

Appendix B2

Amphibian Surveys

Legend

- Property Boundary
- GE Turbine
- ELC Completed 2011
- Natural Feature and ID
- ELC Polygon Boundary
- Disturbance Areas
- Area of Disturbance, plus 10m
- ANSI
- Evaluated Wetlands - PSW
- ABCA Watercourse

0.5 ha

Scale: 0 25 50 100 Meters

UTM Zone 17N, UAD 83

Data Source: Basepoints from Ontario Ministry of Natural Resources Orthophotography 2010

Disclaimer: This drawing has been prepared for the use of AECOM's client. AECOM does not warrant the accuracy, reliability, or completeness of the information for use by governmental reviewing agencies. AECOM accepts no responsibility, and disclaims any liability whatsoever, to any party for use of this drawing without AECOM's prior written consent.

Project Information:
 Goheen Amphibian Survey
 198_GSH2176
 April 2012
 Project 60155032

AECOM

Figure 1



Amphibian - Frog - Data Form

AECOM

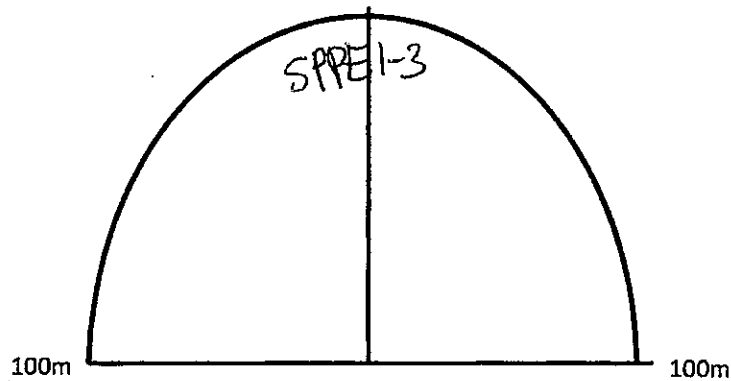
Study Area (Bluewater, Goshen, Jericho): 198_GSH2776
 Pre-determined Station #: 7 PO1 *Feature #: 198
 GPS: (NAD 83) 17T 438979 479030
 Water Present (Y/N)

Date(yyyy-mm-dd): 2012-04-19 Visit #(1-3) # 1
 Field Staff (full name): James Kamstra, Olga Hropach
 Time Started: 10:45 Time Finished: 10:50

Beaufort Wind Scale (0-6): 0 Cloud Cover (%): 100%
 Background Noise Scale (0-4): 0 Temperature Celcius: 5-9°C
 Precipitation (None, fog, drizzle, or rain) None

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE	<u>1-3</u>	
WOFR		

W ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

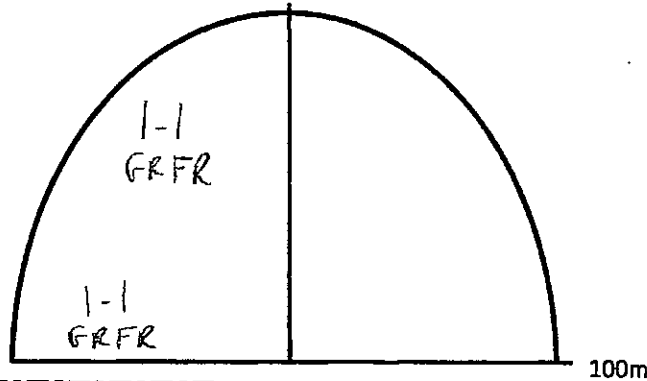
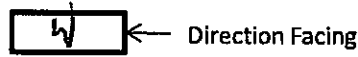
General Comments: _____

Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho): _____
 Pre-determined Station #: 148CSM2176 *Feature #: AN1003a
 GPS: (NAD 83) 17T 438989 4790479
 Water Present (Y/N) ✓
 Date(yyyy-mm-dd): 2012-05-15 Visit #(1-3) 2
 Field Staff (full name): Jessie Pickett & Tim Shannon
 Time Started: 12:29 am Time Finished: 12:32 am
 Beaufort Wind Scale (0-6): 0 Cloud Cover (%): 0
 Background Noise Scale (0-4): 0 Temperature Celcius 12°C
 Precipitation (None, fog, drizzle, or rain) None

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR	X	
NLFR		
PIFR		
SPPE		
WOFR		



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		WOFR - Wood Frog

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General Comments: _____

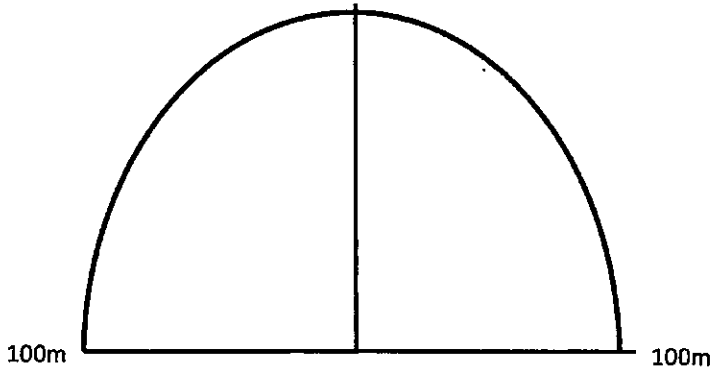
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, <u>Goshen</u> , Jericho):	
Pre-determined Station #: <u>136 GSH 2176</u>	*Feature #: <u>AWD-03b</u>
GPS: (NAD 83) <u>17T 438969 4790471</u>	
Water Present (Y/N) <u>Y</u>	
Date(yyyy-mm-dd): <u>2012-05-15</u>	Visit #(1-3) <u>2</u>
Field Staff (full name): <u>Jess Kettle + Tom Shuman</u>	
Time Started: <u>12:24 am</u>	Time Finished: <u>12:27 am</u>
Beaufort Wind Scale (0-6): <u>0</u>	Cloud Cover (%): <u>0</u>
Background Noise Scale (0-4): <u>0</u>	Temperature Celcius <u>12°C</u>
Precipitation (None, fog, drizzle, or rain) <u>None</u>	

Species	IN	OUT
NONE		X
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE		
WOFR		

W ← Direction Facing



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		WOFR - Wood Frog

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General Comments: _____

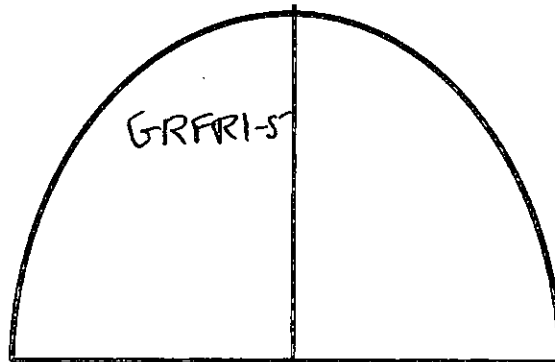
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho):	
Pre-determined Station #:	*Feature #: <u>AWO-03a</u>
GPS: (NAD 83) <u>17T</u>	
Water Present (Y/N)	
Date (yyyy-mm-dd): <u>June 19, 2012</u>	Visit #(1-3) <u>3</u>
Field Staff (full name): <u>Sam Gardner, Tom Shroy</u>	
Time Started: <u>9:15</u>	Time Finished: <u>9:18</u>
Beaufort Wind Scale (0-6): <u>0</u>	Cloud Cover (%): <u>10%</u>
Background Noise Scale (0-4): <u>0</u>	Temperature Celcius: <u>27°C</u>
Precipitation (None, fog, drizzle, or rain) <u>None</u>	

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR	✓	
NLFR		
PIFR		
SPPE		
WOFR		

W ← Direction Facing



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CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: hot

Vernal Pool/Pond Habitat Description and Feature Identification Form Pg. 1 of 2



Study Area: <u>GOSHEN</u>
Pre-determined Station #: <u>198 FSH 2176</u> *Feature #: <u>198 P01</u> AWO-3a
GPS: <u>17T 438990 4790472</u>

Date(yyyy-mm-dd): <u>April 17, 2012</u>	Field Staff (full name): <u>Jess Rette + Tam SHAWM</u>
Weather: <u>SC, cloudy - windy</u>	
Time Started: <u>9:00am</u>	Time Finished: <u>9:30am</u>

Water Present (Y/N) <u>YES</u>	Vernal Pool or Pond? <u>Pond</u>
Maximum Water Depth (m) <u>unknown</u>	Water Quality (visual) <u>murky</u>
Length(m) <u>70m</u>	Width(m) <u>30m</u>
% open water (emergent) <u>100%</u>	% floating plant cover of open water <u>0%</u>
Potential to hold water until July (Y/N) if yes then complete amphibian and salamander sheet <u>YES</u>	
Human Influences affecting area (dykes, agriculture etc.) <u>dug pond</u>	
Describe area 100m behind you (field, marsh etc) <u>Mollard field</u>	

Submergent Plants (Species & % cover **) <u>0%</u>	
1	3
2	4
Emergent Plants (Species & % cover) <u>0%</u>	
1	3
2	4
Floating Plants (Species and % cover) <u>0%</u>	
1	3
2	4
Fringing Shrubs (Species & % cover) <u>20%</u>	
1 <u>Salix exigua 100%</u>	3
2	4
Trees (Species & % cover) <u>30%</u>	
1 <u>Alder 35%</u>	3 <u>Willow 5%</u>
2 <u>Fragaria 60%</u>	4
Exposed mud/sand/rock	

Logs (size, quantity, location) none observed

Amphibians/egg masses observed (Type, quantity, location) none observed

Comments Water very murky hard to see bottom
wood duck observed

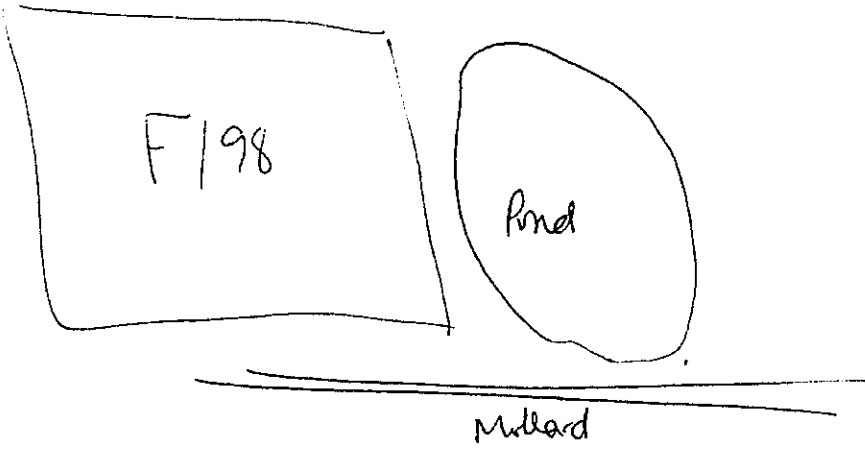
* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet

** - Of total percent cover (surface and canopy), select top 4 and estimate percent of their cover.

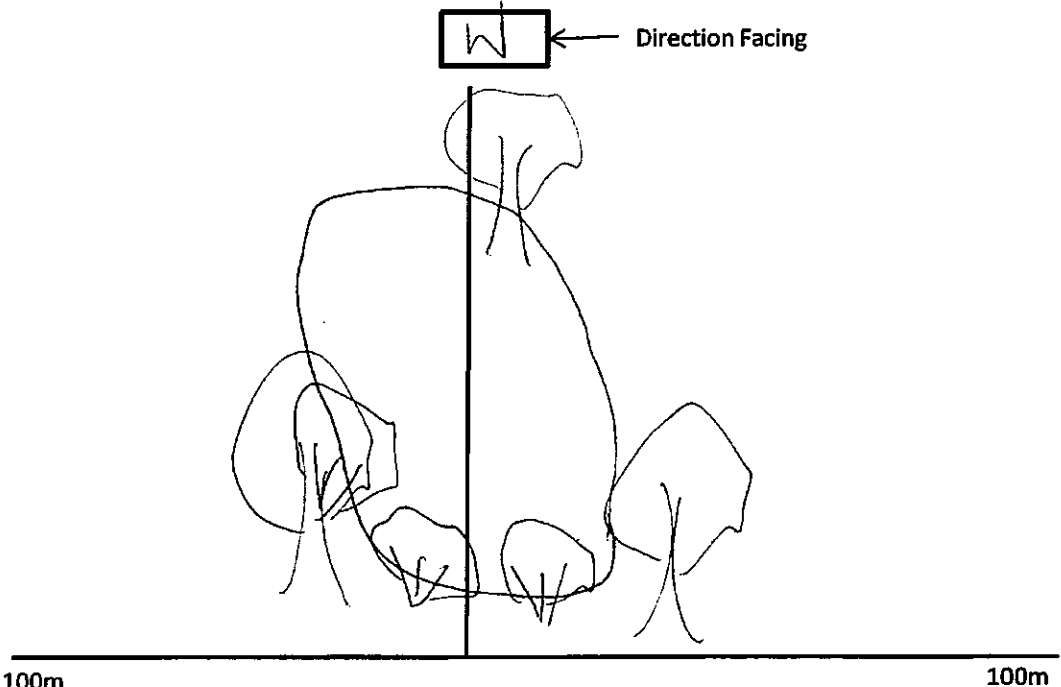
If no water present then no amphibian or salamander sheet completed

Pools created by tractor/ATV etc. ruts that are not naturalized are not considered vernal pool habitat

Map of general location - station location, road names, north arrow, entry route, house #, etc.



Map of Feature - GPS location, flow (if any), location of species (if any), vegetation, etc.



Photo#(locate on map and GPS if necessary)

pictures on map

Study Area: (Bluewater, <u>Goshen</u> / Jericho)
Pre-determined Station #: <u>198-GSH2176</u> Feature # ¹ : <u>198-P02</u> AWO-3a
GPS: <u>17T 43 8990 4790472</u>

Date (yyyy-mm-dd): <u>2012-04-17</u>
Field Staff (full name): <u>Tom Shorney Jess Piatte</u>
Weather: <u>5°C, cloudy-windy</u>
Time Started: <u>9:00</u> Time Finished: <u>9:30</u>

Water Present Y/N) <u>Yes</u> Vernal pool depth(m) <u>unknown</u>
Vernal Pool width(m) <u>30m</u> Vernal Pool length(m) <u>70m</u>

Vegetation Comments (Dominant, % cover etc) <u>30% Total</u>
<u>Salix sp. 5% FRAK 60%</u>

NO Amphibians OBSERVED No

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS)

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

Study Area: (Bluewater, Goshen, Jericho) Goshen
 Pre-determined Station #: 198 GSH2176 Feature #¹: AWO-036 (P01)
 GPS: 17T 438989 4790479

Date (yyyy-mm-dd): May 14, 2012
 Field Staff (full name): Tom Shanley + Jess Piette
 Weather: 19°C, mainly
 Time Started: 1:15 pm Time Finished: 1:45 pm

Water Present Y/N) YES Vernal pool depth(m) unknown, murky
 Vernal Pool width(m) 30m Vernal Pool length(m) 70m

Vegetation Comments (Dominant, % cover etc) 20% shrubs (Salix sp.) 30% trees (Acer, Fraxino, Salix)

NO Amphibians OBSERVED

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS
NLFR	3	1	observed	75cm	
GRFR	3	3	observed	75cm	
unknown	-	-	observed	-	seen jumping in pond

Photo #	Location/or Subject	Photo #	Location/or Subject
1	Pond looking East		

Comments (ex: egg masses to have GPS)
→ No egg masses observed only adults seen jumping in pond.

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² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

*eastern crow x3
 mourning dove x6
 gold finch
 queen darter
 mulphur*

Amphibian - Frog - Data Form

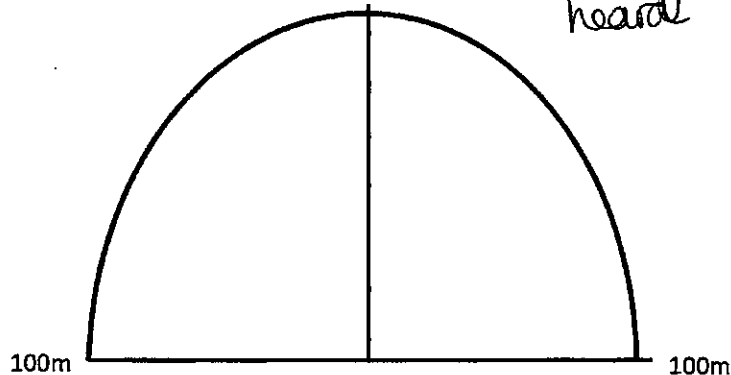
AECOM

Study Area (Bluewater, Goshen, Jericho): Goshen 225-65H1949
 Pre-determined Station #: 65H1949 IVPL *Feature #: 225 AWO-04
 GPS: (NAD 83) 17T 446816 4971785
 Water Present (N)
 Date(yyyy-mm-dd): 2012-04-19 Visit #(1-3) #1
 Field Staff (full name): Olga Hropach, James Kamstra
 Time Started: 9:15 pm Time Finished: 9:20
 Beaufort Wind Scale (0-6): 0 Cloud Cover (%): 100%
 Background Noise Scale (0-4): 1 Temperature Celcius 9°C
 Precipitation (None, fog, drizzle, or rain) None

Species	IN	OUT
NONE		<input checked="" type="checkbox"/>
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE		
WOFR		

← Direction Facing

No frogs heard



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 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind Scale	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise Scale	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
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AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments:



Study Area: <u>Gusken</u>
Pre-determined Station #: <u>225 GSH1949</u> *Feature #: <u>225 VP1</u> AWO-04
GPS: <u>17T 446807 4791913</u>

Date (yyyy-mm-dd): <u>April 17, 2012</u>	Field Staff (full name): <u>Jessica Rutter + Tom Spurney</u>
Weather: <u>3°C</u>	
Time Started: <u>3:30 pm</u>	Time Finished: <u>5:18 pm</u>

Water Present (Y/N) <u>Y</u>	Vernal Pool or Pond? <u>Pool</u>
Maximum Water Depth (m) <u>15-25cm</u>	Water Quality (visual) <u>Clear</u>
Length (m) <u>50-70m</u>	Width (m) <u>5-10m</u>
% open water (emergent) <u>80%</u>	% floating plant cover of open water <u>0%</u>
Potential to hold water until July (Y/N) <u>Y</u> <small>If yes then complete amphibian and salamander sheet</small>	
Human Influences affecting area (dykes, agriculture etc.) <u>Wetland Management</u>	
Describe area 100m behind you (field, marsh etc) <u>SWQ, FWD</u>	

Submergent Plants (Species & % cover **) <u>0%</u>	
1	3
2	4
Emergent Plants (Species & % cover) <u>5%</u>	
1 <u>Carex sp.</u>	3
2 <u>R. Prostratis Arva</u>	4
Floating Plants (Species and % cover) <u>0%</u>	
1	3
2	4
Fringing Shrubs (Species & % cover) <u>1%</u>	
1 <u>Imm carpinus caroliniana</u>	3
2 <u>Red Osier</u>	4
Trees (Species & % cover) <u>20%</u>	
1 <u>Fraxinus penn</u>	3
2 <u>Ulmus</u>	4
Exposed mud/sand/rock	

Logs (size, quantity, location) 5cm - 25cm

Amphibians/egg masses observed (Type, quantity, location) None seen

Comments Wet. fairly open within canopy gap

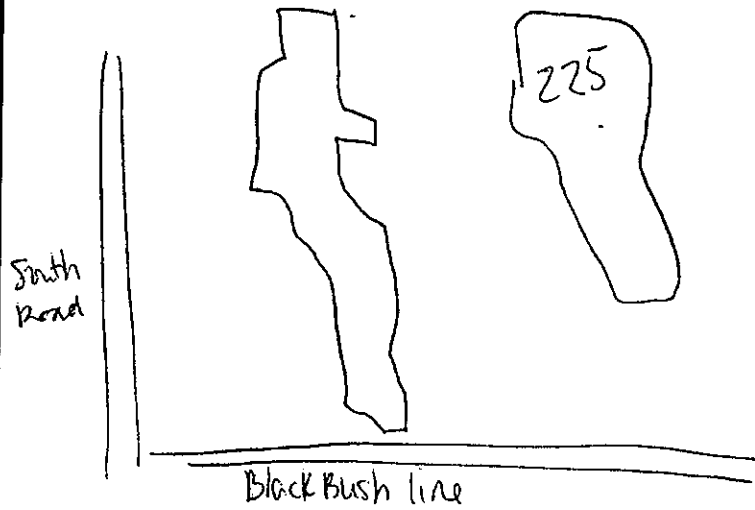
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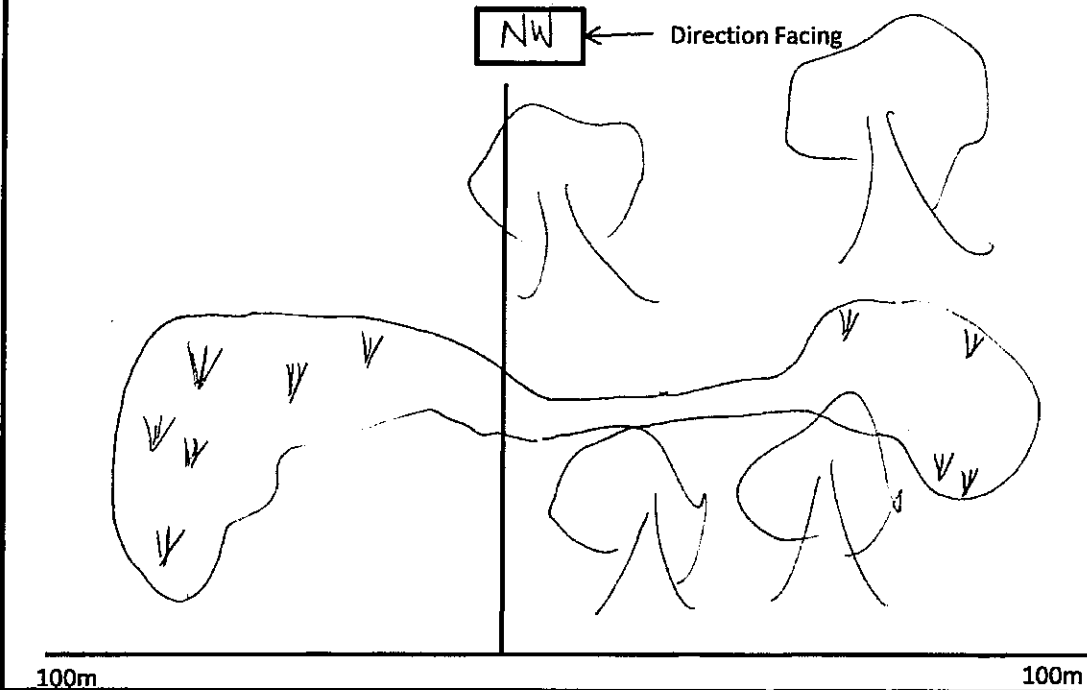
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Map of general location - station location, road names, north arrow, entry route, house #, etc.



Map of Feature - GPS location, flow (if any), location of species (if any), vegetation, etc.



Photo#(locate on map and GPS if necessary)

Amphibian - Salamander - Data Form



Study Area:(Bluewater, Goshen, Jericho) <i>Goshen</i>
Pre-determined Station #: <i>225 GSH 1949</i> Feature # ¹ : <i>225 VPI</i> AWO-04
GPS: <i>17T</i>

Date(yyyy-mm-dd): <i>April 17, 2012</i>
Field Staff (full name): <i>Jessica Keltz + Tim Stiney</i>
Weather: <i>3°C</i>
Time Started: <i>3:30 pm</i> Time Finished: <i>5:18 pm</i>

Water Present Y/N) <i>Y</i> Vernal pool depth(m) <i>15-25cm</i>
Vernal Pool width(m) <i>5-10m</i> Vernal Pool length(m) <i>50-70m</i>

Vegetation Comments (Dominant, % cover etc) *reed canopy grass without pool*

NO Amphibians OBSERVED

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS)

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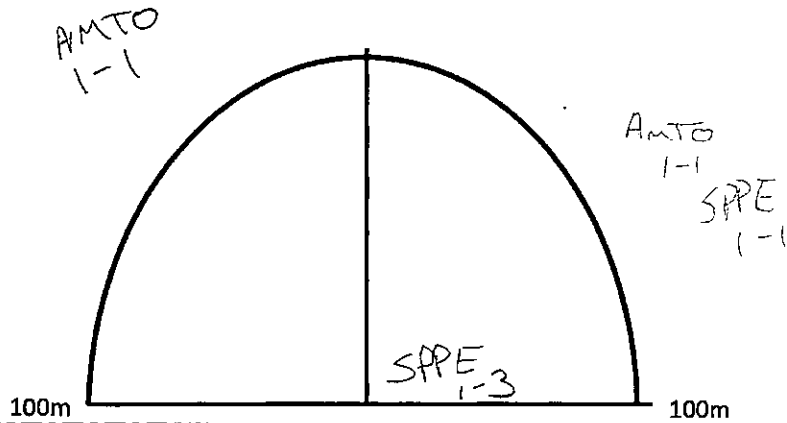
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen Jericho):		
Pre-determined Station #: 235-6SH2061	*Feature #: 235-VP2	AWO-06
GPS: (NAD 83) 17T 454635 4792710		
Water Present (Y/N) Yes		
Date(yyyy-mm-dd): 2012-04-19	Visit #(1-3) 1	
Field Staff (full name): Tom Storey		Jess Piette
Time Started: 10:40	Time Finished: 11:34	
Beaufort Wind Scale (0-6): 3	Cloud Cover (%): 90%	
Background Noise Scale (0-4): 1	Temperature Celcius: 10°	
Precipitation (None, fog, drizzle, or rain)		

Species	IN	OUT
NONE		
AMTO		X
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE	X	X
WOFR		

E ← Direction Facing



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CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____

Amphibian - Frog - Data Form

AECOM

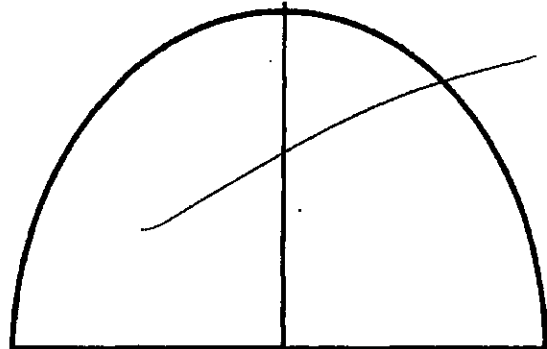
Study Area (Bluewater, Goshen, Jericho):
 Pre-determined Station #: 235-GSH2061 *Feature #: AW0-06
 GPS: (NAD 83) 17T 454635 4792710
 Water Present (Y/N) N/A

Date(yyyy-mm-dd): 2012-05-23 Visit #(1-3) 2
 Field Staff (full name): Tom Conway Jess Piette
 Time Started: 20:58 / 1 Time Finished: 21:01

Beaufort Wind Scale (0-6): 3 Cloud Cover (%): 10%
 Background Noise Scale (0-4): 2 Temperature Celcius 15°C
 Precipitation (None, fog, drizzle, or rain) None

Species	IN	OUT
NONE		X
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE		
WOFR		

E ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____

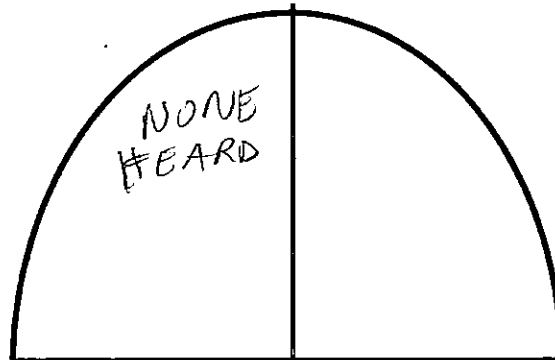
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen) Jericho):	
Pre-determined Station #: 235 GSH 2061	*Feature #: AWO-06
GPS: (NAD 83) 17T 484635, 4792710	
Water Present (Y/N) ?	
Date(yyyy-mm-dd): 2012 June 21	Visit #(1-3) 3
Field Staff (full name): Bridget Shorley	
Time Started: 10:50 pm	Time Finished: 10:33 pm
Beaufort Wind Scale (0-6): 0	Cloud Cover (%): 95%
Background Noise Scale (0-4): 0	Temperature Celcius: 18°C
Precipitation (None, fog, drizzle, or rain) NONE	

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE		
WOFR		

8 ← Direction Facing



- Code 1 - not simultaneous, number of individuals can be accurately counted
- Code 2 - some call simultaneous, but number of individuals can be reliably estimated
- Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
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Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____

Study Area: GDSHEN
 Pre-determined Station #: 235GSH2061 *Feature #: 235 VPI AWO-06
 GPS: 17T 454635 4792710

Date(yyyy-mm-dd): April 19, 2012 Field Staff (full name): Jess Piello + Tom Stracey
 Weather: 11°C
 Time Started: 2:39 Time Finished: 4:10pm

Water Present (Y/N) YES Vernal Pool or Pond? vernal pool
 Maximum Water Depth (m) 25-30cm Water Quality (visual) clear, leaf litter
 Length(m) 50m Width(m) 12m - 20m
 % open water (emergent) 70-80% % floating plant cover of open water 2%
 Potential to hold water until July (Y/N) Y if yes then complete amphibian and salamander sheet
 Human Influences affecting area (dykes, agriculture etc.) agricultural field actively managed
 Describe area 100m behind you (field, marsh etc) agricultural field

Submergent Plants (Species & % cover **) <u>5%</u>	
1 <u>lotus lotus</u>	3
2	4
Emergent Plants (Species & % cover) <u>70-80%</u>	
1 <u>Carex sp. 80%</u>	3 <u>ILIS sp. 5%</u>
2 <u>plantain 10%</u>	4
Floating Plants (Species and % cover) <u>0%</u>	
1	3
2	4
Fringing Shrubs (Species & % cover) <u>2%</u>	
1 <u>1mm Freeman's</u>	3
2	4
Trees (Species & % cover) <u>40%</u>	
1 <u>Freeman's maple</u>	3
2	4
Exposed mud/sand/rock <u>2% around edges</u>	

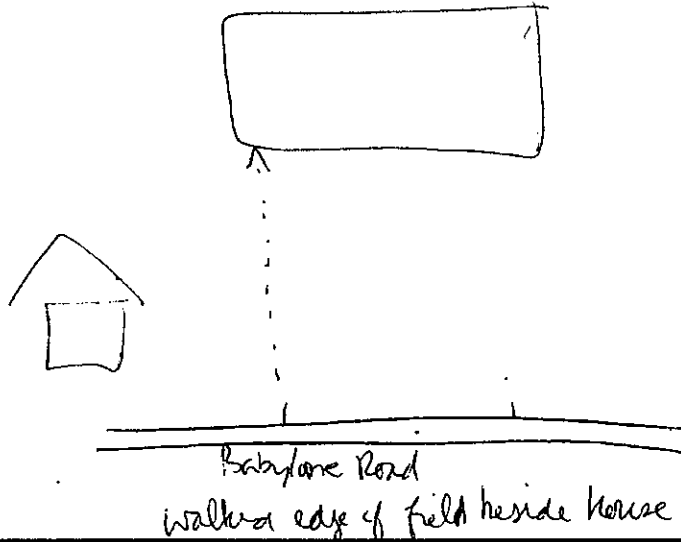
Logs (size, quantity, location) fallen logs have been put into piles

Amphibians/egg masses observed (Type, quantity, location) 2 water frogs; heard green + chorus
see amphibian sheet

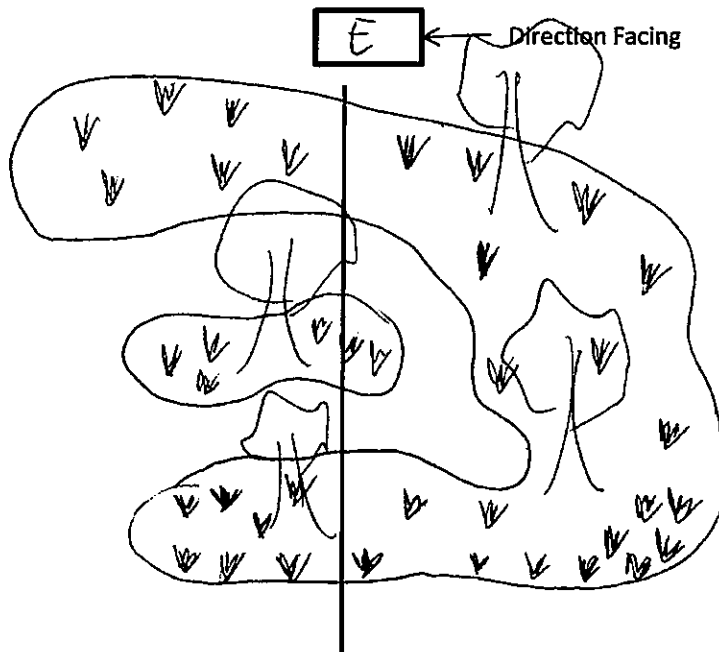
Comments

* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet
 **-Of total percent cover (surface and canopy), select top 4 and estimate percent of their cover.
 If no water present then no amphibian or salamander sheet completed
 Pools created by tractor/ATV etc. ruts that are not naturalized are not considered vernal pool habitat

Map of general location - station location, road names, north arrow, entry route, house #, etc.



Map of Feature - GPS location, flow (if any), location of species (if any), vegetation, etc.



100m

100m

Photo#(locate on map and GPS if necessary)

photo on map

Study Area:(Bluewater, Goshen, Jericho)
 Pre-determined Station #: 235-GSH2061 Feature #¹: 235-VP2 AWO-06
 GPS: 17T454635 4792710

Date(yyyy-mm-dd): 2012-04-19
 Field Staff (full name): Tom Sharpy Jess piotter
 Weather: Sunny, 10°C, 18km/h
 Time Started: 2:45 Time Finished: 4:10PM

Water Present Y/N) Yes Vernal pool depth(m) 25-30cm
 Vernal Pool width(m) 17-20m Vernal Pool length(m) 50m

Vegetation Comments (Dominant, % cover etc) Carex sp 80%, Plantain

NO Amphibians OBSERVED:

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS
Wood Frog	Adult	2	observed	5-7cm	inland from water
Green Frog	Adult	1	Vocalization	5-7cm	calling
Western Toad	Adult	1	Vocalization	5cm	calling

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS)
- great breeding amphibians habitat - good cover

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

Amphibian - Salamander - Data Form

Dip net



Study Area: (Bluewater, Goshen, Jericho) 235-6542061
 Pre-determined Station #: 71 Feature #¹: 235VP1 AWO-06
 GPS: 17T 454635, 4792710.

Date(yyyy-mm-dd): 2012 - may 17
 Field Staff (full name): Gibbler, Aitken.
 Weather: 70C, 0% clouds, no wind.
 Time Started: 8:45am Time Finished: 9:45am.

Water Present Y/N _____ Vernal pool depth(m) \$ 15cm
 Vernal Pool width(m) 20-30. Vernal Pool length(m) 50m

Vegetation Comments (Dominant, % cover etc) Acer Freemanii

NO Amphibians OBSERVED n

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS)

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

Amphibian - Frog - Data Form

AECOM

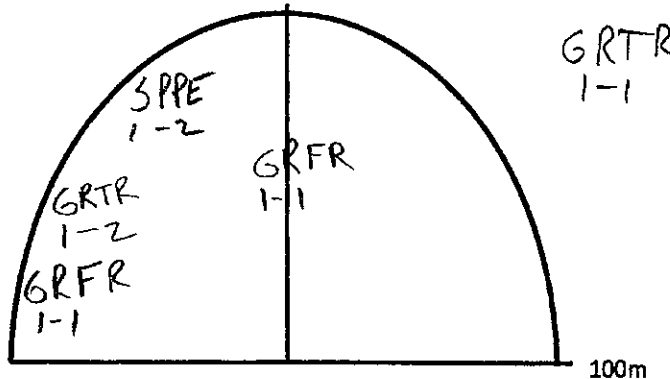
Study Area (Bluewater, Goshen, Jericho): _____
 Pre-determined Station #: 236-GSH/508 *Feature #: AWO-07/08
 GPS: (NAD 83) 17T 496240 492462
 Water Present (Y/N) YES

Date (yyyy-mm-dd): 2012-05-14 Visit #(1-3) 2
 Field Staff (full name): Tom Shoney Jess Piette
 Time Started: 9:42 AM Time Finished: 9:45 AM

Beaufort Wind Scale (0-6): 0 Cloud Cover (%): 10
 Background Noise Scale (0-4): 0 Temperature Celcius 19°C
 Precipitation (None, fog, drizzle, or rain) None

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR	X	X
GRFR	X	
NLFR		
PIFR		
SPPE	X	
WOFR		

E ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____

Study Area: (Bluewater, Goshen, Jericho) Cushen
 Pre-determined Station #: 276 GSH1507/1508 Feature #¹: AWO 07/08
 GPS: 17T 44624N 479246E

Date (yyyy-mm-dd): 2012-05-15
 Field Staff (full name): Jess Protti + Tom Swinnen
 Weather: 20°C, sunny
 Time Started: 12:10 pm Time Finished: 12:45 pm

Water Present Y/N: YES Vernal pool depth(m): 30-40cm (pool)
 Vernal Pool width(m): 20-30m (pool) 16m (pond) Vernal Pool length(m): 50-60m (pool)

17m (pond)
17m (pond)

Vegetation Comments (Dominant, % cover etc) Acefree / Pampas (pool)
grasses / brush / sedges / mudflat (pond)

NO Amphibians OBSERVED

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS
-RFR	Tadpole	15	Dipnet	50mm	
GRFR	adult	1	heard	—	calling within pond
NLFR	adults	25	observed	10cm-15cm	
GRFR	Tadpoles	250	observed		
NLFR	adult	1	observed	10cm	
GRFR	adult	1	observed		
GRFR	adult	1	observed	10cm	pool

all within pond

Photo #	Location/or Subject	Photo #	Location/or Subject
20	Tadpole		

Comments (ex: egg masses to have GPS) - lots of tadpoles within pond as well as adults along edges

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

- Bluegill sp.
- yellow perch

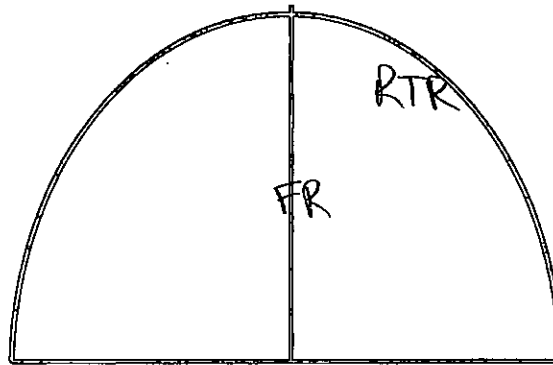
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho):	
Pre-determined Station #: 236	*Feature #: Awo+07
GPS: (NAD 83) 17T 446240	4792462
Water Present (Y/N)	
Date(yyyy-mm-dd): 2012-06-20	Visit #(1-3) 3
Field Staff (full name): Tom Shoray Sam Gilder	
Time Started: 9:30 P.m.	Time Finished: 9:33 P.m.
Beaufort Wind Scale (0-6): 0	Cloud Cover (%): 0
Background Noise Scale (0-4): 0	Temperature Celcius 2 °C
Precipitation (None, fog, drizzle, or rain) None	

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR	X	
GRFR	X	
NLFR		
PIFR		
SPPE		
WOFR		

E ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
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 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
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AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickeral Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: Water / muddy

Amphibian - Frog - Data Form

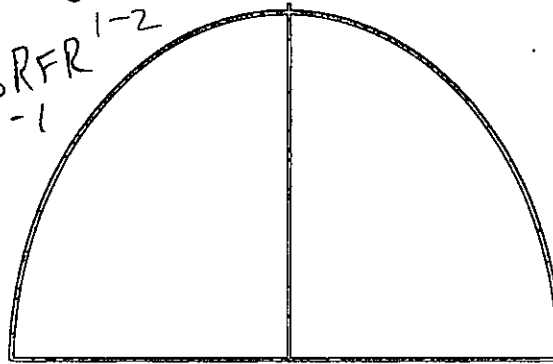
AECOM

Study Area (Bluewater, <u>Goshey, Jericho</u>):	
Pre-determined Station #: <u>236</u>	*Feature #: <u>AWO-08</u>
GPS: (NAD 83) <u>17T 446240 479246Z</u>	
Water Present (Y/N)	
Date(yyyy-mm-dd): <u>2012-06-20</u>	Visit #(1-3) <u>3</u>
Field Staff (full name): <u>Tom Shores, Sam Gidner</u>	
Time Started: <u>9:35 P.m.</u>	Time Finished: <u>9:38 P.m.</u>
Beaufort Wind Scale (0-6): <u>0</u>	Cloud Cover (%): <u>0</u>
Background Noise Scale (0-4): <u>0</u>	Temperature Celcius <u>28°C</u>
Precipitation (None, fog, drizzle, or rain) <u>None</u>	

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		X
GRFR		X
NLFR		
PIFR		
SPPE		
WOFR		

E ← Direction Facing

GRTR
GRFR 1-2
1-1



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 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
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Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
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CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: Had 1 mugga

Amphibian - Frog - Data Form

AECOM

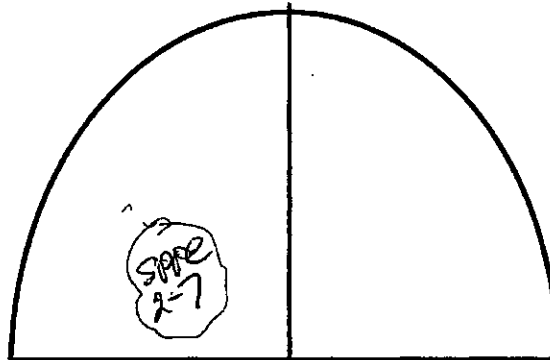
Study Area (Bluewater, Goshen, Jericho): 236 GSM 150471508
 Pre-determined Station #: 2 VPI/NP2 *Feature #: 236 AWO-08 & AWO-09
 GPS: (NAD 83) 17T 0946233 47152459
 Water Present (Y/N)

Date(yyyy-mm-dd): 2012-04-19 Visit #(1-3) 1
 Field Staff (full name): Ogla Hopach, James Kamstra
 Time Started: 9:50 Time Finished: 9:55

Beaufort Wind Scale (0-6): 0 Cloud Cover (%): 100%
 Background Noise Scale (0-4): 0 Temperature Celcius 9°C
 Precipitation (None, fog, drizzle, or rain) None

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE	<u>2-7</u>	
WOFR		

E ← Direction Facing



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Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
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CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

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General Comments: _____

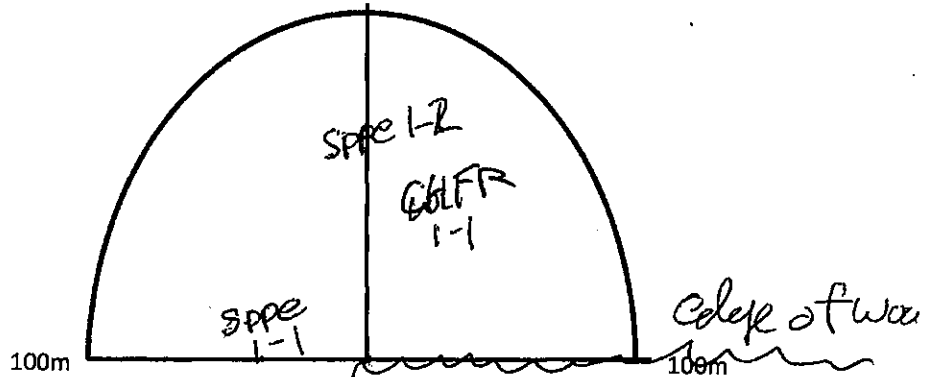
Amphibian - Frog - Data Form

AZCOM

Study Area (Bluewater, Goshen, Jericho): 236-GSH1507/GSH1508
 Pre-determined Station #: ~~5~~ 1 VP3 *Feature #: 236AWO-08 & AWO-09
 GPS: (NAD 83) 17T 0446374 4792253
 Water Present (Y/N)
 Date(yyyy-mm-dd): 2012-04-19 Visit #(1-3) #1
 Field Staff (full name): James Kamsha, Olga Hropach
 Time Started: 9:35 Time Finished: 9:40
 Beaufort Wind Scale (0-6): 0 Cloud Cover (%): 100%
 Background Noise Scale (0-4): 0 Temperature Celcius 9°C
 Precipitation (None, fog, drizzle, or rain) None

Species	IN	OUT
NONE		
AMTO		1-1
BULL		
CHFR	1-1	
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE	1-3	
WOFR		

5 ← Direction Facing



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CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments:

Amphibian - Frog - Data Form

AECOM

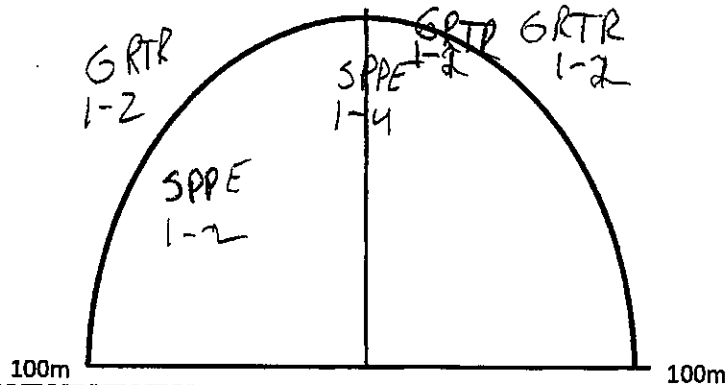
Study Area (Bluewater, ~~Goshen~~, Jericho):
 Pre-determined Station #: 236-65H1508 *Feature #: AWO-09
 GPS: (NAD 83) 17T 446 374 4D922 83
 Water Present (Y/N) Yes

Date(yyyy-mm-dd): 2012-05-14 Visit #(1-3) 2
 Field Staff (full name): Tom Sharney Jess Pietre
 Time Started: 9:50 AM Time Finished: 9:53 PM

Beaufort Wind Scale (0-6): 0 Cloud Cover (%): 10
 Background Noise Scale (0-4): 0 Temperature Celcius 19°C
 Precipitation (None, fog, drizzle, or rain) None

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR	X	X
GRFR		
NLFR		
PIFR		
SPPE	X	X
WOFR		

E ← Direction Facing



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Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
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CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments:

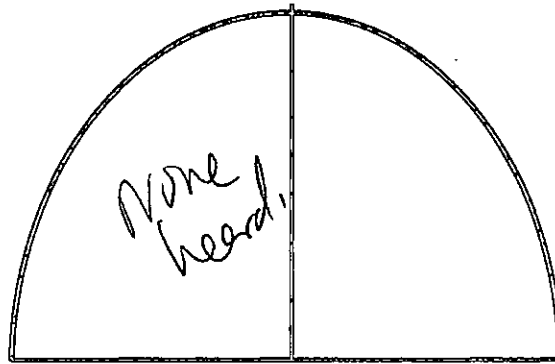
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho):	
Pre-determined Station #:	*Feature #: VP3, AW0-09
GPS: (NAD 83) 17T 446374, 4792283	
Water Present (Y/N)	
Date(yyyy-mm-dd): 2012-06-20	Visit #(1-3) 3
Field Staff (full name): Sam Gildner, Tom Stoney	
Time Started: 9:40 P.m.	Time Finished: 9:43 P.m.
Beaufort Wind Scale (0-6): 0	Cloud Cover (%): 0
Background Noise Scale (0-4): 0	Temperature Celcius: 28°C
Precipitation (None, fog, drizzle, or rain) None	

SPECIES	IN	OUT
NONE	X	X
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE		
WOFR		

E ← Direction Facing



100m

100m

Code 1 - not simultaneous, number of individuals can be accurately counted

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Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickeral Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: Hot

Amphibian - Salamander - Data Form



Study Area: (Bluewater, Goshen, Jericho) FOXDEN
 Pre-determined Station #: 236 GSH15/18 Feature #¹: AWO-09
 GPS: 17T 446374 474 2283

Date (yyyy-mm-dd): 2012-05-15
 Field Staff (full name): Jess Alette + Tom Shureny
 Weather: 20°C
 Time Started: 1:00pm Time Finished: 1:35pm

Water Present Y/N YES Vernal pool depth(m) 20-30cm
 Vernal Pool width(m) ~ 75m Vernal Pool length(m) ~ 200m

Vegetation Comments (Dominant, % cover etc) g. roseo / Ace Ace / T. sp. sp.

NO Amphibians OBSERVED

Amphibian Species	Life Stage	Number	Search Type	Size	Comments/GPS
unknown	adult	1	observation	N/A	
WOFR	Tadpole	x 13	Dipnet	~20mm	
WOFR	adult	1	observed	7cm	

Photo #	Location/or Subject	Photo #	Location/or Subject
23-24	Tadpole		
25	Crayfish		

Comments (ex: egg masses to have GPS) - Crayfish observed

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

- Cobling white

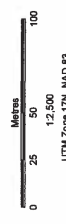


- Legend**
- GE Turbine
 - Turbine Buffer (216 m)
 - Property Boundary
 - ELC Completed 2011
 - Natural Feature and ID
 - ELC Polygon Boundary
 - Disturbance Areas
 - Area of Disturbance, plus 10m
 - ANSI
 - Evaluated Wetlands - PSW
 - ABCA Watercourse

COPY



Basemapping from Ontario Ministry of Natural Resources
 Orthophotography, 2010



UTM Zone 17N, MAD 83

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Gothen Amphibian Survey

249_GSH1745/GSH1746

April 2012
 Project 60155032

AECOM

Figure 1

- Legend**
- GE Turbine
 - Turbine Buffer (216 m)
 - Property Boundary
 - ELC Completed 2011
 - Natural Feature and ID
 - ELC Polygon Boundary
 - Disturbance Areas
 - Area of Disturbance, plus 10m
 - ANSI
 - Evaluated Wetlands - PSW
 - ABCA Watercourse

COPY



Blaschop from Centre Ministry of Natural Resources
Orthophotography 2010



0 25 50 100
Metres

UTM Zone 17N, MAD 83

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Goshen Amphibian Survey

249_GSH1745/GSH1746

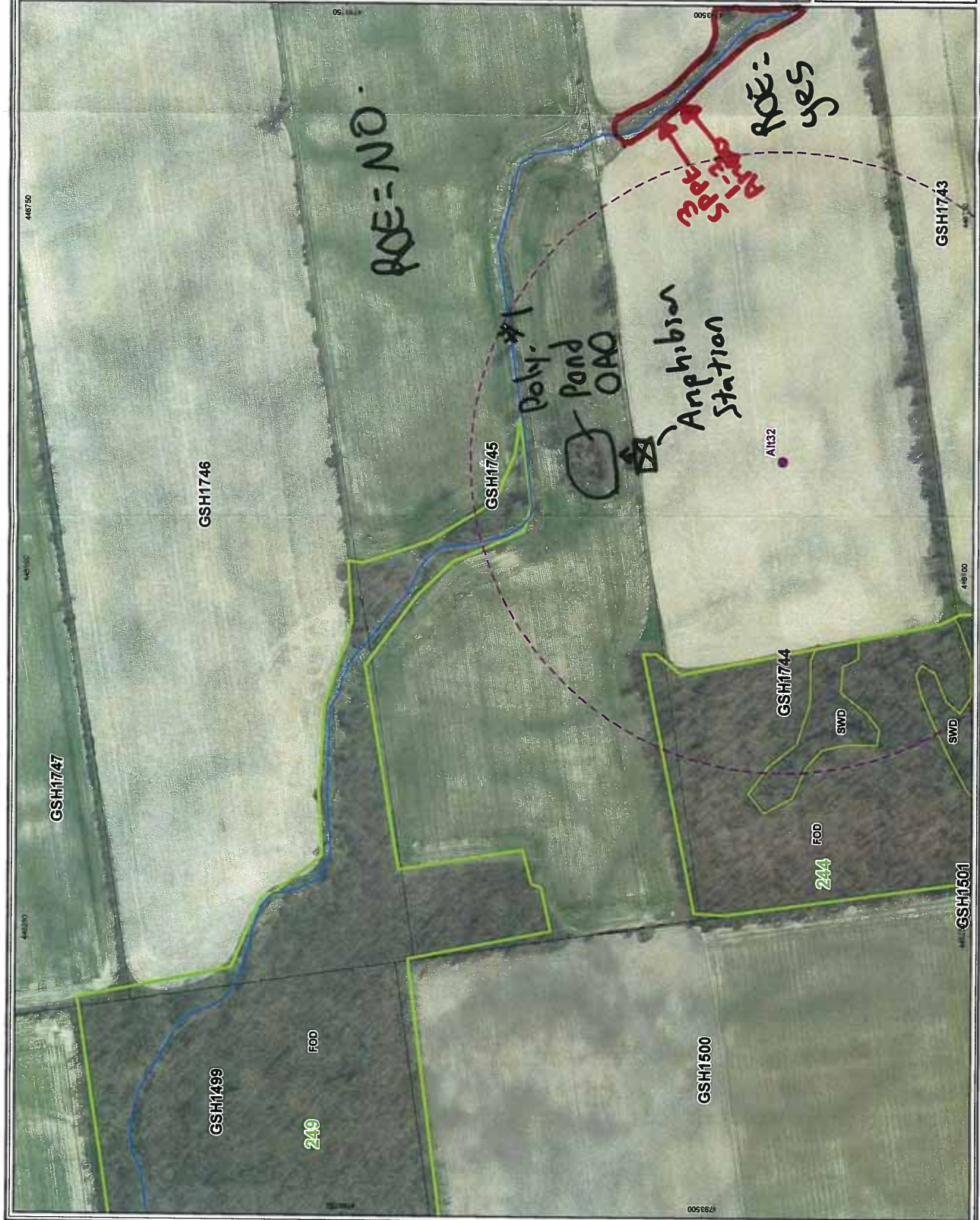
AWO-14

April 2012

Project 60155032

AECOM

Figure 1



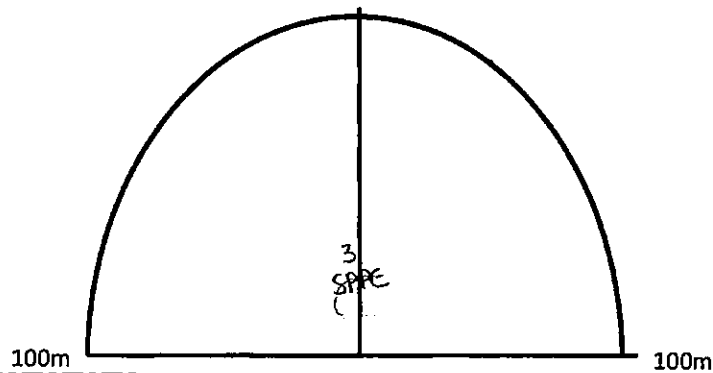
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, <u>Goshen</u> , Jericho):	
Pre-determined Station #: <u>249-6541745/1746</u>	*Feature #: <u>VPI</u> AWO-14
GPS: (NAD 83) <u>17T See Map</u>	
Water Present (Y/N) <u>Y</u>	
Date(yyyy-mm-dd): <u>2012-05-01</u>	Visit #(1-3) <u>1</u>
Field Staff (full name): <u>R. Aitken, T. Shorrey</u>	
Time Started: <u>10:58 am</u>	Time Finished: <u>11:01 am</u>
Beaufort Wind Scale (0-6): <u>2</u>	Cloud Cover (%): <u>100 (thin clouds)</u>
Background Noise Scale (0-4): <u>0</u>	Temperature Celcius <u>~70C</u>
Precipitation (None, fog, drizzle, or rain) <u>None</u>	

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE	X	X
WOFR		

N ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

3
SPPE

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

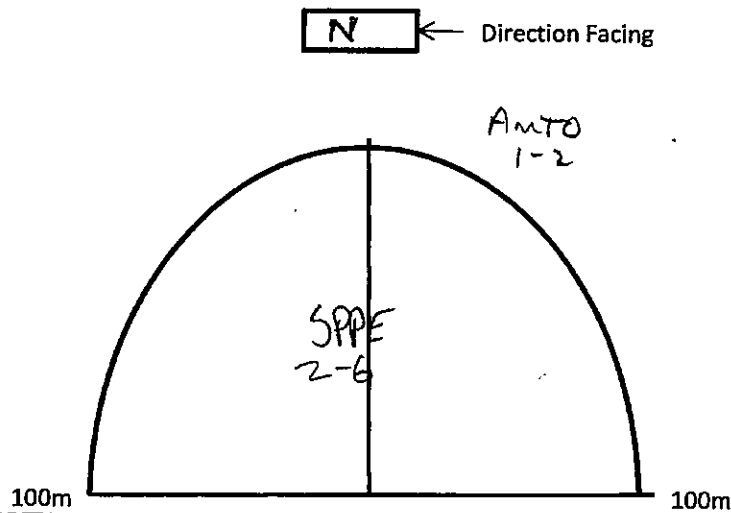
General Comments: _____

Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, <u>Goshen</u> , Jericho):	
Pre-determined Station #: <u>249 GSH 1745/1746</u>	*Feature #: <u>AWD-14</u>
GPS: (NAD 83) <u>17T 446610 4793549</u>	
Water Present (Y/N) <u>YES</u>	
Date(yyyy-mm-dd): <u>2012-05-15</u>	Visit #(1-3) <u>2</u>
Field Staff (full name): <u>Jess Pette + Tom Shornely</u>	
Time Started: <u>9:09 AM</u>	Time Finished: <u>9:12 AM</u>
Beaufort Wind Scale (0-6): <u>4</u>	Cloud Cover (%): <u>60</u>
Background Noise Scale (0-4): <u>2</u>	Temperature Celcius <u>23°C</u>
Precipitation (None, fog, drizzle, or rain) <u>None</u>	

Species	IN	OUT
NONE		
AMTO		X
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE	X	
WOFR		



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
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CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____

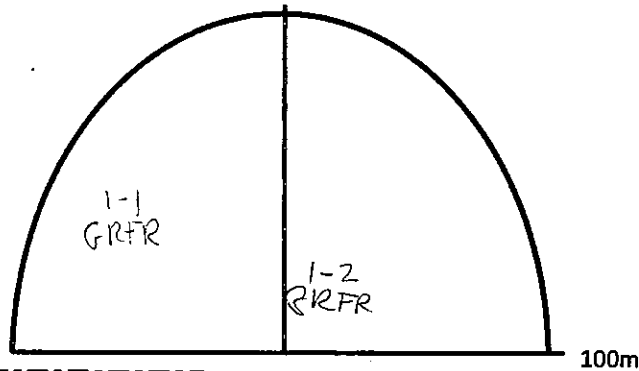
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho): <u>GOSHEN</u>	
Pre-determined Station #: <u>249 GSH 1745/1746</u>	*Feature #: <u>AINO-14</u>
GPS: (NAD 83) <u>177446670 4793549</u>	
Water Present (Y/N) <u>YES</u>	
Date(yyyy-mm-dd): <u>June 21, 2012</u>	Visit #(1-3) <u>3</u>
Field Staff (full name): <u>Jen Diotto + Dave Kiolcka</u>	
Time Started: <u>9:50 am</u>	Time Finished: <u>9:53 pm</u>
Beaufort Wind Scale (0-6): <u>0</u>	Cloud Cover (%): <u>70%</u>
Background Noise Scale (0-4): <u>0</u>	Temperature Celcius <u>18°C</u>
Precipitation (None, fog, drizzle, or rain) <u>none</u>	

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR	X	
NLFR		
PIFR		
SPPE		
WOFR		

N ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
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	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
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CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____

ASA

Vernal Pool/Pond Habitat Description and Feature Identification Form Pg. 1 of 2



Study Area: <u>244 GSH 1745</u>	Pre-determined Station #:	*Feature #: <u>Vp1</u>	AWO-14
GPS: <u>17T</u>			

Date(yyyy-mm-dd): <u>2012, April 27</u>	Field Staff (full name): <u>Sam Richter/Pete Aitken</u>
Weather: <u>50% cloud cover, 3°C, Windy</u>	
Time Started: <u>2:00 am</u>	Time Finished: <u>10:20 am</u>

Water Present (Y/N) <u>Y</u>	Vernal Pool or Pond? <u>pond</u>
Maximum Water Depth (m) <u>?</u>	Water Quality (visual) <u>?</u>
Length(m) <u>30'</u>	Width(m) <u>15'</u>
% open water (emergent) <u>?</u>	% floating plant cover of open water <u>?</u>
Potential to hold water until July <input checked="" type="checkbox"/> (Y/N) if yes then complete amphibian and salamander sheet	
Human influences affecting area (dykes, agriculture etc.) <u>dug pond, agricultural wheat field</u>	
Describe area 100m behind you (field, marsh etc) <u>agriculture - fallow and wheat</u>	

Submergent Plants (Species & % cover **)	
1	3
2	4
Emergent Plants (Species & % cover)	
1	3
2	4
Floating Plants (Species and % cover)	
1	3
2	4
Fringing Shrubs (Species & % cover)	
1 <u>pruving (5%)</u>	3
2	4
Trees (Species & % cover) <u>fringing tree species</u>	
1 <u>Salix x rubens (15%)</u>	3
2 <u>Fraxinus (15%)</u>	4
Exposed mud/sand/rock <u>None</u>	

Logs (size, quantity, location) ?

Amphibians/egg masses observed (Type, quantity, location) ?

Comments could barely see water from end shrub/ground species from fence line survey.

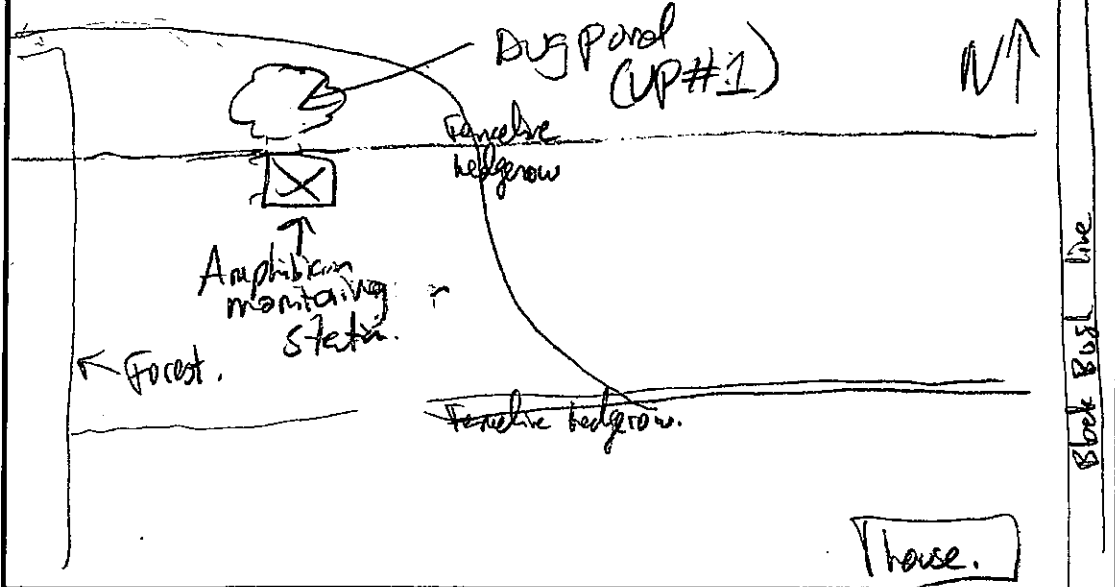
* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet

** - Of total percent cover (surface and canopy), select top 4 and estimate percent of their cover.

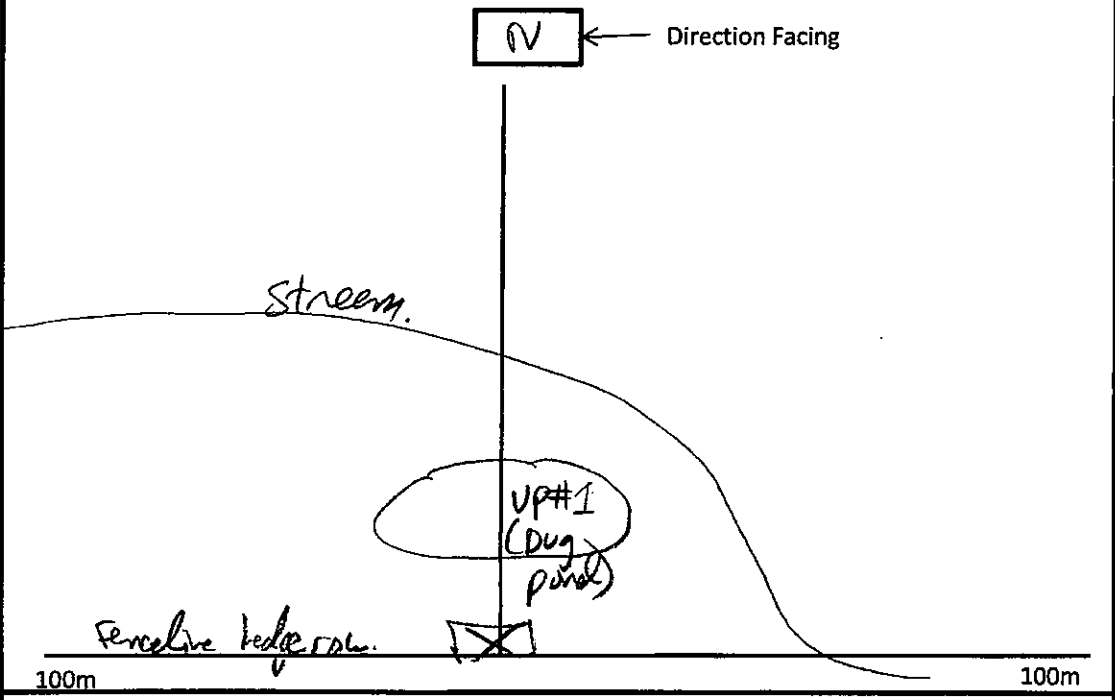
If no water present then no amphibian or salamander sheet completed

Pools created by tractor/ATV etc. ruts that are not naturalized are not considered vernal pool habitat

Map of general location - station location, road names, north arrow, entry route, house #, etc.



Map of Feature - GPS location, flow (if any), location of species (if any), vegetation, etc.



Photo#(locate on map and GPS if necessary)

~~ASA~~ ASA ~~ASA~~
Pg. 1 of 2

Amphibian - Salamander - Data Form

AECOM

Study Area: (Bluewater, Goshen, Jericho) Goshen
 Pre-determined Station #: 249ESH1745/1746 Feature # ¹: AW014
 GPS: 17T 446610 4793549

Date (yyyy-mm-dd): 2012-05-16
 Field Staff (full name): Jess Piette + Tom Sharkey
 Weather: 7°C, Windy
 Time Started: _____ Time Finished: _____

Water Present Y/N _____ Vernal pool depth(m) _____
 Vernal Pool width(m) _____ Vernal Pool length(m) _____

Vegetation Comments (Dominant, % cover etc)

NO Amphibians OBSERVED NO ACCESS.

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS) Down survey could not be completed due to no access

-This was ASA

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

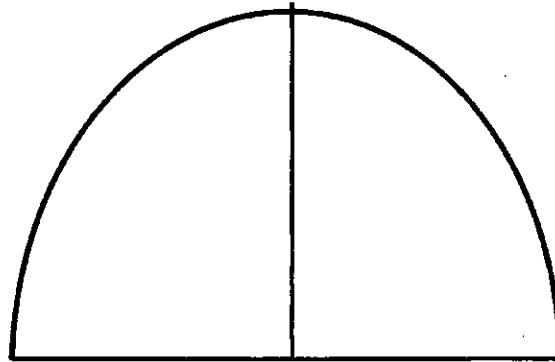
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho): <u>Goshen</u>	
Pre-determined Station #: <u>2586541658/1659</u>	*Feature #: <u>258VP1/VP2/VP3</u>
GPS: (NAD 83) <u>17T 444225 4794062</u>	<u>AWO-17</u>
Water Present (Y/N) <u>Yes</u>	
Date(yyyy-mm-dd): <u>April 25, 2012</u>	Visit #(1-3) <u>1</u>
Field Staff (full name): <u>Jon Pietro + Tom Shroy</u>	
Time Started: <u>10:30</u>	Time Finished: <u>10:33</u>
Beaufort Wind Scale (0-6): <u>2</u>	Cloud Cover (%): <u>20%</u>
Background Noise Scale (0-4): <u>2</u>	Temperature Celcius <u>8°C</u>
Precipitation (None, fog, drizzle, or rain) <u>None</u>	

Species	IN	OUT
NONE	X	
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE		
WOFR		

W ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind 0: 0-2 km/hr - calm Scale 1: 3-5 km/hr - light air movement 2: 6-11 km/hr - slight breeze - can feel on face 3: 12-19 km/hr - gentle breeze - leaves move on twigs	4: 20-30 km/hr - moderate breeze - small branch moves 5: 31-38 km/hr - fresh breeze - moderate branch moves 6: 39-49 km/hr - strong breeze - large branch moves
--	---

Background Noise 0 - no appreciable effect Scale 1 - slight - distant traffic (1 car) 2 - moderate - distant traffic (2-5 cars)	3 - serious - continuous traffic nearby (6-10 cars) 4 - profound - continuous traffic passing
--	--

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____

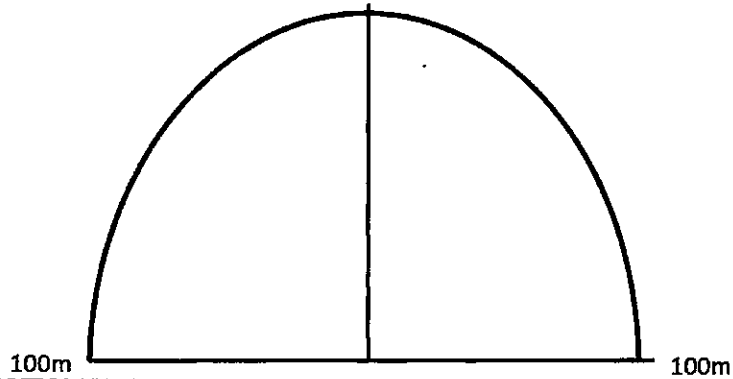
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho): <u>GOSHEN</u>		
Pre-determined Station #: <u>258CSH1654/1659</u>	*Feature #: <u>AWD16</u>	<u>AWO-17</u>
GPS: (NAD 83) <u>17T 444225</u> <u>479406Z</u>		
Water Present (Y/N) <u>YES</u>		
Date(yyyy-mm-dd): <u>2012-05-15</u>		Visit #(1-3) <u>2</u>
Field Staff (full name): <u>Jess Pitte + Tom Sharkey</u>		
Time Started: <u>8:44 AM</u>		Time Finished: <u>8:47 PM</u>
Beaufort Wind Scale (0-6): <u>3</u>	Cloud Cover (%): <u>40</u>	
Background Noise Scale (0-4): <u>1</u>	Temperature Celcius <u>23°C</u>	
Precipitation (None, fog, drizzle, or rain) <u>none</u>		

Species	IN	OUT
NONE		X
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE		
WOFR		

W ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind Scale	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise Scale	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____

Amphibian - Frog - Data Form

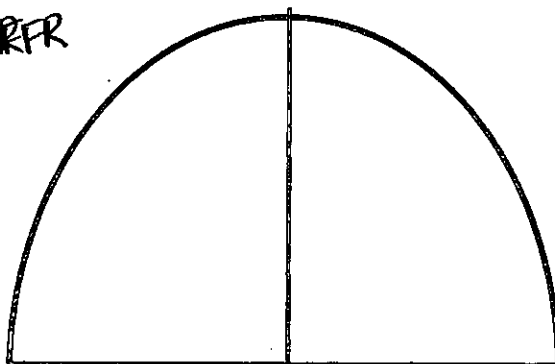
AECOM

Study Area (Bluewater, Goshen, Jericho):	
Pre-determined Station #:	*Feature #: <u>AWO 16 258 GSH 8/16</u>
GPS: (NAD 83) <u>17T 444 225, 4794062</u>	AWO-17
Water Present <input checked="" type="checkbox"/> (Y/N)	
Date (yyyy-mm-dd): <u>2012 - June - 19</u>	Visit #(1-3) <u>3</u>
Field Staff (full name): <u>Sam Giddins, Tom Shorney</u>	
Time Started: <u>10:40</u>	Time Finished: <u>10:43</u>
Beaufort Wind Scale (0-5): <u>0</u>	Cloud Cover (%): <u>5/10</u>
Background Noise Scale (0-4): <u>0</u>	Temperature Celcius: <u>28</u>
Precipitation (None, fog, drizzle, or rain) <u>None</u>	

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		<input checked="" type="checkbox"/>
NLFR		
PIFR		
SPPE		
WOFR		

W ← Direction Facing

GRFR



- Code 1 - not simultaneous, number of individuals can be accurately counted
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- Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments:

Study Area: Goshen
 Pre-determined Station #: 258 GSH/1658/1659 *Feature #: 258 VP1
 GPS: 17T 444292 4794116

Date (yyyy-mm-dd): April 25, 2012 Field Staff (full name): Jess Keltie & Tom Shurey
 Weather: 5°C
 Time Started: 9:00 Time Finished: 9:40am

Water Present (Y/N) YES Vernal Pool or Pond? Vernal pool
 Maximum Water Depth (m) 30-40m Water Quality (visual) Clear with leaf litter
 Length (m) ~100m Width (m) 30-40m
 % open water (emergent) 90% % floating plant cover of open water no floating plants
 Potential to hold water until July (Y/N) if yes then complete amphibian and salamander sheet (yr) yr
 Human Influences affecting area (dykes, agriculture etc.) none observed

Describe area 100m behind you (field, marsh etc) FOD followed by active farm land

Submergent Plants (Species & % cover **)		
1		3
2		4
Emergent Plants (Species & % cover)		
1	<u>Canad. sp. 90%</u>	3
2	<u>Imm. freeman 10%</u>	4
Floating Plants (Species and % cover)		
1	<u>None</u>	3
2		4
Fringing Shrubs (Species & % cover)		
1	<u>Imm. freeman's 90%</u>	3
2	<u>Carpinus Caroliniana 10%</u>	4
Trees (Species & % cover)		
1	<u>Freeman's (ACEFEE) 60%</u>	3
2	<u>Frapenn 40%</u>	4
Exposed mud/sand/rock		

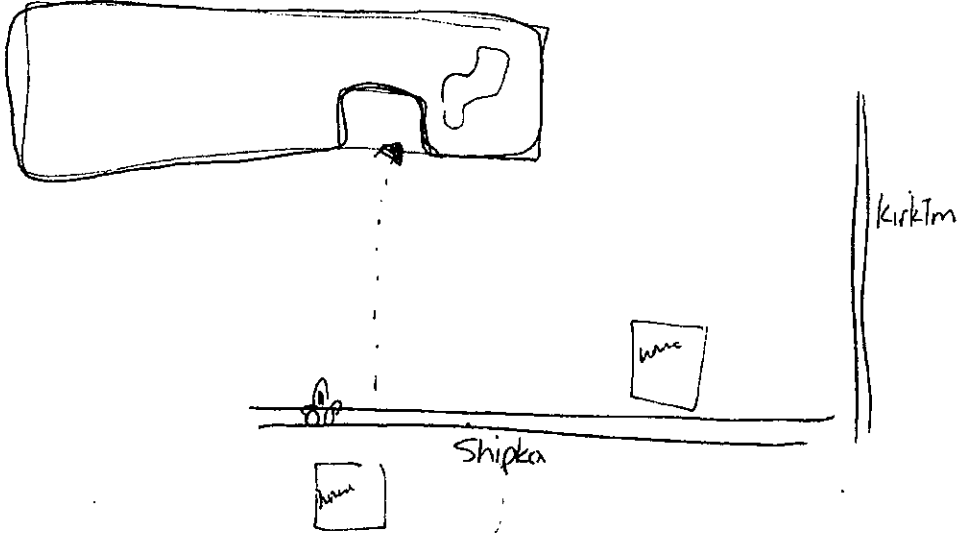
Logs (size, quantity, location) 10-25cm - abundant within pond

Amphibians/egg masses observed (Type, quantity, location) none observed

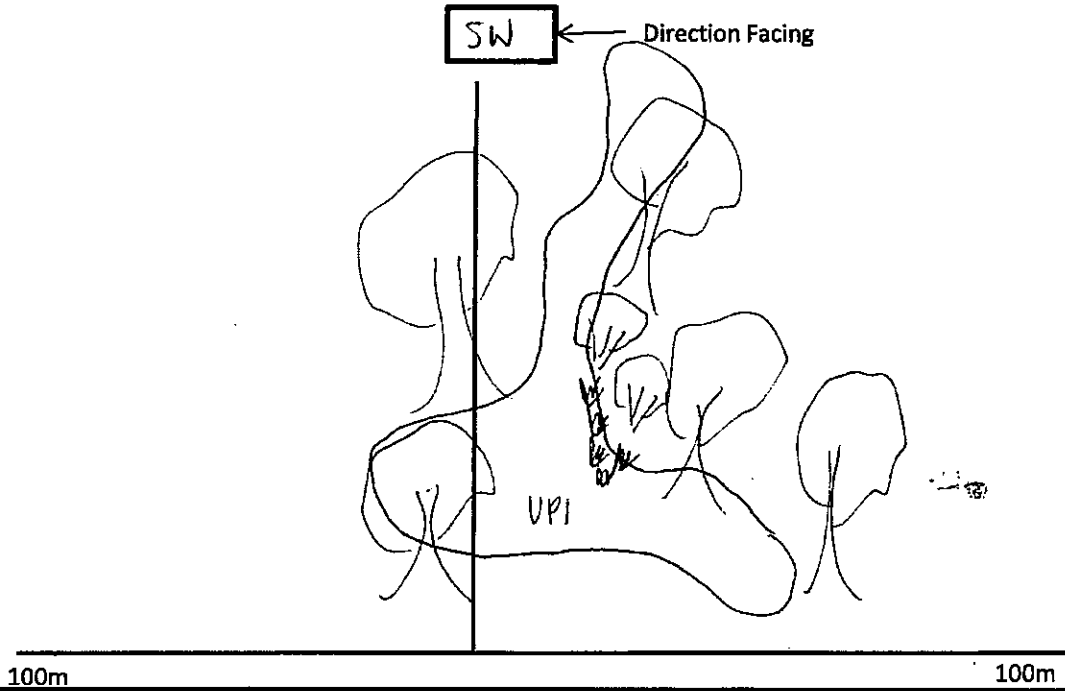
Comments Large pond only part is within 120m however observed entire pond. Survey with VP2 from edge of woodland

* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet
 **-Of total percent cover (surface and canopy), select top 4 and estimate percent of their cover.
 If no water present then no amphibian or salamander sheet completed
 Pools created by tractor/ATV etc. ruts that are not naturalized are not considered vernal pool habitat

Map of general location - station location, road names, north arrow, entry route, house #, etc.



Map of Feature - GPS location, flow (if any), location of species (if any), vegetation, etc.



Photo#(locate on map and GPS if necessary).

pic 4-5-6 on map



Study Area: Goshen
 Pre-determined Station #: 258-GSH1658/1659 *Feature #: 258-VP2
 GPS: 17T 444225 4794062

Date(yyyy-mm-dd): 2012-04-25 Field Staff (full name): Tom Stoney Jess Piette
 Weather: Sunny, 5, Light breeze
 Time Started: 9:47 Time Finished: 10:17

Water Present (Y/N) Yes Vernal Pool or Pond? Vernal Pool
 Maximum Water Depth (m) 10cm Water Quality (visual) Film on surface - leaves on bottom
 Length(m) 30-40m Width(m) 20m
 % open water (emergent) 40% % floating plant cover of open water 0
 Potential to hold water until July (Y/N) Yes Not this year
 Human Influences affecting area (dykes, agriculture etc.) Natural site
 Describe area 100m behind you (field, marsh etc) Agricultural / Deciduous forest

Submergent Plants (Species & % cover **)	
1 <u>0</u>	3
2	4
Emergent Plants (Species & % cover) <u>15%</u>	
1 <u>Sambucus, 5%</u>	3 <u>Carex sp. 5%</u>
2 <u>Corsaria 5%</u>	4
Floating Plants (Species and % cover) <u>0</u>	
1	3
2	4
Fringing Shrubs (Species & % cover) <u>20%</u>	
1 <u>Cornus 30%</u>	3 <u>Acer Suck 30%</u>
2 <u>Sambucus 30%</u>	4 <u>Carcara 10%</u>
Trees (Species & % cover) <u>70%</u>	
1 <u>Frax Vern 40%</u>	3 <u>Popul 10%</u>
2 <u>Acer Suck 30%</u>	4 <u>Acer Suck 20%</u>
Exposed mud/sand/rock	

Logs (size, quantity, location) _____

Amphibians/egg masses observed (Type, quantity, location) _____

Comments too shallow for Amphibians, but potential to hold water in times of wetter years

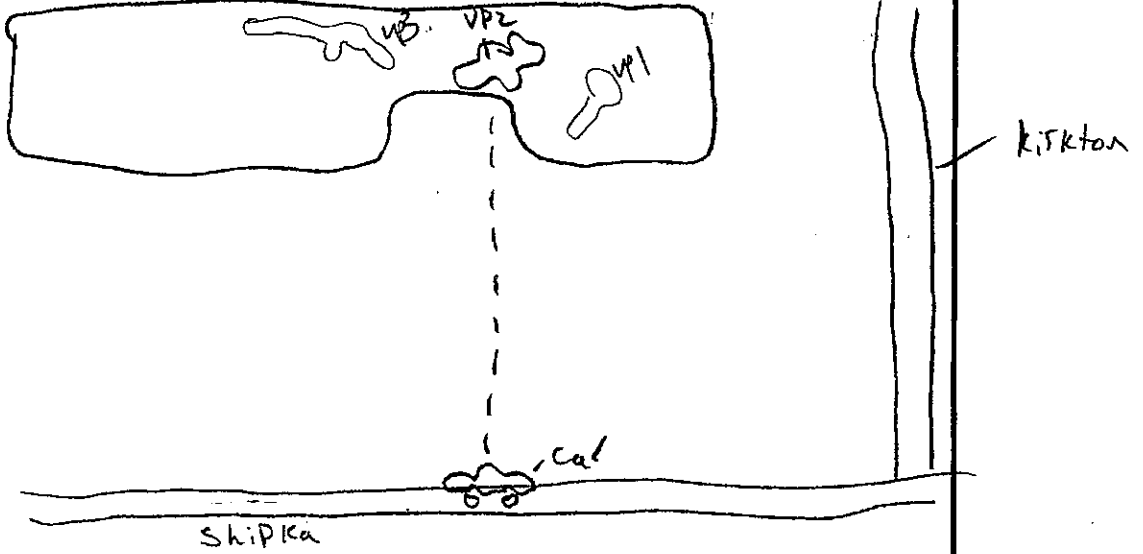
* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet

** - Of total percent cover (surface and canopy), select top 4 and estimate percent of their cover.

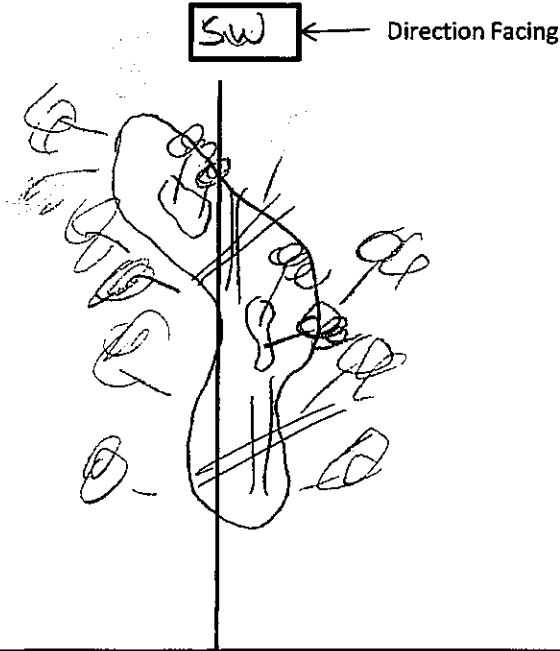
If no water present then no amphibian or salamander sheet completed

Pools created by tractor/ATV etc. ruts that are not naturalized are not considered vernal pool habitat

Map of general location - station location, road names, north arrow, entry route, house #, etc.



Map of Feature - GPS location, flow (if any), location of species (if any), vegetation, etc.



100m

100m

Photo#(locate on map and GPS if necessary)

PK # 8

Study Area: GOSHEN
 Pre-determined Station #: 958 GSH/LS8/1659 *Feature #: 258 VP3
 GPS: 17T 449218 4993971

Date(yyyy-mm-dd): Apr 25, 2012 Field Staff (full name): Jess Kietke + Tim Shoenly
 Weather: 8°C
 Time Started: 10:23 am Time Finished: 10:40 am

Water Present (Y/N) YES Vernal Pool or Pond? vernal pool
 Maximum Water Depth (m) 15-20cm Water Quality (visual) clear with leaf litter
 Length(m) ~100m Width(m) ~30-40m
 % open water (emergent) 60-70% % floating plant cover of open water 0%
 Potential to hold water until July (Y/N) if yes then complete amphibian and salamander sheet Yes
 Human Influences affecting area (dykes, agriculture etc.) none observed
 Describe area 100m behind you (field, marsh etc) FODA followed by field

Submergent Plants (Species & % cover **) 0%

1	3
2	4

Emergent Plants (Species & % cover) 60% (trees within pond)

1 <u>Frag penn 48%</u>	3
2 <u>Carex sp 12%</u>	4

Floating Plants (Species and % cover) 0%

1	3
2	4

Fringing Shrubs (Species & % cover) 10%

1 <u>Coccard 80%</u>	3
2 <u>Pruvirg 20%</u>	4

Trees (Species & % cover) 60%

1 <u>Frag penn 90%</u>	3
2 <u>Ulmamer 10%</u>	4

Exposed mud/sand/rock none exposed soil along edges

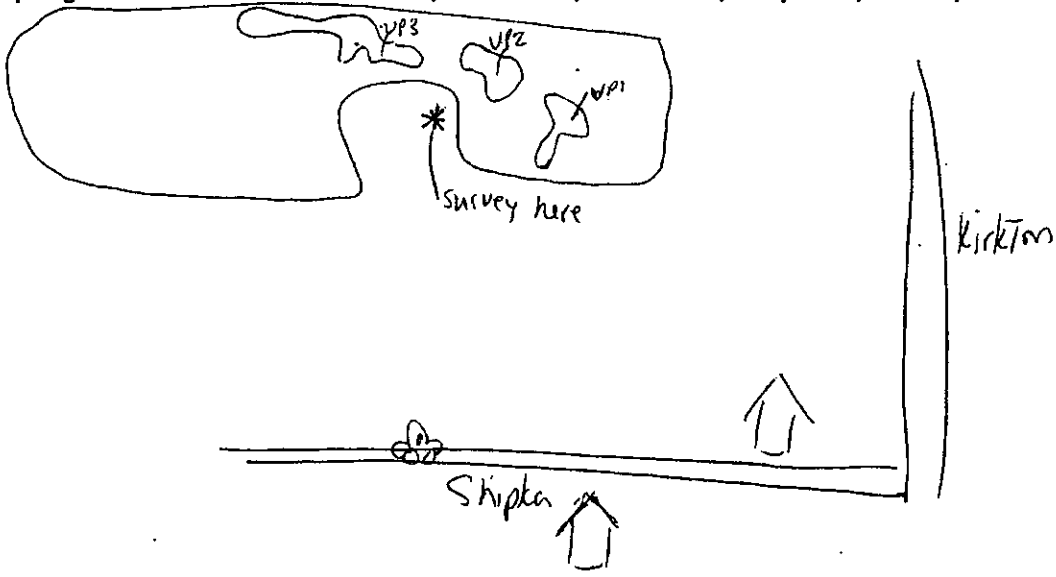
Logs (size, quantity, location) 10-25cm dbh logs within pool

Amphibians/egg masses observed (Type, quantity, location) none observed

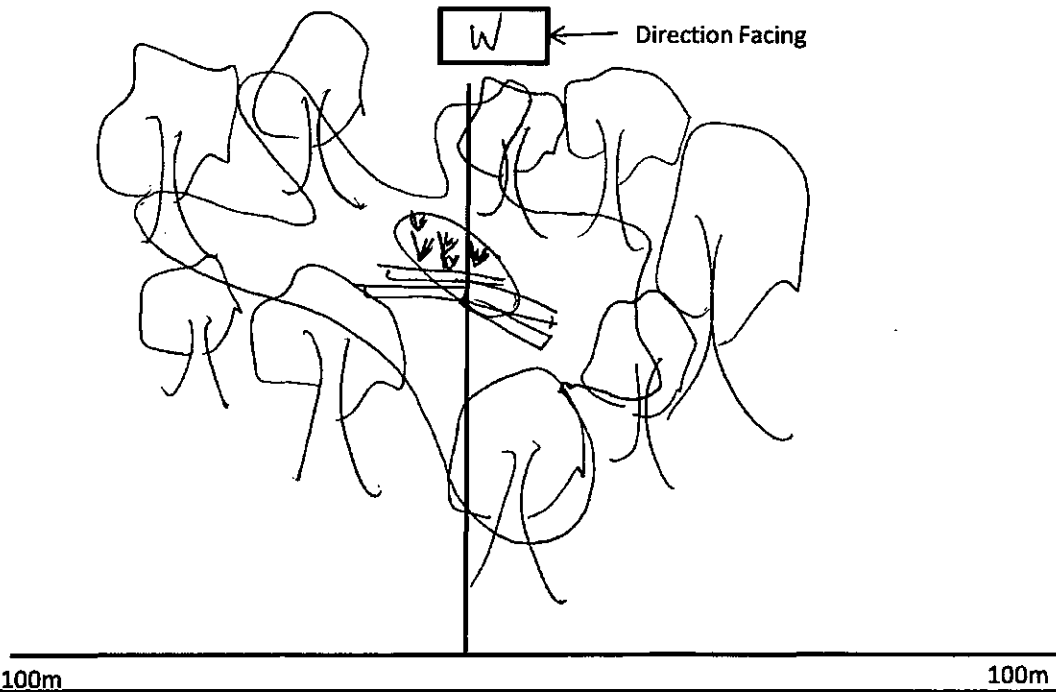
Comments can be surveyed from edge of woodlot at same time as VP1+VP2 all within same station

* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet
 **-Of total percent cover (surface and canopy), select top 4 and estimate percent of their cover.
 If no water present then no amphibian or salamander sheet completed
 Pools created by tractor/ATV etc. ruts that are not naturalized are not considered vernal pool habitat

Map of general location - station location, road names, north arrow, entry route, house #, etc.



Map of Feature - GPS location, flow (if any), location of species (if any), vegetation, etc.



Photo#(locate on map and GPS if necessary)

pic #10 on map

Study Area: (Bluewater, Goshen, Jericho)
 Pre-determined Station #: 258-GSH1659/1659 Feature #¹: 258-VP2+VP2
 GPS: 17T 444292 4794116

Date(yyyy-mm-dd): 2012-04-25
 Field Staff (full name): Tom Sharkey Jess Pierce
 Weather: Sunny, 5° Light Breeze
 Time Started: 9:00 am Time Finished: 9:40 am

Water Present Y/N) Yes Vernal pool depth(m) 30-40 cm
 Vernal Pool width(m) 30-40 m Vernal Pool length(m) 100

Vegetation Comments (Dominant, % cover etc) 60% Freemania 50%, grass 10%

NO Amphibians OBSERVED

NO

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS)

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm



Study Area: (Bluewater, Goshen) Jericho
 Pre-determined Station #: 258-GSH1658/1659 Feature #¹: 258-VP3
 GPS: 17T 444218 4793971

Date (yyyy-mm-dd): 2012-04-25
 Field Staff (full name): Tom Shorne, Jess Pette
 Weather: Sunny, 6°, Light breeze
 Time Started: 10:23 Time Finished: 10:43

Water Present Y/N: YES Vernal pool depth(m): 15-20cm
 Vernal Pool width(m): 30-40m Vernal Pool length(m): Approx 100m

Vegetation Comments (Dominant, % cover etc) 60% Frax Penn 80%
Ulmus Amer. 20%

NO Amphibians OBSERVED NO

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS)

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

Study Area: (Bluewater, Goshen, Jericho) Goshen
 Pre-determined Station #: 2586SH1658/1659 Feature #¹: AWO-16 *
 GPS: 17T 444725 479406Z AWO-17

Date (yyyy-mm-dd): 2012-05-15
 Field Staff (full name): Jess Pietto - Tom Shaney
 Weather: 21°C, sunny 24 km/h wind
 Time Started: 2:09 PM Time Finished: 3:05 PM

Water Present Y/N) YES Vernal pool depth(m) 30-40cm
 Vernal Pool width(m) 30-40m Vernal Pool length(m) 100m

Vegetation Comments (Dominant, % cover etc) Fragaria / Acedree

NO Amphibians OBSERVED

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS
WOFR	adult	1	dipnet	5cm	VP2
WOFR	adult	1	observation	2-3cm	
WOFR	adult	1	observation	2-3cm	
WOFR	adult	x4	"	2-3cm	
GRFR	"	x2	"	5cm	
WOFR	"	1	"	3cm	
WOFR	adult	x3		5-7cm	
AMTO	adult	1			VP1
WOFR	adult	x6			
WOFK	Tadpoles	737	dipnet		VP3

Photo #	Location/or Subject	Photo #	Location/or Subject
26-27	adult green frog		
30-31	wood frog		
32	AMTO		

Comments (ex: egg masses to have GPS) - 730 WOFR adults observed within pools
- 718 Tadpoles
* * - all pools are great and with abundant adults, Tadpoles

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

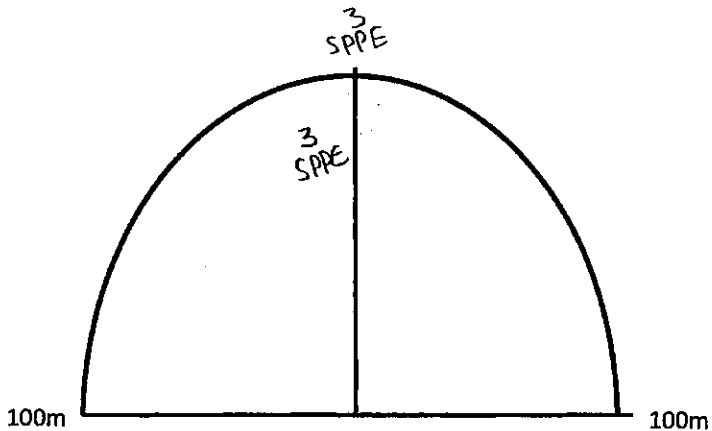
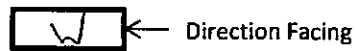
- Mudpuppy cloak
- eastern toad
- red admiral
- crayfish

Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, <u>Goshen</u> Jericho):	
Pre-determined Station #: <u>300 GSH 2108 / 2110</u>	*Feature #: <u>vp*2</u> AWO-24/AWO-25
GPS: (NAD 83) <u>17T 451863, 4797136</u>	
Water Present (Y/N) <u>Y</u>	
Date(yyyy-mm-dd): <u>2012-05-01</u>	Visit #(1-3) <u>1</u>
Field Staff (full name): <u>A. Aitken, T. Starney</u>	
Time Started: <u>9:50_{am}</u>	Time Finished: <u>9:53_{am}</u>
Beaufort Wind Scale (0-6): <u>1</u>	Cloud Cover (%): <u>100% (thin cover)</u>
Background Noise Scale (0-4): <u>0</u>	Temperature Celcius <u>~7°C</u>
Precipitation (None, fog, drizzle, or rain) <u>None</u>	

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE	✓	✓
WOFR		



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind Scale	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise Scale	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

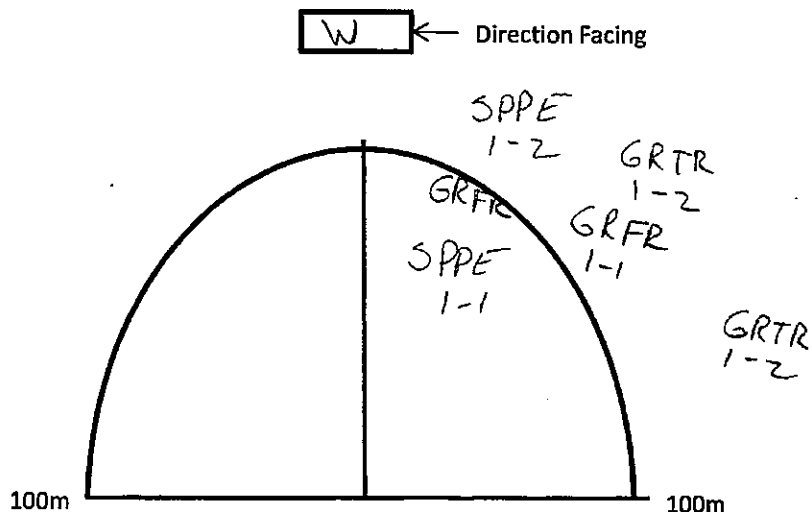
General Comments: _____

Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater/Goshen) Jericho:	
Pre-determined Station #: <u>300 GSH2108/210</u>	*Feature #: <u>AWO-24/25</u>
GPS: (NAD 83) <u>17 451937 4797016</u>	
Water Present (Y/N) <u>YES</u>	
Date(yyyy-mm-dd): <u>2012-05-14</u>	Visit #(1-3) <u>2</u>
Field Staff (full name): <u>Tom Shino, Jess Piette</u>	
Time Started: <u>11:35 P.m.</u>	Time Finished: <u>11:38 P.m.</u>
Beaufort Wind Scale (0-6): <u>0</u>	Cloud Cover (%): <u>0</u>
Background Noise Scale (0-4): <u>0</u>	Temperature Celcius <u>12°C</u>
Precipitation (None, fog, drizzle, or rain) <u>None</u>	

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		X
GRFR	X	X
NLFR		
PIFR		
SPPE		X
WOFR		



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickeral Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____

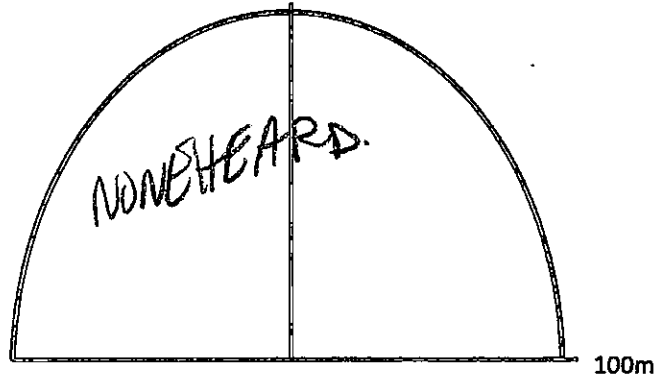
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho):	
Pre-determined Station #: 300 65H 2108/2110	*Feature #: A6024/25
GPS: (NAD 83) 17T 451863, 479 7136	
Water Present (Y/N) n/a	
Date(yyyy-mm-dd): 2012 June - 20	Visit #(1-3) 3
Field Staff (full name): Gilman, Sharney	
Time Started: 10:55 PM	Time Finished: 10:58 PM
Beaufort Wind Scale (0-6): 0	Cloud Cover (%): 0%
Background Noise Scale (0-4): 0	Temperature Celcius 28°C
Precipitation (None, fog, drizzle, or rain) None	

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE		
WOFR		

W ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind Scale	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise Scale	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickeral Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____



Study Area: GOSHEN
 Pre-determined Station #: 300GSH2108/2110 *Feature #: 300VPIAWO-24/AWO-25
 GPS: 17T 451937 4797016

Date(yyyy-mm-dd): Apr 26, 2012 Field Staff (full name): Jess Pette + Tom Sharney
 Weather: 7°C, rain
 Time Started: 12:00pm Time Finished: 12:20pm

Water Present (Y/N) YES Vernal Pool or Pond? VERNAL pond
 Maximum Water Depth (m) 10cm Water Quality (visual) clear with leaf litter
 Length(m) 20-30M Width(m) 10-15m
 % open water (emergent) 97% % floating plant cover of open water 0%
 Potential to hold water until July (Y/N) (Y) if yes then complete amphibian and salamander sheet not this year
 Human Influences affecting area (dykes, agriculture etc.) active management
 Describe area 100m behind you (field, marsh etc) SND

Submergent Plants (Species & % cover **) <u>0%</u>	
1	3
2	4
Emergent Plants (Species & % cover) <u>2%</u>	
1	3
2	4
Floating Plants (Species and % cover) <u>0%</u>	
1	3
2	4
Fringing Shrubs (Species & % cover) <u>6%</u>	
1	3
2	4
Trees (Species & % cover) <u>76% total canopy</u>	
1	3
2	4
Exposed mud/sand/rock <u>mixed</u>	

Logs (size, quantity, location) 10-20cm within pond and along edges

Amphibians/egg masses observed (Type, quantity, location) none observed too shallow

Comments _____

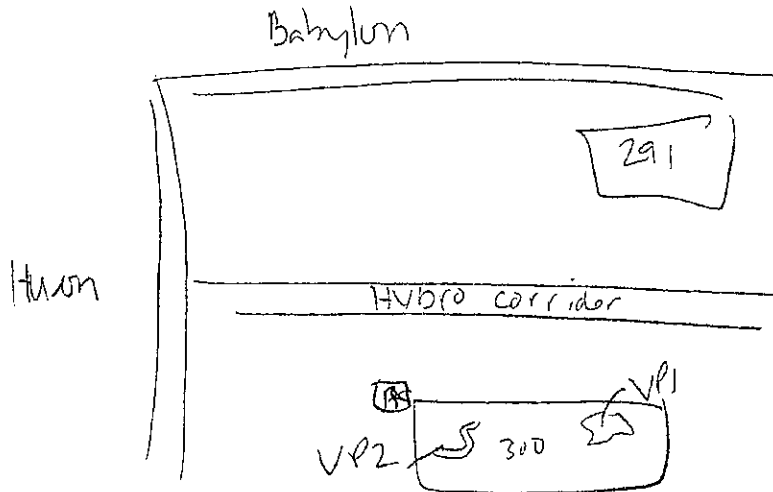
* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet

**-Of total percent cover (surface and canopy), select top 4 and estimate percent of their cover.

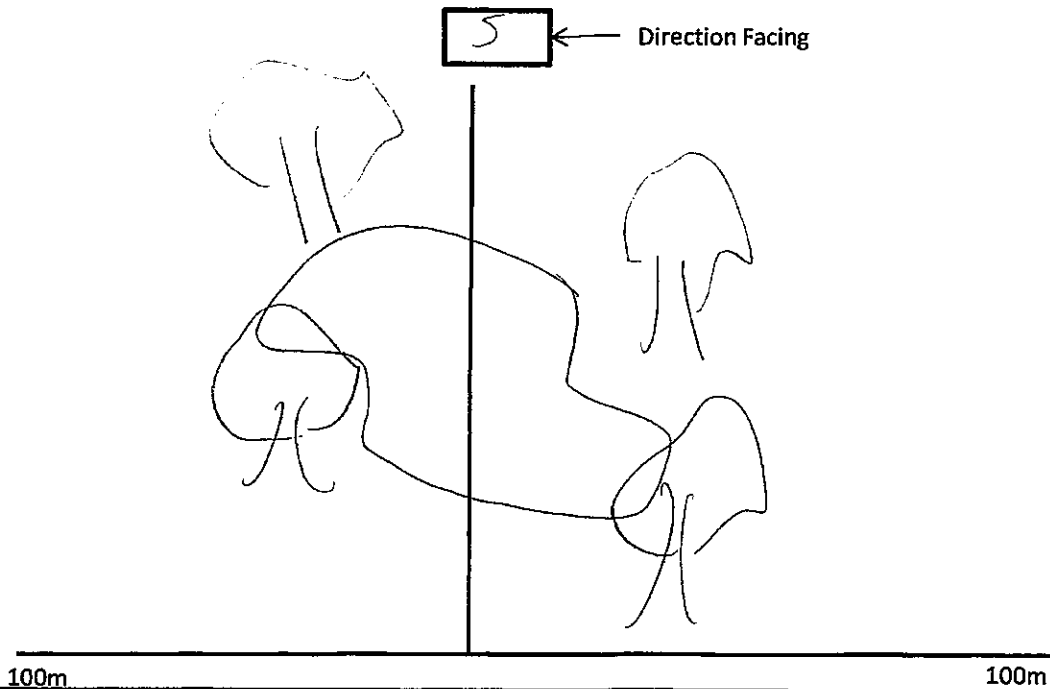
If no water present then no amphibian or salamander sheet completed

Pools created by tractor/ATV etc. ruts that are not naturalized are not considered vernal pool habitat

Map of general location - station location, road names, north arrow, entry route, house #, etc.



Map of Feature - GPS location, flow (if any), location of species (if any), vegetation, etc.



Photo#(locate on map and GPS if necessary)

Study Area: GOSHEN
 Pre-determined Station #: 3006SH2108/2110 *Feature #: 300VP2AWO-24/AWO-25
 GPS: 17T 451863 4797136

Date(yyyy-mm-dd): April 26, 2012 Field Staff (full name): Jim Lietto + Tom Shanley
 Weather: 6°C, rain
 Time Started: 12:30 Time Finished: 12:50

Water Present (Y/N) YES Vernal Pool or Pond? VERNAL POOL
 Maximum Water Depth (m) 30cm Water Quality (visual) clear with leaf litter
 Length(m) 20m Width(m) 15m
 % open water (emergent) 80% % floating plant cover of open water 0%
 Potential to hold water until July (Y/N) if yes then complete amphibian and salamander sheet YES
 Human Influences affecting area (dykes, agriculture etc.) active forest management
 Describe area 100m behind you (field, marsh etc) SWD followed by agricultural field

Submergent Plants (Species & % cover **) <u>0%</u>	
1	3
2	4
Emergent Plants (Species & % cover) <u>5%</u>	
1 <u>Carex sp. 100'</u>	3
2	4
Floating Plants (Species and % cover) <u>0%</u>	
1	3
2	4
Fringing Shrubs (Species & % cover) <u>0%</u>	
1	3
2	4
Trees (Species & % cover) <u>30%</u>	
1 <u>Freeman's maple (Acer freemanii)</u>	3
2 <u>Fraxinus penn.</u>	4
Exposed mud/sand/rock <u>some mud/sand</u>	

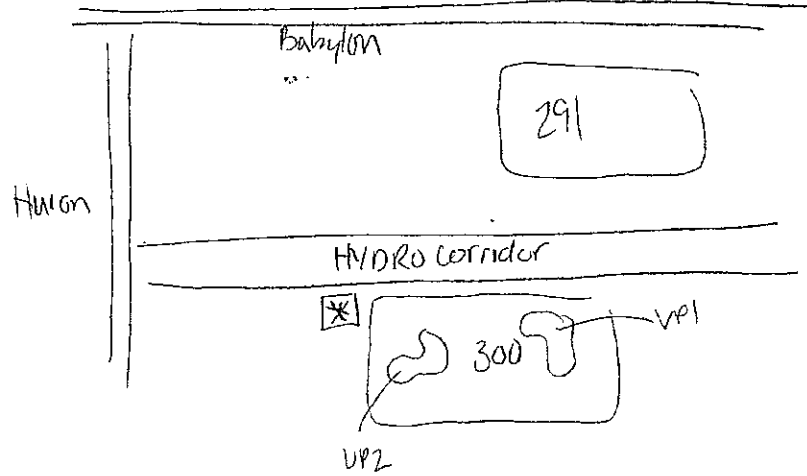
Logs (size, quantity, location) none observed

Amphibians/egg masses observed (Type, quantity, location) none observed

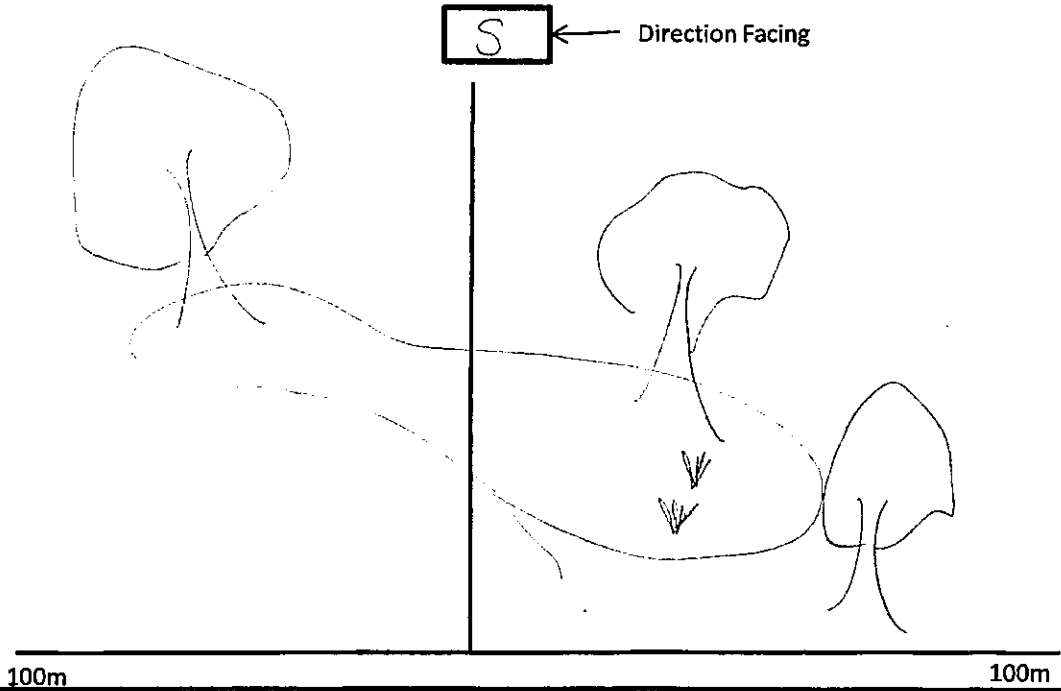
Comments _____

* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet
 **-Of total percent cover (surface and canopy), select top 4 and estimate percent of their cover.
 If no water present then no amphibian or salamander sheet completed
 Pools created by tractor/ATV etc. ruts that are not naturalized are not considered vernal pool habitat

Map of general location - station location, road names, north arrow, entry route, house #, etc.



Map of Feature - GPS location, flow (if any), location of species (if any), vegetation, etc.



Photo#(locate on map and GPS if necessary)

Study Area: (Bluewater, Goshen, Jericho)

Pre-determined Station #: 300-65H2108/2110 Feature #¹: 300-VP2

GPS: 17 451863 4797136

Date (yyyy-mm-dd): 2012-04-26

Field Staff (full name): Tom Stoney Jess PreHe

Weather: overcast 6°, 40km/h winds

Time Started: 12.30 Time Finished: 12.50

Water Present Y/N) YES Vernal pool depth(m) 30cm

Vernal Pool width(m) 15m Vernal Pool length(m) 20m

Vegetation Comments (Dominant, % cover etc) 30% → Freeways 30%

NO Amphibians OBSERVED NO

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS)

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form

² adult or larvae or egg masses

³ number of individuals (adults or larvae) or egg masses

⁴ overturned logs, D-ring dipnet, observation

⁵ Size of individual (adult or larvae) or egg masses - cm

Study Area: (Bluewater, Goshen Jericho)
 Pre-determined Station #: 300-65HZ108/2110 Feature #¹: AW0-24/25
 GPS: 17T 451937 4797016

Date (yyyy-mm-dd): 2012-05-16
 Field Staff (full name): Jess Piette + Tim Shorkey
 Weather: 7°C, 30km/h wind
 Time Started: 1:50 pm Time Finished: 2:20 pm

Water Present Y/N) YES Vernal pool depth(m) 20cm
 Vernal Pool width(m) 10-15m Vernal Pool length(m) 20-30m

Vegetation Comments (Dominant, % cover etc) cover crop

NO Amphibians OBSERVED

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS)

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

Legend

- Property Boundary
- GE Turbine
- ELC Completed 2011
- Natural Feature and ID
- ELC Polygon Boundary
- Disturbance Areas
- Area of Disturbance, plus 10m
- ANSI
- Evaluated Wetlands - PSW
- ABCA Watercourse

station

COPY



Resampling from Ontario Ministry of Natural Resources
 Cartography: 2010



0 25 50 100
 Metres
 UTM Zone 17N, NAD 83

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Goshen Amphibian Survey
321_GSH2100

April 2012
 Project 60156032

AECOM

Figure 1



Map Document (N:\proj\60156032\321\GSH2100\Map\Map\MXD\Project_ELC_Mapping\Goshen\321_GSH2100\Map\MXD\Project_ELC_Mapping\Goshen\321_GSH2100.mxd) 4/12/2012 8:18:21 PM

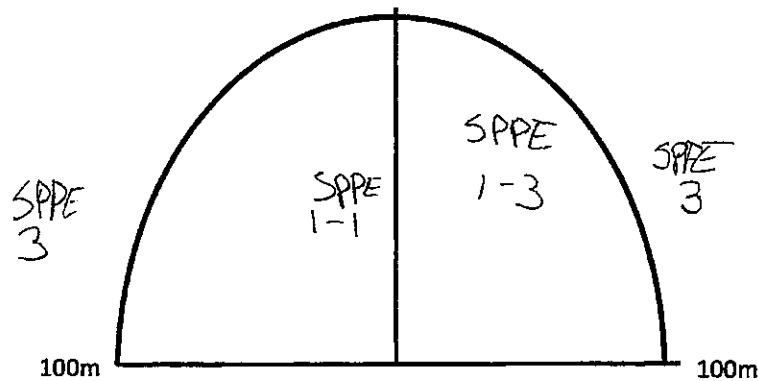
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho): <u>GOSHEN</u>	
Pre-determined Station #: <u>321 GSH 2100</u>	*Feature #: <u>321 VP1+VP2</u>
GPS: (NAD 83) <u>17T453264 4799588</u>	<u>AWO-26</u>
Water Present (Y/N) <u>Yes</u>	
Date (yyyy-mm-dd): <u>2012-04-25</u>	Visit #(1-3) <u>1</u>
Field Staff (full name): <u>Tom Shorrey Jess Piette</u>	
Time Started: <u>9:40</u>	Time Finished: <u>9:43</u>
Beaufort Wind Scale (0-6): <u>2</u>	Cloud Cover (%): <u>40%</u>
Background Noise Scale (0-4): <u>3</u>	Temperature Celcius: <u>8°C</u>
Precipitation (None, fog, drizzle, or rain) <u>None</u>	

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE	X	X
WOFR		

SE ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____

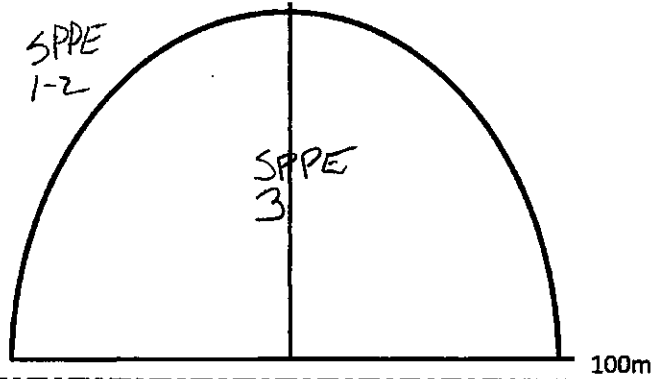
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho): <u>GOSHEN 5</u>		
Pre-determined Station #: <u>321 GSH2100</u>	*Feature #: <u>321 101</u>	
GPS: (NAD 83) <u>17T 45.3144</u>	<u>4799733</u>	<u>AWO-27</u>
Water Present (Y/N) <u>YES</u>		
Date(yyyy-mm-dd): <u>April 25, 2012</u>	Visit #(1-3) <u>1</u>	
Field Staff (full name): <u>Tom Shorney Jess Piette</u>		
Time Started: <u>9:30</u>	Time Finished: <u>9:33</u>	
Beaufort Wind Scale (0-6): <u>2</u>	Cloud Cover (%): <u>40%</u>	
Background Noise Scale (0-4): <u>3</u>	Temperature Celcius <u>8°C</u>	
Precipitation (None, fog, drizzle, or rain) <u>NONE</u>		

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE	X	X
WOFR		

5 ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
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Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
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Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
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AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____

Study Area: GOSHEN
 Pre-determined Station #: 321 GSHZ102 *Feature #: 321 VP1/VP2
 GPS: 17T 453264 4799588 AWO-26

Date (yyyy-mm-dd): April 23, 2012 Field Staff (full name): Jim Kiehl + Tom Shroy
 Weather: 5°C
 Time Started: 3:20 Time Finished: 3:50 PM

Water Present (Y/N) YES Vernal Pool or Pond? NO
 Maximum Water Depth (m) 30cm Water Quality (visual) clear with leaf litter
 Length (m) 50m max Width (m) 20m max
 % open water (emergent) VP1-40 VP2 70% % floating plant cover of open water 0%
 Potential to hold water until July (Y/N) if yes then complete amphibian and salamander sheet YES
 Human Influences affecting area (dykes, agriculture etc.) Management
 Describe area 100m behind you (field, marsh etc) FOP/SWD

Submergent Plants (Species & % cover **) <u>0%</u>	
1	3
2	4
Emergent Plants (Species & % cover) <u>5%</u>	
1 <u>Carex sp. 70</u>	3
2 <u>Iris sp. 30</u>	4
Floating Plants (Species and % cover) <u>0%</u>	
1	3
2	4
Fringing Shrubs (Species & % cover) <u>60-70%</u>	
1 <u>Imm Freeman's 50%</u>	3
2 <u>prunus virgin. 50%</u>	4
Trees (Species & % cover) <u>40%</u>	
1 <u>Acer freemanii 100%</u>	3
2	4
Exposed mud/sand/rock	

Logs (size, quantity, location) 10-25cm abundant within and adjacent to ponds

Amphibians/egg masses observed (Type, quantity, location) none observed

Comments there are two ponds vernal ponds within same station

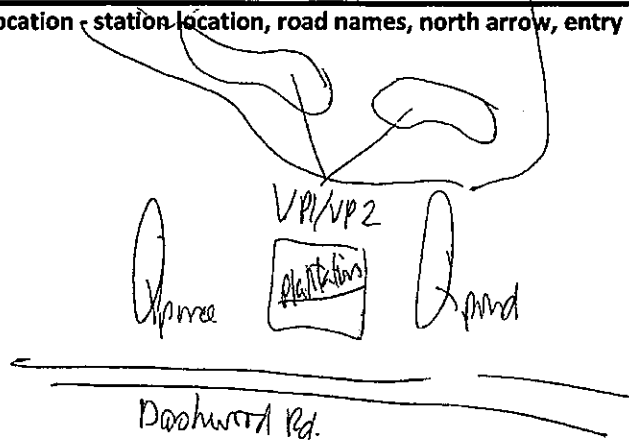
* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet

** - Of total percent cover (surface and canopy), select top 4 and estimate percent of their cover.

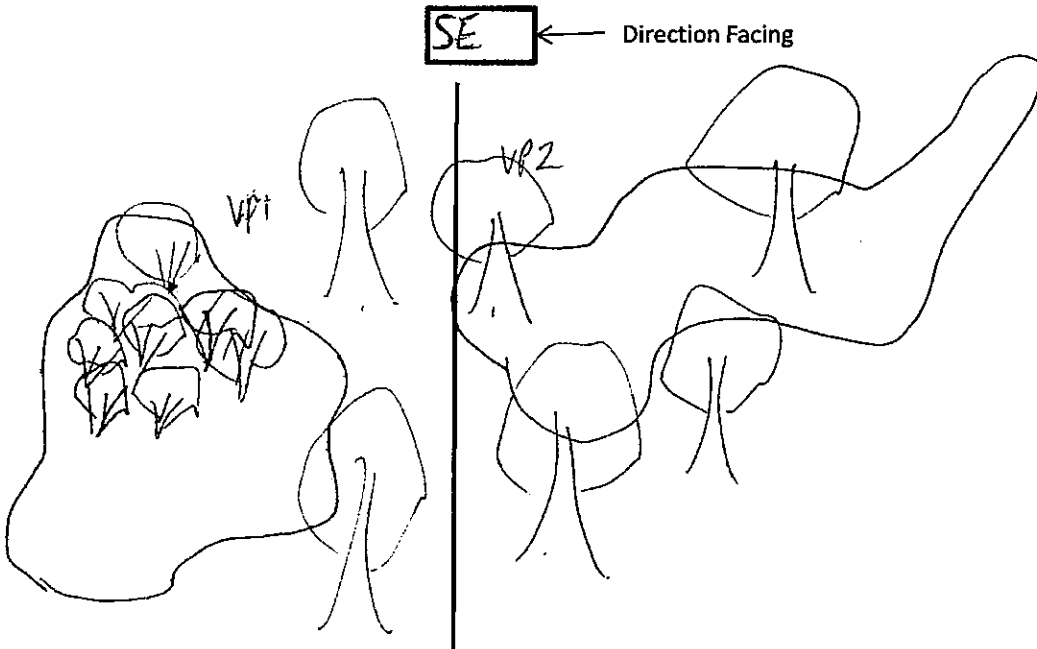
If no water present then no amphibian or salamander sheet completed

Pools created by tractor/ATV etc. ruts that are not naturalized are not considered vernal pool habitat

Map of general location - station location, road names, north arrow, entry route, house #, etc.



Map of Feature - GPS location, flow (if any), location of species (if any), vegetation, etc.



Photo#(locate on map and GPS if necessary)

two ponds within same station



Study Area: GOSHEN
 Pre-determined Station #: 321 GSH1012 *Feature #: 321 P01
 GPS: 17T 453144 4799733 AWO-27

Date (yyyy-mm-dd): April 23, 2012 Field Staff (full name): John Ketter + Tom Stoney
 Weather: 6°C
 Time Started: 1:12 pm Time Finished: 1:42 P.m.

Water Present (Y/N): Yes Vernal Pool or Pond? Pond
 Maximum Water Depth (m) 1-3m Water Quality (visual) Clear
 Length (m) 100m Width (m) 20-30m
 % open water (emergent) 90% % floating plant cover of open water 0%
 Potential to hold water until July (Y/N) if yes then complete amphibian and salamander sheet YES
 Human Influences affecting area (dykes, agriculture etc.) Farming, area management
 Describe area 100m behind you (field, marsh etc) field/corn

Submergent Plants (Species & % cover **) <u>0%</u>	
1	3
2	4
Emergent Plants (Species & % cover) <u>5%</u>	
1 <u>Typha latifolia 100%</u>	3
2	4
Floating Plants (Species and % cover) <u>0%</u>	
1	3
2	4
Fringing Shrubs (Species & % cover) <u>20%</u>	
1 <u>Sandbar willow (salix exigua)</u>	3
2	4
Trees (Species & % cover) <u>5%</u>	
1 <u>Cottonwood (Populus deltoides)</u>	3
2 <u>Elm (Ulmus americana)</u>	4
Exposed mud/sand/rock	

Logs (size, quantity, location) none, beside plantation

Amphibians/egg masses observed (Type, quantity, location) none observed

Comments shrub open pond

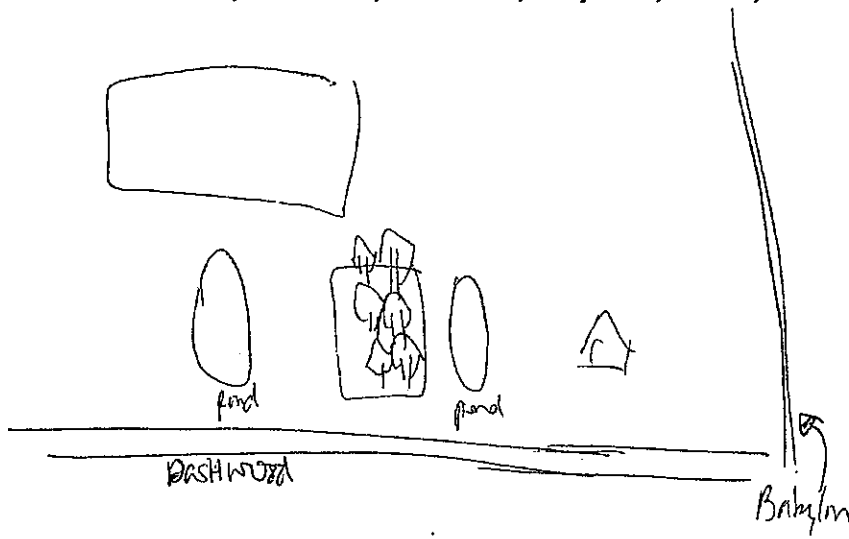
* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet

** - Of total percent cover (surface and canopy), select top 4 and estimate percent of their cover.

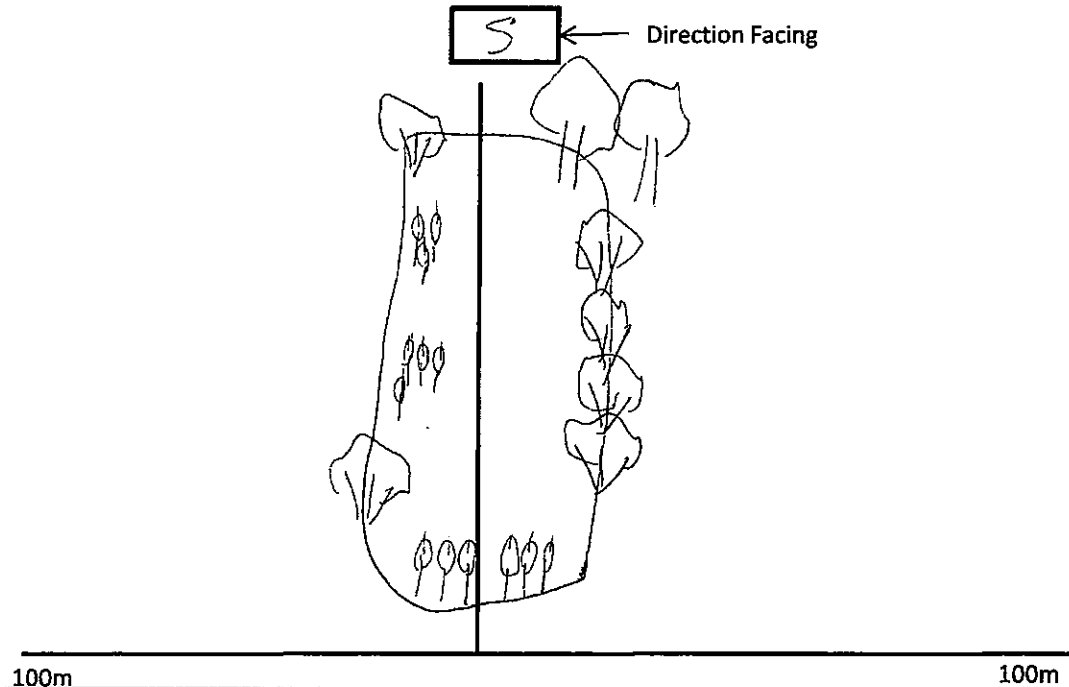
If no water present then no amphibian or salamander sheet completed

Pools created by tractor/ATV etc. ruts that are not naturalized are not considered vernal pool habitat

Map of general location - station location, road names, north arrow, entry route, house #, etc.



Map of Feature - GPS location, flow (if any), location of species (if any), vegetation, etc.



Photo#(locate on map and GPS if necessary)

Study Area: (Bluewater, <u>Goshen, Jericho</u>)	
Pre-determined Station #: <u>321-GSH2100</u>	Feature # ¹ : <u>321-VP1/VP2</u>
GPS: <u>17T 453264 4799588</u>	AWO-26

Date (yyyy-mm-dd): <u>2012-04-23</u>
Field Staff (full name): <u>Tom Stroman Jess Piette</u>
Weather: <u>cloudy, 5°C, 40 km/h</u>
Time Started: <u>3:20</u> Time Finished: <u>3:50</u>

Water Present Y/N) <u>Yes</u>	Vernal pool depth(m) <u>25-30cm</u>
Vernal Pool width(m) <u>20 m</u>	Vernal Pool length(m) <u>50-60m</u>

Vegetation Comments (Dominant, % cover etc) Freemans 40%, Carex 3%, Misc 50-2%

NO Amphibians OBSERVED No

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS
 					
 					
 					
 					
 					
 					
 					
 					
 					
 					

Photo #	Location/or Subject	Photo #	Location/or Subject
 			
 			
 			

Comments (ex: egg masses to have GPS)
long pond - vegetation surrounding vernal pools

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm



Study Area:(Bluewater, Goshen, Jericho)
 Pre-determined Station #: 321-65H1012/2100 Feature #¹: 321-P02
 GPS: 17T 453144 4799733 AWO-27

Date(yyyy-mm-dd): 2012-04-23
 Field Staff (full name): Tom Storney Jess Piette
 Weather: cloudy, 40 km/h winds
 Time Started: 1:12 P.m. Time Finished: 1:42 P.m.

Water Present Y/N) Yes Vernal pool depth(m) 1-3m
 Vernal Pool width(m) 20-30m Vernal Pool length(m) 100m

Vegetation Comments (Dominant, % cover etc) cattail 5% Sarrubus willow 20%

NO Amphibians OBSERVED NO

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS)
Windy -> Tough conditions for Amph Search

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⁵ Size of individual (adult or larvae) or egg masses - cm

Amphibian - Frog - Data Form

AZCOM

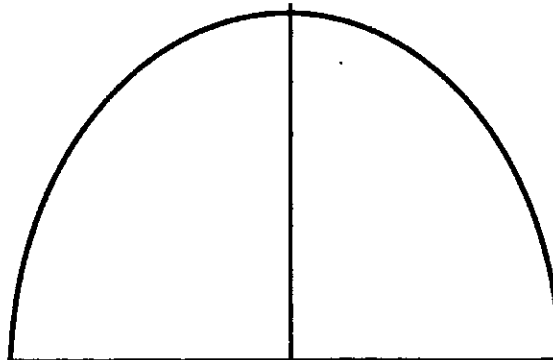
Study Area (Bluewater, Goshen, Jericho):
 Pre-determined Station #: 521-GSH 2100 *Feature #: AWO-26
 GPS: (NAD 83) 17T 453264 479588
 Water Present (Y/N) yes

Date (yyyy-mm-dd): 2012-05-15 Visit #(1-3) 2
 Field Staff (full name): Tom Stoney Jess Piette
 Time Started: 10:58 P.m. Time Finished: 11:01 P.m.

Beaufort Wind Scale (0-6): 4 Cloud Cover (%): 60
 Background Noise Scale (0-4): 2 Temperature Celcius 19°C
 Precipitation (None, fog, drizzle, or rain) None

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE		X
WOFR		

S ← Direction Facing



SPPE
1-3

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Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
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AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
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CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

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General Comments: While walking through field, spotted American Toad

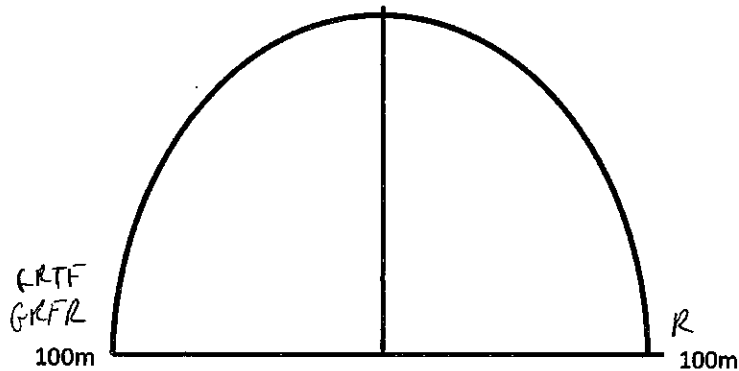
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho): <u>GOSHEN</u>	
Pre-determined Station #: <u>321</u>	*Feature #: <u>AWO-26</u>
GPS: (NAD 83) <u>17T 453264</u> <u>4799581</u>	
Water Present (Y/N) <u>Y</u>	
Date(yyyy-mm-dd): <u>2012-06-20</u>	Visit #(1-3) <u>3</u>
Field Staff (full name): <u>Jen Bette + Dave Kielstein</u>	
Time Started: <u>11:03 am</u>	Time Finished: <u>11:06 pm</u>
Beaufort Wind Scale (0-6): <u>2</u>	Cloud Cover (%): <u>0%</u>
Background Noise Scale (0-4): <u>2</u>	Temperature Celcius <u>17°C</u>
Precipitation (None, fog, drizzle, or rain)	

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		<u>2</u>
GRFR		<u>2</u>
NLFR		
PIFR		
SPPE		
WOFR		

S ← Direction Facing



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	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
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BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

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General Comments: → none heard within 5 ft, all around with ponds

Study Area: (Bluewater, Goshen, Jericho)
 Pre-determined Station #: 321GSH2100 Feature #¹: ANO-26
 GPS: 17T 453204 4799588

Date (yyyy-mm-dd): 2012-05-15
 Field Staff (full name): Jess Porter + Tom Sharkey
 Weather: 18°C, Sunny
 Time Started: 4:45pm Time Finished: 5:15pm

Water Present Y/N: YES Vernal pool depth(m): 30cm
 Vernal Pool width(m): ~20m Vernal Pool length(m): 50m

Vegetation Comments (Dominant, % cover etc): Willows / Alder / Fraxinus

NO Amphibians OBSERVED

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS
unknown	adults	x2	observation	/	
unknown	adults	x2	observation	/	

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS) no tadpoles only adults observed

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² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

- Crayfish

Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho):

Pre-determined Station #: 321-6542100 *Feature #: AWO-27

GPS: (NAD 83) 17T 453144 4749733

Water Present (Y/N) Y

Date(yyyy-mm-dd): 2012-05-15 Visit #(1-3), 2

Field Staff (full name): Tom Shorney Jess Piche

Time Started: 10:52 AM Time Finished: 10:55 PM

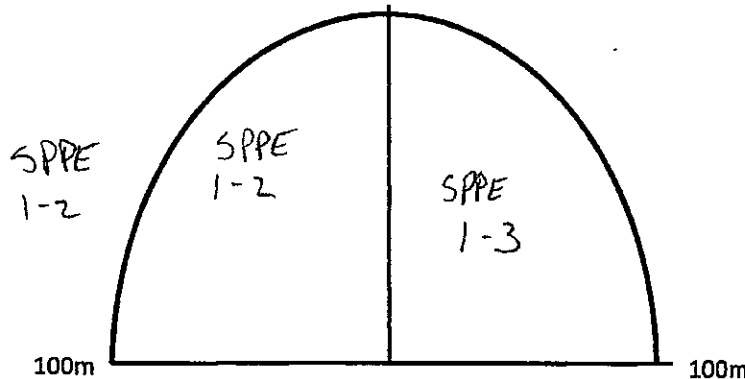
Beaufort Wind Scale (0-6): 4 Cloud Cover (%): 60%

Background Noise Scale (0-4): 2 Temperature Celcius 19°C

Precipitation (None, fog, drizzle, or rain) None

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE	X	X
WOFR		

W ← Direction Facing



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Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
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AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
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CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____

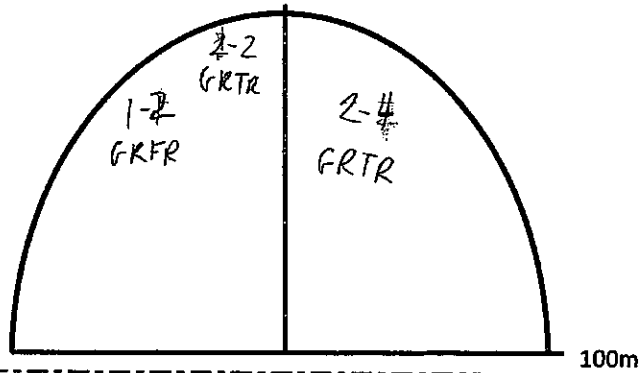
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho):	
Pre-determined Station #: 321	*Feature #: AWO-29
GPS: (NAD 83) 17T 453144 47C9733	
Water Present (Y/N) Y ^{ES}	
Date(yyyy-mm-dd): 2012-06-20	Visit #(1-3) 3
Field Staff (full name): Jess Piette + Dave Kielstra	
Time Started: 10:55	Time Finished: 10:
Beaufort Wind Scale (0-6): 2	Cloud Cover (%): 0%
Background Noise Scale (0-4): 2	Temperature Celcius: 17C
Precipitation (None, fog, drizzle, or rain)	

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR	X	X
GRFR	X	X
NLFR		
PIFR		
SPPE		
WOFR		

W ← Direction Facing



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	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
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Background Noise Scale	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
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AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____

Study Area: (Bluewater, Goshen, Jericho) Goshen
 Pre-determined Station #: 321 GSH 2100 Feature #¹: AWO-27 (pond)
 GPS: 17T 453144 4799333

Date (yyyy-mm-dd): 2012-05-15
 Field Staff (full name): Kris Piette + Tom Sharney
 Weather: 21°C, sunny
 Time Started: 4:07 PM Time Finished: 4:40 PM

Water Present Y/N: YES Vernal pool depth(m): 2.4 m
 Vernal Pool width(m): 20-30 m Vernal Pool length(m): 100 m

Vegetation Comments (Dominant, % cover etc) cattails / shrubs (willows)

NO Amphibians OBSERVED

Amphibian Species	Life Stage	Number	Search Type ⁴	Size ⁵	Comments/GPS
Unknown	adult	1	observation	-	
GRFR	Tadpole	1	dipnet	40mm	
NEWT	adult	1	observation	5cm	
ERFR	Tadpole	1	dipnet	40-50mm	
AMTB	adult	1	observation	7cm	

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS) - plenty of tadpoles within pond

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² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

- Red admiral
 - Blue tip
 - had blue tip of tail
 - c

Amphibian - Frog - Data Form

AECOM

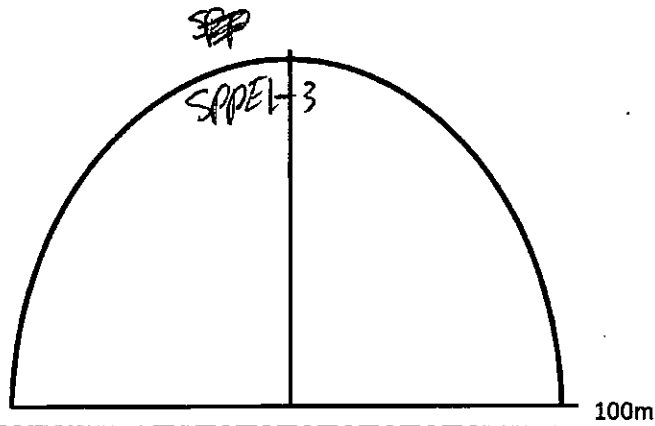
Study Area (Bluewater, Goshen, Jericho): _____
 Pre-determined Station #: VP1 *Feature #: 364-GSH 1006 VP1
 GPS: (NAD 83) 17T AWO-28
 Water Present: (N)

Date(yyyy-mm-dd): 2012-April-25 Visit #(1-3) 1
 Field Staff (full name): Sam Belding, Rob Aiken.
 Time Started: 9:58 pm Time Finished: 10:01 pm

Beaufort Wind Scale (0-6): 0 Cloud Cover (%): 40%
 Background Noise Scale (0-4): 0 Temperature Celcius 9°C
 Precipitation (None, fog, drizzle, or rain) none

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE	✓	
WOFR		

S ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____

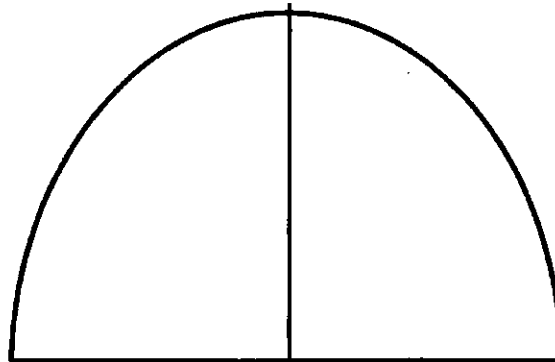
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen , Jericho):	
Pre-determined Station #: <u>364-GSH1006</u>	*Feature #: <u>AWD-28</u>
GPS: (NAD 83) <u>1770451274 4803780</u>	
Water Present (Y/N) <u>yes</u>	
Date(yyyy-mm-dd): <u>2012-05-23</u>	Visit #(1-3) <u>2</u>
Field Staff (full name): <u>Tom Showey Jess Piette</u>	
Time Started: <u>21:27</u>	Time Finished: <u>21:30</u>
Beaufort Wind Scale (0-6): <u>3</u>	Cloud Cover (%): <u>10%</u>
Background Noise Scale (0-4): <u>2</u>	Temperature Celcius <u>15.0c</u>
Precipitation (None, fog, drizzle, or rain) <u>None</u>	

Species	IN	OUT
NONE		X
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE		
WOFR		

S ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind Scale	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise Scale	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments:

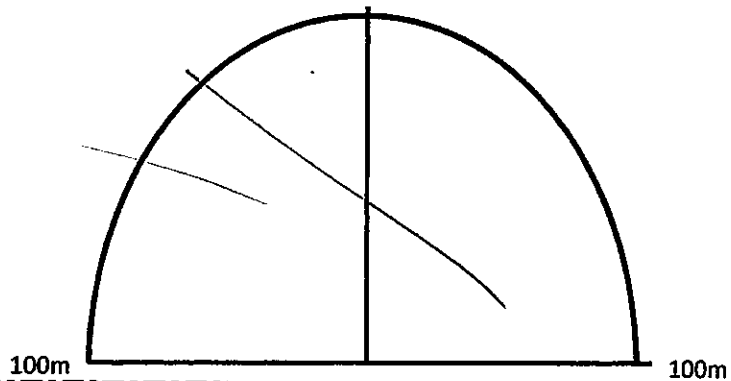
Amphibian - Frog - Data Form



Study Area (Bluewater, <u>Gosher</u> , Jericho):	
Pre-determined Station #: <u>364 RSH 1006</u>	*Feature #: <u>AWO-28</u>
GPS: (NAD 83) <u>17E 451274 4803700</u>	
Water Present (Y/N) <u>unknown</u>	
Date (yyyy-mm-dd): <u>2012-06-20</u>	Visit #(1-3) <u>3</u>
Field Staff (full name): <u>Jess Kuehn + Dave Kielstra</u>	
Time Started: <u>10:02</u>	Time Finished: <u>10:08 am</u>
Beaufort Wind Scale (0-6): <u>3 - S direction</u>	Cloud Cover (%):
Background Noise Scale (0-4): <u>0</u>	Temperature Celcius <u>22°C - hazy</u>
Precipitation (None, fog, drizzle, or rain) <u>none</u>	

Species	IN	OUT
NONE		X
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE		
WOFR		

S ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind Scale	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise Scale	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: _____

Study Area: GSH
 Pre-determined Station #: VPI *Feature #: 364-GSH1006 AWO-28
 GPS: 17T 0451274, 4803700 (GPS PT 67)

Date(yyyy-mm-dd): 2012-04-25 Field Staff (full name): R. Aitken, S. Gidner
 Weather: Sunny, 0% cloud cover, ~5°C, slight breeze (2)
 Time Started: 9:00am Time Finished: 9:45am

Water Present (Y/N) Y Vernal Pool or Pond? Vernal Pool
 Maximum Water Depth (m) 0.20m Water Quality (visual) Good (clear)
 Length(m) ~60m Width(m) ~20m
 % open water (emergent) 90% % floating plant cover of open water 0%

Potential to hold water until July (Y/N) Y if yes then complete amphibian and salamander sheet
 Human influences affecting area (dykes, agriculture etc.) some light tree removal, agricultural field ~10-15m away
 Describe area 100m behind you (field, marsh etc) Field

Submergent Plants (Species & % cover **)	
1 <u>N/A</u>	3
2	4
Emergent Plants (Species & % cover)	
1 <u>N/A</u>	3
2	4
Floating Plants (Species and % cover)	
1 <u>N/A</u>	3
2	4
Fringing Shrubs (Species & % cover)	
1 <u>LINBENZ (35-60%)</u>	3
2 <u>CORSEB (1-10%)</u>	4
Trees (Species & % cover)	
1 <u>FRAPENN (>60%)</u>	3
2 <u>FRANIGR (1-10%)</u>	4
Exposed <u>mud</u> /sand/rock	

Logs (size, quantity, location) several 10-24dbs logs fallen in and around vernal pool

Amphibians/egg masses observed (Type, quantity, location)

Comments Potential to hold larger amount of water during normal wetter spring

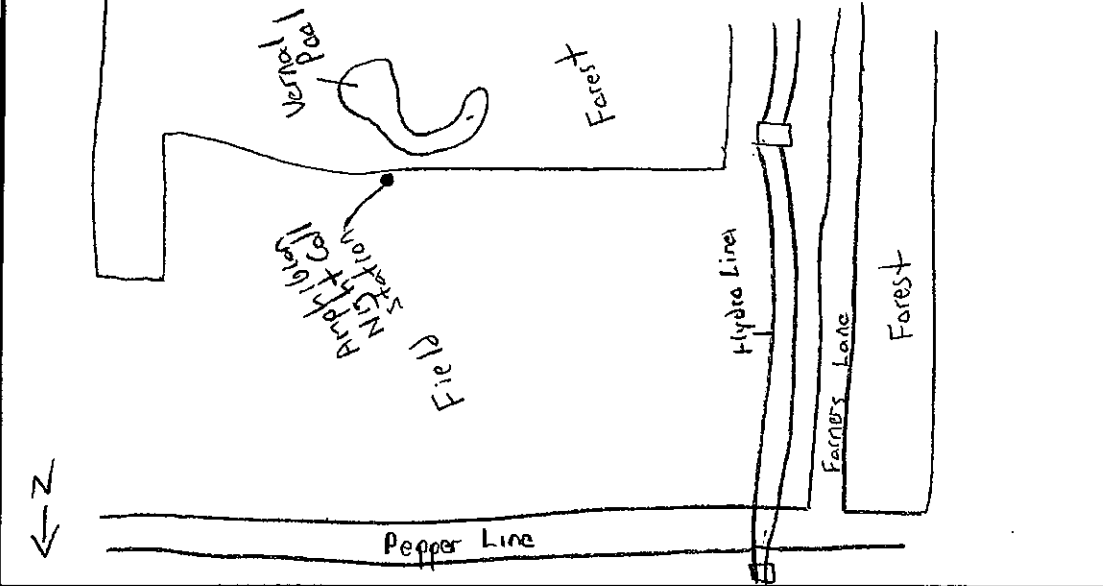
* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet

** - Of total percent cover (surface and canopy), select top 4 and estimate percent of their cover.

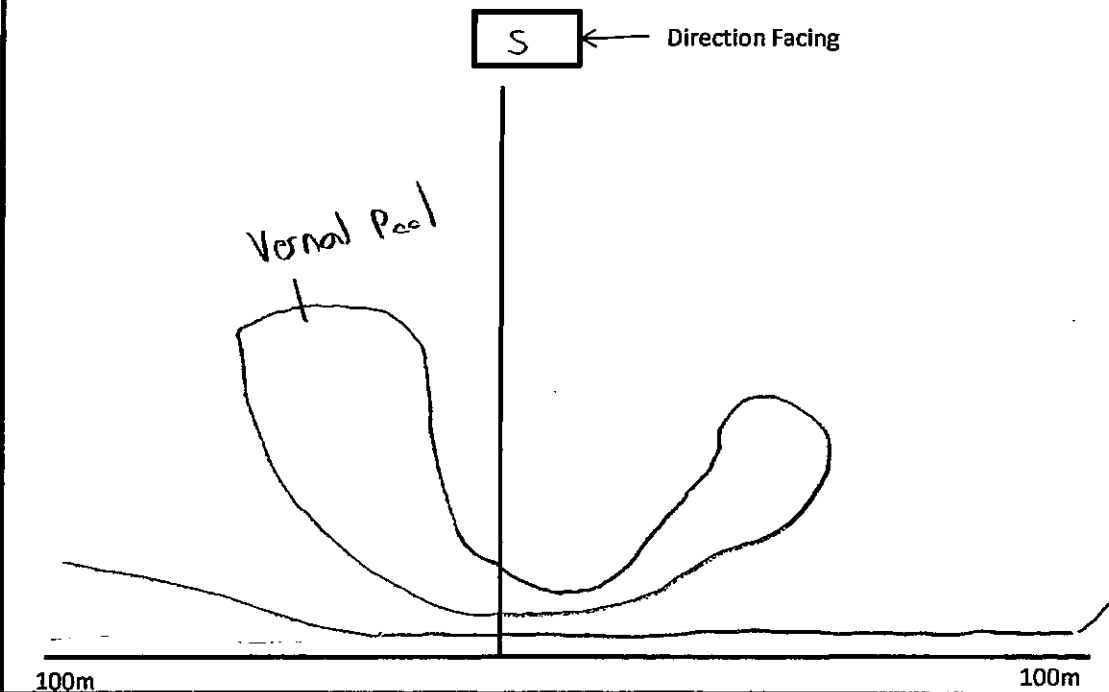
if no water present then no amphibian or salamander sheet completed

Pools created by tractor/ATV etc. ruts that are not naturalized are not considered vernal pool habitat

Map of general location - station location, road names, north arrow, entry route, house #, etc.



Map of Feature - GPS location, flow (if any), location of species (if any), vegetation, etc.



Photo#(locate on map and GPS if necessary)

Photo 10-11

Study Area: (Bluewater, Goshen, Jericho)
 Pre-determined Station #: 364-GSH1006 Feature #¹: VPI
 GPS: 17T 0451274, 4803200 (GPS PT 62)

Date (yyyy-mm-dd): 2012-04-25
 Field Staff (full name): R. Aitken, S. Gildner
 Weather: Sunny, 0% cloud cover, ~5°C, slight breeze (2)
 Time Started: 8:00am Time Finished: 9:45am

Water Present (Y/N) Yes Vernal pool depth (m) ~0.20m
 Vernal Pool width (m) ~20m Vernal Pool length (m) ~60m

Vegetation Comments (Dominant, % cover etc) Green Ash Swamp with spicelark and red osier dogwood shrub layer

NO Amphibians OBSERVED NO

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS

Photo #	Location/or Subject	Photo #	Location/or Subject
<u>10-11</u>	<u>Vernal Pool</u>		

Comments (ex: egg masses to have GPS) pool has potential to hold more water in wetter years.

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

Study Area:(Bluewater, Goshen, Jericho) Goshen
 Pre-determined Station #: 364 GSH1006 Feature #¹: AWO-28
 GPS: 17T 451274 4807720

Date(yyyy-mm-dd): 2012-05-16
 Field Staff (full name): Yess Piette + Tim Shorney
 Weather: 7°C, 30 km/h wind
 Time Started: 12:00 pm Time Finished: 12:50 pm

Water Present Y/N) YES Vernal pool depth(m) 20-30cm
 Vernal Pool width(m) ~20m Vernal Pool length(m) 50-60m

Vegetation Comments (Dominant, % cover etc) Fragaria/Mariage

NO Amphibians OBSERVED

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS) → may be too cold for amphibians to be out and about

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm



COPY

Legend

- Property Boundary
- GE Turbine
- ELC Completed 2011
- Natural Feature and ID
- ELC Polygon Boundary
- Disturbance Areas
- Area of Disturbance, plus 10m
- ANSI
- Evaluated Wetlands - PSW
- ABCA Watercourse
- Station

COPY

0.5 ha

Based on the data provided by the Ministry of Natural Resources
Cartography 2010

0 25 50 100
Metres

12,500
UTM Zone 17N, NAD 83

This drawing has been prepared for the use of AECOM's client and is not to be used for any other purpose without the written consent of AECOM. AECOM and its client accept no responsibility for any errors or omissions in this drawing. AECOM accepts no responsibility for any errors or omissions in this drawing. AECOM accepts no responsibility for any errors or omissions in this drawing.

AECOM

Gothen Amipriban Survey

**392_GSH1043/GSH1060/
GSH1008**

April 2012
Project 60156032

Figure 1

Amphibian - Frog - Data Form

AECOM

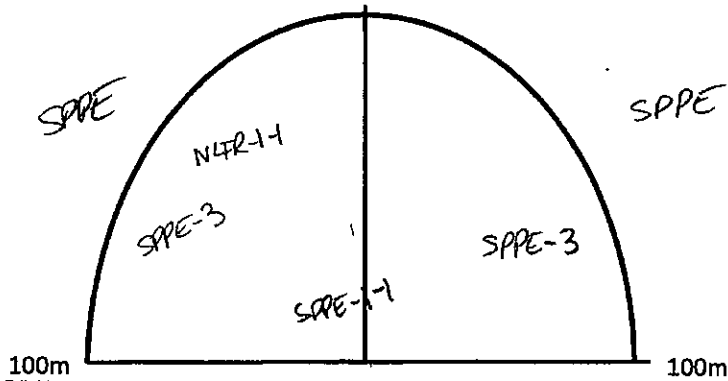
Study Area (Bluewater, Goshen, Jericho):
 Pre-determined Station #: 392 GSH1043/1060/1008 *Feature #: 392-E-392VPI
 GPS: (NAD 83) 17T 450793 4805679 AWO-30
 Water Present (Y/N) Y

Date (yyyy-mm-dd): 2012-04-25 Visit # (1-3) 1
 Field Staff (full name): S. LOHNES S. AITKEN
 Time Started: 08:49 PM Time Finished: 01:51 PM

Beaufort Wind Scale (0-6): Cloud Cover (%): 100
 Background Noise Scale (0-4): Temperature Celcius: 9°C
 Precipitation (None, fog, drizzle, or rain) NONE

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR	/	
GRTR		
GRFR		
NLFR	✓	
PIFR		
SPPE	✓	✓
WOFR		

E ← Direction Facing



- Code 1 - not simultaneous, number of individuals can be accurately counted
- Code 2 - some call simultaneous, but number of individuals can be reliably estimated
- Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form
 General Comments: Full chorus spring peepers throughout woodlot.

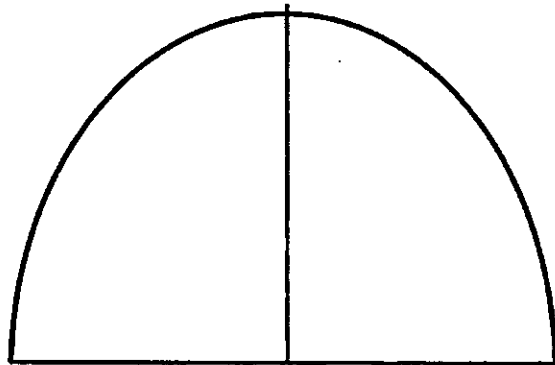
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho): <u>Goshen</u>	
Pre-determined Station #: <u>392 ESA 1043/1065/1008</u> *Feature #: <u>AWD-30</u>	
GPS: (NAD 83) <u>17T 450793 4805679</u>	
Water Present (Y/N) <u>YES</u>	
Date(yyyy-mm-dd): <u>2012-05-15</u>	Visit #(1-3) <u>2</u>
Field Staff (full name): <u>Jess Pickett + Tom Shoney</u>	
Time Started: <u>11:37 am</u>	Time Finished: <u>11:40 pm</u>
Beaufort Wind Scale (0-6): <u>4 (very windy)</u>	Cloud Cover (%): <u>40%</u>
Background Noise Scale (0-4): <u>2</u>	Temperature Celcius <u>17°C</u>
Precipitation (None, fog, drizzle, or rain) <u>none</u>	

Species	IN	OUT
NONE	<input checked="" type="checkbox"/>	
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE		
WOFR		

E ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
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Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
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Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
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CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: — large wind gusts, made it hard to hear

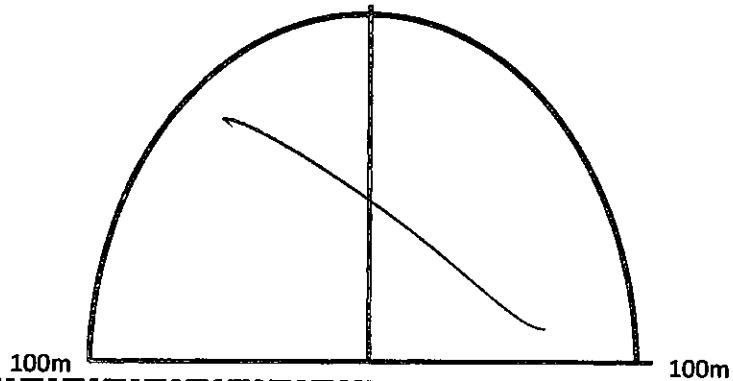
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho):	
Pre-determined Station #: 392 CSL11043/11/10/1008	*Feature #: AW0-30
GPS: (NAD 83) 17TL50793 4808679	
Water Present (Y/N): unknown	
Date (yyyy-mm-dd): 2012-06-20	Visit #(1-3): 3
Field Staff (full name): Jess Rette + Dave Kielstra	
Time Started: 9:31 pm	Time Finished: 9:34 pm
Beaufort Wind Scale (0-6): 3	Cloud Cover (%): 0%
Background Noise Scale (0-4): 0	Temperature Celcius: 28°C - hazy
Precipitation (None, fog, drizzle, or rain): none	

Species	IN	OUT
NONE		X
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE		
WOFR		

E ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
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 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind Scale	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
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	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
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Background Noise Scale	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: AMTO - observed

Study Area: Goshen
 Pre-determined Station #: 392-GSH1043/1067/1008 *Feature #: 392-VP2
 GPS: 17T 450793 4805679 AW0-30

Date(yyyy-mm-dd): 2012-04-23 Field Staff (full name): Tom Shoney Jess Piethe
 Weather: Cloudy, 5°C, 45km/h Wind
 Time Started: 5:30 Time Finished: 6:00

Water Present (Y/N) YES Vernal Pool or Pond? vernal Pools
 Maximum Water Depth (m) 25-30cm Water Quality (visual) Algae present, leaf bottom
 Length(m) 40m max Width(m) 10-20m
 % open water (emergent) 90% % floating plant cover of open water 0%
 Potential to hold water until July (Y/N) if yes then complete amphibian and salamander sheet Yes
 Human Influences affecting area (dykes, agriculture etc.) Forest management, Agriculture drainage
 Describe area 100m behind you (field, marsh etc) Agriculture / Hydro lines

Submergent Plants (Species & % cover **)	
1 <u>0%</u>	3
2	4
Emergent Plants (Species & % cover) → <u>10%</u>	
1 <u>Carex sp 80%</u>	3
2 <u>Phal arum 20%</u>	4
Floating Plants (Species and % cover) <u>0%</u>	
1	3
2	4
Fringing Shrubs (Species & % cover) <u>30%</u>	
1 <u>Freemans 80%</u>	3
2 <u>Prunus 20%</u>	4
Trees (Species & % cover) <u>50%</u>	
1 <u>Freemans 90%</u>	3
2 <u>Green Ash 10%</u>	4
Exposed mud/sand/rock	

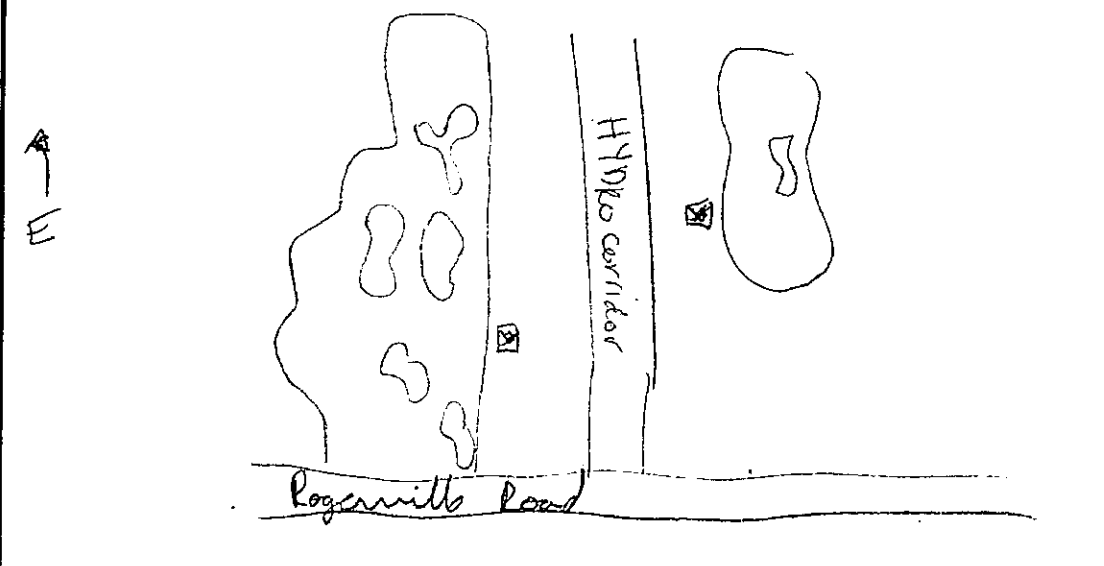
Logs (size, quantity, location) Average size of downed logs 40cm

Amphibians/egg masses observed (Type, quantity, location) No

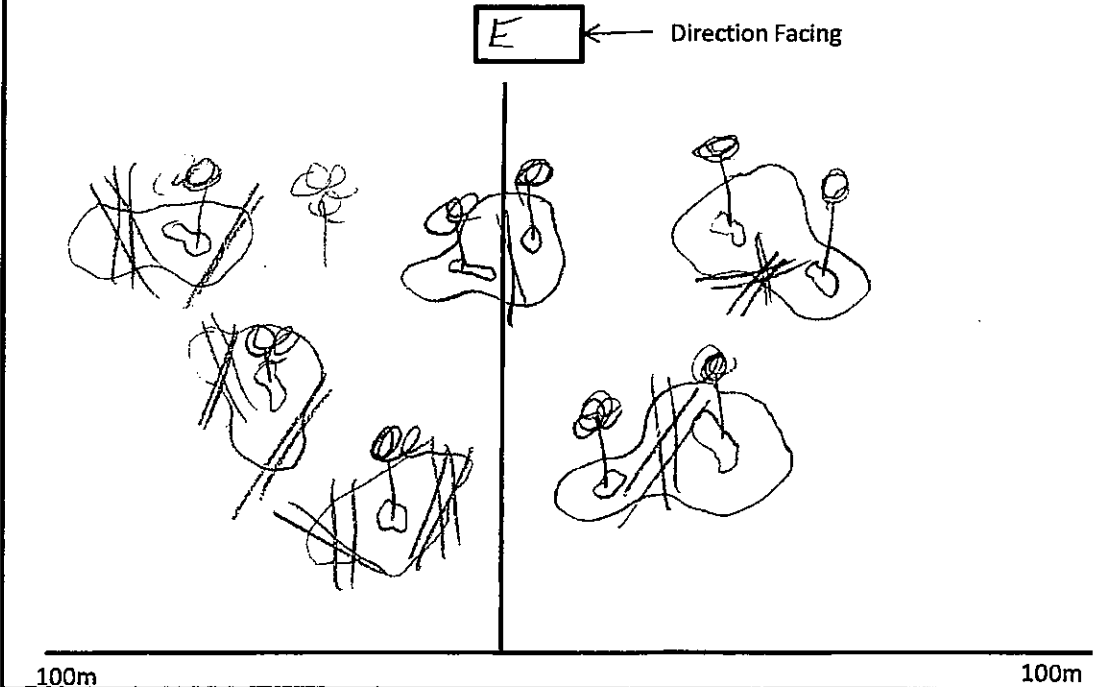
Comments All vernal pool components are an average. This feature was comprised of SWD3-3 complex (several small ponds)

* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet
 **-Of total percent cover (surface and canopy), select top 4 and estimate percent of their cover.
 If no water present then no amphibian or salamander sheet completed
 Pools created by tractor/ATV etc. ruts that are not naturalized are not considered vernal pool habitat

Map of general location - station location, road names, north arrow, entry route, house #, etc.



Map of Feature - GPS location, flow (if any), location of species (if any), vegetation, etc.



Photo#(locate on map and GPS if necessary)

Complex of SWD 3-3 - Several small pools

Study Area:(Bluewater, Goshen, Jericho) <u>GOSTEN</u>	
Pre-determined Station #: <u>392 GSH 1043/1060/1006</u>	Feature # ¹ : <u>312 VP2</u>
GPS: <u>17T 450 793 480 56 79</u>	<u>AWO-30</u>

Date(yyyy-mm-dd): <u>April 23 2012</u>
Field Staff (full name): <u>Jess Peltor + Tom Stoney</u>
Weather: <u>6°C</u>
Time Started: <u>5:30 pm</u> Time Finished: <u>6:00 pm</u>

Water Present Y/N) <u>YES</u>	Vernal pool depth(m) <u>25-30cm</u>
Vernal Pool width(m) <u>10-20m</u>	Vernal Pool length(m) <u>40m (max)</u>

Vegetation Comments (Dominant, % cover etc) within SWD,

NO Amphibians OBSERVED

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS)

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of Individual (adult or larvae) or egg masses - cm



Study Area:(Bluewater, Goshen, Jericho) Goshen
 Pre-determined Station #: 392 GSH1043/1060/1008 Feature #¹: AWO-30
 GPS: 17T 450793 4905679

Date(yyyy-mm-dd): 2012-05-16
 Field Staff (full name): Jess Kiette + Tom Shorney
 Weather: 7°C 30km/h wind
 Time Started: 10:00 am Time Finished: 11:17 am

** Several pools within woodland **
 Water Present Y/N) YES Vernal pool depth(m) max 25cm
 Vernal Pool width(m) 10-20 m Vernal Pool length(m) max 40m

Vegetation Comments (Dominant, % cover etc) Ace tree / Fraxinus

NO Amphibians OBSERVED

Amphibian Species	Life Stage	Number	Search Type	Size	Comments/GPS
GRFR	adult	2	observation	7cm	
AMTO	Tadpole	x 3	dipnet	10-20mm	
unknown	adults	x 4	observations		

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS) w tadpoles in first pool
-very cold and windy may have been cause of low numbers
of frogs + Tadpoles seen

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form → 20cm
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

379

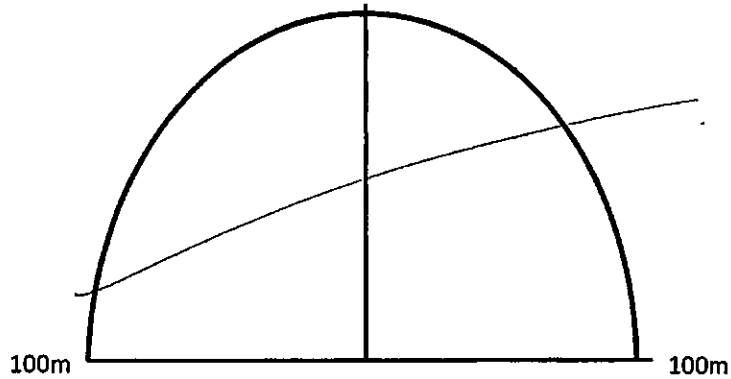
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho):	
Pre-determined Station #: 379-GSH1430	*Feature #: 379-DR2
GPS: (NAD 83) 177451950 4804676	AWE-29
Water Present (Y/N) <input checked="" type="checkbox"/>	
Date(yyyy-mm-dd): 2012-04-25	Visit #(1-3) 1
Field Staff (full name): S. LOUNES S. ATKEN	
Time Started: 09:13 PM	Time Finished: 09:16 PM
Beaufort Wind Scale (0-6): 1	Cloud Cover (%): 10%
Background Noise Scale (0-4): 1	Temperature Celcius 9°C
Precipitation (None, fog, drizzle, or rain) NONE	

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE		
WOFR		

E ← Direction Facing



Code 1 - not simultaneous, number of individuals can be accurately counted
 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
 Code 3 - full chorus, call continuous, numbers of individuals cannot be reliably estimated

Beaufort Wind	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
Scale	1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
	2: 6-11 km/hr - slight breeze - can feel on face	6: 39-49 km/hr - strong breeze - large branch moves
	3: 12-19 km/hr - gentle breeze - leaves move on twigs	

Background Noise	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
	2 - moderate - distant traffic (2-5 cars)	

AMTO - American Toad	MIFR - Mink Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickerel Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments: dog barking at residence on adjacent

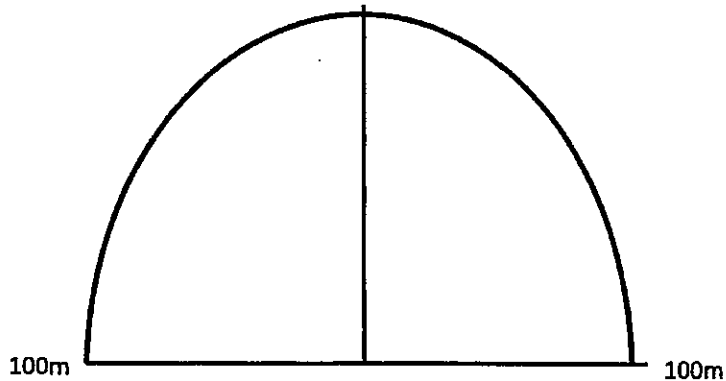
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho): <u>Goshen</u>	
Pre-determined Station #: <u>379 PSR1430</u>	*Feature #: <u>AWE-29</u>
GPS: (NAD 83) <u>17T 451950 4804676</u>	
Water Present (Y/N) <u>YES (small chain)</u>	
Date(yyyy-mm-dd): <u>7/2-05-15</u>	Visit #(1-3) <u>2</u>
Field Staff (full name): <u>Jess Bette + Tom Shoney</u>	
Time Started: <u>11:30 am</u>	Time Finished: <u>11:33 am</u>
Beaufort Wind Scale (0-6): <u>3 22 km/h</u>	Cloud Cover (%): <u>40%</u>
Background Noise Scale (0-4): <u>1</u>	Temperature Celcius: <u>17°C</u>
Precipitation (None, fog, drizzle, or rain) <u>None</u>	

Species	IN	OUT
NONE		X
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE		
WOFR		

E ← Direction Facing



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BULL - Bullfrog	GRTR - Gray Treefrog	PIFR - Pickeral Frog
CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

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General Comments: _____

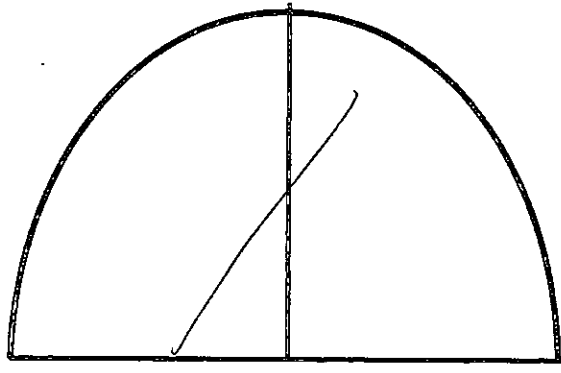
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho): GOSHEN
 Pre-determined Station #: 579 PSH/432 *Feature #: AWE-29
 GPS: (NAD 83) 17T 451950 4804676
 Water Present (Y/N) unknown
 Date(yyyy-mm-dd): 2012-06-20 Visit #(1-3) 3
 Field Staff (full name): Jess Pieter + Dave Kielstra
 Time Started: 10:15 pm Time Finished: 10:45 pm
 Beaufort Wind Scale (0-6): 3 Cloud Cover (%): 0%
 Background Noise Scale (0-4): 0 Temperature Celcius 19°C
 Precipitation (None, fog, drizzle, or rain)

Species	IN	OUT
NONE		X
AMTO		
BULL		
CHFR		
MIFR		
GRTR		X
GRFR		
NLFR		
PIFR		
SPPE		
WOFR		

E ← Direction Facing



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Scale	1 - slight - distant traffic (1 car)	4 - profound - continuous traffic passing
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CHFR - Chorus Frog	GRFR - Green Frog	SPPE - Spring Peeper
		WOFR - Wood Frog

* - FEATURE # refers to the vernal pool ID given on the habitat description form

General Comments:



Study Area: GOSHEN
 Pre-determined Station #: 379 GSH1430 *Feature #: AWE-29
 GPS: 17T 451950 4804676

Date (yyyy-mm-dd): April 24, 2012 Field Staff (full name): Jess Ketter + Tom Stoney
 Weather: 3°C
 Time Started: 8:30 am Time Finished: 10:10

Water Present (Y/N) YES Vernal Pool or Pond? drainage feature with pooling
 Maximum Water Depth (m) 30-40 cm Water Quality (visual) clear
 Length (m) 30m Width (m) 3-5m
 % open water (emergent) 100% % floating plant cover of open water 0%
 Potential to hold water until July (Y/N) if yes then complete amphibian and salamander sheet YES
 Human influences affecting area (dykes, agriculture etc.) none babylon road directly adjacent
 Describe area 100m behind you (field, marsh etc) road and field

Submergent Plants (Species & % cover **) <u>0%</u>	
1	3
2	4
Emergent Plants (Species & % cover) <u>20%</u>	
1 <u>reed canopy open</u> <u>20%</u>	3
2 <u>mm Acer negundo</u> <u>3%</u>	4
Floating Plants (Species and % cover) <u>0%</u>	
1	3
2	4
Fringing Shrubs (Species & % cover) <u>0%</u>	
1	3
2	4
Trees (Species & % cover) <u>none</u> <u>10%</u>	
1 <u>Acer negundo</u>	3
2 <u>Salix alt fragilis</u>	4
Exposed mud/sand/rock	

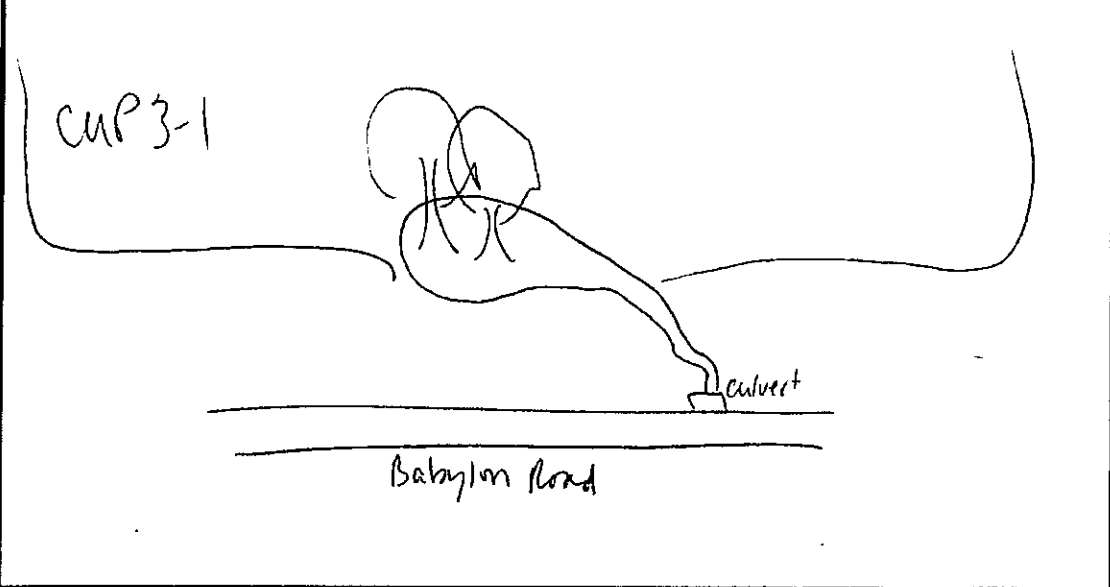
Logs (size, quantity, location) none

Amphibians/egg masses observed (Type, quantity, location) 1 adult unknown observed

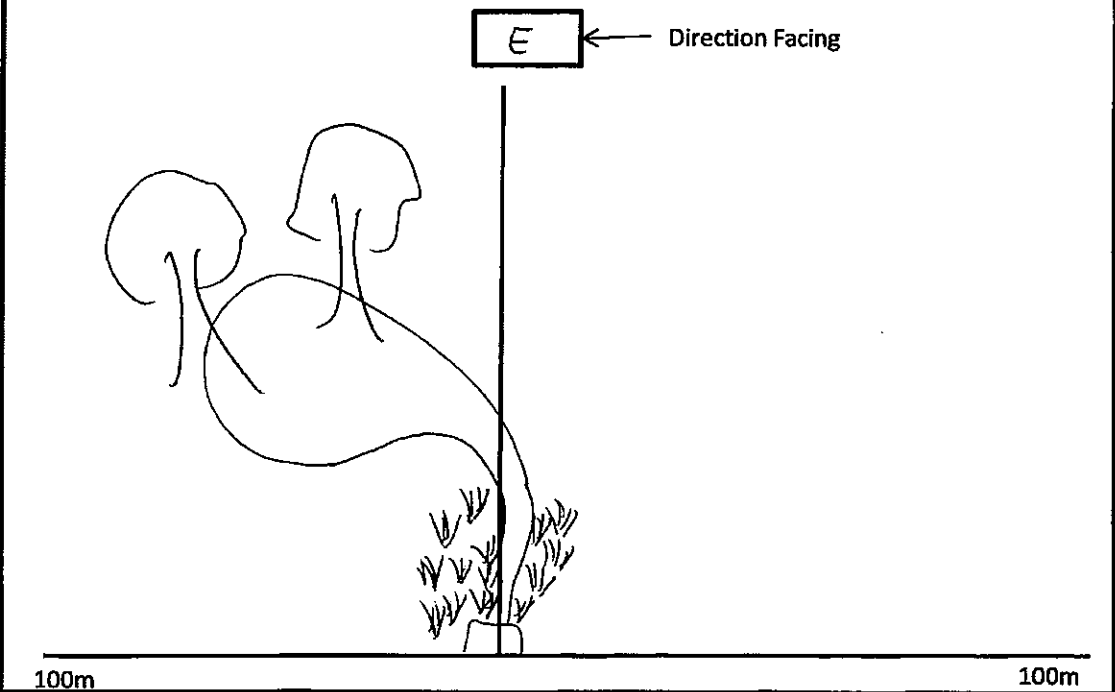
Comments Area is drainage however there are areas where pooling occurs

* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet
 ** - Of total percent cover (surface and canopy), select top 4 and estimate percent of their cover.
 If no water present then no amphibian or salamander sheet completed
 Pools created by tractor/ATV etc. ruts that are not naturalized are not considered vernal pool habitat

Map of general location - station location, road names, north arrow, entry route, house #, etc.



Map of Feature - GPS location, flow (if any), location of species (if any), vegetation, etc.



Photo#(locate on map and GPS if necessary)

#12 photo ~~not~~ located on map

Study Area: (Bluewater, Goshen, Jericho)
 Pre-determined Station #: 379-GSH1430 Feature #¹: AWE-29
 GPS: 17T 451950 4804676

Date (yyyy-mm-dd): 2012-04-24
 Field Staff (full name): Tom Storey JPS, p: 110
 Weather: cloudy, 3°C, 45 km/h
 Time Started: 8:30 am Time Finished: 10:10 am

Water Present Y/N Yes Vernal pool depth (m) 30-40 cm
 Vernal Pool width (m) 3-5 m Vernal Pool length (m) 30 m

Vegetation Comments (Dominant, % cover etc): 20% Manitoba maple 30%, Red Canary grass 70%

NO Amphibians OBSERVED yes

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS
<u>Unknown</u>	<u>Adult</u>	<u>1</u>	<u>OBSERVED</u>	<u>3-6 cm</u>	<u>Jumped into bucket before identification</u>

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS)
Species observed, but could not be identified due as species was too small

¹ - FEATURE # refers to the vernal pool ID given on the habitat description form
² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

Study Area: (Bluewater, Goshen, Jericho) Goshen
 Pre-determined Station #: 379 FSH 430 Feature #¹: AWE-29
 GPS: 17T 451950 4804676

Date (yyyy-mm-dd): 2012-05-16
 Field Staff (full name): Jess Biehr + Tom Sharkey
 Weather: 7°C, 30 km/h wind
 Time Started: 11:25 am Time Finished: 11:45 am

Water Present Y/N: Yes Vernal pool depth (m): 30cm
 Vernal Pool width (m): 3-5m Vernal Pool length (m): 30-40cm

Vegetation Comments (Dominant, % cover etc) grass

NO Amphibians OBSERVED

Amphibian Species	Life Stage	Number	Search Type ⁴	Size ⁵	Comments/GPS

Photo #	Location/or Subject	Photo #	Location/or Subject

Comments (ex: egg masses to have GPS) → small stream leading into small wetland pocket
 → nothing seen

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² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm