of larvae are in the 3rd & 4th instar growth stages. The presence of some 1st and 2nd instars at this time would indicate that the majority of the snow melt hatch was complete.

Preliminary larval sampling commenced on April 2<sup>nd</sup> when most larval habitats were frozen. Larval surveillance continued at weekly intervals. There were 98 visits to 48 standing water sites during the 2015 season.

These sites encompassed all the various types of habitats found in Pefferlaw and were located throughout the community. A summary table of standing water site types is provided in <u>Table 1</u>.

Table 1	Table 1 Standing Water Site Type Summary, Georgina, 2015				
Site Type	Sites Treated*	Visits	VectoBac 1200L Treatments*	VectoBac 200G Treatments*	Total Treatments*
Ditch	4	30	0	4	4
Field Pool	1	7	0	2	2
Pond	1	5	0	1	1
Standing Water Zone	11	21	21	0	21
Storm Water Management Pond	0	1	0	0	0
Wetlands	1	8	0	1	1
Woodland Pool	1	26	0	1	1
Totals	19	98	21	9	30
		* Treatments By	Ground Crews		

Table 1: Georgina Standing Water Surveillance & Site Type Summary, 2015.

## Comments

There were several winter-like storms in the early spring and larval development was delayed. Larval surveillance on April 9<sup>th</sup> indicated that a few sites had advanced larval development and were treated by ground application. The start date for the main thrust of ground treatments was April 20<sup>th</sup> and for aerial was April 24<sup>th</sup>.

## **Larviciding Activities**

Applications using the main ground and aerial crews commenced on April 20<sup>th</sup> starting in Udora and continued through to April 28<sup>th</sup>. All potential approved larval habitats were treated regardless of whether larvae were found.

## **Aerial Treatments**

The aerial treatments involved two helicopters equipped with an on-board GIS navigation system. The shape-files for the *objectors* were logged into the helicopter computer to direct the larvicide applications.

All the applications were completed before mosquito pupation. Fourteen hundred and forty-seven [1447] hectares of standing water were treated by helicopter. Seven thousand two hundred and thirty-five [7235] kilograms of VectoBac 200G (PCP# 18158) were used and the average application rate was approximately 5.0 kg per hectare.

A map of the aerial application coverage by the aircraft computer may be seen in Appendix 2. When wind speeds were too high for proper dispersal of the larvicide, the aerial application was delayed until conditions became favorable.



Figure 1. One of the helicopters used in 2015.

## **Ground Treatments**

The ground application was conducted with both truck mounted and hand-held back pack sprayers. Thirty-three [33] hectares of standing water were treated by ground using [29] litres of VectoBac 1200L. The application rate was approximately 0.9 litres per hectare. Additionally there was [0.87] hectares treated by ground with eight [8.2] kilograms of VectoBac 200G during pre and post monitoring surveillance. Applications were targeted to areas such as ditches, swales and field pools on residential properties and along roads.

There were three teams which consisted of two applicators. The treatment area was divided into 11 map-zones to facilitate the coordination of the ground application program. A map displaying the area treated and amount of product used is provided on the ground treatment map in Appendix 2



Figure 2. Ground application with truck mounted sprayer.

## Post-Treatment Larval Monitoring

Post-treatment larval monitoring of treated sites commenced as soon as the ground larviciding was completed on April 23rd. Larval monitoring continued on a weekly basis up to May 15<sup>th</sup> and individual sites were larvicided if required. All monitoring and treatment visits are available in Appendix 4.

## Conclusions

Post-treatment monitoring done on May 1<sup>st</sup> indicated that the larviciding was successful. The timing of the applications for the ground and aerial treatments achieved the requirements of the contract, 100% larval mortality of the target habitats.

## Adult Surveillance Using Sweep Nets

Adult mosquito surveillance was conducted with sweep net counts at 10 locations on two dates, May 6<sup>th</sup> and May 14<sup>th</sup>. Eight locations were *within* the boundaries of the treatment program and two were *outside* the boundary, considered as controls. A summary table of the Adult Sweep Net Results is provided in <u>Table 2</u>. Adult sampling locations are provided on a map in Appendix 5.

## Results

There were two (2) adult mosquitoes caught within the treatment area and six (6) adults caught outside the control area during the first week. The second week monitoring conducted on May 14, revealed that numbers caught at 3 of the sites in town were not significantly different from the numbers at the two outside locations. No mosquitoes were caught at the other 5 adult monitoring sites in town. Weather conditions varied widely from relatively cool to quite warm during early May. The sweep net results indicate that there were very few adult mosquitoes during the first week of post-treatment surveillance and slightly increasing in the second week. However for a five minute sweep-netting the number of adults caught was still relatively low.

Table 2	Table 2 Adult Mosquito Sweep Net Surveillance Summary 2015				
SITE NUMBER	LOCATION	DATE	# ADULTS	DATE	# ADULTS
1	4 Pinecrest Drive	6-May	0	14-May	5
2	3 Forestry Drive	6-May	2	14-May	7
3	17 Otter Cove	6-May	0	14-May	0
4	Hastings Road & Pefferlaw Road (EMS)	6-May	0	14-May	0
5	Petes Lane Library	6-May	0	14-May	8
6	22 James Street	6-May	0	14-May	0
7	546 Pefferlaw Road	6-May	0	14-May	0
8	48 Riverside Drive	6-May	0	14-May	0
9*	Conc. 14 / Brock Road	6-May	6	14-May	12
10*	9304 Morning Glory Road	6-May	0	14-May	5
	*	Outside Contro	l Area		

Table 2: Georgina Adult Sweep Net Surveillance Summary, 2015.

## **Program Overview**

## Discussion

The commencement of the 2015 spring mosquito program was delayed by prolonged cold weather in March and April which slowed egg hatch in most habitats compared to some previous programs.

On April 9, during pre-treatment monitoring, it was noted that certain larval habitats away from the lake, historically known to have early hatch, had little or no water and no larvae (e.g. Weirs Lane road side ditches). Presumably this was due to a slow snow melt without much spring precipitation. Other larval habitats, closer to the lake

presumably where the water table is higher (e.g. Port Bolster swales and woodlot pools), had less water than in other years but had uncustomary high larval populations. So, the spring started differently than other years but by April 20<sup>th</sup> larval habitats were similar to other years.

Mosquito larvae have (4) growth stages; the first instar which emerges from the egg which grows and molts into the second stage or instar; the second molts into the third stage and the third into the fourth; the fourth stage molts to the pupal stage from which the adult eventually emerges. The larval stages are active feeding stages and when they feed on the active ingredient of the larvicide VectoBac, the bacterium B.t.i., they die. The pupal stage is a non-feeding stage and will not be controlled by the VectoBac treatment. The optimum time for the full scale ground and aerial treatments is when the majority of larvae are in the 3rd stage. This occurred on April 20<sup>th</sup> and the full scale larviciding program began and continued through to April 28<sup>th</sup>. At no time during the treatment period was the non-feeding pupal stage observed at any of the treatment sites. This would support that the treatments were appropriately timed. 100% kill of the larvae was noted at treated sites throughout the post-treatment monitoring immediately after the treatment.

Larval surveillance of treated sites from May 1<sup>st</sup> through May 14th did not indicate that there was an extended snow melt hatch had occurred beyond April 28<sup>th</sup> when treatments were completed.

Pestalto concludes that the timing, coverage and approach of the larviciding program were appropriate for the environmental conditions in 2015 and provided excellent larval control in the treated larval habitats.

On May 14<sup>th</sup>, (16) days after the last larviciding activities on April 28<sup>th</sup>, 1st and 2nd instars were noted at 1 of 14 post-treatment sampling sites. This site was treated. The new hatch indicated the beginning of the development of the summer populations.

It should be noted that there were some large areas that were not larvicided due to land being owned by *objectors* to the program.

The 2015 larviciding program from April 9<sup>th</sup> to May 15<sup>th</sup> provided control of mosquito larvae within the residential areas of the program but it does appear from the adult monitoring results that the suppression of adult nuisance mosquitoes was not as good as previous years.

Pestalto received two comments from residents that adult mosquito annoyance in May was worse compared to other years and suggested that the timing of the application was either too early or late. The adult monitoring data supports the comment that adult populations are higher; however, we can only conclude that the presence of nuisance mosquitoes in May is due to populations coming from untreatable properties and an early hatch of summer mosquitoes.

## **Suggestions**

- 1. When it comes to spring melt nuisance mosquito programs, timing is of the essence. For this reason, Pestalto recommends that the consent forms continue to be sent out as early as possible (January) and the permit application process happen well in advance of the program commencement date which is dependent on spring weather conditions.
- 2. Convince more objectors, especially in the area behind and to the south west of Pete's Lane, to participate in the program.

## **Appendix 1**

Copies of Published
Public Notifications,
Homeowner Mailing
& E. M.S. Flyer

January 23, 2015 File: M.4.7.1 06494500

KENNETH LLOYD COLLINS SHIRLEY DIANNE COLLINS 63 BOLSTER LANE P.O. BOX 13 CANNINGTON. ON L0E1E0

Dear Sir and/or Madam:

RE: 2015 Mosquito Control Program

The Mosquito Control Program in the Pefferlaw and Port Bolster areas is being scheduled for 2015. Pestalto Environmental Health Services Inc. will carry out the program under contract with the Town of Georgina. Pestalto will conduct aerial and ground applications of the biological larvicide Vecto Bac having the active ingredient "B.t.i."

Please note that in accordance with the guidelines issued by the Ministry of the Environment pursuant to the Pesticides Act, <u>written consent of the property owner is not required</u>.

Should you object to the application of the larvicide on your property you must register your objection with the Town by February 27, 2015.

Visit the Town's website: <a href="www.georgina.ca/mcp.aspx">www.georgina.ca/mcp.aspx</a> to register your objection electronically. Alternatively you may: sign and return the attached form by facsimile (905) 722 - 6125 or by direct mail. You may also phone (905) 722 - 6889, ext. 3501 and use the unique property identification code and access code on the attached form to register your objection. Upon receipt of your objection your property will then be excluded from the program.

Should an objection not be received either by online registration or in writing then the lack of response is assumed to indicate support of the mosquito control program.

Thank you in advance for your prompt attention.

Yours truly,

FOR THE TOWN OF GEORGINA

Gagan Sandhu, P.Eng., PMP

lyan Soullw

Infrastructure and Operations Manager

GS/hay

Att.

# NOTICE OF OBJECTION TO THE APPLICATION OF LARVICIDE TO PRIVATE PROPERTY FOR THE PURPOSE OF NUISANCE CONTROL OF LARVAL MOSQUITOES – 2015

Between April 1 and May 31, 2015 Pestalto Environmental Health Services Inc. under contract to the Town of Georgina will be conducting a ground and aerial larvicide program to mosquito habitats that impact the residents of the Pefferlaw and Port Bolster areas. The program will use applications of **VectoBac 200G** (granular, PCP#18158) and **VectoBac 1200L** (liquid, PCP#21062). Both these products are biological larvicides, with the active ingredient "B.*t.i.*"

The treatment area map and details of the program may be accessed by way of the **Town of Georgina's website** at <a href="http://georgina.ca/dpt-eng-mosquito.aspx">http://georgina.ca/dpt-eng-mosquito.aspx</a> or at Town of Georgina Department of Operations and Engineering, 26557 Civic Centre Road, Keswick.

#### **How to Register Your OBJECTION:**

Gagan Sandhu P Eng. PMP

Visit the Town's website: <a href="www.qeorgina.ca/mcp.aspx">www.qeorgina.ca/mcp.aspx</a> to register your objection electronically. Alternatively you may: sign and return this form by facsimile (905) 722 - 6125 or direct mail. You may also phone (905) 722 - 6889, ext. 3501 and use the unique property identification code and access code to register your objection.

**OBJECTION MUST BE RECEIVED BY FEBRUARY 27, 2015.** 

NO RESPONSE IS REQUIRED I	F YOU SUPPORT	THE MOSQUITO	CONTROL PROGRAM
---------------------------	---------------	--------------	-----------------

Infrastructure and Operations Manager		
<b>*</b>		
Notice of objection is hereby given, as I am the ownerea and I have been notified of the intended application (granular, PCP#18158) and VectoBac 1200L (liquid and I:	ation of a biological larv	icide of VectoBac 200G
OBJECT Prop	perty Identification Co Access Co	de: Roll Number
Names	Telephone: ( )	Fax: ( )
Address		
«City»,	«Prov»	Postal Code: «Postal_Code»
Signature:		Date:

**IMPORTANT**: If you do not return a signed **objection form** it will imply support of the program and your property will be treated as may be appropriate in the 2015 Mosquito Abatement Program.





Committed to Serving You Better

26557 Civic Centre Rd. Keswick • 905-476-4301 • 905-722-6516 • 705-437-2210

#### WEEKLY UPCOMING MEETINGS

TOWN OF GEORGINA

UPCOMING COUNCIL & SPECIAL COUNCIL MEETINGS 1665 9:00am 7:00pm 7:00pm 9:00am Wednesday, April 1 Wednesday, April 8 Wednesday, April 15 Wednesday, April 22 COUNCIL SPECIAL COLLECT

#### WATER & SEWER BUDGET & USER RATES

PUBLIC NOTICE WATER AND SEWER BUDGET AND USER RATES

TAKE NOTICE that Council will be considering a report to approve the 2016 Rate-Supported Budget for Water and Sewer Capital and Operations and a draft by-law to establish the water and sever user rate effective on all billings produced on or after April 1, 2016 at their meeting extractive for Wednesday, April 1, 2015 commending et 2000 am. In the Council Chambers at the Toren of Georgia Civic Contre, 2007 CMC Centre Road, Kestelds

The agenda for the above-noted Council meeting will be available on the Town website www.ge.crglne.ce on Merch 25, 2016.

Please forward any comments or questions to Mysti Hamilton via e-mail at mhamilton-Moscrothe.co.orvia telephone at 966-476-4891, ext. 2202.

Detail at the Town of Georgia this 129 day of March 2016.

John Espinosa, Town Clark

#### 2015 MOSQUITO PROGRAM

NOTICE OF GROUND AND AERIAL LARVICIDE APPLICATION FOR THE CONTROL OF LARVAL MOSQUITOES FOR NUISANCE CONTROL been April 1 and May 15, 2015, Pestalto Environmental Health Services Inc. will be explying a bid oglosi larvid do by air and ground to stagnant water in order to control larval mosquitoes that impact on the residents of Pelleriaw, Port Bolster and Udora. The

applications are weather dependent and are likely to occur dicse to April 15. Specifically, the other to be treated lie within the area bounded to the Worth by Lake Simpoe, to the Event by Lake Ridge Road, to the South by the weaterly extension of Rosslyin Drive (the uniquence) and to the West by Welfe Sideroed.

The program will use multiple applications of the tridication larviation VectoRac 2000 (PCP 81818), granular) and VectoRac 2000 PCP 821002, liquid, The granular will be applied by heldoopter and the liquid by truck mounted and besipects engages.

The treatment area map and program details may be accessed at the Town of Georgina Engineering Division, 25667 Civic Centre Road, Keswick, or the Town of Georginals web dte www.georgine.ce

For further information regarding the landside application context Pestalto:

Keylin Textor 1-856-648-7778, x284 or 619-862-6176 or keylin, textor @cestellto.com

#### 2015 DOG LICENCES

TOWN OF GEORGINA PUBLIC NOTICE 2015 DOG LICENCES

THE 2016 Dicg Licence signs be purchased at the following liceations.

. Bodlev's Rumillure

- Pel Valu

345 Pollerlaw Road Delion Road Animal Clinic 20887 Dellon Road

21025 Dellon Road

South Share Velethery Clinic 762 The Queensery

Gornales Volorinery Clinic

Jildore General Store

Gobal Pal Foods

«Koswick Pol Hospilal

448 The Queen swey (Glenwoods)

98 The Olicentery S.

("Orlow cood Plaza)

Fol Velu - 2:4012 Woodbine stvenue

Dog Bonnows can also be purchased during the year at the Civic Centre at 25657 Civic Centre. Road, or at the Animal Control and Adoption Centre at 26616 Civic Centre Road.

Application forms can also be describeded from the Town's website at www.georgina.ca. The dog license fee is  $\pm 35.00$  per dog if not spayed at neutron and  $\pm 30.00$  per dog if spayed at

The fine for felling to purchase a dog licence is \$125,00 as per By-lee No 2004-0180 (LLS).

#### **FLASHING GREEN & RED LIGHTS**

If you see a flashing red or green light while you're driving...

Please, have the courtesy to pull over to the right.

These are firefighters. who could be on their way to save someone's life!



#### 1ST YARD WASTE COLLECTION

Week of April 13, 2015 ALTERNATING WEEKS

Garbage, Green Bin and Blue Box Yard Waste, Green Bin and Blue Box.

## NOTICE OF PASSING BY-LAW SOLID FUEL APPLIANCES



TOWN OF GEORGINA

## NOTICE OF PASSING OF A MUNICIPAL ACTS BY-LAW THE CORPORATION OF THE TOWN OF GEORGINA

TAKE NOTICE that the Council of the Corporation of the Town of Georgina passed By-lev Number 2015-0044 and repealed By-lev Number 2014-0052 (RBG-1) and on the 11th day of March, 2015, pursuant to the Municipal Act, 2001.

An explanation of the By-law is outlined below.

A complete By-law is evailable for viewing in the Clark's Division during regular. office hours

Dated at the Town of Georgina this 20th day of March, 2015.



APPLICANT/OWNER TOWN INITIATED

OUTDOOR SOLID-FUEL COMBUSTION APPLIANCES

LEGAL DESC RIPTION: All properties within the geographic boundaries of the Town of Georgina

**EXPLANATION** 

To regulate outdoor solid-fuel combustion appliances and to prohibit the burning of certain materials and liquids in Outdoor solid-fuel combustion appliances and indoor woodburning appliances in the Town of Georgine. By-lew 2015-0044 now includes a formalized review process for evaluating site-specific exemption requests to the By-law.

#### WEDDING FLYER



## The Town of Georgina Clerk's Department can marry you!

Whether your special day happens at the Civic Centre during business hours crat a location of your choice after hours, one of our officiants would be happy to share your special day with you

> Please talk to the Clerk's Department for more details 905-475-4301, exc. 2291

Wedding during business hours on Civic Centre Grounds \$200 +HST During non-business hours at a location of your choice \$100 +HST

#### @ LIBRARY

Baster Hours Closed Good Friday, April 3 Open Saturday, April 4 Open Sunday, April 5 Closed Monday, April 6



The 925 Append D

Harmoni Surties Pethylics

www.goorginalibrary.co

OverDrive Big Library Read:

Shake speare Saved My Life
There is still time to join the Big Library Read, the first-ever "global eBook club," connecting readers around the world who read the same eBook, and listen to the same audiobook at the same time. During March 17-March 31, this Big Library Readtitle is evallable for checkout online It's free, and there's never a waiting list. All you need

is a library card. Books "op an doors & minds".

9th Annual Grate Groom Up Spelling Bee Friday, April 24, 6:30pm; Kinsmen Hall, Sutton Friends of the Librery Spelling Bee helps to reise money for femily literacy initiatives in our community. How can you get involved? Sharpen those spelling skills and

put together a team of three adults and compete to be named. Best Spellers in Georgine. Spelling not your forte? Participate by becoming a <u>sponsor</u>.

Evening includes a buffet dinner door prizes, a silent auction and, of course, a

trophy presentation. Check out our website to find out more

Come to your library for book clubs, computer & effecter help, crocheting & knitting, music & movies, writing group, yoga & so much more for kids, tweens, teens and adults.

You dan go anywhere from here.....

#### **EMPLOYMENT OPPORTUNITIES**

The Town of Georgina is currently accepting applications decrease for their deceting position § : Branch Liberton, Filo I 2019, 111: Porman all F.T., Jan 48045, Samuel Sabry, \$91,607 - \$76,000, Closiny d'autilin a Synil 9, 2015.

Squallos Recopilatet, File 1209 190; Canal, Hantyrila (\$1.00 Coday dealloc blanch 27, 2015 Similate in the Science in the Director of Fire and Emergency Science, File (\$2010.2); Removal File Commontag Spill 2015 Strengt Spilory \$50,001 - \$20,000, Coding Avail box Spill & 2015

Sessional Regression Politique: commenden May 2018, Chocken desaille a Spél 2018

Lilignanis, Nielžoti 70% Liž Hanig aiks \$12.00 - \$10.00 in standars, Pile (12/10 70% His Hanig aiks \$14.50 - \$15.50) Sprail Instanciors, Nielžoti 70 % 32 Hanig aiks \$2.00 - \$10.00)

Spools in lawel he in no comision fragment, Med 2019,0000 & Scharp, Med 2019,0000; Howly also \$16.65 - \$15.55 Can collegificação by , File (2019, 1000 & 66.81 billion, File 1 2019 2200). Houly raise fair intends false Seas anal Positions: docting deal the March 70, 2015

Sees as I Shaked (Salbibry, File I 2019-2197) bilg 2015 Hady rale \$1500. Sees as I Roef - Sharked (Cig., File I2018, 2015 bilg 2015, Hady rale \$15,00 Sees as I Shaked Roef - Sharked, File II 2018, 2437 bilg 2015 Hady rale \$1200. over dat follow five from commant, from Accord. In grace process of the process o

Craffed pplicals are half allocated their ream eath cover like, point prospilate july obligit (obligit format Receive, Tour of Googles, 2659 (blocked o Rost, Korek), (MLP 95) in forsity copies a Place cover july point y board at the Chicked over lettler and steat many conjust a form continues for all he drop politics;

The Deem of Secretary is a copial operating supplying committed to decide by instructive recommendational and selection processors and not continuous. We write commendate the code of any place of any place is about the definition of the continuous and processors and not continuous and place of the committee of the continuous and processors are continuous and processors. The continuous and place of the committee of the continuous and selection processors. Place and after the letter and continuous Resource: Oliko lo ensure your accessibility needs are account obtail throughout this proc

Scopping that he time is a there community new company plat to be in much platful in the time. We have a tag to allow a simple of the community as well as the time of the control of the

#### **TENDERS AND BID OPPORTUNITIES**

The Town of Georgina Purchasing Division will receive tenders and/or proposals as follows:

COMPUTER WORKSTATIONS

Sixty-live [65] Custom Office Desiktop Computers REQUEST FOR PROPOSAL DA \$2015-016

Closing: Friday, March 27, 2015 & 2:00 p.m., local time

SUPPLY AND INSTALLATION OF REQUEST FOR PRICING

DA \$2015-020 Closing: Thursday, April 2, 2015 & 2:00 p.m., local time

CUTTING AND CONTROL OF NOXIOUS WEEDS AND MISCELLANEOUS PLANT GROWTH [Three Year Contract] REQUEST FOR PRICING

DA \$2015-021 Closing: Friday, April 10, 2015@ 200p.m., local time COLLECTING OF AQUATIC WEEDS - LAKE SIMCOR

REQUEST FOR PROPOSAL 0ED 20 15 -01 9

Closing: Friday, April 17, 2015@ 200p.m., local time "For full two der and proposal information, please visit the Town of Georgina website at were granging or please context Sitian Juridan, CPPS, AMCT, Perchasting Manager, Telephone, Mid-Li & Assis or (70-51482-29 9): Fac. 8041 4762-90 ου οι (905) 4 75-4805 στη 705) 487-28 (0); Put. (**ρ**05) 476-8 (0)

For additional information for all Town services please visit The Town's website at www.georgina.ca



## Notice of Ground and Aerial Larvicide Application for the Control of Larval Mosquitoes in Pefferlaw & Udora.

Between April 17 and April 24, 2015 the Town of Georgina, in cooperation with Pestalto Environmental Health Services Inc. will be conducting a ground and aerial larvicide program to mosquito habitats that impact on the residents of the Pefferlaw and Port Bolster areas. The program will use multiple application of VectoBac 200G (PCP#18158) and VectoBac 1200L (PCP#21062). These products are *biological larvicides*, with the active ingredient "B.t.i.".

Please be advised that we will be using a helicopter based out of the Town of Georgina's Agregate Pit located **at 8376 Smith Blvd** for the landing and take-off site for the Mosquito Control Program.



Use of the site is scheduled to begin on Monday April 20th . Aerial applications will commence at 7am and should take approximately 3 days depending on weather conditions. The landing area will be fenced in order to protect the operators, equipment during refill operations.

Please see the attached MSDS sheets for the larvicides. A Ministry of Environment Permit has been issued for this program. We regret any inconvenience this may cause.

For further information please contact Kevin Taylor of Pestalto Environmental Health Services Inc. at 519-362-5175 or by email kevin.taylor@pestalto.com

## **Appendix 2**

Maps of the Proposed Larval

Mosquito Treatment Area,

& Aerial and Ground Treatments

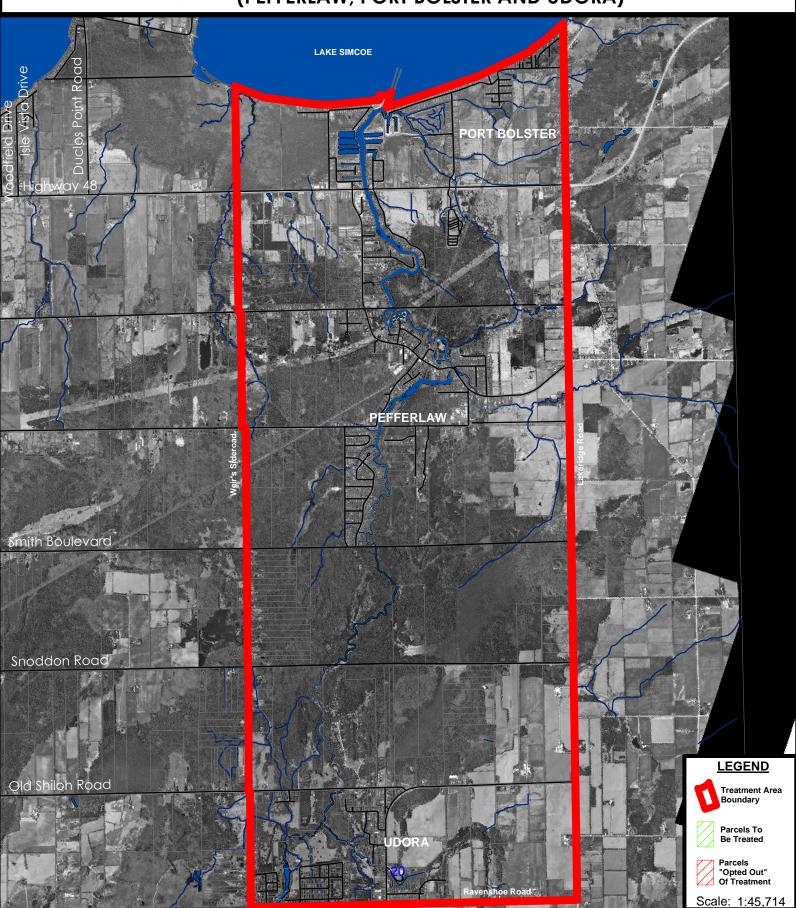




# TOWN OF GEORGINA Department of Operations & Engineering

## 2015 MOSQUITO ABATEMENT PROGRAM TREATMENT AREA MAP (PEFFERLAW, PORT BOLSTER AND UDORA)



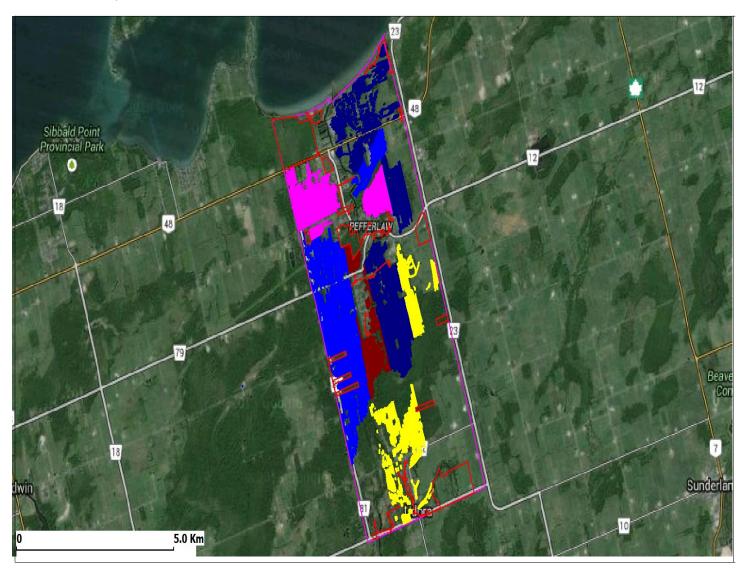


Company Zimmer Air Service

Address

Location Pefferlaw
Date April 28, 2015





Area Name: geo2015

April 24, 2015 AM

April 25, 2015 PM

April 26, 2015 AM

April 26, 2015 PM

April 28, 2015 AM

April 28, 2015 PM

## **Spray Summary**

Client: Pestalto Product: Vectobac Sprayed Area: 1,447 Ha

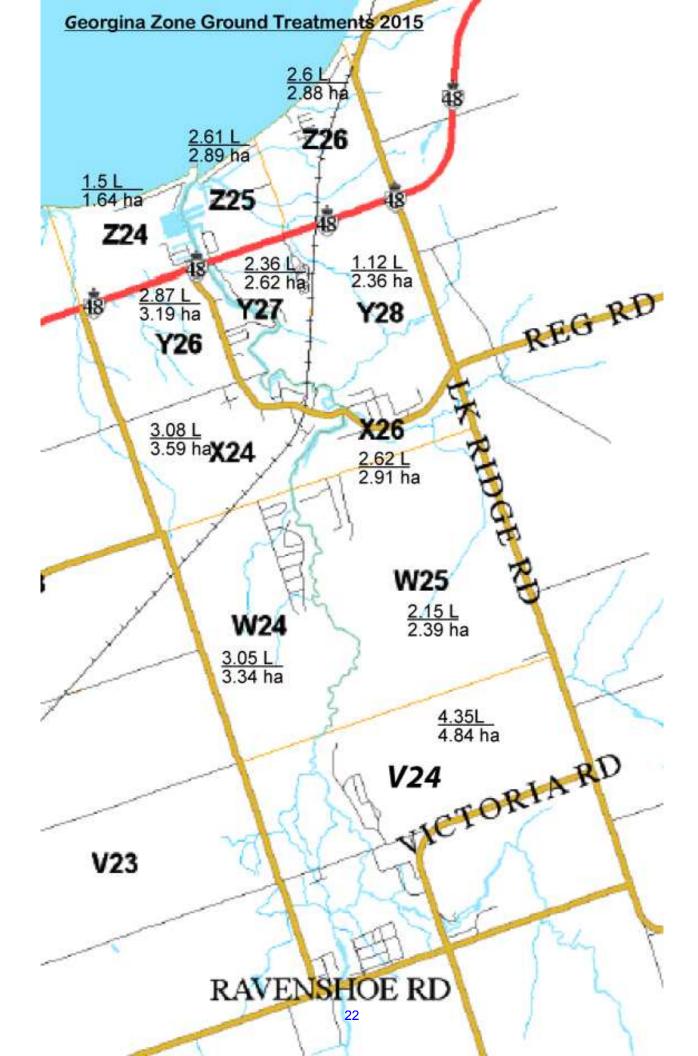
Pilot: Randy and Charles Applic Rate: 5 L/Ha

Operator: Zimmer

Aircraft: FNJ and FEC Swath: 33.3 Meters

21

Notes:



## **Appendix 3**

**Copy of Ministry of Environment Permits** 



Ministry of the Environment and Climate Change Ministère de l'Environnement et de l'Action en matière de changement climatique

#### PESTICIDE PERMIT

Perform A Water Extermination PERMIT NUMBER 8875-9V4LMN

Pursuant to Section 7 of the <u>Pesticides Act</u> R.S.O. of 1990, this Perform A Water Extermination Permit is hereby issued to:

Paul Zimmer

Zimmer Air Services Inc.

9742 Burk Line

Blenheim, Ontario, NOP 1A0

Canada

**Treatment Site:** Georgina nuisance mosquito larviciding program

in the vicinity of Port Bolster, Pefferlaw and Udora Aerial treatment to private and municipal property

Georgina, Regional Municipality of York

For the purpose of this Permit and the terms and conditions specified below, the following definitions apply:

#### 1. **DEFINITIONS**

- (a) "Ministry" means the Ontario Ministry of the Environment and Climate Change.
- (b) "Pesticide" means the pest control products and associated <u>Pest Control Products Act</u> No. specified in this Permit
- (c) "Director" means any Ministry employee appointed by the Minister under Section 3(1) of the Pesticides Act.
- (d) "Permit" means this *Perform A Water Extermination* permit issued in accordance with *Section 7* of the *Pesticides Act*.

## **2.** <u>TERMS</u>

1.Pesticide		PCP No.	Ontario Class
VECTOBAC-200G BIOLOGICAL LARVICIDE		18158	3
<b>Size of Treatment Area</b>	<b>Maximum Application</b>	<b>Amount of Pesticide</b>	Treatments authorized
	Rate	to be applied	
2200 ha	10 Kg(product)/ha	22000 Kg	2
Description of	Maximum of two aerial treatments to stagnant surface water		
treatment location:			
Treatment Period:	April 1 2015 <b>to</b> May 31 2015		

## 3. CONDITIONS

- 1. This permit expires on June 1, 2015.
- 2. This permit is not transferable to another person.
- 3. The permit holder shall provide a copy of this permit to the licensed exterminator prior to commencing the extermination.
- 4. The permit holder shall report immediately incidents involving human health or environmental effects such as damage to property resulting from the use of the pesticide to the local Ministry of the Environment and Climate Change District Office or to the Spills Action Centre at 1-800-268-6060.
- 5. The permit holder shall submit a request for an amendment to this permit and obtain approval from the ministry before any additional area is treated or pesticide is used not authorized by this permit.
- 6. The permit hold shall ensure public notification of the extermination is provided using a newspaper notice. The notice shall appear in a newspaper of general circulation in the vicinity of the treatment site at least 48 hours before but not more than seven days before the treatment date and repeated monthly until the last treatment. The notice shall include the following:
  - i. treatment date
  - ii. description of the treatment site
  - iii. name of the pest
  - iv. brand or trade name of the pesticide
  - v. formulation of the pesticide
  - vi. name of the pesticide ingredient
  - vii. registration number of the pesticide assigned to it under the Pest Control Products Act

(Canada)

- viii.name and phone number of the permit holder or designated representative who can provide more information about the treatment
- ix. statement stating collect calls will be accepted if long distance charges would be incurred
- 7. The permit holder shall notify the Central Region Pesticides Specialist at least 48 hours prior to commencing the extermination.
- 8. The permit holder shall submit a report to the Central Region Pesticides Specialist within two months of completing the extermination that includes the following:
  - i. map indicating actual treatment areas
  - ii. number of treatments
  - iii. treatment dates
  - iv. copies of the actual notices used for public notification
  - v. brand or trade name of the pesticide used, the registration number of the pesticide assigned to it under the *Pest Control Products Act* (Canada), rate of application, and quantity applied
  - vi. details of any incidents involving the pesticide used and the remedial actions taken
  - vii. effectiveness of the extermination as determined by monitoring of the target mosquito species in the pesticide treatment area before and after the extermination

## 4. APPEALS AND NOTIFICATION

In accordance with section 13(9) of the Pesticides Act, R. S. O. 1990, Chapter P. 11, as amended, you may by written notice served upon the Director require that the Director, within 3 days of receipt of such notice, vary, rescind or confirm his or her decision. The Director, within 3 days of receipt of such notice shall serve or cause to be served upon you this decision together with his or her written reasons therefor and where the Director varies or rescinds the decision, the Director shall take such action as may be necessary to make the variation or rescission effective.

In accordance with section 13(10) of the Pesticides Act, R. S. O. 1990, Chapter P. 11, as amended, you may by written notice served upon the Director and the Environmental Review Tribunal, within 15 days of service upon you of the notice under section 13(9) of the Pesticides Act, request a hearing of the Environmental Review Tribunal.

This notice must be served upon:

The Secretary
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto ON
M5G 1E5

Fax: (416) 314-4506

Email: ERTTribunalsecretary@ontario.ca

The Director
Section 7, Pesticides Act
Ministry of the Environment and Climate
Change
8th Floor
5775 Yonge St
Toronto ON M2M 4J1

Fax: (416) 325-6347

AND

The Notice should also include:

- 1. The name of the appellant;
- 2. The address of the appellant;
- 3. The Pesticide Permit number;
- 4. The date of the Pesticide Permit;
- 5. The name of the Director;
- 6. The municipality within which the Pesticide Permit is located;

# \* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca

Permission is hereby granted under the *Pesticides Act and Regulations* to perform an extermination in accordance with the application and the following supporting information:

Document:	Author:	Version Date:
Letter	Town of Georgina	2015/01/26
Letter	Zimmer Air Services Inc.	2015/01/21
Treatment Area Map	Pestalto Environmental Health	2015/01/20
	Services Inc.	
List of Objectors	Pestalto Environmental Health	2015/03/30
	Services Inc.	

Dated at Toronto this 30th day of March, 2015.

Dan Delaquis Director

Section 7, Pesticides Act



Ministry of the Environment and Climate Change Ministère de l'Environnement et de l'Action en matière de changement climatique

#### PESTICIDE PERMIT

Perform A Water Extermination PERMIT NUMBER 0166-9V4LTD

Pursuant to Section 7 of the <u>Pesticides Act</u> R.S.O. of 1990, this Perform A Water Extermination Permit is hereby issued to:

**Kevin Taylor** 

Pestalto Environmental Health Services Inc.

501 Rennie St

Hamilton, Ontario, L8H 3P6

Canada

**Treatment Site:** Georgina nuisance mosquito larviciding program

in the vicinity of Port Bolster, Pefferlaw and Udora Ground treatments to private and municipal property

Georgina, Regional Municipality of York

For the purpose of this Permit and the terms and conditions specified below, the following definitions apply:

## 1. **DEFINITIONS**

- (a) "Ministry" means the Ontario Ministry of the Environment and Climate Change.
- (b) "Pesticide" means the pest control products and associated <u>Pest Control Products Act</u> No. specified in this Permit
- (c) "Director" means any Ministry employee appointed by the Minister under Section 3(1) of the Pesticides Act.
- (d) "Permit" means this *Perform A Water Extermination* permit issued in accordance with *Section 7* of the *Pesticides Act*.

## 2. <u>TERMS</u>

1.Pesticide		PCP No.	Ontario Class	
VECTOBAC 1200L BIOLOGICAL LARVICIDE		21062	3	
Size of Treatment Area   Maximum Application		Amount of Pesticide	Treatments authorized	
	Rate	to be applied		
250 ha	1 L(product)/ha	100 L	10	
Description of	Multiple ground treatmen	Multiple ground treatments to stagnant surface water		
treatment location:				
Treatment Period:	April 1 2015 <b>to</b> May 31 2015			

2.Pesticide		PCP No.	Ontario Class
VECTOBAC-200G BIOLOGICAL LARVICIDE		18158	3
Size of Treatment Area	<b>Maximum Application</b>	<b>Amount of Pesticide</b>	Treatments authorized
	Rate	to be applied	
250 ha	10 Kg(product)/ha	500 Kg	10
<b>Description of</b>	Multiple ground treatments to stagnant surface water		
treatment location:			
<b>Treatment Period:</b>	April 1 2015 <b>to</b> May 31 2015		

## 3. CONDITIONS

- 1. This permit expires on June 1, 2015.
- 2. This permit is not transferable to another person.
- 3. The permit holder shall provide a copy of this permit to the licensed exterminator prior to commencing the extermination.
- 4. The permit holder shall report immediately incidents involving human health or environmental effects such as damage to property resulting from the use of the pesticide to the local Ministry of the Environment and Climate Change District Office or to the Spills Action Centre at 1-800-268-6060.
- 5. The permit holder shall submit a request for an amendment to this permit and obtain approval from the ministry before any additional area is treated or pesticide is used not authorized by this permit.
- 6. The permit hold shall ensure public notification of the extermination is provided using a newspaper notice. The notice shall appear in a newspaper of general circulation in the vicinity of the treatment site at least 48 hours before but not more than seven days before the treatment date and repeated monthly until the last treatment. The notice shall include the following:
  - i. treatment date
  - ii. description of the treatment site
  - iii. name of the pest
  - iv. brand or trade name of the pesticide
  - v. formulation of the pesticide
  - vi. name of the pesticide ingredient
  - vii. registration number of the pesticide assigned to it under the *Pest Control Products Act* (Canada)
  - viii.name and phone number of the permit holder or designated representative who can provide more information about the treatment
  - ix. statement stating collect calls will be accepted if long distance charges would be incurred
- 7. The permit holder shall notify the Central Region Pesticides Specialist at least 48 hours prior to commencing the extermination.
- 8. The permit holder shall submit a report to the Central Region Pesticides Specialist within two months of completing the extermination that includes the following:
  - i. map indicating actual treatment areas
  - ii. number of treatments

- iii. treatment dates
- iv. copies of the actual notices used for public notification
- v. brand or trade name of the pesticide used, the registration number of the pesticide assigned to it under the *Pest Control Products Act* (Canada), rate of application, and quantity applied
- vi. details of any incidents involving the pesticide used and the remedial actions taken
- vii. effectiveness of the extermination as determined by monitoring of the target mosquito species in the pesticide treatment area before and after the extermination

## 4. APPEALS AND NOTIFICATION

In accordance with section 13(9) of the Pesticides Act, R. S. O. 1990, Chapter P. 11, as amended, you may by written notice served upon the Director require that the Director, within 3 days of receipt of such notice, vary, rescind or confirm his or her decision. The Director, within 3 days of receipt of such notice shall serve or cause to be served upon you this decision together with his or her written reasons therefor and where the Director varies or rescinds the decision, the Director shall take such action as may be necessary to make the variation or rescission effective.

In accordance with section 13(10) of the Pesticides Act, R. S. O. 1990, Chapter P. 11, as amended, you may by written notice served upon the Director and the Environmental Review Tribunal, within 15 days of service upon you of the notice under section 13(9) of the Pesticides Act, request a hearing of the Environmental Review Tribunal.

## This notice must be served upon:

The Secretary
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto ON
M5G 1E5

Fax: (416) 314-4506

 ${\it Email: ERTT ribunal secretary @ontario.ca}$ 

The Director
Section 7, Pesticides Act

AND
Ministry of the Environment and Climate
Change
8th Floor

5775 Yonge St Toronto ON M2M 4J1 Fax: (416) 325-6347

#### The Notice should also include:

- 1. The name of the appellant;
- 2. The address of the appellant;
- 3. The Pesticide Permit number;
- 4. The date of the Pesticide Permit;
- 5. The name of the Director;
- 6. The municipality within which the Pesticide Permit is located;
- \* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca

Permission is hereby granted under the *Pesticides Act and Regulations* to perform an extermination in accordance with the application and the following supporting information:

<b>Document:</b>	Author: Version Date:
Letter	Town of Georgina 2015/01/26
Letter	Pestalto Environmental Health 2015/02/02
	Services Inc.
Treatment Area Map	Pestalto Environmental Health 2015/02/02
	Services Inc.
List of Objectors	Pestalto Environmental Health 2015/03/30
	Services Inc.

Dated at Toronto this 30th day of March, 2015.

Dan Delaquis Director

Section 7, Pesticides Act

## **Appendix 4**

# Standing Water Surveillance Data & Treatments

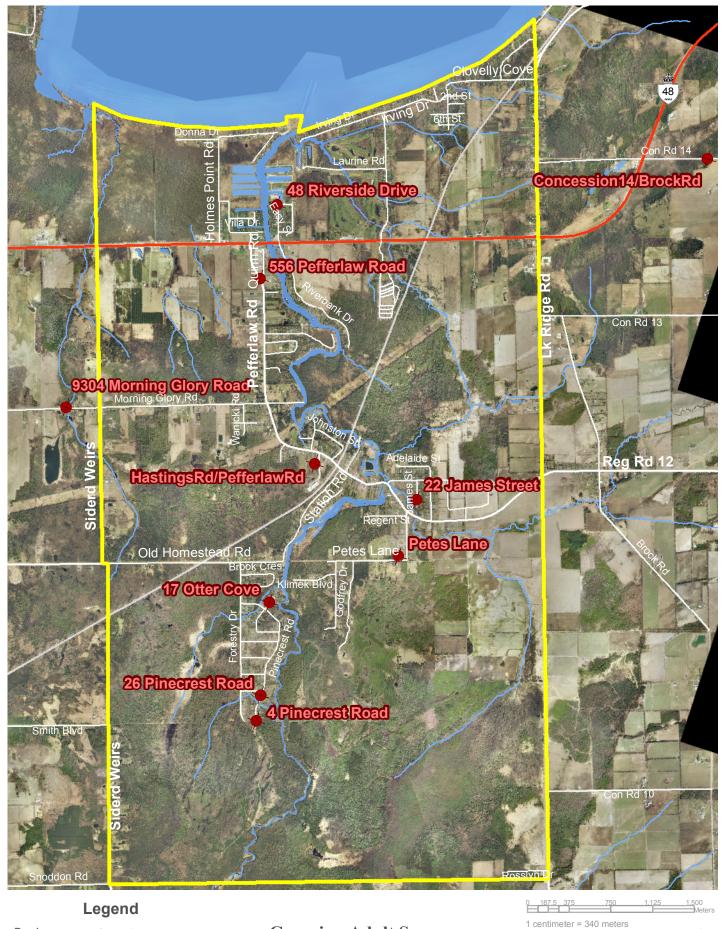
<u>Table 3</u> Standing Water Surveillance All Site Visits, Pestalto 2015											
Municipality	Address	Site Type	Map ID	Date	Stage	Organic Matter	Pool Area (m2)	Sample Count	Pool Rating	Treatment	Visit Count
Georgina	Forestry Drive South of 3 Brook Crescent West South of Road	Ditch	YODI116659	4/2/2015	SURV	Dry	Dry	0	Dry	No	4
Georgina	North of 24189 Weirs Side Road Across Road from Georgina Auto Wreckers	Ditch	YOWP115893	4/2/2015	SURV	Dry	Dry	0	Dry	No	4
Georgina	In York Regional Forest accross from 111 Forestry Drive	Woodland Pool	YOWP116651	4/2/2015	SURV	LOW	200	0	NIL	No	1
Georgina	South of 3 Forestry Drive	Woodland Pool	YOWP116665	4/2/2015	SURV	Dry	Dry	0	Dry	No	5
Georgina	South side of Petes Lane 90m west of number 95	Ditch	YODI116650	4/2/2015	SURV	LOW	150	0	NIL	No	1
Georgina	95 Pete's Lane adjacent to pst4 and pst 6	Field Pool	YOFP115924	4/2/2015	SURV	Dry	Dry	0	Dry	No	1
Georgina	off Petes Lane 10m west of Godfrey Drive Go down Godfrey Lane about 10 m and walk into woods to reach ATV trail than walk back towars Petes Lane to see numerous pools	Woodland Pool	YOWP116637	4/2/2015	SURV	Dry	Dry	0	Dry	No	1
Georgina	174 Irving Drive drainage ditches along driveway and neighbouring driveway	Woodland Pool	YODI115897	4/3/2015	SURV	MOD	60	2	LOW	No	5
Georgina	20 Bolster Lane flooded woodlands	Field Pool	YOFP115917	4/3/2015	SURV	LOW	400	1	LOW	No	5
Georgina	174 Irviing 30m south of road	Pond	YOUK116640	4/3/2015	SURV	LOW	60	0	NIL	No	5
Georgina	20 metres north of railroad tracks woodlands before Bolster Lane	Woodland Pool	YOUK116641	4/3/2015	SURV	LOW	500	0	NIL	No	4
Georgina	Opposite 124 Irving Drive Wetlands	Woodland Pool	YOWP115898	4/3/2015	SURV	LOW	100	0	NIL	No	3
Georgina Georgina	Opposite 151 Forestry Drive Other side of Road Forestry Drive South of 3 Brook Crescent West South	Ditch Ditch	YODI115902 YODI116659	4/14/2015 4/14/2015	SURV	LOW	400 30	0	NIL NIL	No No	4
Georgina	of Road Forestry Drive near end enter road blocked trail in 400	Wetlands	YOWL118964	4/14/2015	SURV	LOW	2500	10	MOD	No	1
Georgina	Metres to large bog North of 24189 Weirs Side Road Across Road from	Ditch	YOWP115893	4/14/2015	PRE	LOW	64	8	MOD	Yes	4
Georgina	Georgina Auto Wreckers South of 3 Forestry Drive	Woodland Pool	YOWP116665	4/14/2015	SURV	LOW	7000	0	NIL	No	5
Georgina	59 Petes Lane back into wetlands 200 meters	Wetlands	YOWL116646	4/14/2015	PRE	LOW	900	21	MOD	Yes	1
	Petes Lane York Forest entrance follow trail in 400										
Georgina	metres to bog on either side of trail	Wetlands	YOWL118966	4/14/2015	SURV	LOW	2500	0	NIL	No	1
Georgina	40 metres south of Petes Lane East of Godfrey Drive	Woodland Pool	YOWP116666	4/14/2015	SURV	LOW	400	3	LOW	No	2
Georgina	On the north side of Station Street 30m south west of Kenneth Street In bw road and railroad tracks	Ditch	YODI116652	4/14/2015	SURV	LOW	500	2	LOW	No	2
Georgina	End of Lindell Road by and South of Number 18	Woodland Pool	YOWP115896	4/14/2015	SURV	LOW	400	0	NIL	No	1
Georgina	38 Petes Lane ditches within Lions Park and Library	Ditch	YODI118967	4/14/2015	SURV	LOW	100	0	NIL	No	1
Georgina	near 60 Halmar Park Road down slope from mailbox 75 metres safer to walk down	Wetlands	YOWL115904	4/14/2015	SURV	LOW	900	0	NIL	No	1
Georgina	Durham 23 Lake Ridge Road on map one point three km south of 48 West side	Ditch	YODI115899	4/14/2015	SURV	LOW	500	0	NIL	No	1
Georgina	Highway 48 west side of 30977 on south side of road by infront of storage unit	Storm Water Management Pond	YOSW115922	4/14/2015	SURV	LOW	1600	0	NIL	No	1
Georgina	28 Riverside Drive	Ditch	YODI116658	4/14/2015	SURV	LOW	30	0	NIL	No	3
Georgina	ditch across the road from 42 Irving Drive	Ditch	YODI116660	4/14/2015	PRE SURV	MOD LOW	60 500	7	MOD MOD	Yes No	2
Georgina	Across Road from 132 Irving Drive  174 Irving Drive drainage ditches along driveway and	Ditch	YODI115895	4/14/2015				11			3
Georgina	neighbouring driveway	Woodland Pool	YODI115897	4/14/2015	SURV	LOW	50	0	NIL	No	5
Georgina Georgina	20 Bolster Lane flooded woodlands 174 Irviing 30m south of road	Field Pool Pond	YOFP115917 YOUK116640	4/14/2015 4/14/2015	PRE PRE	LOW MOD	5000 60	30 2	MOD LOW	Yes Yes	5 5
Georgina	20 metres north of railroad tracks woodlands before Bolster Lane	Woodland Pool	YOUK116641	4/14/2015	PRE	MOD	2500	40	HIGH	Yes	4
Georgina	Zone V 24	Standing Water Zone	YOZN000V24	4/20/2015	PRE	LOW	48360	44	HIGH	Yes	1
Georgina	Zone Z 24	Standing Water Zone	YOZN000Z24	4/20/2015	PRE	LOW	10830	55	HIGH	Yes	2
Georgina	Zone Z 25	Standing Water Zone	YOZN000Z25	4/20/2015	PRE	LOW	11940	134	HIGH	Yes	2
Georgina	Zone Z 26	Standing Water Zone	YOZN000Z26	4/20/2015	PRE	LOW	11390	48	HIGH	Yes	2
Georgina	Zone W 24	Standing Water Zone	YOZN000W24	4/21/2015	PRE	LOW	14940	140	HIGH	Yes	2
Georgina	Zone W 25	Standing Water Zone	YOZN000W25	4/21/2015	PRE	LOW	21780	82	HIGH	Yes	2
Georgina	Zone X 24	Standing Water Zone	YOZN000X24	4/21/2015	PRE	LOW	15550	84	HIGH	Yes	2
Georgina	Zone X 26	Standing Water Zone	YOZN000X26	4/21/2015	PRE	LOW	13390	96	HIGH	Yes	2
Georgina	Zone Y 26	Standing Water Zone	YOZN000Y26	4/21/2015	PRE	LOW	19980	58	HIGH	Yes	2
Georgina	Zone Y 27	Standing Water Zone	YOZN000Y27	4/21/2015	PRE	LOW	16830	56	HIGH	Yes	2
Georgina	Zone Y 28	Standing Water Zone	YOZN000Y28	4/21/2015	PRE	LOW	14720	70	HIGH	Yes	2
Georgina	Zone Z 24	Standing Water Zone	YOZN000Z24	4/21/2015	PRE	LOW	5887	45	HIGH	Yes	2
Georgina	Zone Z 25	Standing Water Zone	YOZN000Z25	4/21/2015	PRE	LOW	17030	60	HIGH	Yes	2



Georgian   Cove W 26	Table 3	S	tanding Water	Surveillance	All Site V	isits, Pest	alto 2015					
Conception   200e W 26	Georgina	Zone Z 26		YOZN000Z26	4/21/2015	PRE	LOW	17440	40	HIGH	Yes	2
	•		Standing Water									2
Secretary   Secr	Georgina	Zone W 25	Standing Water	YOZN000W25	4/22/2015	PRE	LOW	2103	43	HIGH	Yes	2
Concepts   Zone Y 26	Georgina	Zone X 24	Standing Water	YOZN000X24	4/22/2015	PRE	LOW	20380	50	HIGH	Yes	2
Congress	Georgina	Zone X 26	Standing Water	YOZN000X26	4/22/2015	PRE	LOW	15770	74	HIGH	Yes	2
County   C	Georgina	Zone Y 26		YOZN000Y26	4/22/2015	PRE	LOW	11940	153	HIGH	Yes	2
Conception   Con	Georgina	Zone Y 27		YOZN000Y27	4/22/2015	PRE	LOW	9389	54	HIGH	Yes	2
Georgina   Fracety Dive South of 3 Brook Crescont West South   Dich   VODI116650   4/23/2015   SURV   MOD   64   19   MOD   No   No   No   No   No   No   No   N	Georgina	Zone Y 28		YOZN000Y28	4/22/2015	PRE	LOW	8833	175	HIGH	Yes	2
Georgina   Green   Georgina   G	Georgina		Ditch	YODI115902	4/23/2015	SURV	MOD	30	0	NIL	No	4
Cecargina   Control   Cecargina   Control   Cecargina   Control   Cecargina	Georgina		Ditch	YODI116659	4/23/2015	PRE	MOD	20	5	LOW	Yes	4
Georgina   Content   Con		North of 24189 Weirs Side Road Across Road from	Ditch	YOWP115893	4/23/2015	SURV	MOD	64	10	MOD	No	4
Georgina   Control   Con	Georgina		Woodland Pool	YOWP115926	4/23/2015	SURV	MOD	20	0	NIL	No	1
Ceorgina   South of 3 Foresty Drive   South of 3 Foresty Drive   South of 3 Foresty Drive   Moodend Pool   YOWP116865   S1/2015   POST   LOW   1600   0   NIL   No   1   No   No												5
Georgina   Georgina Author Wordsers	Georgina		Ditch								No	4
Georgina   South of 3 Freety Drine	Georgina		Ditch	YOWP115893	5/1/2015	POST	LOW	36	0	NIL	No	4
Georgina   Volk Regional Forest Of Petes Lane across from post of Petes Lane across from post of Petes Lane East of Gotfrey Drive   Woodland Pool   VOWP118666   5/1/2015   POST   LOW   100   0   NIL   No   1.0	Georgina		Woodland Pool	YOWP116665	5/1/2015	POST	LOW	1600	0	NIL	No	5
Georgina   Green South of Februs Lane East of Codfrey Drive   Woodland Pool   YOWP118666   \$f1/2015   POST   LOW   100   0   NIL   No	Georgina		Wetlands	YOWL116668	5/1/2015	POST	MOD	64	0	NIL	No	1
Sergina   Rememb Street In by road and rainoad tracks	-											2
Georgina   28 Riverside Drive   Ditch   YOUT16685   57/2015   POST   MOD   10   0   NilL   No   1	Georgina		Ditch	YODI116652	5/1/2015	POST	MOD	1	0	NIL	No	2
Georgina   200m in from Riverview on North side of Laurine Road   Ditch   YOUK116643   \$5/12015   POST   LOW   900   0   NilL   No   1.5	Georgina								0			2
Georgina   7/4 In/ing Drive drainage ditches along driveway and neighbouring driveway   No.   1	Georgina	28 Riverside Drive	Ditch	YODI116658	5/1/2015	POST	MOD	10	0	NIL	No	3
Georgina	Georgina		Ditch	YOUK116643	5/1/2015	POST	LOW	900	0	NIL	No	2
Georgina   174 Inving 30m south of road   Pond   YOUK116640   571/2015   POST   DV   DV   DV   DV   DV   DV   DV   D	·	neighbouring driveway										5 5
Ceorgina   20 metres north of railroad tracks woodlands before   Woodland Pool   YOUK116641   \$71/2015   POST   Dry   Dry   0   Dry   No   According to the pool   Post   Post   Dry   D												5
Georgina   Opposite 151 Forestry Drive Other side of Road   Ditch   VODITI5892   56/2015   POST   Dry   Dry   0   Dry   No   Opposite 151 Forestry Drive South of 3 Brook Crescent West South   Ditch   VODITI6859   56/2015   POST   Dry   Dry   0   Dry   No   Opposite 152 Forestry Drive   Woodland Pool   VODITI6858   56/2015   POST   Dry   Dry   0   Dry   No   Opposite 152 Forestry Drive   Woodland Pool   VODITI6858   56/2015   POST   MOD   100   0   NIL   No   Opposite 152 Forestry Drive   Ditch   VODITI6858   56/2015   POST   MOD   150   0   NIL   No   Opposite 152 Forestry Drive   Ditch   VODITI6859   56/2015   POST   MOD   150   0   NIL   No   Opposite 152 Forestry Drive   Ditch   VODITI6859   56/2015   POST   MOD   150   0   NIL   No   Opposite 152 Forestry Drive   Dr		20 metres north of railroad tracks woodlands before							0			4
Georgina   Georgina   Georgina   South of 3 Forestry Drive   Woodland Pool   YOWP116666   5/6/2015   POST   LOW   20   0   NilL   No   10   10   NilL   No   10   10   10   10   NilL   No   10   10   10   10   NilL   No   10   10   10   10   NilL   No   10   10   10   NilL   No   10   10   10   NilL   No   N	Georgina		Ditch	YODI115902	5/6/2015	POST	Dry	Dry	0	Dry	No	4
Georgina   South of 3 Foresty Drive   Woodland Pool   YOWP116665   S/6/2015   POST   MOD   100   0   NIL   No   Secretina   South of 3 Foresty Drive   Dilch   YODI116689   S/6/2015   POST   LOW   20   0   NIL   No   Secretina   No   No   Secretina   No   Secr	Georgina		Ditch	YODI116659	5/6/2015	POST	Dry	Drv	0	Drv	No	4
Georgina   28 Riverside Drive	·							-	-	·		5
Georgina   Across Road from 132 Irving Drive   Ditch   YODI115895   516/2015   POST   MOD   150   0   NIL   No   150												3
Georgina   Reighbouring driveway   Woodland Pool   YOUT 1989   Sid 2015   POST   MOD   SU   NIL   No   Su   Su   Su   Su   Su   Su   Su   S	v											3
Georgina   20 Bolster Lane flooded woodlands   Field Pool   YOFP115917   5/6/2015   POST   MOD   30   0   NIL   No   4		neighbouring driveway							0			5
Georgina   174 Irviing 30m south of road   Pond   YOUK116640   5/6/2015   POST   MOD   150   0   NIL   No   150   20 metres north of railroad tracks woodlands before   Bolster Lane   Woodland Pool   YOUK116641   5/6/2015   POST   MOD   100   0   NIL   No   100   NIL   No   10									5			2
Georgina   20 metres north of railroad tracks woodlands before   Bolster Lane   Deposite Lane   Deposite Lane   Deposite Lane   Deposite 124 Irving Drive Wetlands   Woodland Pool   YOWP115898   5/6/2015   POST   MOD   500   0 NIL   No   Seorgina   Opposite 58 Riverview Beach Road   Woodland Pool   YOWP116836   5/6/2015   POST   MOD   400   0 NIL   No   MIL   No   MOD   MIL   No   MOD   MIL   No   MOD   MIL   No   MIL   No   MOD   MOD   MIL   No   MOD   M												5 5
Georgina Opposite 124 Irving Drive Wetlands Woodland Pool YOWP115898 5/6/2015 POST MOD 500 0 NIL No Georgina Opposite 58 Riverview Beach Road Woodland Pool YOWP116636 5/6/2015 POST MOD 400 0 NIL No Georgina South side of Highway 48 75m east of Weirs Sideroad Wetlands YOWL116633 5/14/2015 POST MOD 150 0 NIL No Georgina 30553 Highway 48 Green Acres Campers Group Woodland Pool YOWP116664 5/14/2015 POST MOD 200 0 NIL No Georgina South West comer of Weirs Road and Highway 48 Wetlands YOWL115901 5/14/2015 POST MOD 75 0 NIL No Georgina Georgina Golf Course and Restaurant ditch across the road from 42 Irving Drive Ditch YODI116660 5/14/2015 POST MOD 45 0 NIL No Georgina Laurine Road 200 from west end on north side Wetlands YOUK116643 5/14/2015 POST MOD 225 0 NIL No Georgina Laurine Road 200 from west end on north side Wetlands YOUK116644 5/14/2015 POST MOD 300 0 NIL No Georgina Across Road from 132 Irving Drive Ditch YODI115895 5/14/2015 POST MOD 150 0 NIL No Georgina Across Road from 132 Irving Drive Ditch YODI115895 5/14/2015 POST MOD 20 0 NIL No Georgina Across Road from 132 Irving Drive Ditch YODI115895 5/14/2015 POST MOD 20 0 NIL No Georgina Across Road from 132 Irving Drive Ditch YODI115897 5/14/2015 POST MOD 20 0 NIL No Georgina Across Road from 132 Irving Drive Ditch YODI115897 5/14/2015 POST MOD 20 0 NIL No Georgina Across from 118 Irving Drive Ditch YODI115897 5/14/2015 POST MOD 20 0 NIL No Georgina Across from 118 Irving Drive Ditch YODI115897 5/14/2015 POST MOD 60 0 NIL No Georgina 27 Riverview Beach Road Name Wright Field Pool YOFP115891 5/14/2015 POST MOD 80 51 HIGH Yes Georgina 174 Irving 30m south of road Pool Pool YOUK116640 5/14/2015 POST MOD 90 0 NIL No SIL	Georgina	20 metres north of railroad tracks woodlands before										4
Georgina South side of Highway 48 75m east of Weirs Sideroad Wetlands YOWL116633 5/14/2015 POST MOD 150 0 NIL No Georgina 30553 Highway 48 Green Acres Campers Group Woodland Pool YOWP116664 5/14/2015 POST MOD 200 0 NIL No Georgina South West corner of Weirs Road and Highway 48 Wetlands YOWL115901 5/14/2015 POST MOD 75 0 NIL No Highway 48 north side West of Riverview Beach Road at front of Pines Georgina Golf Course and Restaurant Ditch YODI115892 5/14/2015 POST MOD 100 0 NIL No Georgina ditch across the road from 42 Irving Drive Ditch YOUK116643 5/14/2015 POST MOD 45 0 NIL No Georgina 200m in from Riverview on North side of Laurine Road Ditch YOUK116643 5/14/2015 POST MOD 225 0 NIL No Georgina Laurine Road 200 from west end on north side Wetlands YOUK116644 5/14/2015 POST MOD 300 0 NIL No Georgina Across Road from 132 Irving Drive Ditch YODI115895 5/14/2015 POST MOD 150 0 NIL No Georgina 174 Irving Drive drainage ditches along driveway and neighbouring driveway Georgina Across from 118 Irving Drive Ditch YODI116661 5/14/2015 POST MOD 20 0 NIL No Georgina Corpina Across from 118 Irving Drive Ditch YODI116661 5/14/2015 POST MOD 150 0 NIL No Georgina 27 Riverview Beach Road Name Wright Field Pool YOFP115894 5/14/2015 POST MOD 150 0 NIL No Georgina 174 Irving 30m south of road Pond YOUK116640 5/14/2015 POST MOD 80 51 HIGH Yes Georgina 174 Irving 30m south of road Pond YOUK116640 5/14/2015 POST MOD 80 51 HIGH Yes Georgina 174 Irving 30m south of road Pond YOUK116640 5/14/2015 POST MOD 90 0 NIL No	Georgina	Opposite 124 Irving Drive Wetlands										3
Georgina 30553 Highway 48 Green Acres Campers Group Woodland Pool YOWP116664 5/14/2015 POST MOD 200 0 NIL No Georgina South West corner of Weirs Road and Highway 48 Wetlands YOWL115901 5/14/2015 POST MOD 75 0 NIL No Georgina Highway 48 north side West of Riverview Beach Road at front of Pines Georgina Golf Course and Restaurant Ditch YODI115892 5/14/2015 POST MOD 100 0 NIL No Georgina ditch across the road from 42 Irving Drive Ditch YOUK116640 5/14/2015 POST MOD 45 0 NIL No Georgina Laurine Road 200 from west end on north side Wetlands YOUK116644 5/14/2015 POST MOD 225 0 NIL No Georgina Across Road from 132 Irving Drive Ditch YODI115895 5/14/2015 POST MOD 300 0 NIL No Georgina Irving Drive Ditch YODI115895 5/14/2015 POST MOD 150 0 NIL No Georgina Across Road from 132 Irving Drive Ditch YODI115897 5/14/2015 POST MOD 20 0 NIL No Georgina Across from 118 Irving Drive Ditch YODI115897 5/14/2015 POST MOD 20 0 NIL No Georgina Across from 118 Irving Drive Ditch YODI116661 5/14/2015 POST MOD 150 0 NIL No Georgina Across from 118 Irving Drive Ditch YODI116661 5/14/2015 POST MOD 150 0 NIL No Georgina 27 Riverview Beach Road Name Wright Field Pool YOFP115894 5/14/2015 POST MOD 150 0 NIL No Georgina 174 Irving 30m south of road Pond YOUK116640 5/14/2015 POST MOD 90 0 NIL No Georgina 174 Irving 30m south of road Pond YOUK116640 5/14/2015 POST MOD 90 0 NIL No Georgina 174 Irving 30m south of road	Georgina	Opposite 58 Riverview Beach Road	Woodland Pool	YOWP116636	5/6/2015	POST	MOD	400	0	NIL	No	1
Georgina South West comer of Weirs Road and Highway 48 Wetlands YOWL115901 5/14/2015 POST MOD 75 0 NIL No Highway 48 north side West of Riverview Beach Road at front of Pines Georgina Golf Course and Restaurant Ditch YODI115892 5/14/2015 POST MOD 100 0 NIL No Georgina 200m in from Riverview on North side of Laurine Road Ditch YOUK116643 5/14/2015 POST MOD 225 0 NIL No Georgina Laurine Road 200 from west end on north side Wetlands YOUK116644 5/14/2015 POST MOD 300 0 NIL No Georgina Across Road from 132 Irving Drive Ditch YODI115895 5/14/2015 POST MOD 150 0 NIL No Georgina Coorgina C	-	ů ,										1
Georgina Highway 48 north side West of Riverview Beach Road at front of Pines Georgina Golf Course and Restaurant  Georgina ditch across the road from 42 Irving Drive Ditch YODI116660 5/14/2015 POST MOD 45 0 NIL No Georgina 200m in from Riverview on North side of Laurine Road Ditch YOUK116643 5/14/2015 POST MOD 225 0 NIL No Georgina Laurine Road 200 from west end on north side Wetlands YOUK116644 5/14/2015 POST MOD 300 0 NIL No Georgina Across Road from 132 Irving Drive Ditch YODI115895 5/14/2015 POST MOD 150 0 NIL No Georgina 174 Irving Drive drainage ditches along driveway and neighbouring driveway  Georgina Across from 118 Irving Drive Ditch YODI116661 5/14/2015 POST MOD 20 0 NIL No Georgina Across from 118 Irving Drive Ditch YODI116661 5/14/2015 POST MOD 50 NIL No Georgina 27 Riverview Beach Road Name Wright Field Pool YOFP115894 5/14/2015 POST MOD 150 0 NIL No Georgina 174 Irving 30m south of road Pond YOUK116640 5/14/2015 POST MOD 80 51 HIGH Yes Georgina 174 Irving 30m south of road Pond YOUK116640 5/14/2015 POST MOD 90 0 NIL No SI HIGH Yes Georgina 174 Irving 30m south of road Pond YOUK116640 5/14/2015 POST MOD 90 0 NIL No SI HIGH Yes Georgina 174 Irving 30m south of road Pond YOUK116640 5/14/2015 POST MOD 90 0 NIL No SI HIGH Yes SI HIGH Y												1
Georgina   ditch across the road from 42 Irving Drive   Ditch   YODI116660   5/14/2015   POST   MOD   45   0   NIL   No   7/2015   NOD   225   NOD   NIL   No   225   NOD   225   NOD   NIL   No   NIL   NO   NIL   NOD   NIL   NO   NI	Georgina	Highway 48 north side West of Riverview Beach Road										1
Georgina   200m in from Riverview on North side of Laurine Road   Ditch   YOUK116643   5/14/2015   POST   MOD   225   0 NIL   No   2	·	Ÿ.										
Georgina   Laurine Road 200 from west end on north side   Wetlands   YOUK116644   5/14/2015   POST   MOD   300   0   NIL   No   State   Not   No   Not   N		_										2
Georgina   Across Road from 132 Irving Drive   Ditch   YODI115895   5/14/2015   POST   MOD   150   0   NIL   No   33	Georgina	200m in from Riverview on North side of Laurine Road	Ditch						0		No	2
Georgina   174 Irving Drive drainage ditches along driveway and neighbouring driveway   Woodland Pool   YODI115897   5/14/2015   POST   MOD   20   0   NIL   No   9   9   9   9   9   9   9   9   9												1
Reignbouring driveway		174 Irving Drive drainage ditches along driveway and										3 5
Georgina         27 Riverview Beach Road Name Wright         Field Pool         YOFP115894         5/14/2015         POST         MOD         150         0         NIL         No           Georgina         20 Bolster Lane flooded woodlands         Field Pool         YOFP115917         5/14/2015         POST-PRE         MOD         80         51         HIGH         Yes         9           Georgina         174 Irviing 30m south of road         Pond         YOUK116640         5/14/2015         POST         MOD         90         0         NIL         No         9	-											2
Georgina         20 Bolster Lane flooded woodlands         Field Pool         YOFP115917         5/14/2015         POST-PRE         MOD         80         51         HIGH         Yes         9           Georgina         174 Irving 30m south of road         Pond         YOUK116640         5/14/2015         POST         MOD         90         0         NIL         No         9												1
	Georgina	20 Bolster Lane flooded woodlands	Field Pool	YOFP115917	5/14/2015	POST-PRE	MOD	80	51	HIGH	Yes	5
Georgina   Opposite 124 Irving Drive Wetlands   Woodland Pool   YOWP115898   5/14/2015   POST   MOD   150   0   NIL   No   3												5
48 sites in Town of Georgina were sampled with 98 visits for the 2015 season	Georgina								0	NIL	No	3

## **Appendix 5**

**Map of the Adult Sweep Net Locations** 





1:34,000



Roads Streams

Highway Waterbody

Arterial Treatment Area

Sweep Net Locations

**Georgina Adult Sweep Net Count Locations**