

Appendix B2

Amphibian Surveys

Legend

- Property Boundary
- CR 10/20m
- 1000 Contour 2015
- Natural Feature and ID
- ELU Property Boundary
- Watercourse (Open)
- Area of Disturbance plan 1/2m
- PA 15
- 1:50000 Contour - 1/20m
- ADCF Watercourse

COPY



0.6 Ha



North Arrow
Scale: 1:10000

Project Reference No: 194_GBN3171
 Date: 20/12/2022
 Drawing No: 01/1001

AECOM



Amphibian - Frog - Data Form

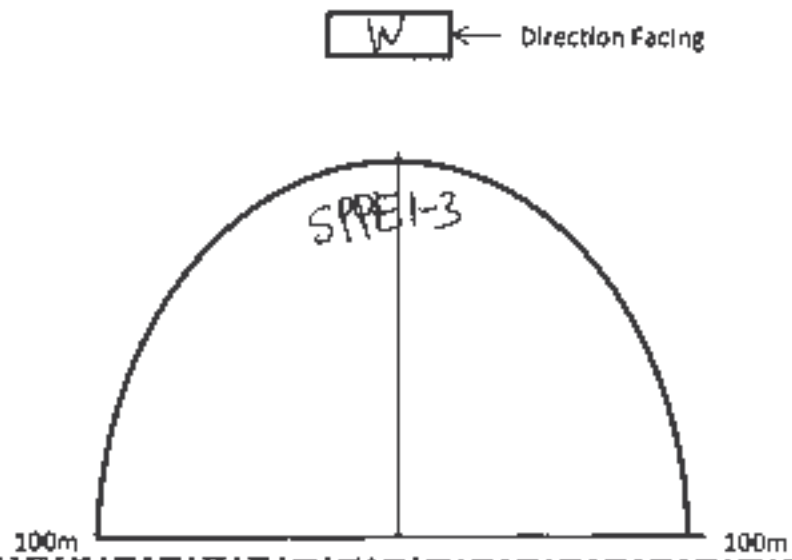
AECOM

Study Area (Bluewater, Goshen, Jericho): 198_GSH2176
 Pre-determined Station #: 1, P21 *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 Celsius: 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		



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

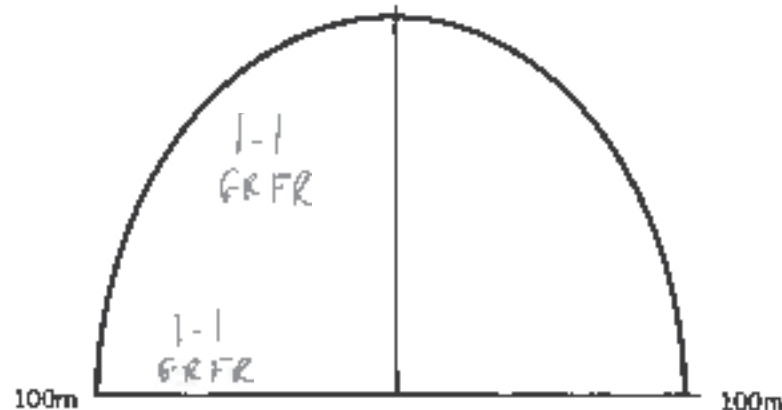
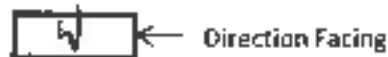
General Comments: _____

Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho): _____
 Pre-determined Station #: 14405H217C *Feature #: Amto USA
 GPS: (NAD 83) 17T 438989 4790479
 Water Present (Y/N) Y
 Date(yyyy-mm-dd): 2017-03-15 Visit # (1-3) 2
 Field Staff (full name): Less Peckle & Tim Shalvey
 Time Started: 12:29am Time Finished: 12:32AM
 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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	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 (3 cars)	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: _____

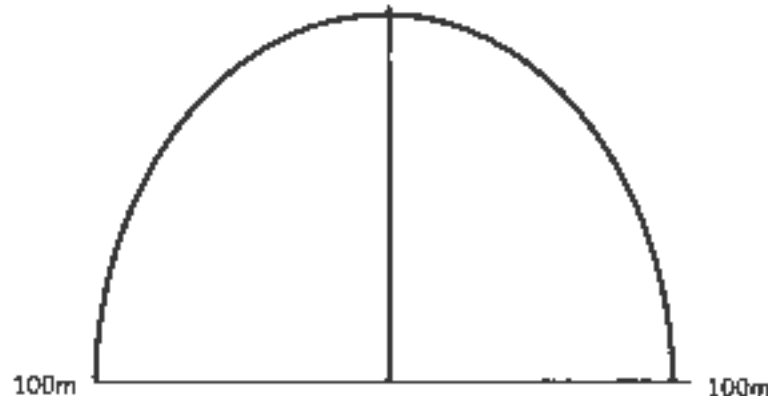
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho):	
Pre-determined Station #: 156 654 2176	*Feature #: AWO-036
GPS: (NAD 83) 17T 439949 4290479	
Water Present (Y/N) Y	
Date (yyyy-mm-dd): 2012-05-15	Visit # (1-3) 2
Field Staff (full name): Jess Veatta + Tom Shuman	
Time Started: 12:24 am	Time Finished: 12:27 am
Beaufort Wind Scale (0-6): 0	Cloud Cover (%): 0
Background Noise Scale (0-4): 0	Temperature Celsius: 12°C
Precipitation (None, fog, drizzle, or rain) None	

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

W ← Direction Facing



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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
	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:

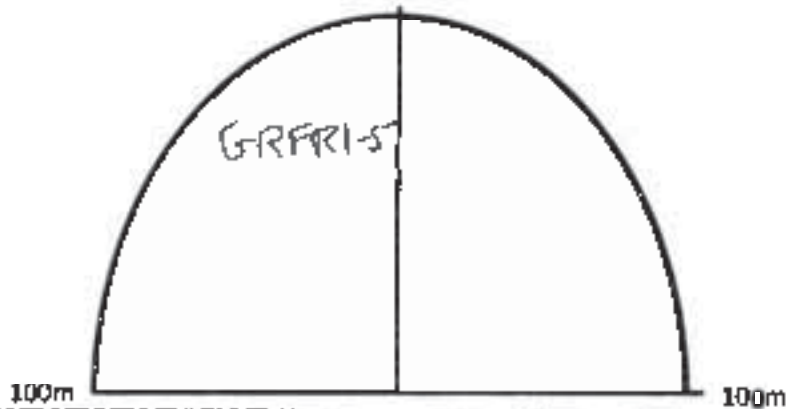
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho):
 Pre-determined Station #: _____ *Feature #: AWO-03a
 GPS: (NAD 83) 17T
 Water Present (Y/N) _____
 Date (yyyy-mm-dd): June 19, 2011 Visit # (1-3) 3
 Field Staff (full name): Sam Guldiner, Tom Shroy
 Time Started: 9:15 Time Finished: 9:18
 Beaufort Wind Scale (0-6): 0 Cloud Cover (%): 10%
 Background Noise Scale (0-4): 0 Temperature Celcius: 27°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



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Beaufort Wind Scale	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
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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: huf

Study Area: (7) SHEEN
 Pre-determined Station #: 198 DSH 2136 *Feature #: 198 P01 AWO-3a
 GPS: 17T 438990 4200472

Date (yyyy-mm-dd): April 17, 2012 Field Staff (full name): Jesse Brink - Tom S. Murray
 Weather: 5°C, cloudy - windy
 Time Started: 9:00am Time Finished: 9:30am

Water Present (Y/N) YES Vernal Pool or Pond? Pond
 Maximum Water Depth (m) unknown Water Quality (visual) murky
 Length (m) 70m Width (m) 30m
 % 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.) drug pond
 Describe area 100m behind you (field, marsh etc) Mulford line

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>Aspen 35%</u>	3 <u>Willow 5%</u>
2 <u>Maple 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.

A hand-drawn map showing a rectangular area on the left labeled "F198" and an oval area on the right labeled "Pond". Below these areas is a horizontal line representing a road, labeled "Millard".

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

A detailed hand-drawn map of a vernal pool feature. At the top, there is a box containing the letter "W" with an arrow pointing to the left, labeled "Direction Facing". Below this is a sketch of a pool with a vertical line through its center and several irregular shapes representing vegetation or structures. At the bottom, there are two horizontal lines, each labeled "100m".

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

Study Area: (Bluewater, Goshen/ Jericho)
 Pre-determined Station #: 198-65H2176 Feature #¹: 198-P21 AWO-3a
 GPS: 17T 43 8990 4790472

Date (yyyy-mm-dd): 2012-04-17
 Field Staff (full name): Tom Stoney Jess Poutte
 Weather: 15°C, Cloudy - Windy
 Time Started: 9:00 Time Finished: 9:30

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

Vegetation Comments (Dominant, % cover etc) 30% Total
Salix sp. 5% Fern 60%

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) Colony
 Pre-determined Station #: 198 FSH 2176 Feature #: AWO-036 (P01)
 GPS: 17T 485989 4790479

Date (yyyy-mm-dd): May 14, 2012
 Field Staff (full name): Fran Shumley + Jess Pette
 Weather: 19°C, cloudy
 Time Started: 1:15 PM Time Finished: 1:45 PM

Water Present Y/N: YES Vernal pool depth(m): intermittent, nearby
 Vernal Pool width(m): 30m Vernal Pool length(m): 70m

Vegetation Comments (Dominant, % cover etc): 20% shrubs (Scleria) 30% trees (Acacia, Euphorbia)

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	
W. Salamander	-	-	observed	-	seen walking 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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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 x 3
 mourning dove x 6
 gold finch
 Queen darwin
 mephus

Amphibian - Frog - Data Form

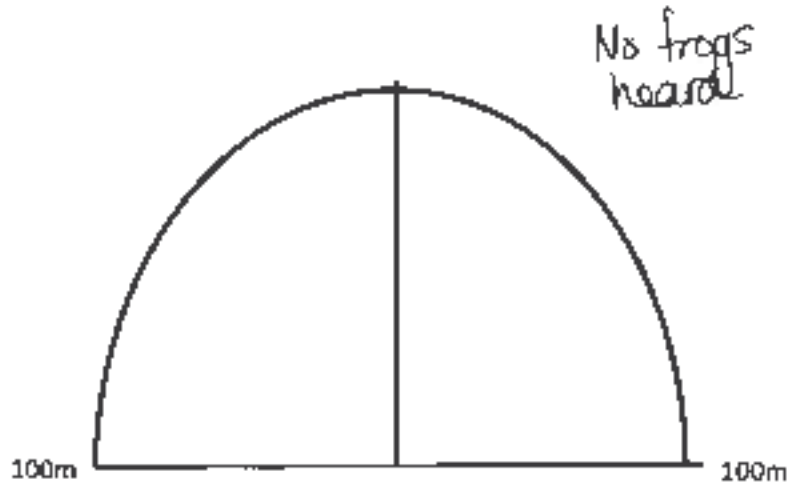
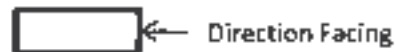
AECOM

Study Area (Bluewater, Goshen, Jericho): Goshen 225-GSH1949
 Pre-determined Station #: GSH1949 *Feature #: 225 AWO-04
 GPS: (NAD 83) 17T 446816 4971785
 Water Present

Date (yyyy-mm-dd): 2012-04-19 Visit #(1-3): #1
 Field Staff (full name): Olga Hrodich, James Kowstra
 Time Started: 4:15 pm Time Finished: 9:20

Beaufort Wind Scale (0-6): 0 Cloud Cover (%): 100%
 Background Noise Scale (0-4): 1 Temperature Celsius: 9°C
 Precipitation (None, fog, drizzle, or rain): None

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



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Beaufort Wind Scale	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 Scale	0 - no appreciable effect	3 - serious - continuous traffic nearby (6-10 cars)
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AMTO - American Toad	MIFR - Milk Frog	NLFR - N. Leopard Frog
BULL - Bullfrog	GRFR - 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: Gusdon
 Pre-determined Station #: 225 FSH1949 *Feature #: 225 VP1 AWO-04
 GPS: 17T 446807 4991913

Date (yyyy-mm-dd): April 7, 2012 Field Staff (full name): Jessica Puttery Tom Smalley
 Weather: 3°C
 Time Started: 5:30 pm Time Finished: 5:16 pm

Water Present (Y/N) Y Vernal Pool or Pond? Pool
 Maximum Water Depth (m) 15-26cm Water Quality (visual) clear
 Length (m) 50-70m Width (m) 5-10m
 % open water (emergent) 80% % 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.) Woods Management
 Describe area 100m behind you (field, marsh etc) SWD, EUD

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

1	3
2	4

Emergent Plants (Species & % cover) 0%

1 <u>Cover op</u>	3
2 <u>R. Phalaris Aris</u>	4

Floating Plants (Species and % cover) 0%

1	3
2	4

Fringing Shrubs (Species & % cover) 1%

1 <u>10m racemose</u>	3
2 <u>Red</u>	4

Trees (Species & % cover) 2%

1 <u>Fern</u>	3
2 <u>Maple</u>	4

Exposed mud/sand/rock

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

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

Comments Open family open within canopy gap

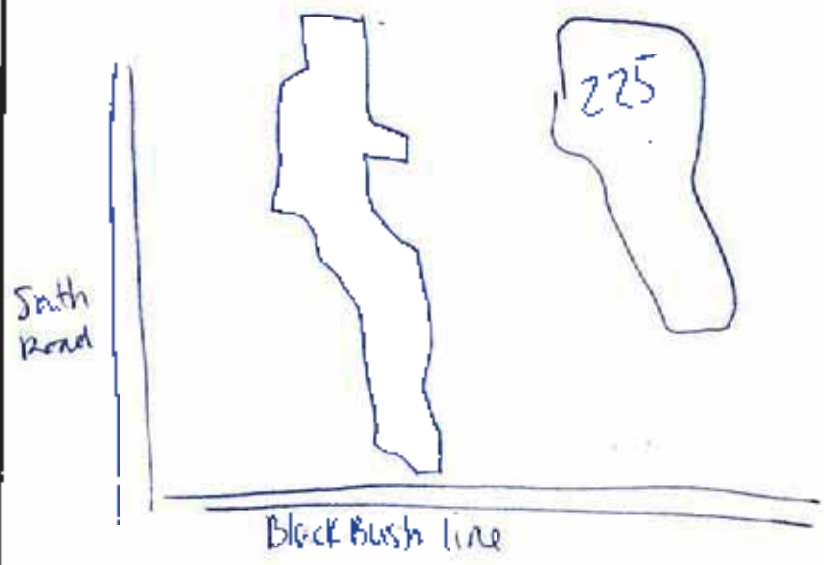
* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet

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

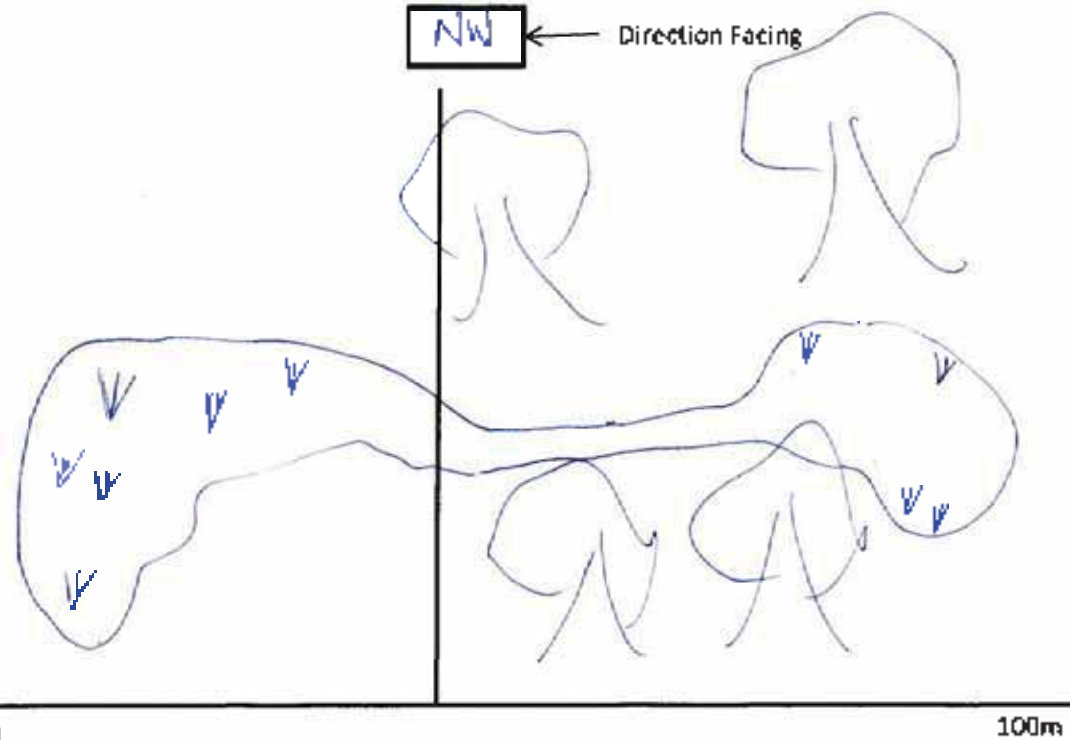
If no water present then no amphibian or salamander sheet completed

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) Goshen
 Pre-determined Station #: 225 GSH 19,49 Feature #¹: 225 VPI AWO-04
 GPS: 17T

Date (yyy-mm-dd): April 17, 2012
 Field Staff (full name): James Foster + Tom Stoney
 Weather: 3k
 Time Started: 3:30 pm Time Finished: 5:15 pm

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

Vegetation Comments (Dominant, % cover etc) Need canopy glass within 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]

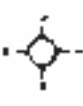
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² adult or larvae or egg masses
³ number of individuals (adults or larvae) or egg masses
⁴ overturned logs, D-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

- Legend
- Property Boundary
 - GS Tract
 - 1.17 Contained 2011
 - Natural Feature (AOB)
 - 1.15 Major Boundary (containing AOB)
 - Area of Disturbance plus 10m (AOB)
 - Finalized Variance - PDR
 - AOB Reference

COPY



Prepared by: [Name]



Scale: 1" = 40'

This drawing is for informational purposes only. It is not intended to be used for any legal or regulatory purposes. The user of this drawing is responsible for verifying the accuracy of the information shown here. AECOM is not responsible for any errors or omissions in this drawing.

ELC
 216_GSH061
 AWO-06
 August 14, 2012

AECOM



Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho):

Pre-determined Station #: 235-GSH2061 *Feature #: 235-VP2 AWO-06

GPS: (NAD 83) 17T 454635 4992710

Water Present (Y/N) YES

Date (yyyy-mm-dd): 2017-04-19 Visit # (1-3) 1

Field Staff (full name): Tom Slattery Jess Piette

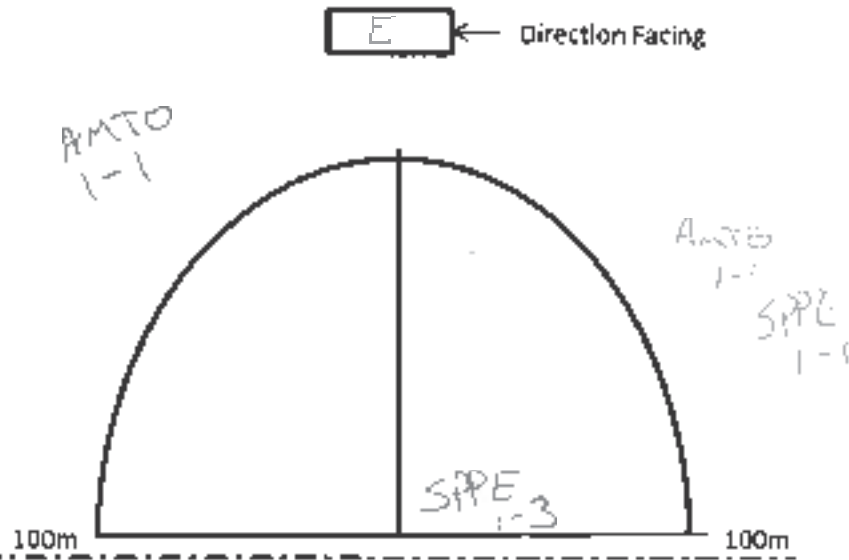
Time Started: 10:40 Time Finished: 11:34

Beaufort Wind Scale (0-6): 3 Cloud Cover (%): 70%

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
WDFR		



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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 twig	

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
		WDFR - Wood Frog

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

General Comments: _____

Amphibian - Frog - Data Form

AECOM

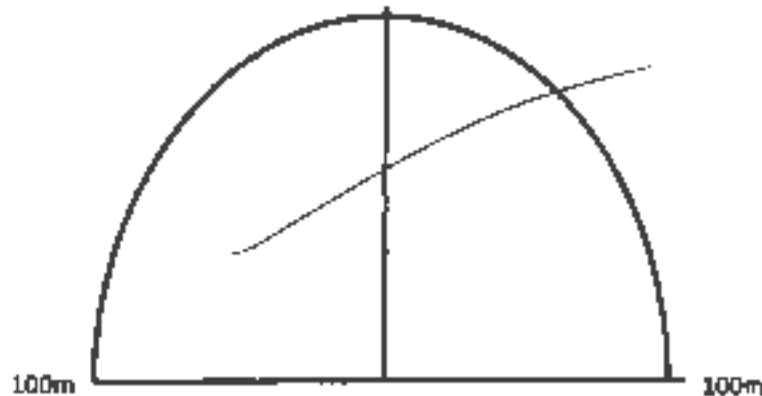
Study Area (Bluewater, Goshen, Jericho):
 Pre-determined Station #: 235-GSH 2061 *Feature #: AWD-026
 GPS: (NAD 83) 177 454615 4721710
 Water Present (Y/N) N/A

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

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

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

E ← Direction Facing



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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
	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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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: _____

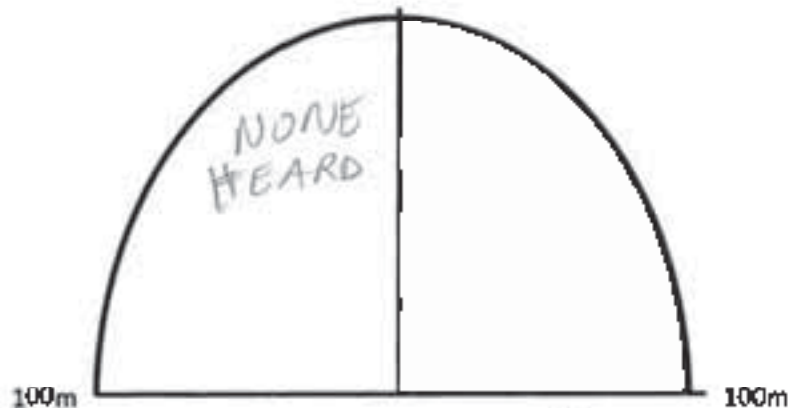
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho):	
Pre-determined Station #: 235 GSH 2061	*Feature #: AWO-02
GPS: (NAD 83) 17T 454 635, 4792710	
Water Present (Y/N) ?	
Date (yyyy-mm-dd): 2012 June 21	Visit #(1-3) 3
Field Staff (full name): Gilchrist, Sherry	
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		

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 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: GOSHEN
 Pre-determined Station #: 235GS12061 *Feature #: 235 VPI AWO-06
 GPS: 177 454635 4292210

Date (yyyy-mm-dd): Apr 19, 2012 Field Staff (full name): Jessie Packer + Tom Straley
 Weather: 11°C
 Time Started: 2:39 Time Finished: 4:10 pm

Water Present (Y/N) YES Vernal Pool or Pond? Vernal pool
 Maximum Water Depth (m) 25-30cm Water Quality (visual) clear, deep bottom
 Length (m) 50m Width (m) 17m - 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 **) 5%

1	<u>lotus</u>	<u>3</u>
2		<u>4</u>

Emergent Plants (Species & % cover) 36-41%

1	<u>Carex sp</u>	<u>80%</u>	<u>3</u>	<u>100% sp. 3%</u>
2	<u>plantain</u>	<u>2%</u>	<u>4</u>	

Floating Plants (Species and % cover) 0%

1		<u>3</u>
2		<u>4</u>

Fringing Shrubs (Species & % cover) 2%

1	<u>1mm Freeman's</u>	<u>3</u>
2		<u>4</u>

Trees (Species & % cover) 40%

1	<u>Freeman's maple</u>	<u>3</u>
2		<u>4</u>

Exposed mud/sand/rock 2% around edges

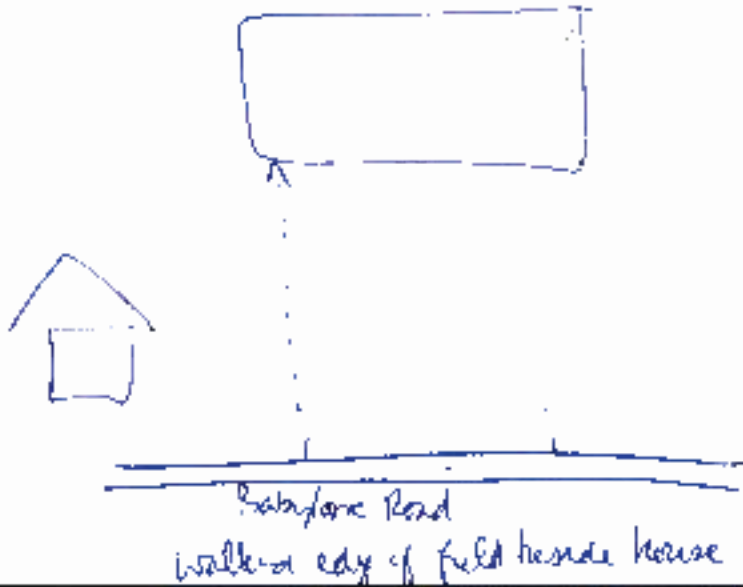
Logs (size, quantity, location) fallen logs have been put into piles

Amphibians/egg masses observed (Type, quantity, location) 2 wood frogs, heard green + chorus
no amphibian print

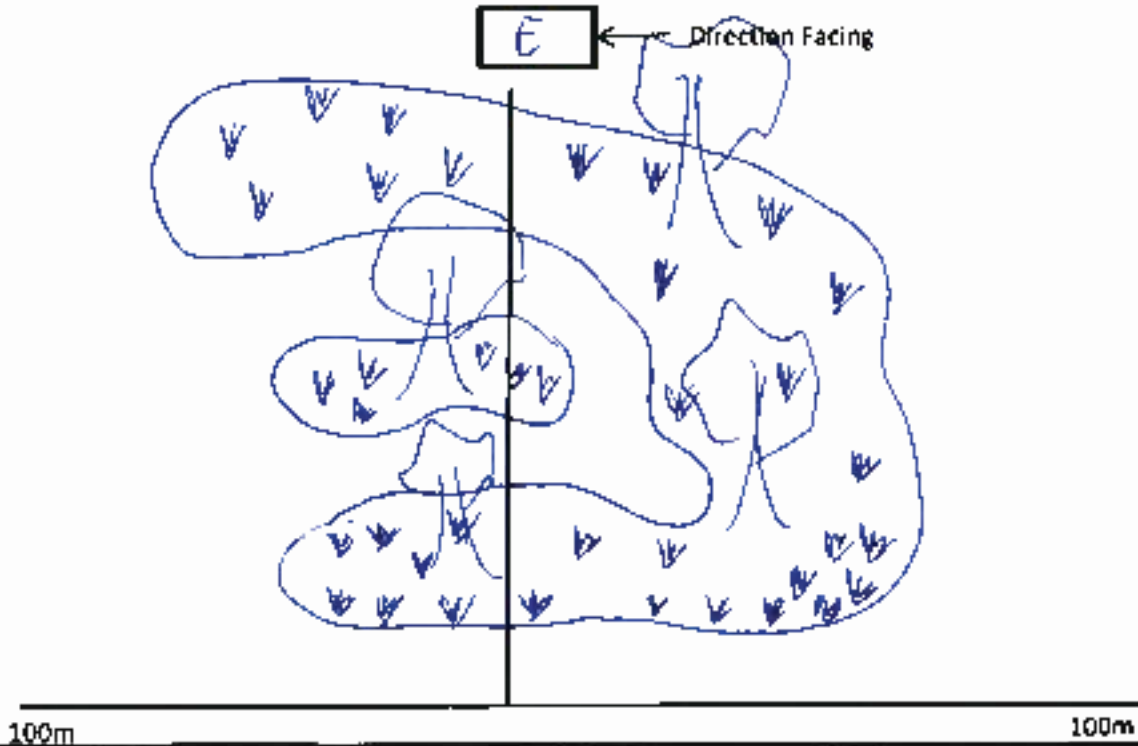
Comments _____

* - 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)

photo on map

Study Area: (Bluewater, Goshen, Jericho)
 Pre-determined Station #: 235-GSH2061 Feature #: 235-VP1 AWO-06
 GPS: 177454635 4892710

Date (yyy-mm-dd): 2012-04-19
 Field Staff (full name): Tom Sharkey Jess Piette
 Weather: Sunny 10°C 15 km/h
 Time Started: 2:45 Time Finished: 4:00 PM

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) Lowest sp 30% , 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 amphibian 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

Dip net

Study Area: (Bluewater, Goshen, Jericho) *235 - GSH2001*
 Pre-determined Station #: *17T* Feature #¹: *235VPI* AWO-06
 GPS: *454635, 4792710*

Date (yyyy-mm-dd): *2012 - may 17*
 Field Staff (full name): *G. Kline, A. Khan*
 Weather: *70°, 100% clouds, no wind*
 Time Started: *8:45am* Time Finished: *9:45am*

Water Present (Y/N) _____ Vernal pool depth (m) *5.15cm*
 Vernal Pool width (m) *2.2 - 3.0* Vernal Pool length (m) *5.0m*

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, O-ring dipnet, observation
⁵ Size of individual (adult or larvae) or egg masses - cm

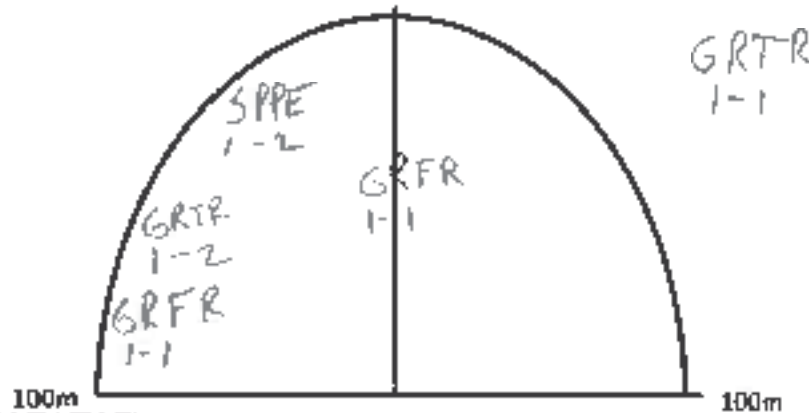
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater/Goshop/Jericho): _____
 Pre-determined Station #: 236-GSH1508 *Feature #: AWQ-07/08
 GPS: (NAD 83) 17T 476240 492462
 Water Present (Y/N) YES
 Date (yyyy-mm-dd): 2012-05-14 Visit # (1-3) 2
 Field Staff (full name): Tom Sherry Jess. Piche
 Time Started: 9:42 AM Time Finished: 9:45 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	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 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: (Bluewater, Goshen, Jericho) Cushien
 Pre-determined Station #: 236 (SH1507/1508) Feature #: AWO 07/08
 GPS: 17T 446241 4792462

Date (yyyy-mm-dd): 2012-05-15
 Field Staff (full name): Jess Potts + Tom Stewart
 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 (pond) 17m (pond)
 Vernal Pool width(m) 20-30m (pond) 12m (pond) Vernal Pool length(m) 20-60m (pond) 17m (pond)

Vegetation Comments (Dominant, % cover etc) Stucco / Phytolacca (pond)
growing / low brush / sedge / water (pond)

NO Amphibians OBSERVED

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS
GRF2	adult	15	direct	10mm	
GRF2	adult	1	heard	-	calling within pond
NLE2	adults	25	observed	~10mm	
GRF2	Tadpole	250	observed		
NLE2	adult	1	observed	11cm	
ERF2	adult	1	observed		
GRF2	adult	1	observed	10cm	pond

attention pond

Photo #	Location/or Subject	Photo #	Location/or Subject
20	adult		

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

- direct sp.
 - peripheral

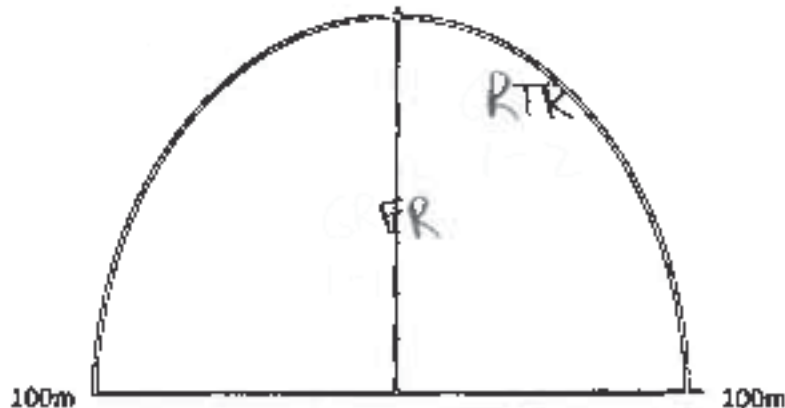
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Stricko):
 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 Shroyer 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 Celsius 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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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: Warm / muggy

- Legend**
- Property Boundary
 - City of Raleigh
 - ELC Compliance 20-1
 - Natural Wetland and D
 - ELC 20-100 Boundary
 - Dist. General Avista
 - Area of Unimpaired Flow 10m
 - Wade
 - Bank and 100ft Buffer - 100ft
 - 100ft Wetland Buffer

COPY



This drawing has been prepared by the use of GPS and other surveying equipment. It is intended to show the location of the property boundaries and other features as shown on the aerial photograph. It is not intended to show the exact location of the property boundaries and other features. The drawing is for informational purposes only and should not be used for legal or other purposes.

ELCA
 General Contractor Number
 236_G6H107NGBH1009
 Date: 07/11/2011
 Project: 1010000

AECOM



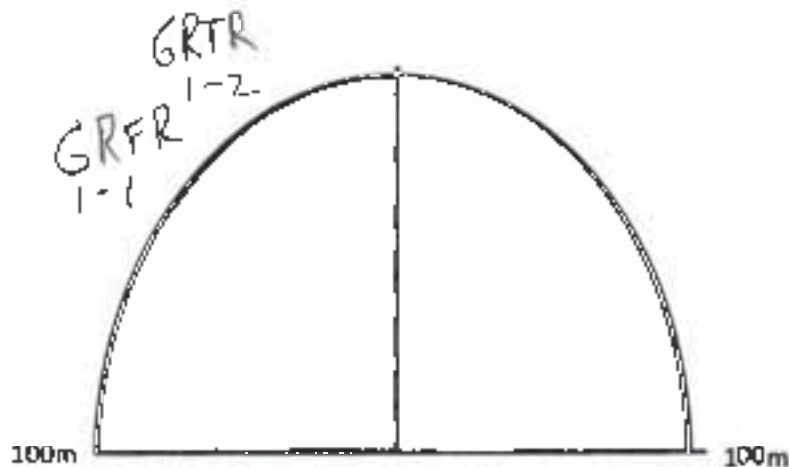
Amphibian - Frog - Data Form

ASCUM

Study Area (Bluewater ~~Goshed~~, Jericho):
 Pre-determined Station #: 236 *Feature #: AWO-08
 GPS: (NAD 83) 17T 1448240 4992462
 Water Present (Y/N)
 Date (yyyy-mm-dd): 2012-06-20 Visit # (1-3) 3
 Field Staff (full name): Tom Starnes, Sam Gidner
 Time Started: 9:35 P.m. Time Finished: 9:38 P.m.
 Beaufort Wind Scale (0-6): 0 Cloud Cover (%): 0
 Background Noise Scale (0-4): 0 Temperature Celsius: 28°C
 Precipitation (None, fog, drizzle, or rain) None

Species	1 ^c	2 ^c	3 ^c
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 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: Hot / muggy

Amphibian - Frog - Data Form

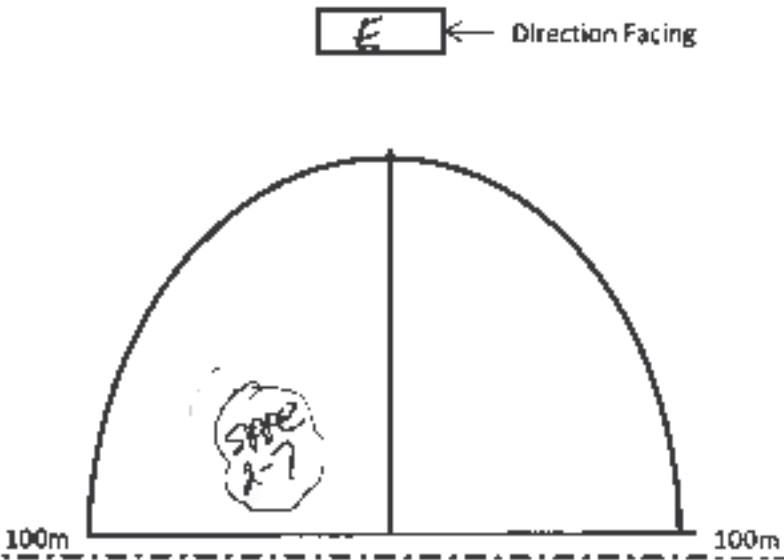
AECOM

Study Area (Bluewater, Goshen, Jericho): 236 GSH 150 # 1508
 Pre-determined Station #: # 2 V1/N12 *Feature #: 236 AWO-08 & AWO-09
 GPS: (NAD 83) 17T 0446233 4412459
 Water Present (Y/N) (Y)

Date (yyyy-mm-dd): 2022-04-19 Visit # (1-3) 1
 Field Staff (full name): Dina 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 Celsius: 9°C
 Precipitation [None, fog, drizzle, or rain] None

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



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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)	

AMTD - 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

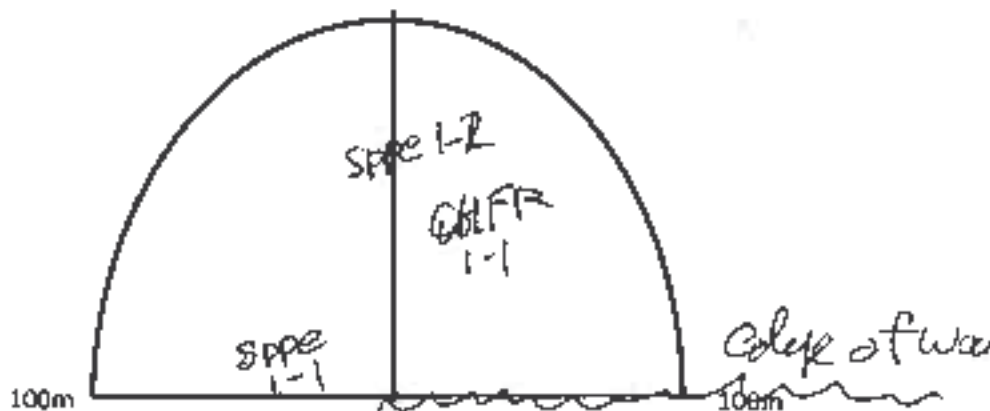
Study Area (Bluewater, Goshen, Jericho): 236-GH1507/GSH1508
 Pre-determined Station #: 51 V13 *Feature #: 236AWO-08 & AWO-09
 GPS: (NAD 83) 17T 0446374 4792253
 Water Present (Y/N)

Date (yyyy-mm-dd): 2012-04-19 Visit # (1-3): 1
 Field Staff (full name): James Kamstra, Olga Kropach
 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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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

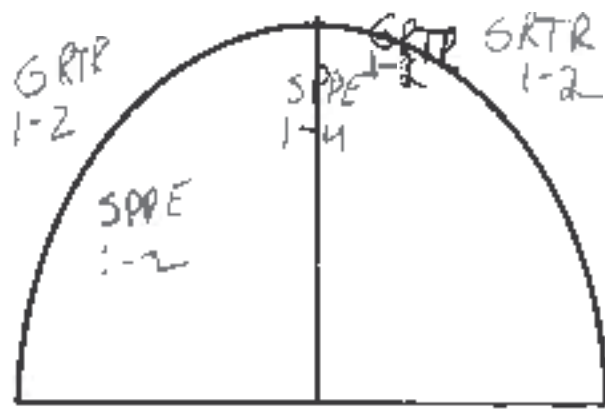
Study Area (Bluewater, ~~Goshen~~ Jericho):
 Pre-determined Station #: 236-65H1508 *Feature #: AWD-09
 GPS: (NAD 83) 171446374 4092283
 Water Present (Y/N) YES

Date (yyyy-mm-dd): 2012-05-14 Visit # (1-3) 2
 Field Staff (full name): Tom Sherry Jess P. HR
 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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 Code 2 - some call simultaneous, but number of individuals can be reliably estimated
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Beaufort Wind Scale	0: 0-2 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branches move
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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
	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)
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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: _____

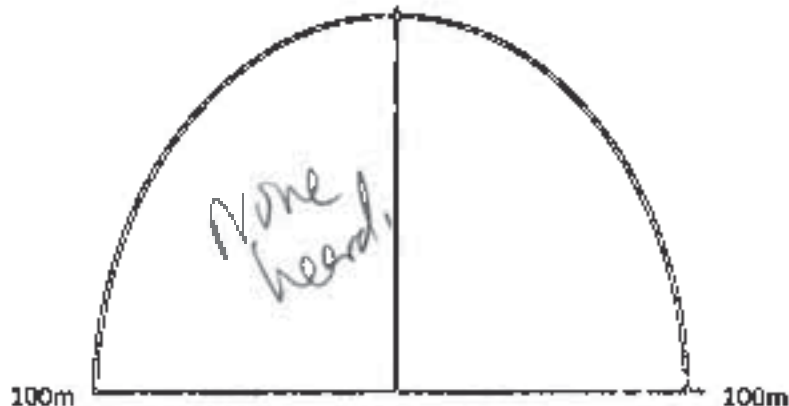
Amphibian - Frog - Data Form

ARCOM

Study Area (Bluewater, Goshen, Jericho):
 Pre-determined Station #: _____ *Feature #: VP3, AWO-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 Gilder Tom Stacey
 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



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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: Hot

Study Area: (Bluewater, Goshen, Jericho) GOSHEN
 Pre-determined Station #: 23605H1518 Feature #¹: AW1-09
 GPS: 17T 446374 479283

Date (yyyy-mm-dd): 2012-05-15
 Field Staff (full name): Jess Peltre + Tom Shandy
 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) ~ 7.9m Vernal Pool length(m) ~ 200m

Vegetation Comments (Dominant, % cover etc) 90% / 10% / 10%

NO Amphibians OBSERVED

Amphibian Species	Life Stage	Quantity	Search Type	Size	Comments/GPS
<u>Unknown</u>	<u>Adult</u>	<u>1</u>	<u>observation</u>	<u>N/A</u>	
<u>WPA</u>	<u>Tadpole</u>	<u>X 13</u>	<u>Dipnet</u>	<u>20mm</u>	
<u>WPA</u>	<u>Adult</u>	<u>1</u>	<u>observed</u>	<u>7cm</u>	

Date	Amphibian Species	Quantity	Search Type	Size	Comments/GPS
<u>23-24</u>	<u>Tadpole</u>				
<u>25</u>	<u>Crabfish</u>				

Comments (ex: egg masses to have GPS) - Crabfish 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

- Cobble white

- Wetland
- 100m Buffer (100m)
- ▭ Property Boundary
- ▭ EUC Contained (33%)
- ▭ Natural Features and 10
- ▭ EUC Polygon Boundary
- ▭ Oak, Native Marsh
- ▭ Area of Concern (200m - 200m)
- ▭ AWC
- ▭ F. Unsubstantiated
- ▭ AWC Interpretive

COPY



Figure 1
 249_GSH174668SH1748
 April 2011
 Project No. 1047

AECOM



- Legend
- GIS Data
- 100' Buffer
- Property Boundary
- PLC Compliance 2011
- Natural Land Use
- ELC Polygon Boundary
- Deliverance Area
- Area of Disturbance
- AMS
- Excavated Area
- AMCA Watercourse

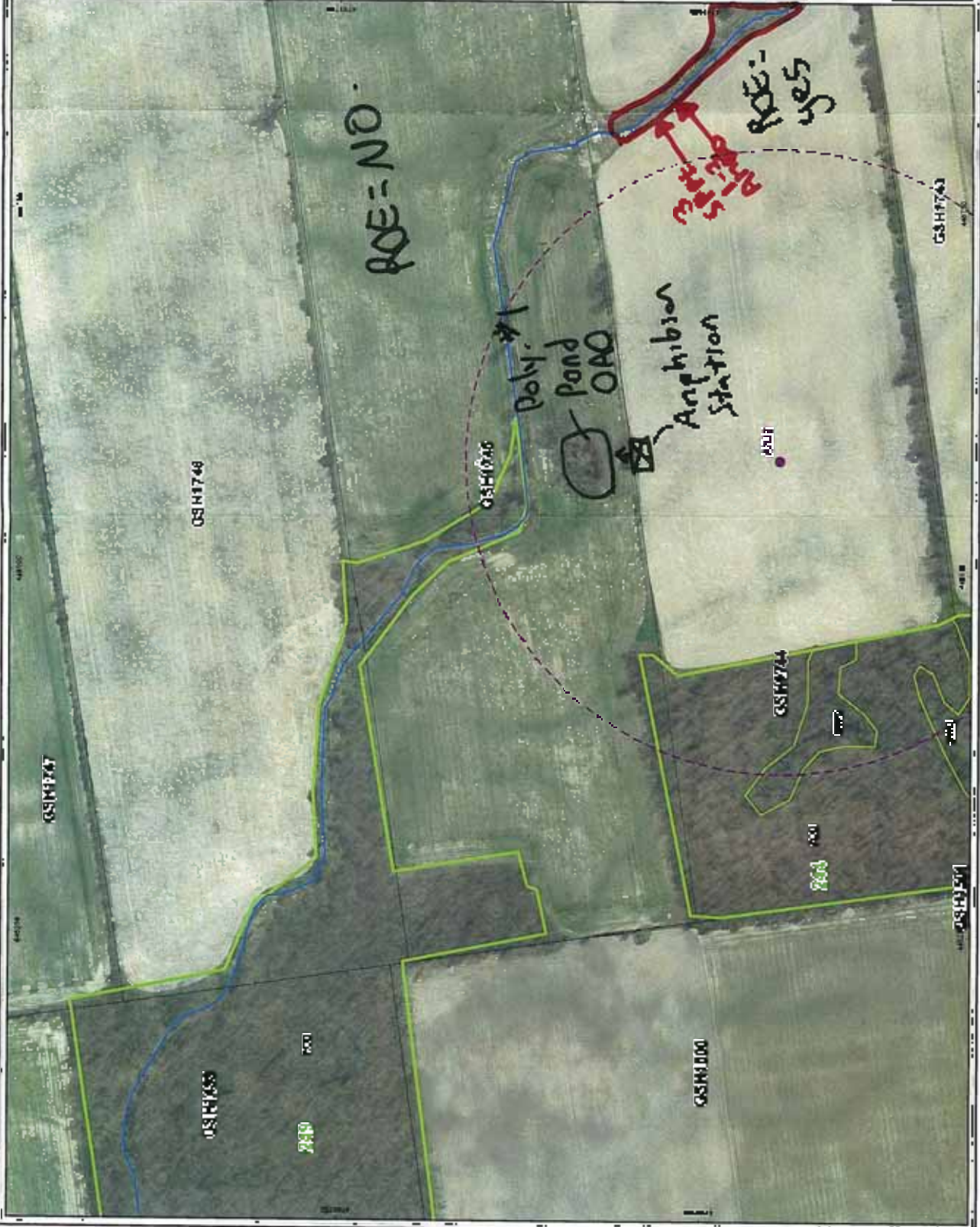
COPY



Scale: 1:10,000
 0 100 200 300 400 500
 Feet

249_GSH1748G_BH1748
 AWO-14
 Project #1748

AECOM



Amphibian - Frog - Data Form

AECOM

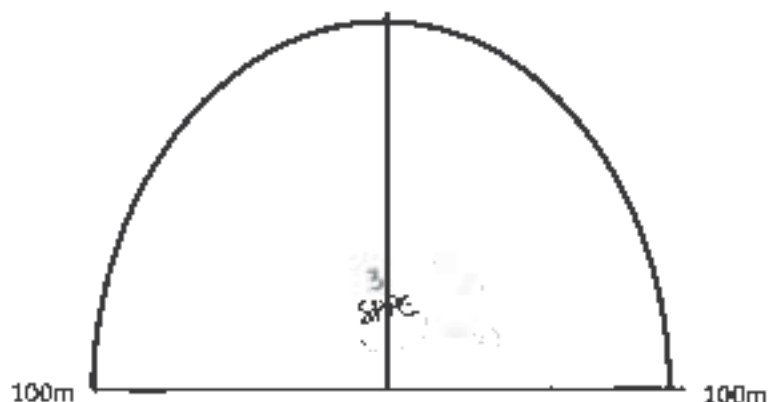
Study Area (Bluewater, Goshen, Jericho):
 Pre-determined Station #: 249-GSM1745/1746 *Feature #: VPI AWO-14
 GPS: (NAD 83) 177 See Map
 Water Present (Y/N) Y

Date (yyyy-mm-dd): 2012-05-01 Visit #: (1-3) 1
 Field Staff (full name): R. Aitken, T. Starnay
 Time Started: 10:58:30 Time Finished: 11:01:00

Beaufort Wind Scale (0-6): 2 Cloud Cover (%): 100 (thin clouds)
 Background Noise Scale (0-4): 0 Temperature Celsius: ~7°C
 Precipitation (None, fog, drizzle, or rain) Away

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRYA		
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

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)	

AMTD - 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

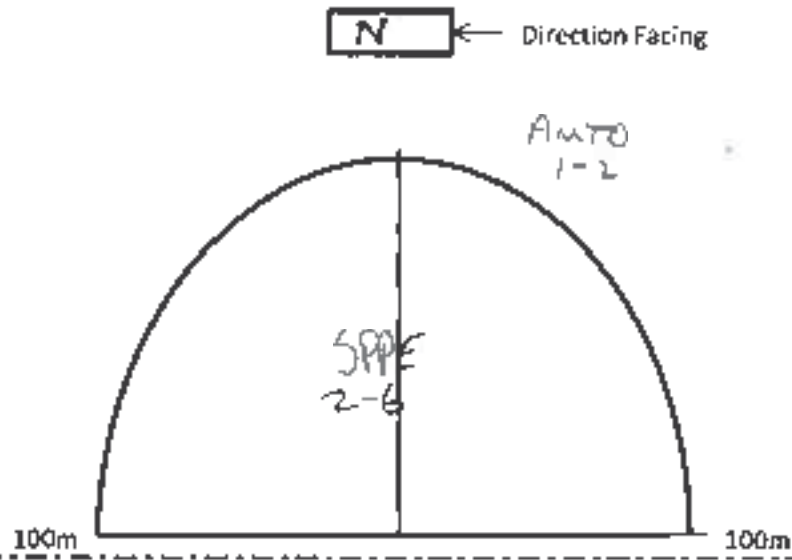
AECOM

Study Area (Bluewater, Goshes, Jericho):
 Pre-determined Station #: 249 GSH 1745/1746 *Feature #: AWD-14
 GPS: (NAD 83) 17T 446610 4793549
 Water Present (Y/N) Y

Date (yyyy-mm-dd): 2012-05-15 Visit # (1-3) 2
 Field Staff (full name): Jess Purdie + Tom Skowrony
 Time Started: 9:02 PM Time Finished: 9:12 PM

Beaufort Wind Scale (0-6): 4 Cloud Cover (%): 60
 Background Noise Scale (0-4): 2 Temperature Celcius: 23°C
 Precipitation (None, fog, drizzle, or rain) None

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 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: 6-13 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 (5-10 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

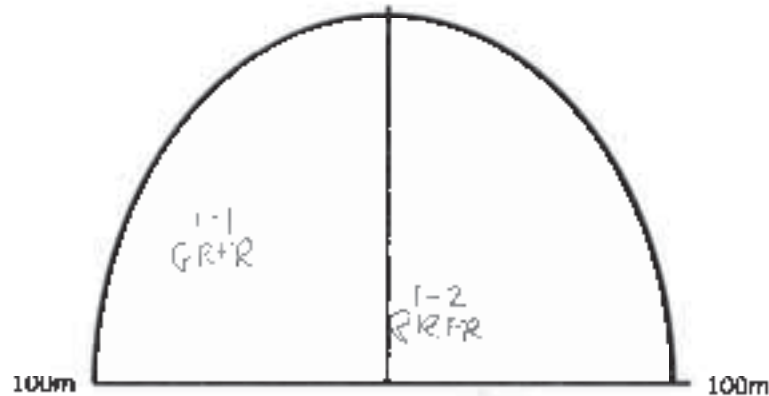
Study Area (Bluewater, Goshen, Jericho): GO-11EN
 Pre-determined Station #: 049GS1745/1746 *Feature #: AWO-14
 GPS: (NAD 83) 17T 446670 4793549
 Water Present (Y/N) Yes

Date (yyyy-mm-dd): June 21, 2012 Visit # (1-3) 3
 Field Staff (full name): Jen DiStefano + Dave Krulski
 Time Started: 9:50 pm Time Finished: 9:53 pm

Beaufort Wind Scale (0-6): 0 Cloud Cover (%): 70%
 Background Noise Scale (0-4): 0 Temperature Celsius: 18°C
 Precipitation (None, fog, drizzle, or rain) none

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 Scale	0: 0-1 km/hr - calm	4: 20-30 km/hr - moderate breeze - small branch moves
	1: 3-5 km/hr - light air movement	5: 31-35 km/hr - fresh breeze - moderate branch moves
	2: 6-10 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: _____

ASA

Study Area: 244 GSH 1745
 Pre-determined Station #: _____ *Feature #: V12 AWO-14
 GPS: 17T

Date (yyyy-mm-dd): 2012, April 27 Field Staff (full name): Sam Gilman/Pete Attkan.
 Weather: 50% cloud cover, 3°C, windy.
 Time Started: 8:00 am Time Finished: 10:20 am.

Water Present (Y/N): Y Vernal Pool or Pond? pond.
 Maximum Water Depth (m) ? Water Quality (visual) ?
 Length (m) 30 Width (m) 15
 % open water (emergent) ? % floating plant cover of open water ?
 Potential to hold water until July (Y/N) ? if not then complete amphibian and salamander sheet
 Human Influences affecting area (dykes, agriculture etc.) dry pond, agricultural wheat field.
 Describe area 100m behind you (field, marsh etc) agriculture - fallow and wheat.

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>prairie (S)</u>	3
2	4
Trees (Species & % cover) not <u>fringing tree species.</u>	
1 <u>Salix x rubens. (15%)</u>	3
2 <u>Fern (15%)</u>	4
Exposed mud/sand/rock <u>none.</u>	

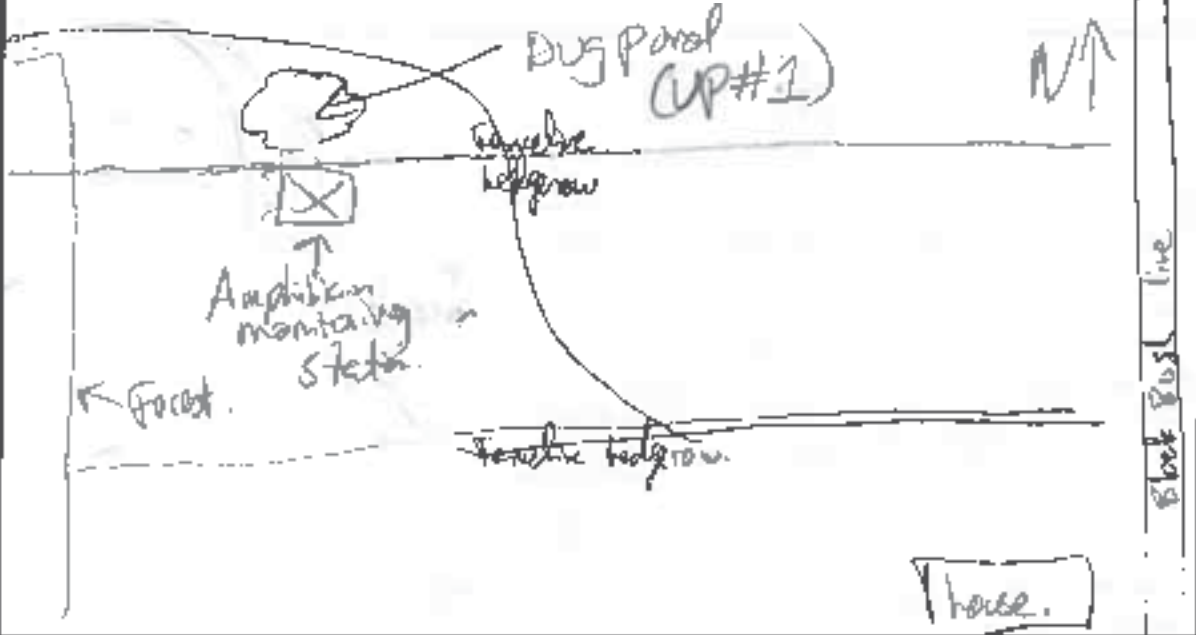
Logs (size, quantity, location) ?

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

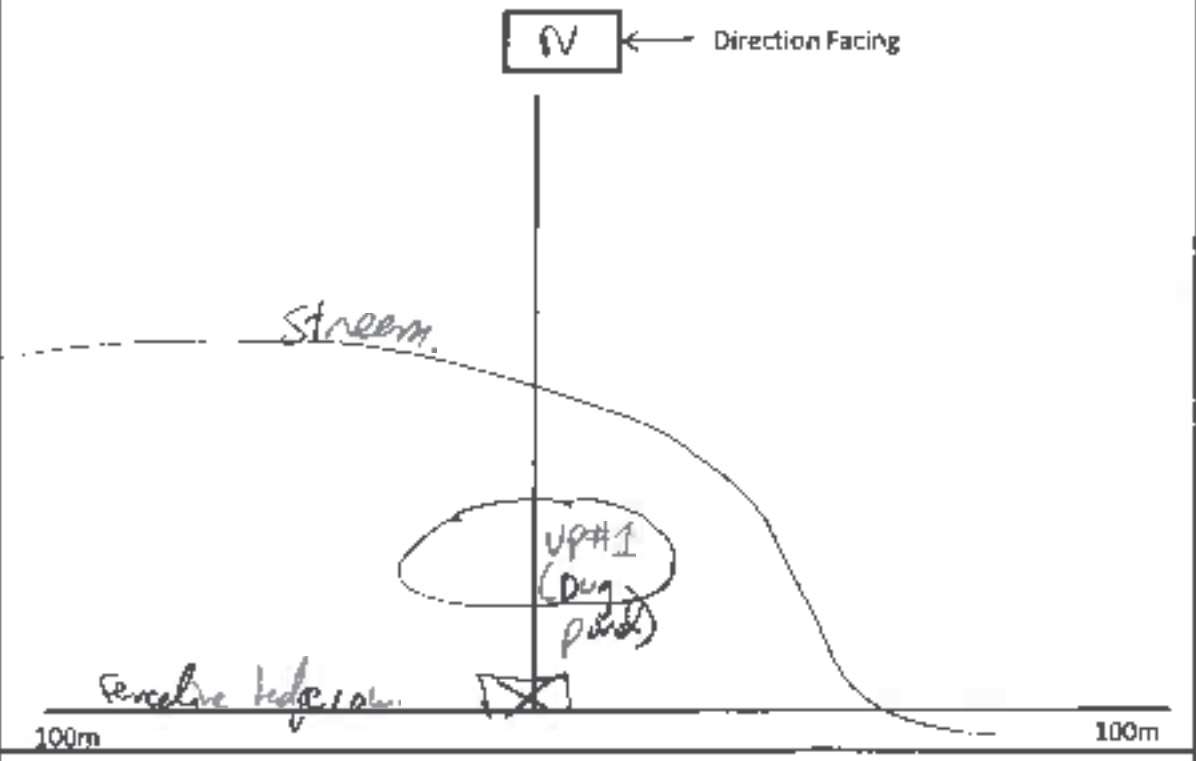
Comments could barely see water from end shrub/ground species from previous survey.

* - 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~~

Study Area: (Bluewater, Goshen, Jericho) <u>W/Inn</u>	
Pre-determined Station #: <u>249ESH1745/1746</u>	Feature #: <u>A0014</u>
GPS: <u>17T 44W10 4793549</u>	

Date (yyyy-mm-dd): <u>2012-05-16</u>	
Field Staff (full name): <u>Jess Piette + Tom Stoney</u>	
Weather: <u>3°C, cloudy</u>	
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) Day 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, O-ring dipnet, observation

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

Amphibian - Frog - Data Form

AECOM

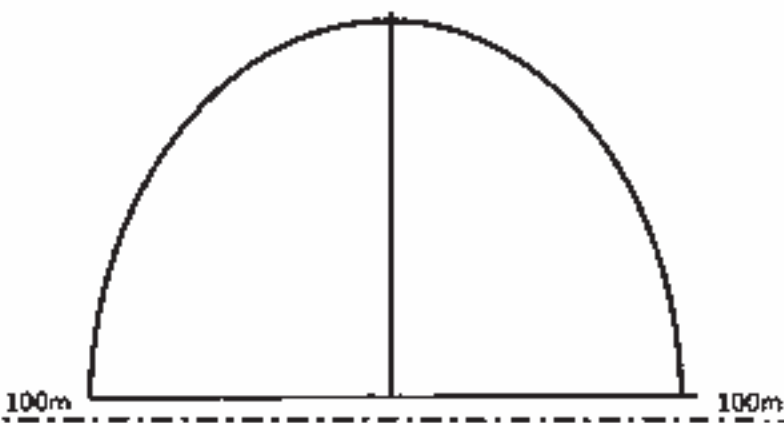
Study Area (Bluewater, Goshen, Jericho): Goshen
 Pre-determined Station #: 258 FSA/G58/1659 *Feature #: 258 VP1/VP2/VP3
 GPS: (NAD 83) 17T 444225 4794062 AWO-17
 Water Present (Y/N) YES

Date (yyyy-mm-dd): April 25, 2012 Visit # (1-3) 1
 Field Staff (full name): Jon Peck + Tom Stracy
 Time Started: 10:30 Time Finished: 10:33

Beaufort Wind Scale (0-6): 2 Cloud Cover (%): 20%
 Background Noise Scale (0-4): 2 Temperature C/cus: 8°C
 Precipitation (None, fog, drizzle, or rain) None

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

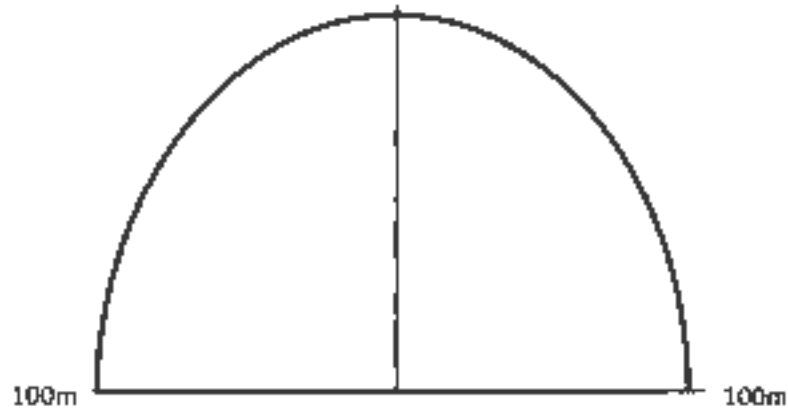
Study Area (Bluewater, Goshen, Jericho): GOSHEN
 Pre-determined Station #: 2586541654/1659 *Feature #: AWD16 AWO-17
 GPS: (NAD 83) 17T 494 225 479406.2
 Water Present (Y/N) YES

Date (yyyy-mm-dd): 2012-05-15 Visit #(1-3) 2
 Field Staff (full name): Kess Pitre + Tom Sharkey
 Time Started: 8:44 AM Time Finished: 8:47 PM

Beaufort Wind Scale (0-6): 3 Cloud Cover (%): 40
 Background Noise Scale (0-4): 1 Temperature Celcius: 23°C
 Precipitation (None, fog, drizzle, or rain) none

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: 31-48 km/hr - fresh breeze - moderate branch moves
	2: 6-12 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: _____

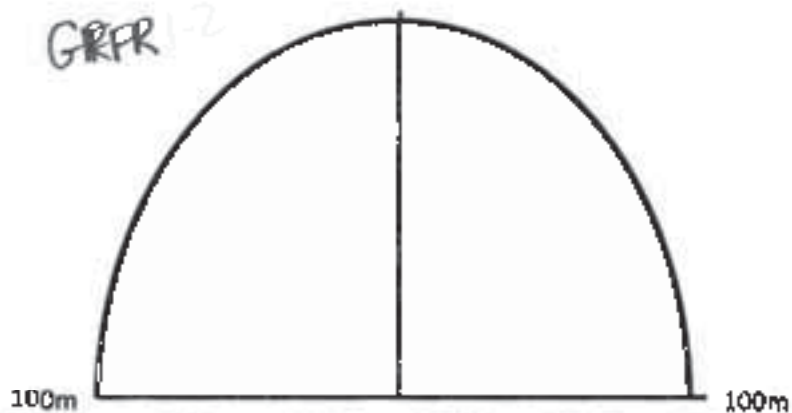
Amphibian - Frog - Data Form

ATCOM

Study Area (Bluewater, Goshen, Jericho):
 Pre-determined Station #: _____ *Feature #: AWO 16 258 GSH 8/16
 GPS: (NAD 83) 17T 444 275, 4794062 AWO-17
 Water Present (Y/N)
 Date (yyyy-mm-dd): 2012 - Aug - 19 Visit #(1-3) 3
 Field Staff (full name): Sam Gilchrist, Tom Shesny
 Time Started: 10:40 Time Finished: 10:43
 Beaufort Wind Scale (0-6): 0 Cloud Cover (%): 5/1
 Background Noise Scale (0-4): 0 Temperature Celcius: 25
 Precipitation (None, fog, drizzle, or rain) None

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		<input checked="" type="checkbox"/>
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:

Study Area: Goshen
 Pre-determined Station #: 28831/VP1/151 *Feature #: 288 VP1
 GPS: 17T 444292 4794116

Date (yyyy-mm-dd): April 25, 2012 Field Staff (full name): Jon Butler & Tim Spivey
 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) 30-40cm Water Quality (visual) Clear with leaf litter
 Length (m) ~120m Width (m) 30-40m
 % open water (emergent) 90% % floating plant cover of open water 10% floating plants
 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) FWD followed by active farm land

Submergent Plants (Species & % cover **)		
1		3
2		4
Emergent Plants (Species & % cover)		
1	<u>Carex sp 90%</u>	3
2	<u>Smartweed 10%</u>	4
Floating Plants (Species and % cover)		
1	<u>Wolfsbane</u>	3
2		4
Fringing Shrubs (Species & % cover)		
1	<u>1cm flowering 90%</u>	3
2	<u>Carpinus canadensis 10%</u>	4
Trees (Species & % cover)		
1	<u>Fraxinus (Ac TREE) 60</u>	3
2	<u>Fraxinus 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 pool only part is within 120m however observed entire pond survey with VP2 from edge of wetland

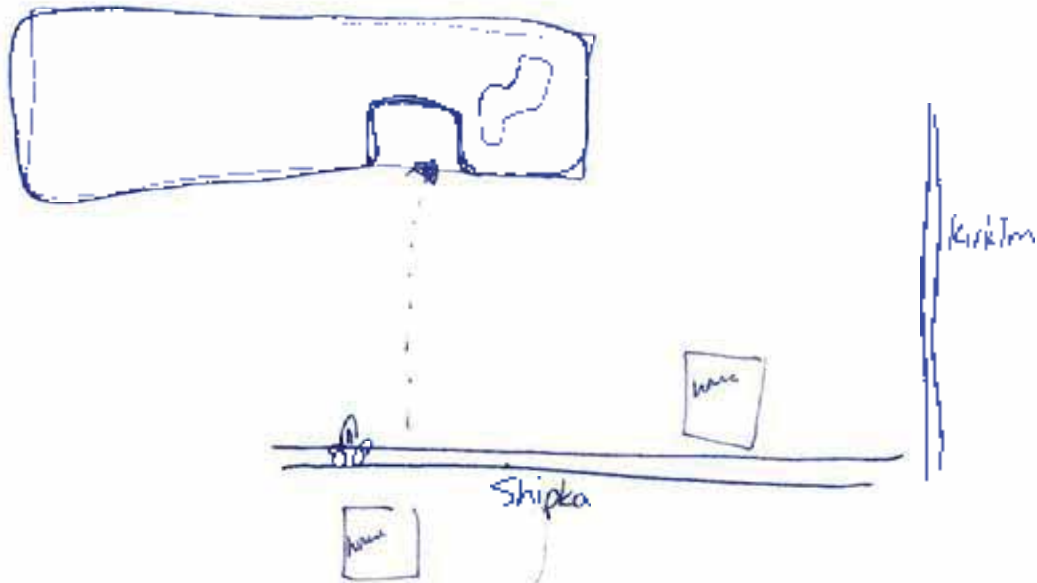
* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet

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

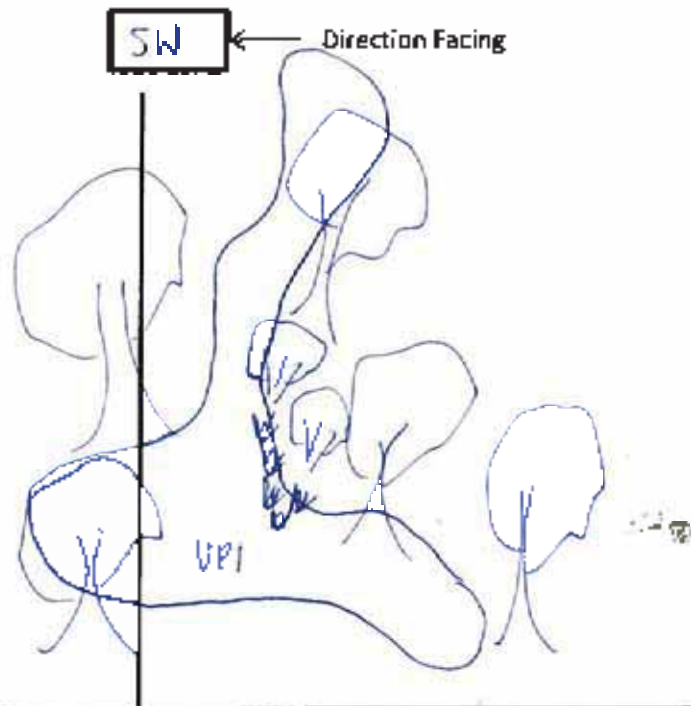
If no water present then no amphibian or salamander sheet completed

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).

2:1 4-5-6 on map

Study Area: Goshen
 Pre-determined Station #: 258-GOSH1658/1659 *Feature #: 258-VP2
 GPS: 17T 1444225 4994062

Date[yyyy-mm-dd]: 2012-04-25 Field Staff (full name): Tom Shorney, Jess Peltz
 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 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 then complete amphibian and salamander sheet Not this year
 Human Influences affecting area (dykes, agriculture etc.) Natural site
 Describe area 100m behind you (field, marsh etc) Agricultural / aceduous forest

Submergent Plants (Species & % cover **)

1		3
2		4

Emergent Plants (Species & % cover) 15%

1	<u>Sagittaria 5%</u>	3 <u>Carex sp 5%</u>
2	<u>Gonolobus 5%</u>	4

Floating Plants (Species and % cover) 0

1		3
2		4

Fringing Shrubs (Species & % cover) 20%

1	<u>Cornus 30%</u>	3 <u>Acer sacch 30%</u>
2	<u>Sambucus 30%</u>	4 <u>Lonicera 10%</u>

Trees (Species & % cover) 70%

1	<u>Fragaria 40%</u>	3 <u>Popul 10%</u>
2	<u>Akersench 30%</u>	4 <u>Pteris 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 water years

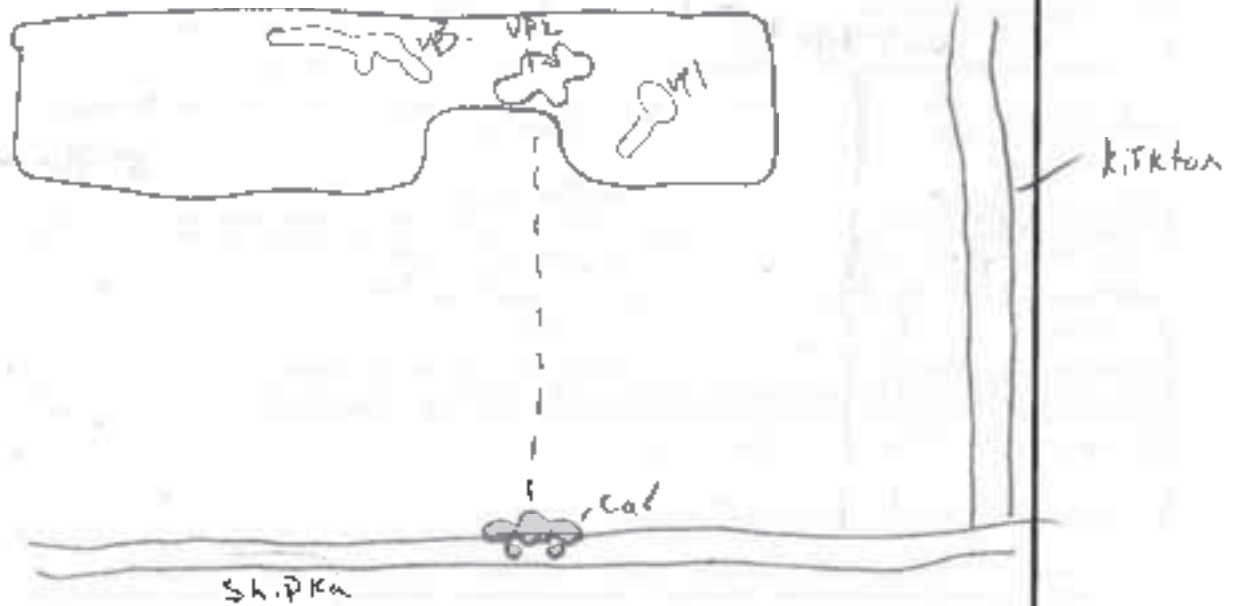
* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet

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

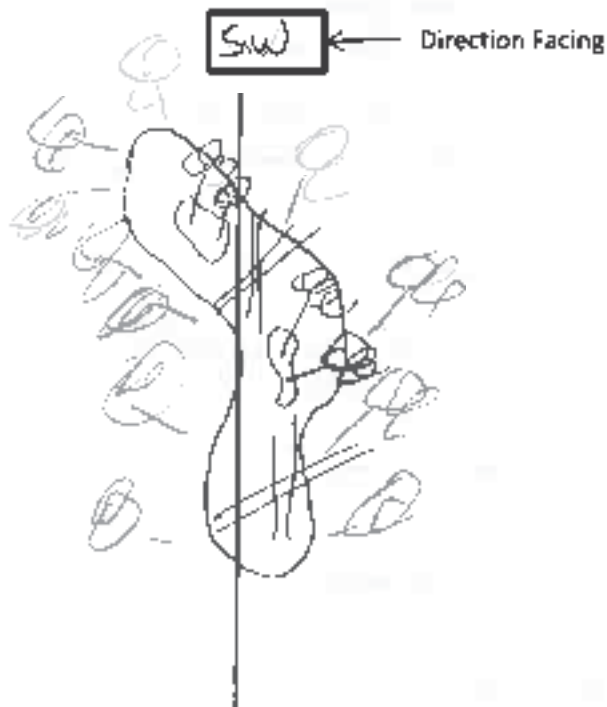
If no water present then no amphibian or salamander sheet completed

Pools created by tractor/ATV etc. nats 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: ROSHEN
 Pre-determined Station #: 958 ESH/158/1655 *Feature #: 258 VP3
 GPS: 17T 444218 4793991

Date (yyyy-mm-dd): Apr 25, 2012 Field Staff (full name): Les Piets + Tom SORANU
 Weather: 9°C
 Time Started: 10:23 am Time Finished: 10:40 am

Water Present (Y/N) YES Vernal Pool or Pond? VP (no) pond
 Maximum Water Depth (m) 15-20cm Water Quality (visual) clear with leaf litter
 Length (m) ~180m Width (m) ~30-40m
 % open water (emergent) 60-70% % floating plant cover of open water 0%
 Potential to hold water until July (Y/N) # per time complete amphibian and salamander sheet Yes
 Human Influences affecting area (dykes, agriculture etc.) none observed
 Describe area 100m behind you (field, marsh etc) Forest followed by field

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

1	3
2	4

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

1 <u>Fragaria 90%</u>	3
2 <u>Carex sp 10%</u>	4

Floating Plants (Species and % cover) 0%

1	3
2	4

Fringing Shrubs (Species & % cover) 10%

1 <u>Coccoloba 30%</u>	3
2 <u>Pennisetum 20%</u>	4

Trees (Species & % cover) 60%

1 <u>Fragaria 90%</u>	3
2 <u>Wormwood 10%</u>	4

Exposed mud/sand/rock none exposed soil along edges

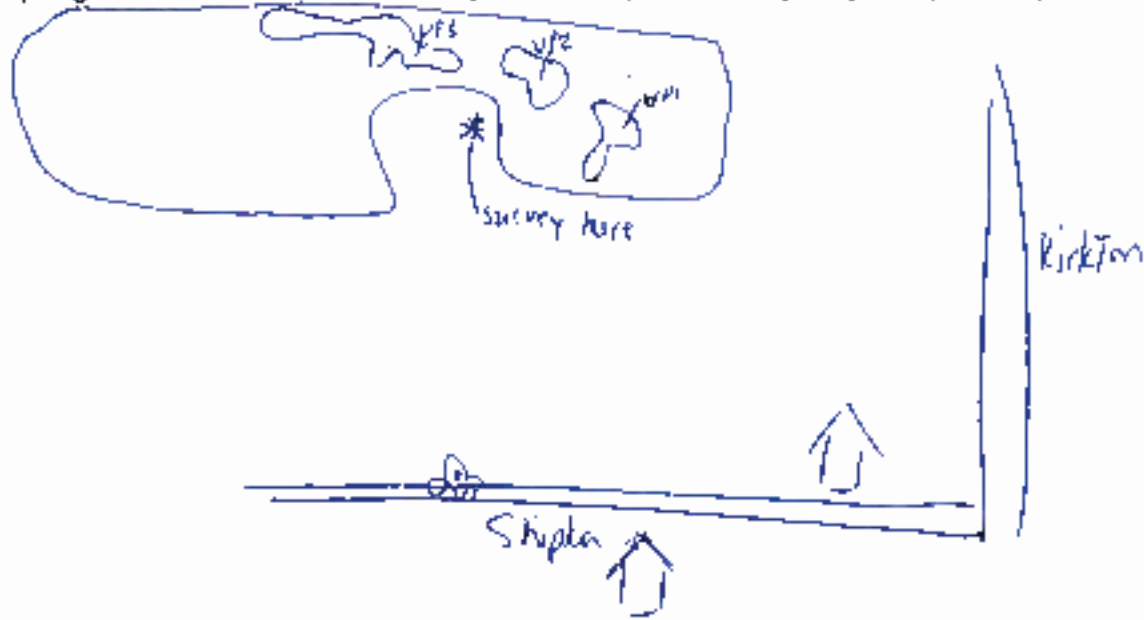
Logs (size, quantity, location) 10-25cm dbh logs within pond

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

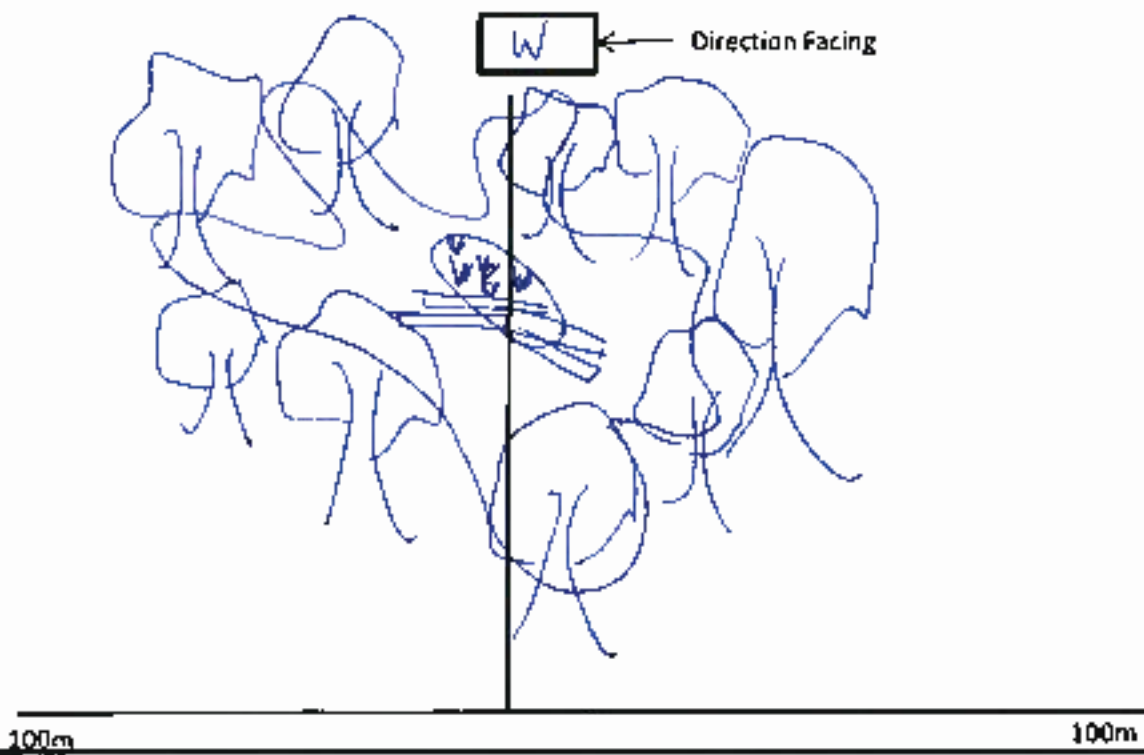
Comments can be surveyed from edge of woodlot at same time as VP1 + VP2
All within same station

* - 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 #12 on map

Study Area: (Bluewater, Goshen Jericho)
 Pre-determined Station #: 258-GSH 1652/1651 Feature #¹: 258-VP2+VP2
 GPS: 17T 444292 4794116

Date(yyyy-mm-dd): 2012-04-25
 Field Staff (full name): Tom Shalvey Jess Piro
 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% Freesia's 50%, grass 10% 50%

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 #: 258-65H1658/1659 Feature #¹: 258-VP3
 GPS: 17T 444218 4793971

Date/yyyy-mm-dd: 2012-04-25
 Field Staff (full name): Tom Stoney, Jess PeHe
 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, Kerner 20%
Wormwood 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 #: 2580SH658/1659 Feature #¹: AWO-16 ~~AWO-17~~
 GPS: 17T 444725 479406Z AWO-17

Date (yyyy-mm-dd): 2012-05-15
 Field Staff (full name): Jess Ruffe - Tom Shirley
 Weather: 21°C, sunny, 2-4 km/h wind
 Time Started: 2:00 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 / Acer

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		
WOFIL	adult	x4	"	2-10cm		
GRFR	"	x2	"	5cm		
WOFR	"	1	"	3cm		
WOFIL	adult	x3		5-7cm		
AMTO	adult	1				} VP1
WOFR	adult	x6				} VP3
WOFR	tadpoles	> 30	dipnet			

Photo #	Location/or Subject	Photo #	Location/or Subject
26-27	adult eastern frog		
30-31	western frog		
32	AMTO		

Comments (ex: egg masses to have GPS) - > 30 WOFR adults observed within pool
> 100 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

- Mummy cloak
- eastern toad
- red admiral
- crayfish

Amphibian - Frog - Data Form

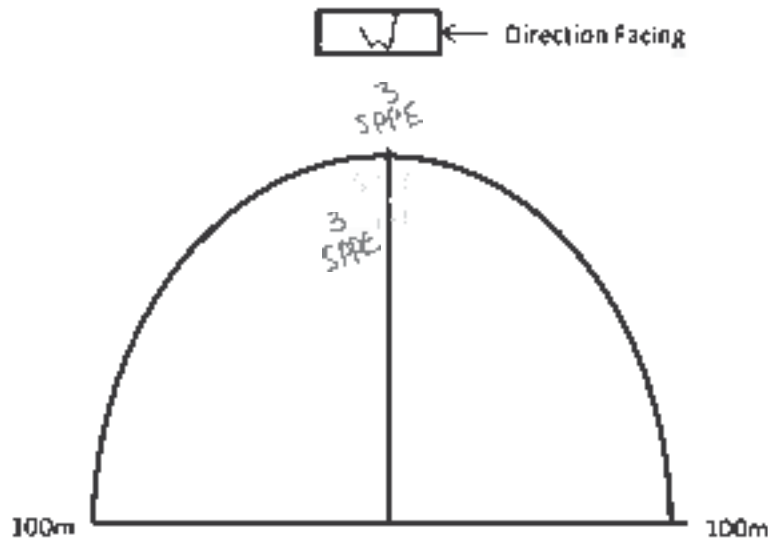
AECOM

Study Area (Bluewater, Goshen Jericho):
 Pre-determined Station #: 30065H2102/2110 *Feature #: VP#2 AWO-24/AWO-25
 GPS: (NAD 83) 17T 451863, 4797136
 Water Present (Y/N) Y

Date (yyyy-mm-dd): 2012-05-01 Visit # (1-3) 1
 Field Staff (full name): A. Atkes, T. Stacey
 Time Started: 9:50am Time Finished: 9:53am

Beaufort Wind Scale (0-6): 1 Cloud Cover (%): 100% (thin over)
 Background Noise Scale (0-4): 0 Temperature Celsius: -7°C
 Precipitation (None, fog, drizzle, or rain) None

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	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: 6-13 km/hr - light 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

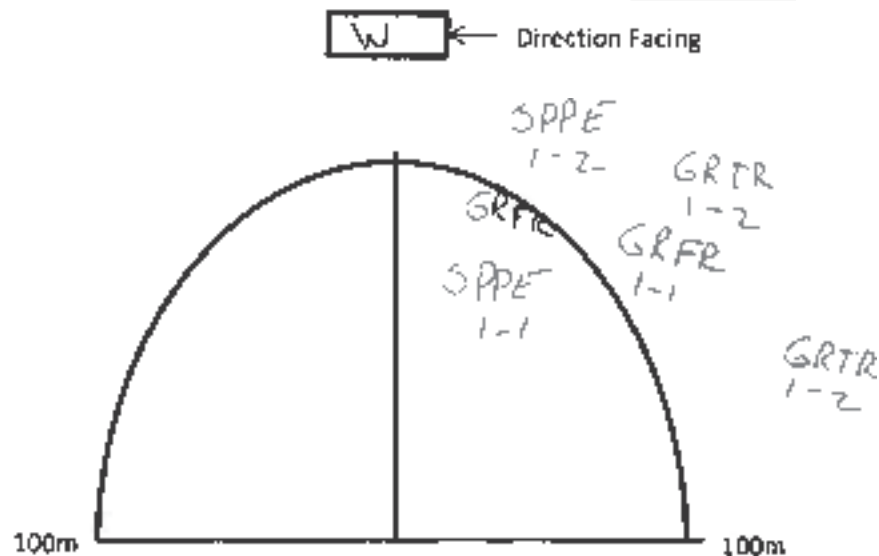
AECOM

Study Area (Bluewater/Goshen/Jericho):
 Pre-determined Station #: 300 GSH2108/216 * Feature #: AW20-24/25
 GPS: (NAD 83) 17T 451937 4790016
 Water Present (Y/N) YES

Date (yyyy-mm-dd): 2012-05-14 Visit # (1-3) 2
 Field Staff (full name): Tom Slone, Jess Piette
 Time Started: 11:35 P.M. Time Finished: 11:38 P.M.

Beaufort Wind Scale (0-6): 0 Cloud Cover (%): 0
 Background Noise Scale (0-4): 0 Temperature Celsius: 12°C
 Precipitation (None, fog, drizzle, or rain) No, no

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 Scale	0: 0-2 km/hr - calm	4: 10-30 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

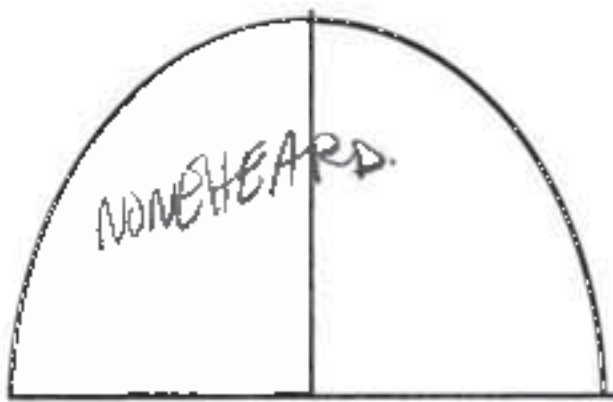
Study Area (Bluewater, Goshen, Jericho):
 Pre-determined Station #: 300 65th 21st/2110 *Feature #: AW0224/25
 GPS: (NAD 83) 17T 451863, 4797136
 Water Present (Y/N) N/A

Date (yyyy-mm-dd): 2012 June - 20 Visit #(1-3) 3
 Field Staff (full name): Shorey, Sherry
 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 - 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: FOUNTAIN
 Pre-determined Station #: 300651-2108/2110 *Feature #: 300651 AWO-24/AWO-25
 GPS: 17Y 451937 479 7016

Date (yyyy-mm-dd): Jun 26 2012 Field Staff (full name): Jessie Palle Turner Sawyer
 Weather: 7C rain
 Time Started: 12:00pm Time Finished: 12:20pm

Water Present (Y/N) YES Vernal Pool or Pond? vernal pool
 Maximum Water Depth (m) None Water Quality (visual) clear with leaf litter
 Length (m) 20-30m Width (m) 10-15m
 % open water (emergent) 99% % floating plant cover of open water 0%
 Potential to hold water until July (Y/N) yes then completely amphibian and salamander sheet not this year
 Human influences affecting area (dykes, agriculture etc.) tractor management
 Describe area 100m behind you (field, marsh etc) SND

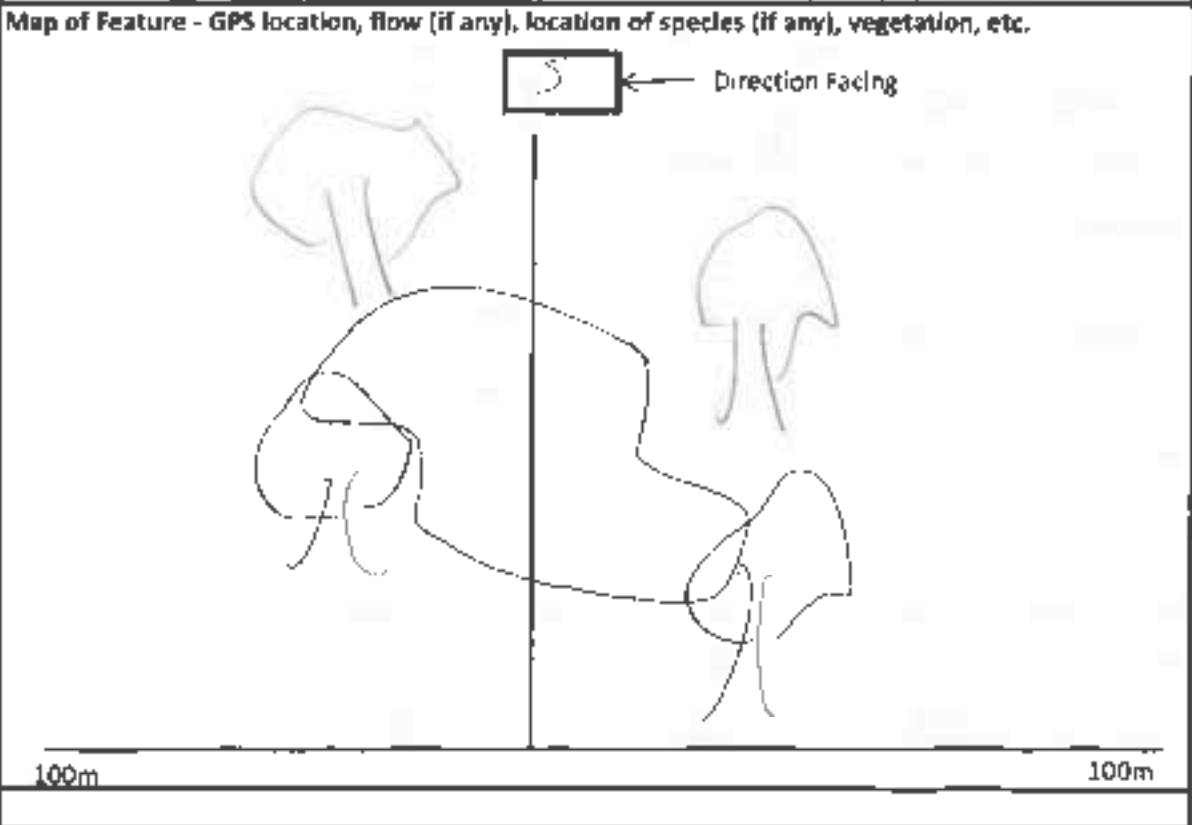
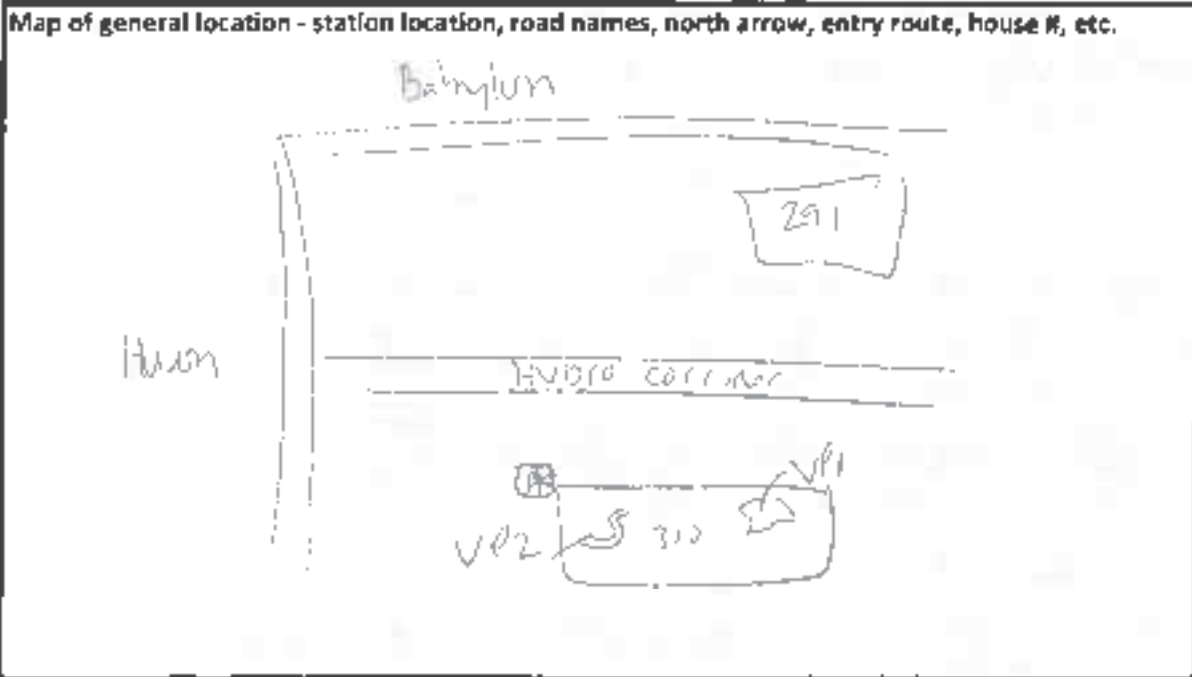
Submergent Plants (Species & % cover **)		<u>0%</u>
1		<u>3</u>
2		<u>4</u>
Emergent Plants (Species & % cover)		<u>2%</u>
1	<u>fraxinus maple</u>	<u>3</u>
2		<u>4</u>
Floating Plants (Species and % cover)		<u>0%</u>
1		<u>3</u>
2		<u>4</u>
Fringing Shrubs (Species & % cover)		<u>0%</u>
1		<u>3</u>
2		<u>4</u>
Trees (Species & % cover) <u>70% canopy</u>		
1	<u>fraxinus maple</u>	<u>3</u>
2		<u>4</u>
Exposed mud/sand/rock		<u>none</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



Photo#(locate on map and GPS if necessary)

Study Area: GOSHEN
 Pre-determined Station #: 30065H2102/2110 *Feature #: 300VPZAWO-24/AWO-25
 GPS: 17T 451867 474 7136

Date (yyyy-mm-dd): Apr 26, 2012 Field Staff (full name): Jessie Ketter + Tom Straley
 Weather: 6°C, 2022
 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) *# 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>SAWY SP 1M</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>FRASER'S MAPLE (Acer fraserianum)</u>	3
2 <u>FRASER'S PINE</u>	4
Exposed mud/sand/rock <u>some mud/rock</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.

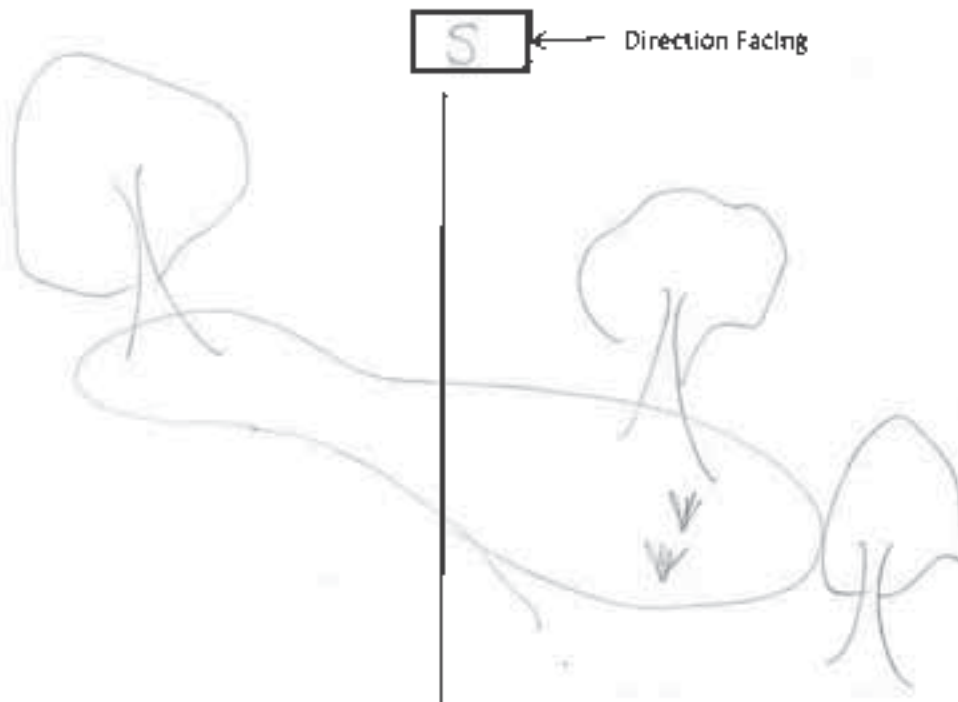
If no water present then no amphibian or salamander sheet completed

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.



100m

100m

Photo#[locate on map and GPS if necessary]

Study Area: (Bluewater, Goshen/Jericho)
 Pre-determined Station #: 300-GSH2108/2110 Feature #¹: 300-VP2
 GPS: 17T 451863 4797136

Date (yyyy mm dd): 2012-04-26
 Field Staff (full name): Tom Stone, Jess Pielle
 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) 70m

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

NO Amphibians OBSERVED 0

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-GSHZ108/2110 Feature #¹: AWB-24125
 GPS: 17T 451937 47997016

Date (yyyy-mm-dd): 2012-05-16
 Field Staff (full name): Jess Pante + 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 100%

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
- 20' Easement
- LLC Contained 20' Easement
- LLC Property Boundary
- Area of Encroachment plus 10'
- APN
- Electric Meter Location - PWS
- APCA Reference Tag

Station

COPY

0.6 Ha

Scale: 1" = 100' (30.48m)

North Arrow

0 100 200 300 400 500 Feet

0 100 200 300 400 500 Meters

0015HBD_131

APN: 021-010-0100

Project: 0015HBD_131

Scale: 1" = 100' (30.48m)

0015HBD_131 Page 1

AECOM

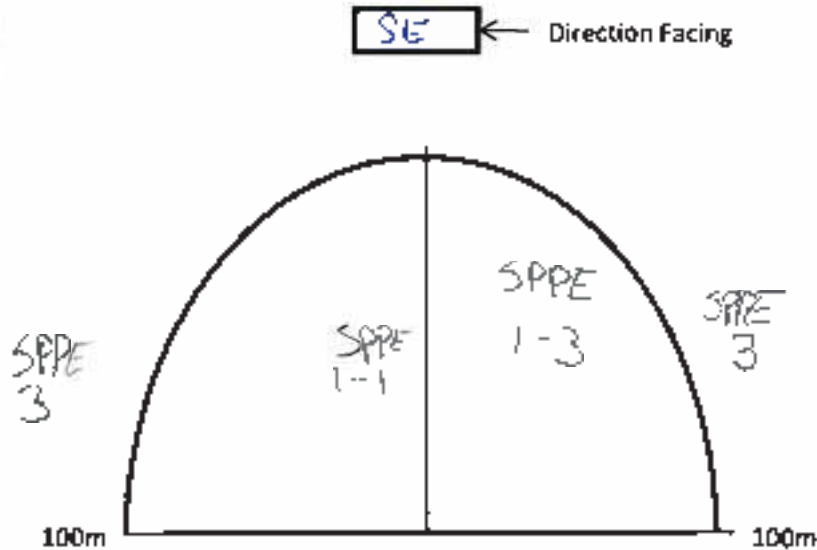


Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho): GOSHEN
 Pre-determined Station #: 3Z1_GSH 2100 *Feature #: 521VD1+VP2
 GPS: (NAD 83) 171453264 4799588 AWO-26
 Water Present (Y/N) YES
 Date (yyyy-mm-dd): 2017-04-25 Visit # (1-3) 1
 Field Staff (full name): Tom Shroyer Jess Piotta
 Time Started: 9:40 Time Finished: 9:43
 Beaufort Wind Scale (0-6): 2 Cloud Cover (%): 40%
 Background Noise Scale (0-4): 3 Temperature Celsius: 8°C
 Precipitation (None, fog, drizzle, or rain) None

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE	X	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 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: 31-35 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

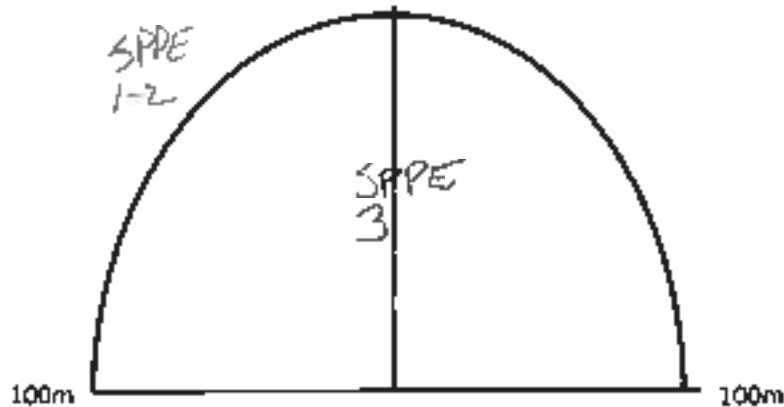
Study Area (Bluewater, Goshen, Jericho): GOSHEN
 Pre-determined Station #: 32165H2100 *Feature #: 32101
 GPS: (NAD 83) 17T 45 2144 4799733 AWO-27
 Water Present (Y/N) yes

Date (yyyy-mm-dd): April 25, 2012 Visit # (1-3) 1
 Field Staff (full name): Tom Sorey Jess P. Otto
 Time Started: 9:30 Time Finished: 9:33

Beaufort Wind Scale (0-6): 2 Cloud Cover (%): 40%
 Background Noise Scale (0-4): 3 Temperature Celcius: 8°C
 Precipitation (None, fog, drizzle, or rain) None

Species	IN	OUT
NONE		
AMTO		
BULL		
CHFR		
MIFR		
GRTR		
GRFR		
NLFR		
PIFR		
SPPE	X	X
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: 31-35 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: GOSHEN
 Pre-determined Station #: 321 SH21 U2 *Feature #: 321 VP1 A12
 GPS: 17T 453264 479588 AWO-26

Date/yyyy-mm-dd: April 23, 2012 Field Staff (full name): John Koeth, Tom Siskin
 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) sum max Width(m) 20m max
 % open water (emergent) 40-45 VP 70% % floating plant cover of open water 0%
 Potential to hold water until July (Y/N) YES if yes then complete amphibian and salamander sheet
 Human Influences affecting area (dykes, agriculture etc.) management
 Describe area 100m behind you (field, marsh etc) Field/wood

Submergent Plants (Species & % cover **)		0%
1		3
2		4
Emergent Plants (Species & % cover)		5%
1	<u>Common reed 70</u>	3
2	<u>Irish sp 30</u>	4
Floating Plants (Species and % cover)		0%
1		3
2		4
Fringing Shrubs (Species & % cover)		60-70%
1	<u>Low shrubs 50%</u>	3
2	<u>prunella sp. 50%</u>	4
Trees (Species & % cover)		40%
1	<u>Alder freemanii 100%</u>	3
2		4
Exposed mud/sand/rock		

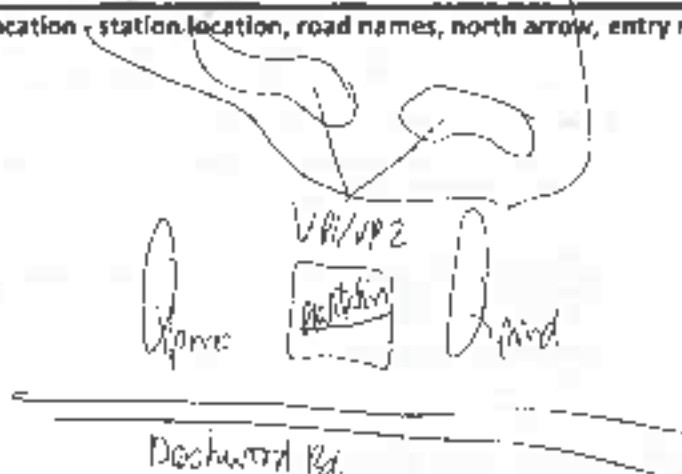
Logs (size, quantity, location) 10-25cm abundant within and adjacent to ponds

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

Comments there are two ponds vernal pools 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.



100m

100m

Photo#(locate on map and GPS if necessary)

two ponds within same station

Study Area: GOSHEN
 Pre-determined Station #: 321 GSH 1012 *Feature #: 321 P01
 GPS: 17T 453144 4799733 AWO-27

Date (yyyy-mm-dd): April 23, 2012 Field Staff (full name): John Peltz & Tom Sweeney
 Weather: 61°
 Time Started: 1:12 pm Time Finished: 1:42 pm

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.): Fencing, Area Management
 Describe area 100m behind you (field, marsh etc): Field/woods

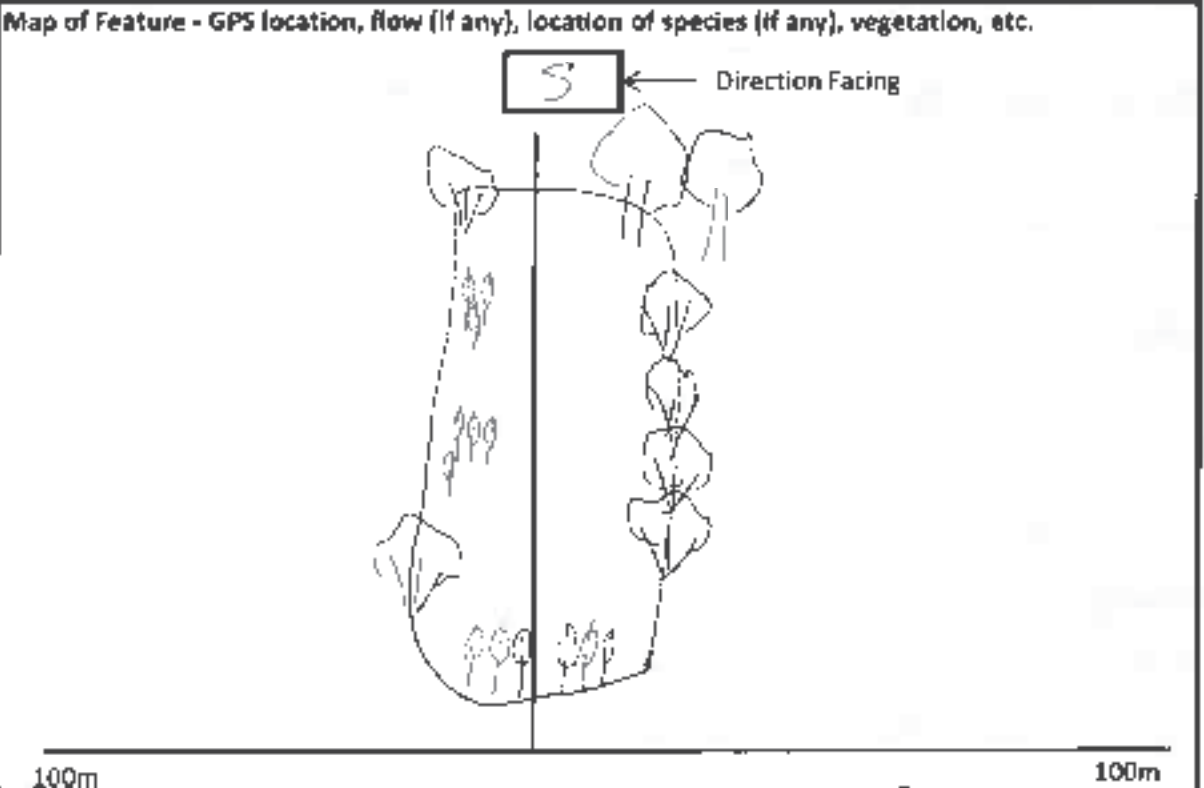
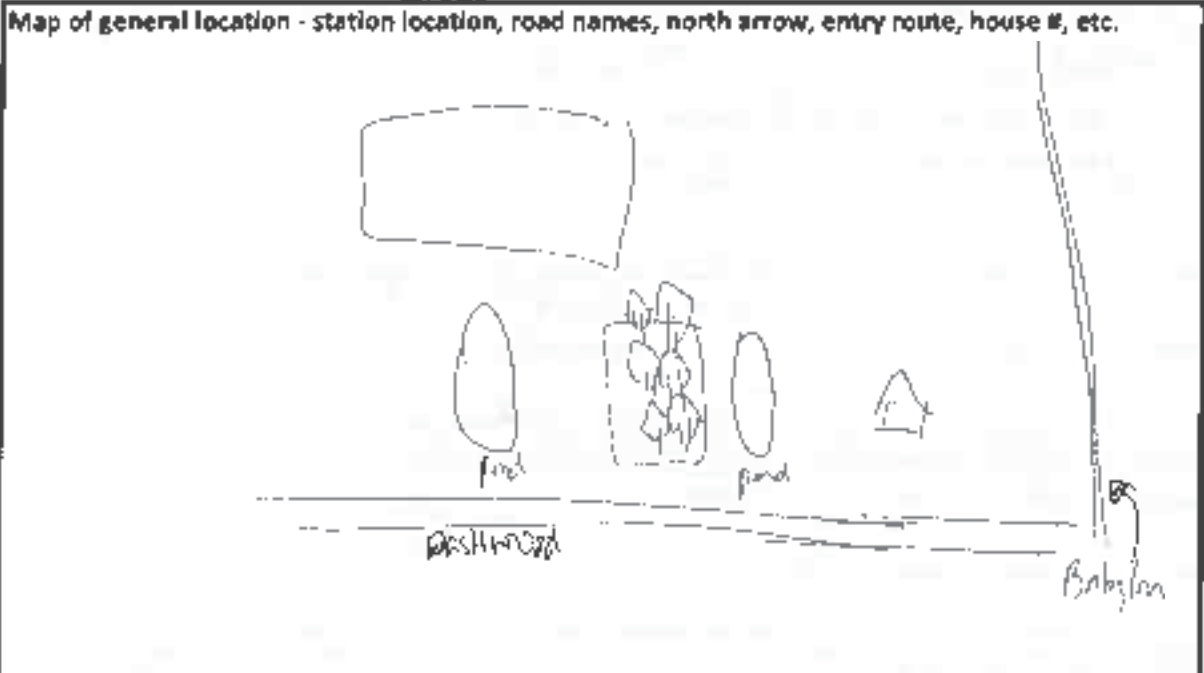
Submergent Plants (Species & % cover **) 0%	
1	3
2	4
Emergent Plants (Species & % cover) 5%	
1 <u>Typha latifolia 100%</u>	3
2	4
Floating Plants (Species and % cover) 0%	
1	3
2	4
Fringing Shrubs (Species & % cover) 20%	
1 <u>Sarcobata nelsonii (Sarcobata)</u>	3
2	4
Trees (Species & % cover) 5%	
1 <u>Cottonwood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

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

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

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



Photo#(locate on map and GPS if necessary)

Study Area: (Bluewater, Goshen, Jericho)
 Pre-determined Station #: 321-GSH2100 Feature #: 321-VP1/VP2
 GPS: 17T 4532.64 4797588 AWO-26

Date (yyyy-mm-dd): 2012-04-23
 Field Staff (full name): Tom Sharkey, Jess Piette
 Weather: cloudy, 50, 40 mph
 Time Started: 3:20 Time Finished: 3:50

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

Vegetation Comments (Dominant, % cover etc) Freonias 40%, Carex 3%, Misc 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 pool - 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 - GSH 1017 / 2100 Feature #¹: 321 - P01
 GPS: 17T 453144 4799733 AWO-27

Date [yyyy-mm-dd]: 2012-04-23
 Field Staff (full name): Tom Stoney Jess Postle
 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% Sardinia 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

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

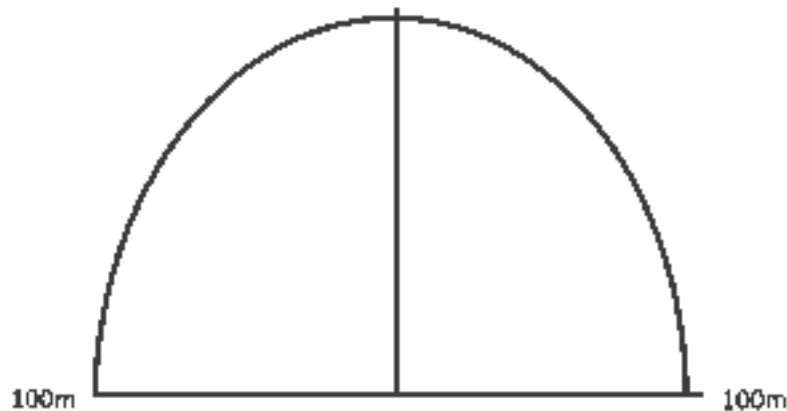
Study Area (Bluewater, Goshen, Leitch):
 Pre-determined Station #: 521-GSH 2100 *Feature #: FWO-26
 GPS: (NAD 83) 17T 453264 479588
 Water Present (Y/N) yes

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

Beaufort Wind Scale (0-6): 4 Cloud Cover (%): 60
 Background Noise Scale (0-4): 2 Temperature Celcius: 19.0c
 Precipitation (None, fog, drizzle, or rain) None

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

S ← Direction Facing



SPPE
1-3

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: 0-1 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
		WUFR - Wood Frog

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

General Comments: white walking through field, spotted American Toad

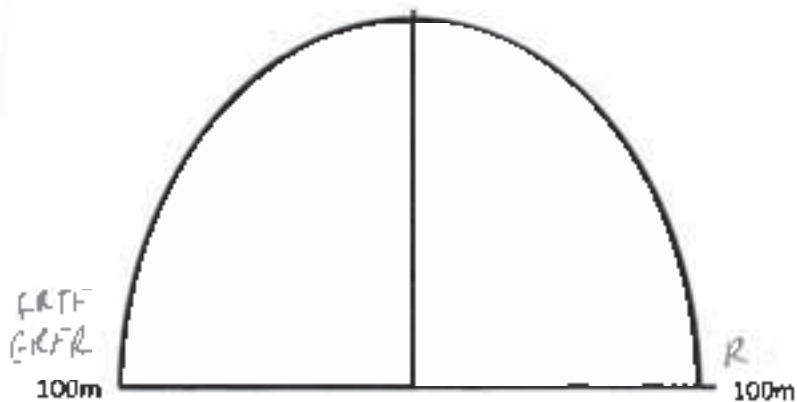
Amphibian - Frog - Data Form

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>year-round</u>	
Date (yyyy-mm-dd): <u>2012-06-20</u>	Visit # (1-3) <u>3</u>
Field Staff (full name): <u>Jen Patta + Dave Kielstra</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		X
GRFR		X
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: → some heard within st h, all around with ponds

Study Area: (Bluewater, Goshen) Jenchoi
 Pre-determined Station #: 22165H2100 Feature #¹: ANK-26
 GPS: 17T 153204 4799588

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

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): *Amphibia (w/low) Aquatic / Terrestrial*

NO Amphibians OBSERVED

Amphibian Species	Life Stage ²	Number ³	Search Type ⁴	Size ⁵	Comments/GPS
<i>Desmognathus</i>	adults	x2	observation	/	
<i>Desmognathus</i>	adults	x2	observation	/	

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

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

Clayfish

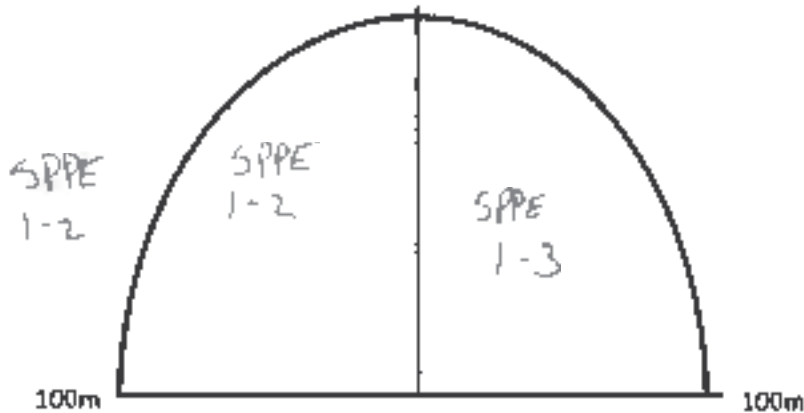
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, <u>Goshen</u> , Jericho):	
Pre-determined Station #: <u>321-65H2100</u>	*Feature #: <u>AWD-27</u>
GPS: (NAD 83) <u>17T 453144</u> <u>4799733</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>Tom Shorley</u> <u>JESS PIERRE</u>	
Time Started: <u>10:52 AM</u>	Time Finished: <u>10:55 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>19°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		

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: _____

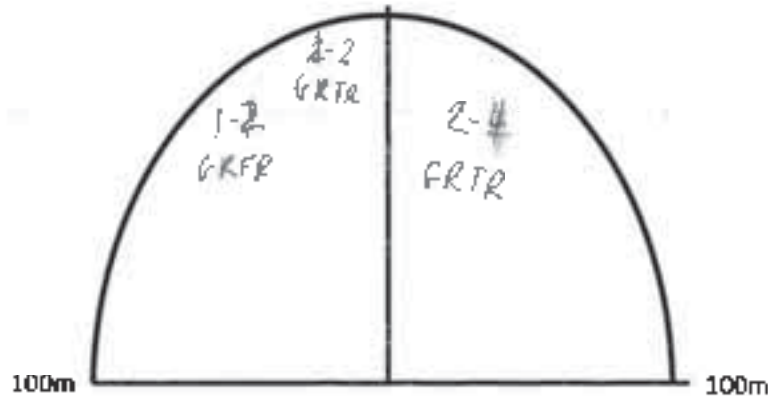
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho):	
Pre-determined Station #: 321	*Feature #: AWJ0-29
GPS: (NAD 83) 17T 453144 4799733	
Water Present (Y/N) Y ¹	
Date (yyyy-mm-dd): 2012-06-20	Visit #(1-3) 8
Field Staff (full name): Jess Peltz + Dave Kunksta	
Time Started: 10:55	Time Finished: 10:
Beaufort Wind Scale (0-6): 2	Cloud Cover (%): 0%
Background Noise Scale (0-4): 2	Temperature Celsius: 17.6
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



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: (Bluewater, Goshen, Jericho) Goshen
 Pre-determined Station #: 321 GSH 2100 Feature #¹: AWO-27 (pond)
 GPS: 17T 453144 4799733

Date (yyyy-mm-dd): 2012-05-15
 Field Staff (full name): Jess Pfeiffer + Tom Skarney
 Weather: 21°C sunny
 Time Started: 4:07 pm Time Finished: 4:43 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) celery, lily, shrubs, willows

NO Amphibians OBSERVED

Amphibian species	Life Stage	Number	Search type	Size	Comments/GPS
<u>Unknown</u>	<u>adult</u>	<u>1</u>	<u>observation</u>	<u>-</u>	
<u>GRRR</u>	<u> Tadpole</u>	<u>1</u>	<u> dip net</u>	<u>40mm</u>	
<u>NAWT</u>	<u>adult</u>	<u>1</u>	<u>observation</u>	<u>5cm</u>	
<u>GRRR</u>	<u>Tadpole</u>	<u>1</u>	<u>dip net</u>	<u>60-80mm</u>	
<u>AWO</u>	<u>adult</u>	<u>1</u>	<u>observation</u>	<u>7cm</u>	

Photo #	Location/On Subject	Photo	Location/On Subject

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

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

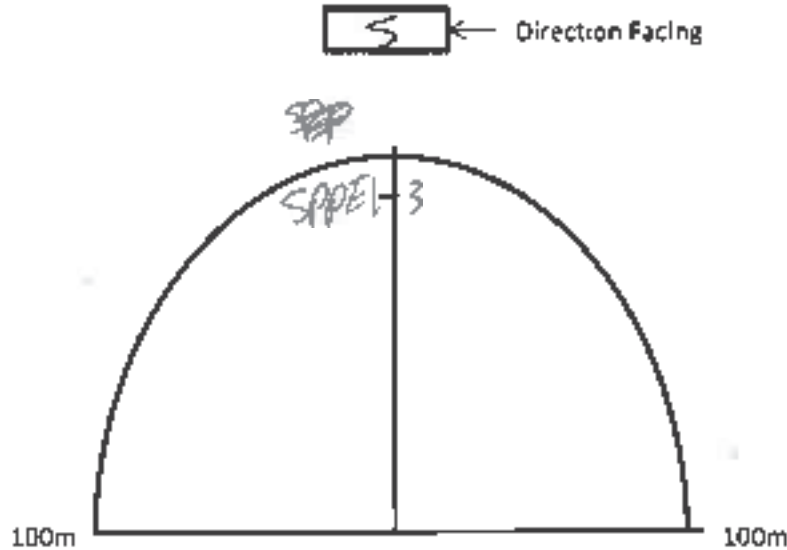
- red dorsals
 - Blue top
 - red blue tip of tail
 -

Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho):	
Pre-determined Station #: <u>VPI</u>	*Feature #: <u>364-GSH 100% VPI</u>
GPS: (NAD 83) <u>17T</u>	<u>AWO-28</u>
Water Present: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
Date (yyyy-mm-dd): <u>2012-April-25</u>	Visit # (1-3): <u>1</u>
Field Staff (full name): <u>Scott Giddings, Rob Attkin</u>	
Time Started: <u>9:58 pm</u>	Time Finished: <u>10:01 pm</u>
Beaufort Wind Scale (0-6): <u>0</u>	Cloud Cover (%): <u>40%</u>
Background Noise Scale (0-4): <u>0</u>	Temperature Celcius: <u>9°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: 6-13 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 twig	

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

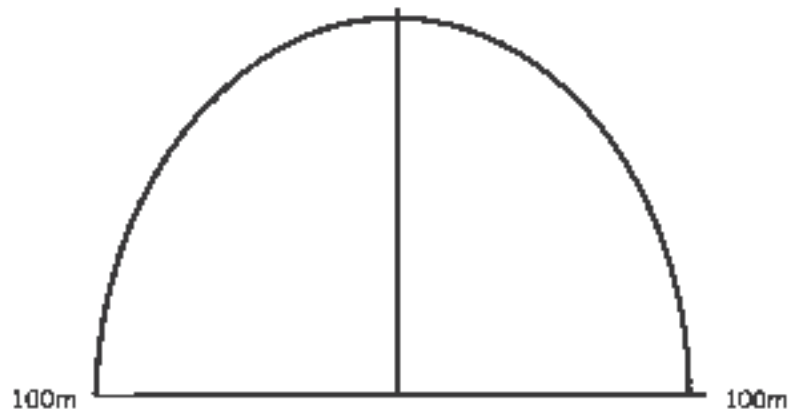
Study Area (Bluewater, Goshen, Jericho):
 Pre-determined Station #: 364-GSH1006 *Feature #: FWD-28
 GPS: (NAD 83) 1710451274 4803700
 Water Present (Y/N) YES

Date (yyyy-mm-dd): 2012-05-23 Visit # (1-3) 2
 Field Staff (full name): Tim Shoney Jess Pietre
 Time Started: 2:27 Time Finished: 2:30

Beaufort Wind Scale (0-6): 3 Cloud Cover (%): 10%
 Background Noise Scale (0-4): 2 Temperature Celcius: 15.0c
 Precipitation (None, fog, drizzle, or rain) None.

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

5 ← 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: _____

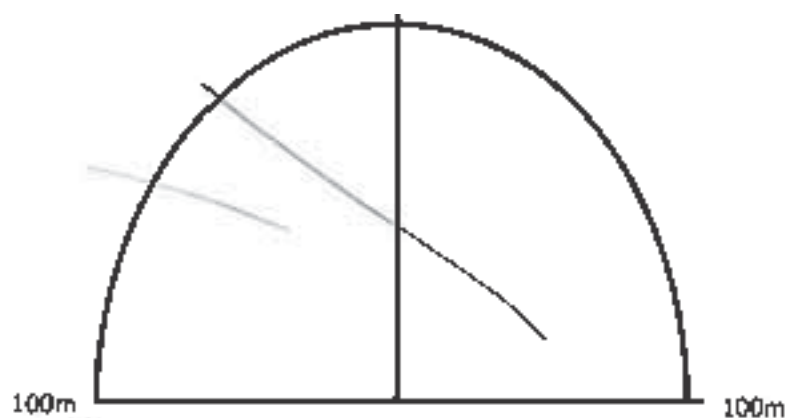
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho):
 Pre-determined Station #: 364 GSH 11X6 *Feature #: AWO-28
 GPS: (NAD 83) 177.451274 4803700
 Water Present (Y/N) unknown
 Date (yyyy-mm-dd): 2012-06-20 Visit # (1-3) 3
 Field Staff (full name): Jess Platt + Dave Kielstra
 Time Started: 10:02 Time Finished: 10:05 am
 Beaufort Wind Scale (0-6): 3 - S direction Cloud Cover (%):
 Background Noise Scale (0-4): 0 Temperature Celcius: 27°C - hazy
 Precipitation (None, fog, drizzle, or rain) None

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

Date (yyyy-mm-dd): 2012-04-15 Field Staff (full name): A. A. Allen, S. Giddens
 Weather: Sunny, 0% cloud cover, -5°C, slight breeze (2)
 Time Started: 9:00am Time Finished: 9:15am

Water Present (Y/N) Y Vernal Pool or Pond? Vernal Pool
 Maximum Water Depth (m) 0.20m Water Quality (visual) Good (clear)
 Length (m) ~6.0m Width (m) ~2.0m
 % 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

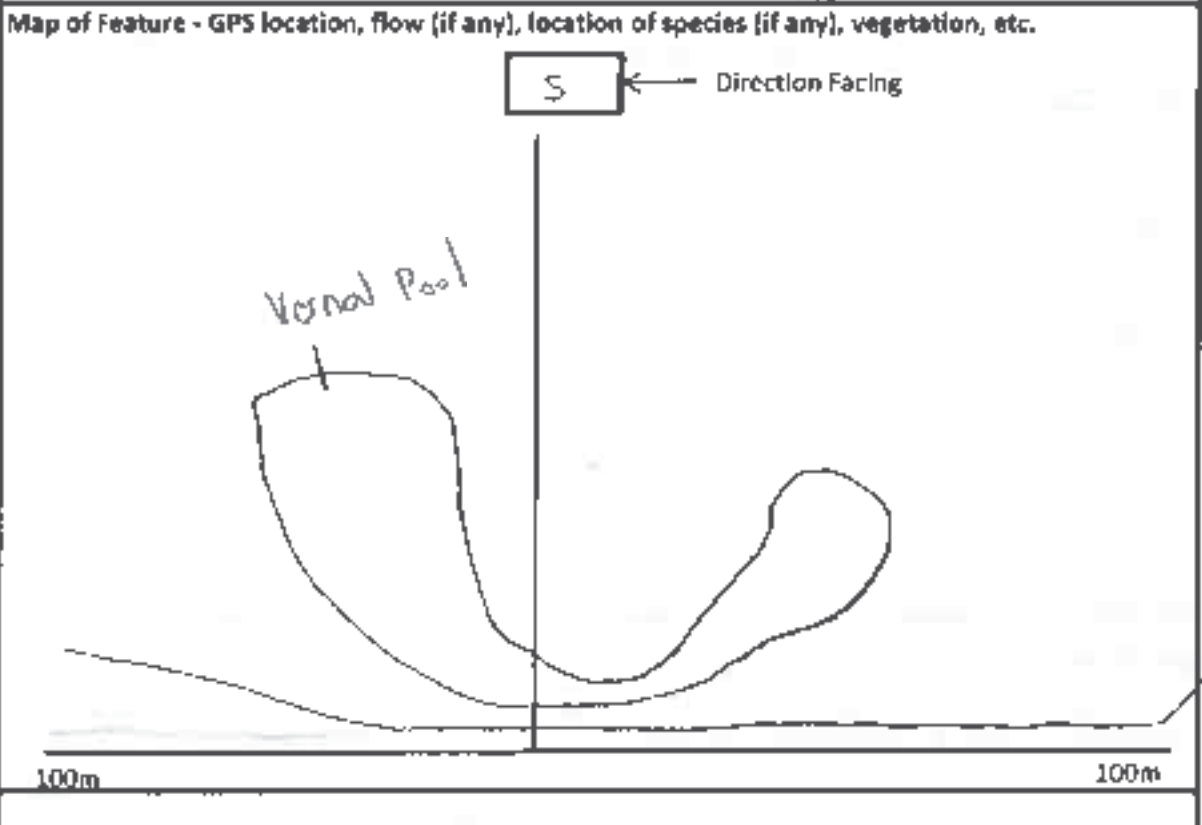
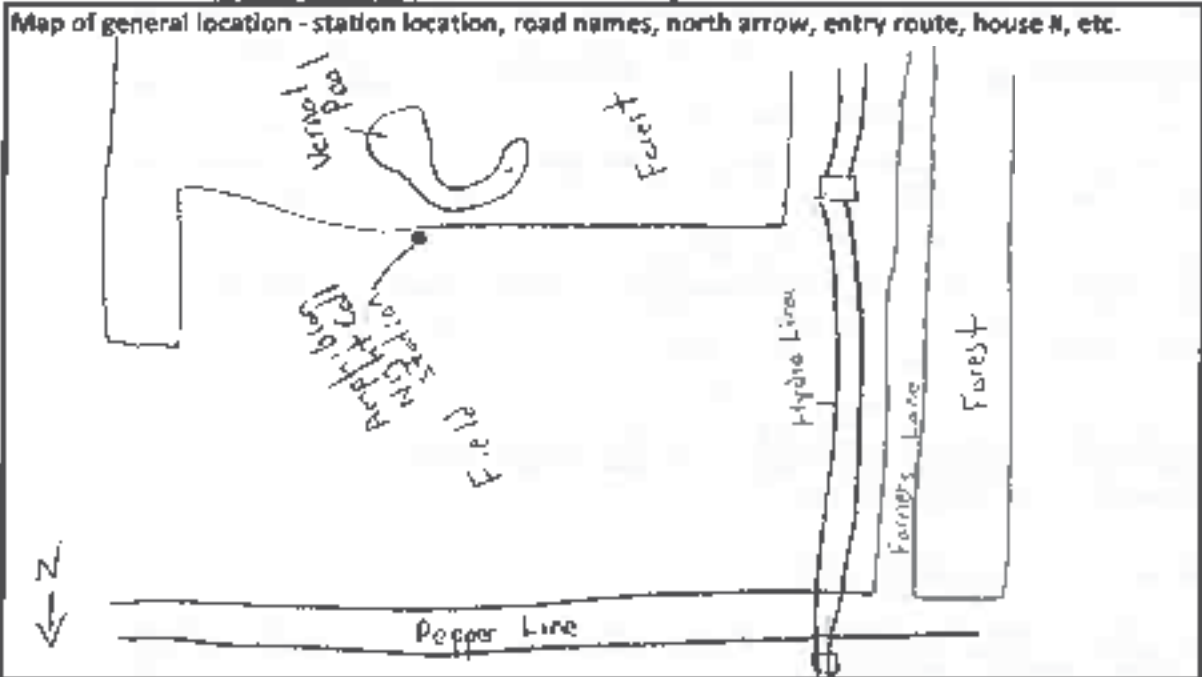
Submergent Plants (Species & % cover **)	
1 <u>N/A</u>	3
2	4
Emergent Plants (Species & % cover)	
1 <u>N/A</u>	3
2	4
Floating Plants (Species and % cover)	
1 <u>N/A</u>	3
2	4
Fringing Shrubs (Species & % cover)	
1 <u>WINBENZ (35-40%)</u>	3
2 <u>CORSEBA (1-10%)</u>	4
Trees (Species & % cover)	
1 <u>FRAXINA (>50%)</u>	3
2 <u>FRAXINA (1-10%)</u>	4
Exposed <u>mud</u> /sand/rock	

Logs (size, quantity, location) several 10-24cm 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 season

* - 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



Photo#(locate on map and GPS if necessary)
Photo 10-11

Study Area: (Bluewater, ~~Goshen~~, Jericho)
 Pre-determined Station #: 364-GSL1006 Feature #¹: VPI
 GPS: 17T 0451274, 4803700 (GPS PT 62)

Date (yyyy-mm-dd): 2012-04-25
 Field Staff (full name): B. Aitken, S. G. Idner
 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 sporadic and red oaks, 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
10-11	Vernal Pool		

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 #: 364GSH1006 Feature #¹: AWO-28
 GPS: 17T 451274 4807200

Date (yyyy-mm-dd): 2012-05-16
 Field Staff (full name): Yoss Piatto + Tom Stearns
 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): Flammula/Barley

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

Legend

- Property boundary
- US Furbow
- PLC Contiguous 2311
- Natural Features and ID
- EU Project Subpart
- Decorative Areas
- Area of Disposal (see also 10-100)
- ASU
- Finalize (see also 10-100)
- APCA (see also 10-100)
- Station

COPY

0.5 ha

Scale: 1:1000

North Arrow

Project Name: [illegible]

Client: [illegible]

Date: [illegible]

Project No: [illegible]

Scale: 1:1000

Project Name: [illegible]

Client: [illegible]

Date: [illegible]

Project No: [illegible]



Amphibian - Frog - Data Form

AECOM

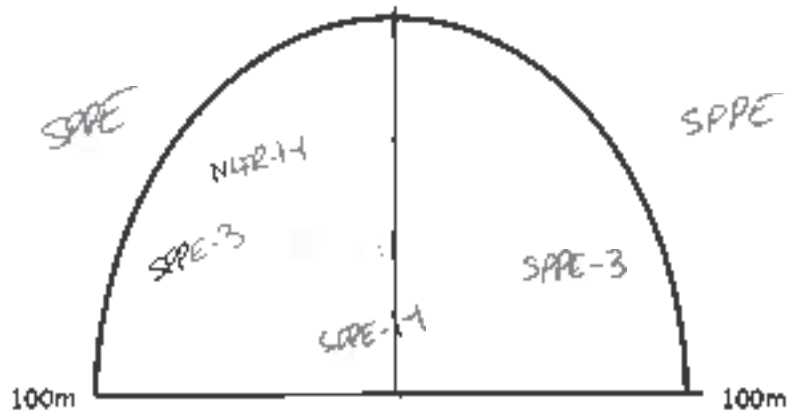
Study Area (Bluewater, Goshen, Jericho):
 Pre-determined Station #: 3926811043/1060/1004 *Feature #: 392-E-392VPI
 GPS: (NAD 83) 17T 450793 4805679 AWO-30
 Water Present (Y/N) Y

Date (yyyy-mm-dd): 2012-04-25 Visit # (1-3) 1
 Field Staff (full name): S. LOWNES S. AITKEN
 Time Started: 08:49 PM Time Finished: 0:51 AM

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 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: 34-38 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: Full chorus spring peepers throughout woodlot.

Amphibian - Frog - Data Form

AECOM

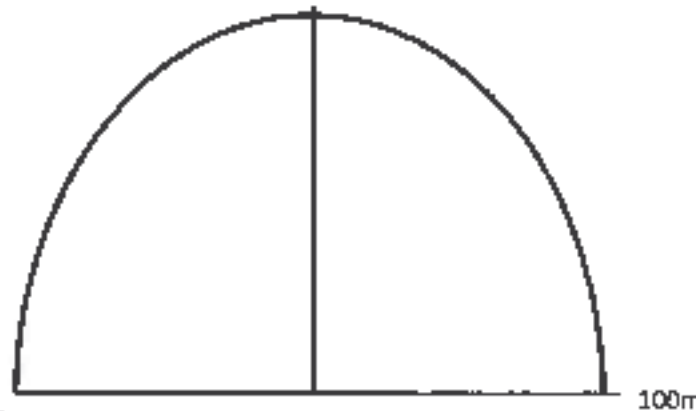
Study Area (Bluewater, Goshen, Jericho): Goshen
 Pre-determined Station #: 3926591043/1061/008 *Feature #: AW1-30
 GPS: (NAD 83) 17T 450343 4805629
 Water Present (Y/N) YES

Date (yyyy-mm-dd): 2012-05-15 Visit # (1-3) 2
 Field Staff (full name): Jess R. ette + Tom Stunney
 Time Started: 11:37 am Time Finished: 11:40 pm

Beaufort Wind Scale (0-6): 4 (very windy) Cloud Cover (%): 40%
 Background Noise Scale (0-4): 2 Temperature Celcius: 17°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		

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 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: large wind gusts, made it hard to hear

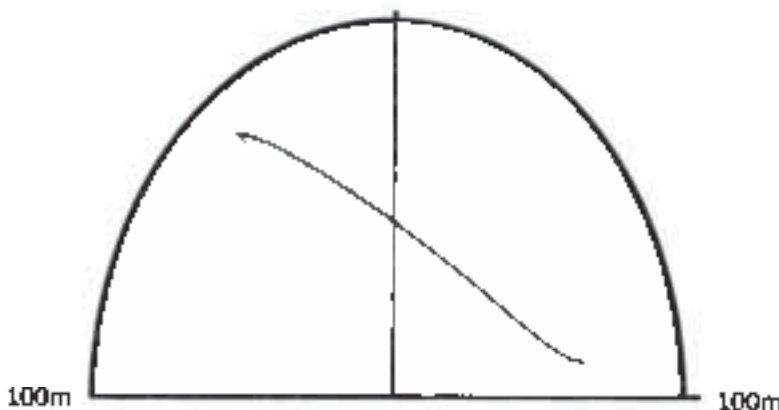
Amphibian - Frog - Data Form

ATCOM

Study Area (Bluewater, Goshen, Jericho):
 Pre-determined Station #: 392 CSN1043/106/0/1008 *Feature #: AN10-30
 GPS: (NAD 83) 17T450793 4805679
 Water Present (Y/N) unknown
 Date (yyyy-mm-dd): 2011-06-20 Visit # (1-3) 3
 Field Staff (full name): Josh Piette + 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		
GATR		
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 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	GATR - 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-GSN1043/Recess *Feature #: 392-VP2
 GPS: 17T 450793 4805879 ^{100%} AW0-30

Date (YYYY-MM-DD): 2012-04-23 Field Staff (full name): Tom Sharkey, Jess Pieler
 Weather: cloudy, 5°C, 45 km/h Wind
 Time Started: 5:30 Time Finished: 6:00

Water Present (Y/N) Y Vernal Pool or Pond? Vernal Ponds
 Maximum Water Depth (m) 25-30cm Water Quality (visual) Algae present, leaf bottom
 Length (m) 10m → max Width (m) 10-20m
 % open water (emergent) 90% % floating plant cover of open water 0%
 Potential to hold water until July (Y/N) Yes If you don't 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>O₂</u>	3
2	4
Emergent Plants (Species & % cover) → 10%	
1 <u>Carex sp 80%</u>	3
2 <u>Phal. stem 20%</u>	4
Floating Plants (Species and % cover) 0%	
1	3
2	4
Fringing Shrubs (Species & % cover) 30%	
1 <u>Freemans 80%</u>	3
2 <u>Prunus 20%</u>	4
Trees (Species & % cover) 50%	
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 pond components are an average. This feature was comprised of SWD 3-3 complex (several small ponds)

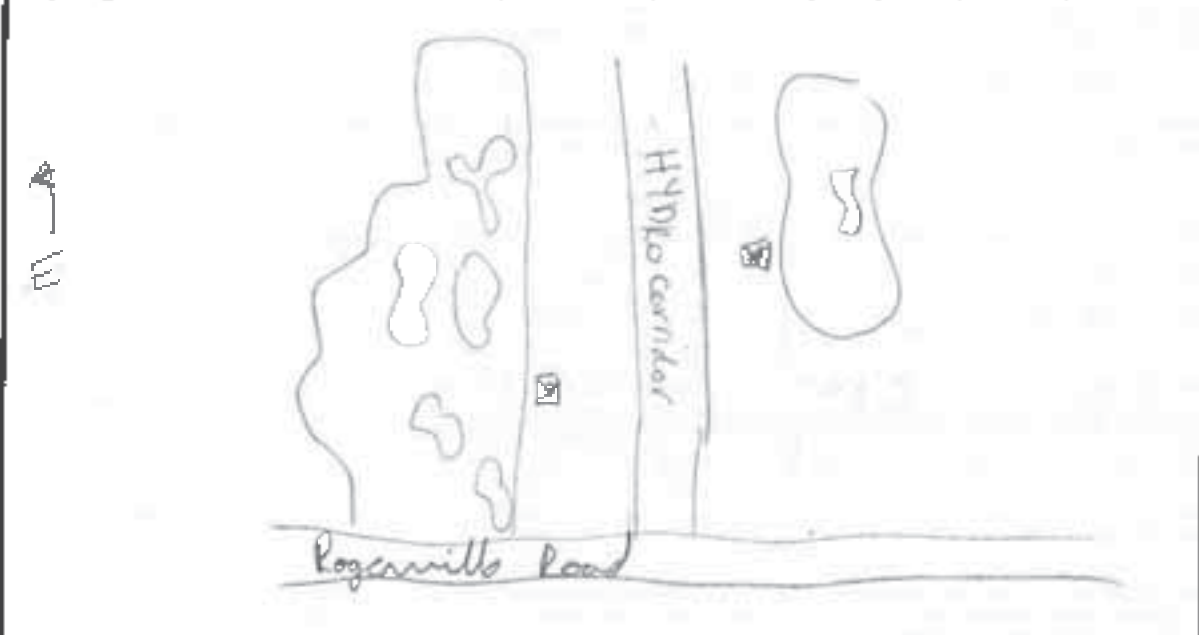
* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet

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

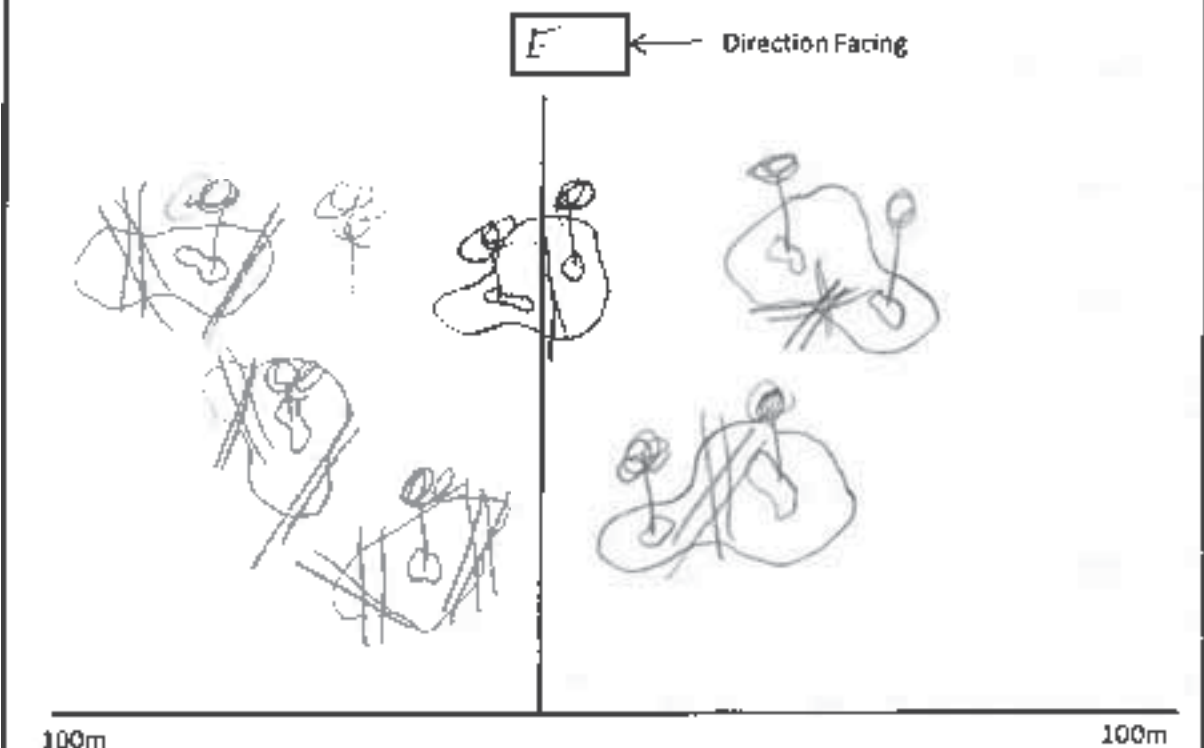
If no water present then no amphibian or salamander sheet completed

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 4 vernal pools - Several small pools

Study Area: Bluewater, Goshen, Jenchoke SECTION
 Pre-determined Station #: 392 GSH 1093/1090/1094 Feature #¹: 392 VP9
 GPS: 177 450 793 4805679 AWO-30

Date (yyyy-mm-dd): April 23 2012
 Field Staff (full name): Wes Peltz + Tom Skirney
 Weather: 6°C
 Time Started: 5:30 pm Time Finished: 6:45 pm

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

Vegetation Comments (Dominant, % cover etc) with SWO,

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 ESHWHS/1060/1019 Feature #: AWR-30
 GPS: 17T 450753 4905674

Date (yyyy-mm-dd): 2012-05-16
 Field Staff (full name): Jess Piette + Tom Shorney
 Weather: 7°C 30km/h wind
 Time Started: 10:00 am Time Finished: 11:19 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) Aspen / Fir / Spruce

NO amphibians OBSERVED

Amphibian species	Life Stage	Number	Search Type	Size	Comments / GPS
<u>CREE</u>	<u>adult</u>	<u>2</u>	<u>observation</u>	<u>7cm</u>	
<u>AMTQ</u>	<u>Tadpole</u>	<u>x 3</u>	<u>dipnet</u>	<u>10-20mm</u>	
<u>unknown</u>	<u>adults</u>	<u>x 4</u>	<u>observation</u>		

DATE	TIME	LOCATION	SEARCH TYPE	RESULTS

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

1. FEATURE # refers to the vernal pool ID given on the habitat description form → 25cm
 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
- Dr. Feature
- LEC Compliance 12--
- Natural Features and ID
- ECG Property Boundary
- Data Source: Aerial
- Area of Under-Drainage plus 10m
- Area
- Drainage Network - PSDR
- Drainage Implementation

0.5 Ha

COPY

Scale: 1:10000
North Arrow

Project: Drainage Implementation
Date: 1/2014

Client: AECOM
Project: GBH143D
AWB-29

AECOM

Figure 1



379

Amphibian - Frog - Data Form

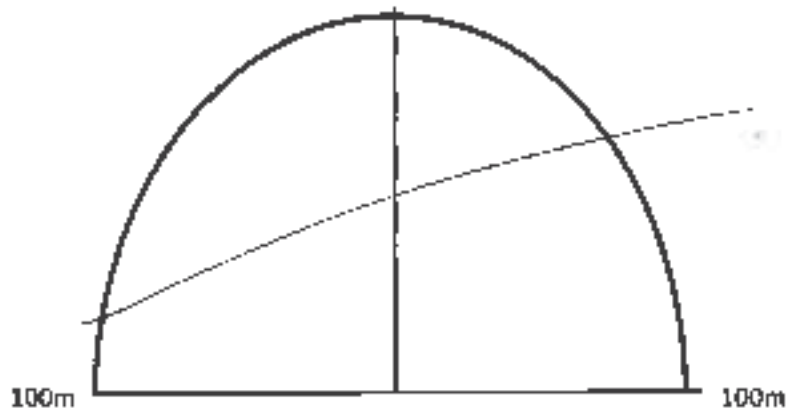
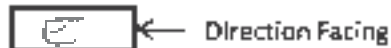
AECOM

Study Area (Bluewater, Goshan, Jericho):
 Pre-determined Station #: 379-GSH1430 *Feature #: 379-002
 GPS: (NAD 83) 17451950 4804676 AWE-29
 Water Present (Y/N)

Date (yyyy-mm-dd): 2012-04-25 Visit # (1-3) 1
 Field Staff (full name): S. LOHNS 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		



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 - slight movement of twigs	

Background Noise Scale	0 - no appreciable effect	3 - serious - continuous traffic nearby (5-10 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: - dog barking at resident on adjacent

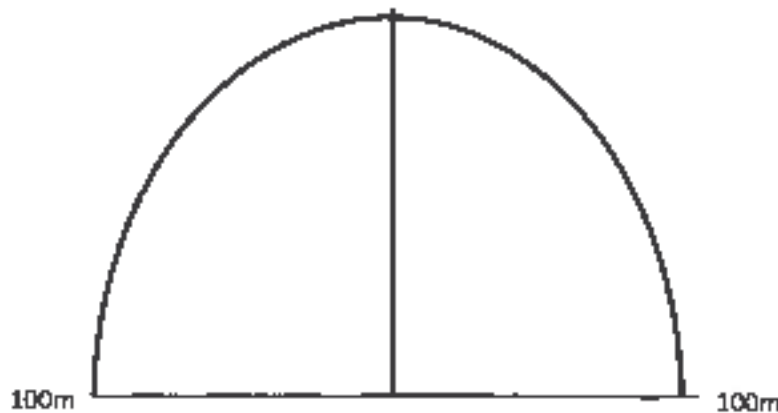
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho): Goshen
 Pre-determined Station #: 379 P5P1430 *Feature #: AWE-29
 GPS: (NAD 83) 17T 451950 4804676
 Water Present (Y/N) Yes (small chain)
 Date (yyyy-mm-dd): 2012-06-15 Visit # (1-3) 2
 Field Staff (full name): Jess Bette + Tom Stronley
 Time Started: 10:30 am Time Finished: 11:33 am
 Beaufort Wind Scale (0-6): 3 22 km/h Cloud Cover (%): 40%
 Background Noise Scale (0-4): 1 Temperature Celcius: 17°C
 Precipitation (None, fog, drizzle, or rain) none

Species	IN	OUT
NONE		<u>X</u>
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 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: _____

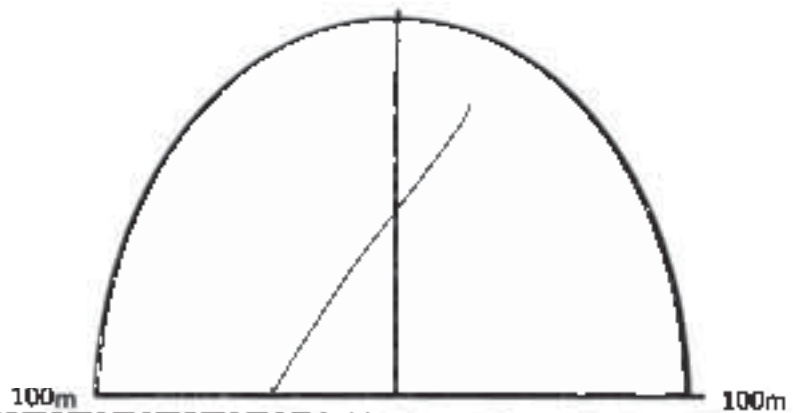
Amphibian - Frog - Data Form

AECOM

Study Area (Bluewater, Goshen, Jericho): GOSHEN
 Pre-determined Station #: 579 (SH143) *Feature #: AWE-29
 GPS: (NAD 83) 17T 451750 4804676
 Water Present (Y/N) unknown
 Date (yyyy-mm-dd): 2012-06-20 Visit # (1-3) 3
 Field Staff (full name): Jess Piotta + David 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 Celsius: 19.6
 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



- 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: 12-18 km/hr - gentle breeze - leaves move on twigs		

Background Noise Scale	0 - no appreciable effect	3 - serious - continuous traffic nearby (5-10 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 - 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 #: 379 GSH1430 *Feature #: AWE-29
 GPS: 17T 45 15.50 410 46.76

Date (yyyy-mm-dd): April 24, 2012 Field Staff (full name): Jess Butler + Tom Stedney
 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 not then complete amphibian and salamander sheet YES
 Human Influences affecting area (dykes, agriculture etc.) near Babylon road directly adjacent
 Describe area 100m behind you (field, marsh etc) wood and field

Submergent Plants (Species & % cover)** <u>0%</u>	
1	3
2	4
Emergent Plants (Species & % cover) <u>20%</u>	
1 <u>reed canopy grass</u>	3
2 <u>AM Acer negundo</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>10%</u>	
1 <u>Acer negundo</u>	3
2 <u>Salix alba 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

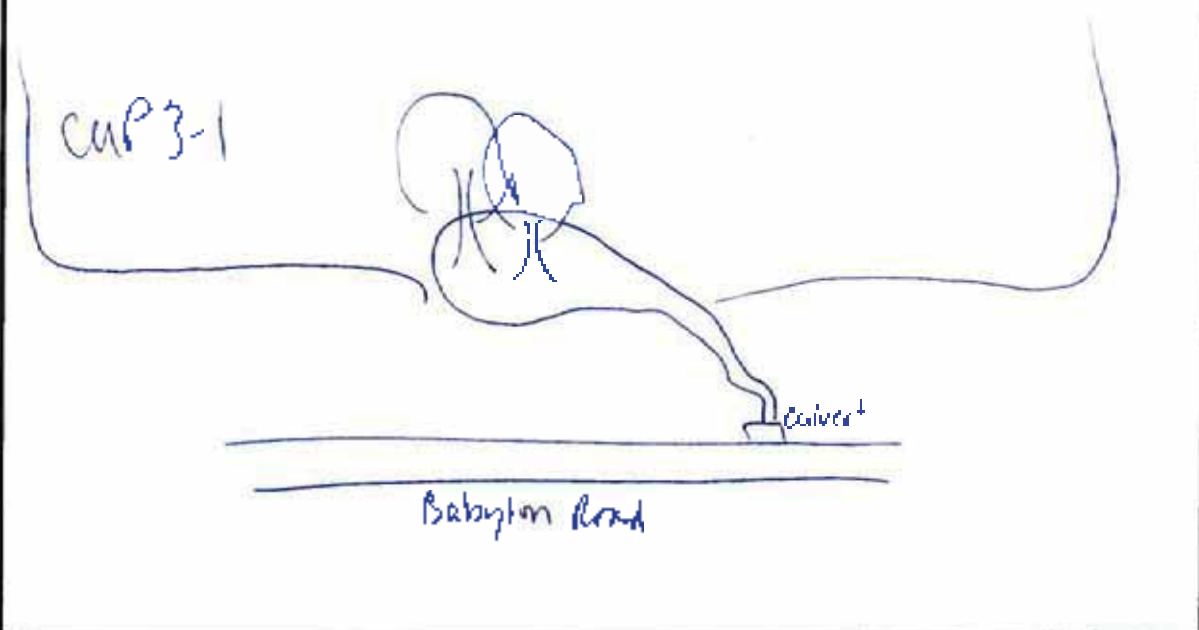
* - FEATURE # refers to the vernal pool ID that you will be giving. This # will be used on call sheet

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

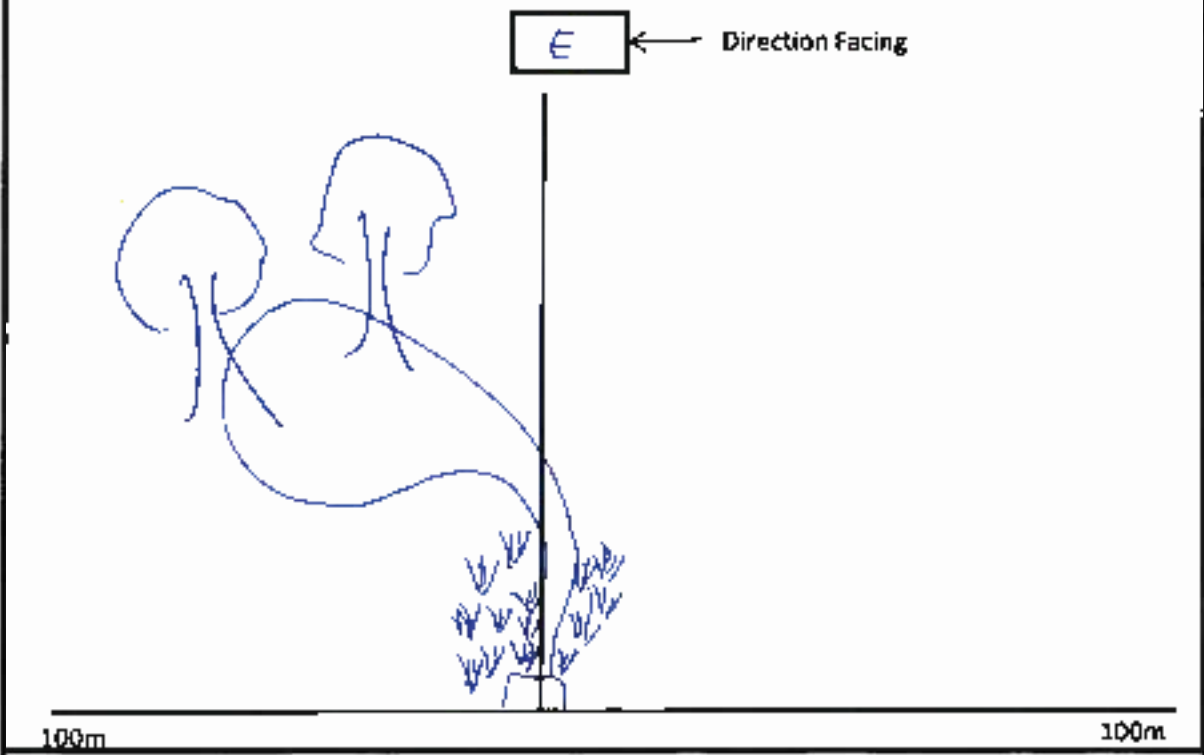
If no water present then no amphibian or salamander sheet completed

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 ~~located~~ located on map

Study Area: (Bluewater, Goshey, Jericho)
 Pre-determined Station #: 379-GSH1430 Feature #¹: AWE-29
 GPS: 17T 45 1950 4804676

Date (yyyy-mm-dd): 2012-04-24
 Field Staff (full name): Tom Sloney 305 p.m.
 Weather: cloudy, 30°C, 45 km/h
 Time Started: 8:30 am Time Finished: 10:10 am

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

Vegetation Comments (Dominant, % cover etc): 30% canopy, Road canopy grass 20%

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>3-6cm</u>	<u>Spurred with faint orange</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 were to young

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 #: 779 ESH1430 Feature #¹: AWE- 29
 GPS: 17T 451450 4404676

Date (yyyy-mm-dd): 2012-01-16
 Field Staff (full name): Jess Biehl + Tom Skelton
 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) gladiolus

NO AMPHIBIANS OBSERVED

Amphibian ²	Life Stage ³	Number ⁴	Search Type ⁵	Size ⁶	Comments/GPS

Feature ID ¹	Location/Description	Photo ID	Location/Description

Comments (ex: egg masses to have GPS) \rightarrow small stream leading into small wetland
pocket
 \rightarrow resting area

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