

Mist Netting Data Form

Sheet 1 of 2

Site No. 13 Project No./Name 41201 / E. M. S. J. A. 1000 Date 7/26/15
 Site Location Woodlot 1000 in road 0.5 mi. E. of Seneca
 County Seneca State OH Time Up 8:55 Time Down 1:55
 Lat/Lon; UTM: N/E 41.17809 W/N 92.89062 Zone 18 Datum NAD83 Observers J. Storm, J. Klingler

COPPERHEAD
ENVIRONMENTAL CONSULTING

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	130	MYSE	A	F	L	70	35	B	2	0	A B	ODNR 17179	
2	130	MYSE	A	F	L	75	36	B	3.5	0	B	17178	171705
3													
4													
5													
6													
7													
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Species Abbreviations: Corynorhinus rafinesquii (CORA); Corynorhinus t. virginianus (COV1); Eptesicus fuscus (EPFU); Lasiurus borealis (LABO); Lasiurus cinereus (LACI); Lasiurus seminolus (LASE); Lasiurus noctivagus (LANO); Myotis austroriparius (MYAU); Myotis grisescens (MYGR); Myotis leibii (MYLE); Myotis lucifugus (MYLU); Myotis septentrionalis (MYSE); Myotis sodalis (MYSO); Nycticeius humeralis (NYHU); Perimyotis subflavus (PESU); Tadarida brasiliensis (TABR)

Other Abbreviations: Male: M; Female: F; Pregnant: P; Lactating: L; Post Lactating: PL; Scrotal: S; Non Repro: NR

XODNR317179

Moon Phase	%	Wax / Wane
Sun	77.5	Wax
Moon	6:21	8:56
	4:32	2:46

Time	Temp (F)	Sky	Wind	No. Bats
9:00	71.2	2	1	0
10:00	68.3	2	1	0
11:00	67.2	3	1	0
12:00	65.3	2	1	0
1:00	63.8	2	1	2
2:00	62.2	2	1	-

Sky Code
0 Clear
1 Few Clouds
2 Partly Cloudy
3 Cloudy or overcast
4 Fog or smoke
5 Drizzle or light rain
6 Heavy rain - thunder storm

Beaufort Wind Scale
0 Calm: <1 mph
1 Light air: 1-3 mph
2 Light breeze: 4-6 mph
3 Gentle breeze: 7-10 mph
4 Moderate breeze: 11-16 mph

Please Return to:

P.O. Box 73, Paint Lick, KY, 40461.

(859) 925-9012

Mist Netting Data Form

Site No. 13 Project No./Name 412 / Emerson Creek Date 7/28/15Site Location woodlot logging road streamCounty Seneca State OH Time Up 8:55 Time Down 1:55Lat/Lon ; UTM: N/E 41.17809 W/N 82, 89062 Zone 18Q Datum NAD83 Observers J. Starn, J. KiggerCOPPERHEAD
WILDLIFE SANCTUARY

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1													
2													
3													
4													
5													
6													
7													
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29													
30													

Acoustic Survey: Unit type _____ Unit # _____ Date _____ Start time _____ Stop time _____
 Date _____ Start time _____ Stop time _____
 Date _____ Start time _____ Stop time _____
 Coordinates _____

Weatherproofing _____

Comments: _____

Moon Phase	%	Rise	Set
Sun	92.8	6:23	8:54
Moon		6:27 pm	3:56 am

Time	Temp (F)	Sky	Wind	No. Bats
9:00	68.5	0	1	0
10:00	67.5	0	2	0
11:00	66.7	1	2	0
12:00	65.4	0	1	0
1:00	65.3	0	1	0
2:00	64.5	0	1	-

Sky Code
0 Clear
1 Few Clouds
2 Partly Cloudy
3 Cloudy or overcast
4 Fog or smoke
5 Drizzle or light rain
6 Heavy rain - thunder storm

Beaufort Wind Scale
0 Calm: <1 mph
1 Light air: 1-3 mph
2 Light breeze: 4-6 mph
3 Gentle breeze: 7-10 mph
4 Moderate breeze: 11-16 mph

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5/27/77

Observers J. Storm, J. Klingel

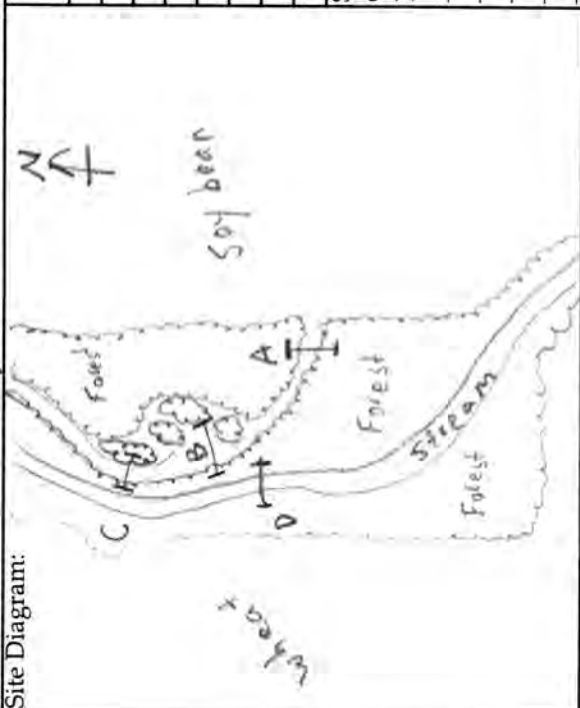
Zone —

Lat/Lon ; UTM: N/E 41, 17809 W/N 82, 8900

Datum: 11/10/83 County Seneca State OH Quad Fireside

State 0

Datum: 11/18/83 County Seneca

[illegible]

Net	Height (m)	Length (m)	Dates	Dominant Vegetation						
A	6.2	10	7/26/97/28	1. <i>St. pepper elm</i>	4. <i>Green ash</i>					
B	7.8	9	7/26/97/28	2. <i>American elm</i>	5.					
C	6.2	6	7/26/97/28	3. <i>Hackberry</i>	6.					
D	5.2	16	7/26/97/28							
E				Net Set by Habitat						
F				Habitat	A	B	C	D	E	F
				River						
				Stream				X		
				Pond						
				Corridor	X	X	X			
				Cave						
				Mine						
				Forest						
				Gap		X				
				Other						

Site Photographs _____
Camera: _____
Photo Log: _____

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Roost habitat: 1. Poor: No or few snags $\geq 5"$ DBH with sloughing bark or other usable roost features (cracks, crevices, etc)

2. **Moderate:** Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.

3. **Optimal:** Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.

Water Resources: 1. Poor: bat drinking resources not present at the site.

2. **Moderate:** Ephemeral or intermittent streams or ponded areas present but too cluttered to allow many bats to drink easily or simultaneously. No corridors,

3. **Optimal:** Stream or ponds (including road cuts) openings or canopy gaps allow bats easy access to the resource.

S. c. opimus. Streams of ponds (including road runs) present that appear to offer drinking resource throughout the majority of the summer. Flyways to resources are available.

Forest Structure: (if hardwoods are absent or nearly absent or if stand is monoculture, area automatically qualifies as a 1: poor).

1. Poor: Habitat even aged and young. Trees smaller than 5 inch DBH. Understory growth cluttered and restricts flying/foraging

Z. Moderate: some diversity in age of trees in the stand. Trees 5 to 15 inches present. Understory clutter dominant but not ubiquitous. Trees greater than 15" DBH may be present but rare.

3. Optimal: Mature forest. Diverse age classes of trees present. Trees > 15 inch DBH frequent. Varying tree height and treefalls allow for frequent small openings and gaps that facilitate bat foraging.

Land Cover: 1. Poor: Square kilometer surrounding site predominantly un-forested. Few mature trees present not connected to other areas of trees.

2. Marginal: Trees present in the form of small woodlots and wooded fence rows. Little connection to adjacent forested areas.

3. **Optimal:** Area is largely forested. Wooded stands are connected to other wooded stands via wooded stream, fence row, or other wooded corridor.

Total Habitat Score (Should be between 4 & 12)

Comments:

Please return to:

P.O. Box 73, Paint Lick, KY. 40461

859-925-9012



COPPERHEAD

Principle Investigator(s) James Storm Location (lat/longs in D:M:S format) _____

County Seneca Site Description Woodlot logging road and stream Survey dates 26/28 July 2015 Total mist net nights 8

[illegible]

N/R?: N = new capture, unbanded when captured, R = recapture, already banded when captured; **HABITAT** (at capture site): C = creek/riparian, B = bottomland forest, U = upland forest, P = pond, O = other (note type in margin); **ARM BANDED:** L = left, R = right (typically males are banded on the right forearm and females on the left); **SEX:** M = male, F = female; **AGE:** A = adult, J = juvenile, U = unknown; **REPRODUCTIVE CONDITION:** S = scrotal, P = pregnant, L = lactating, PL = post lactating, NR = nonreproductive, U = unknown

Mist Netting Data Form

Site No. 14 Project No./Name 412 Emerald Creek Date 7/23/2015Site Location Woodlot SE of Portland RdCounty Seneca State OH Time Up 4:00pm Time Down 2:00amLat/Lon; UTM: N/E N 41.224734 W/N W - 83.028039 Zone 18 Datum NAD83 Observers ES, TABCOPPERHEAD
CONSULTING

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	10:40	LABO	3	M	NR	119	29	B	1.5	1	-	-	-
2													
3													
4													
5													
6													
7													
8													
9													
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30													

Acoustic Survey: Unit type _____ Unit # _____ Date _____ Start time _____ Stop time _____

Date _____ Start time _____ Stop time _____

Date _____ Start time _____ Stop time _____

Weatherproofing _____ Coordinates _____

Comments: _____

Moon Phase	%	Wax / Wane
Sun	Rise	Set
Moon	0612	8:59
	1328	0045

Time	Temp (F)	Sky	Wind	No. Bats
9:00	78	0	0	0
10:00	75	0	0	1
11:00	72	0	0	0
12:00	68	0	0	0
1:00	68	1	0	0
2:00	67	1	0	0

Sky Code
0 Clear
1 Few Clouds
2 Partly Cloudy
3 Cloudy or overcast
4 Fog or smoke
5 Drizzle or light rain
6 Heavy rain - thunder storm

Beaufort Wind Scale
0 Calm: <1 mph
1 Light air: 1-3 mph
2 Light breeze: 4-6 mph
3 Gentle breeze: 7-10 mph
4 Moderate breeze: 11-16 mph

Please Return to:
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Mist Netting Data Form

Sheet 1 of 2

Site No. 14 Project No./Name YN 1 Emerson Creek Date 7/27/2015
 Site Location Woodlot SE of Portland Rd
 County Seneca State OH Time Up 8:55pm Time Down 2:00
 Lat/Lon: UTM: N/E N 41.224734 W/N W-83.022027 Zone — Datum NAD83 Observers ES, TAB

COPPERHEAD
ENVIRONMENTAL SOLUTIONS

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	10:50	PESU	J	F	NR	7	35	A	3	0	—	—	—
2	11:30	EPFU	A	F	PL	19	48	A	2.5	0	—	—	—
3	12:10	LABO	—	—	—	—	—	A	6	—	ESCAPED	NET	—
4													
5													
6													
7													
8													
9													
10													
11													
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Species Abbreviations: Corynorhinus rafinesquii (CORA); Corynorhinus t. virginianus (COVI); Eptesicus fuscus (EPFU); Lasiurus borealis (LABO); Lasiurus cinereus (LACI); Lasiurus seminolus (LASE); Lasionycteris noctivagans (LANO); Myotis austroriparius (MYAU); Myotis grisescens (MYGR); Myotis leibii (MYLE); Myotis lucifugus (MYLU); Myotis septentrionalis (MYSE); Myotis sodalis (MYSO); Nycticeius humeralis (NYHU); Perimyotis subflavus (PESU); Tadarida brasiliensis (TABR)

Other Abbreviations: Male: M; Female: F; Pregnant: P; Lactating: L; Post Lactating: PL; Scrotal: S; Non Repro: NR

Moon Phase	%	60	Wax / Wane
Sun	Rise	0622	Set 854
Moon	Rise	1731	Set 0246

Time	Temp (F)	Sky	Wind	No. Bats
9:00	79	1	0	0
10:00	75	1	0	1
11:00	73	0	0	0
12:00	73	0	0	1
1:00	70	0	0	0
2:00	68	0	0	0

Sky Code
0 Clear
1 Few Clouds
2 Partly Cloudy
3 Cloudy or overcast
4 Fog or smoke
5 Drizzle or light rain
6 Heavy rain - thunder storm

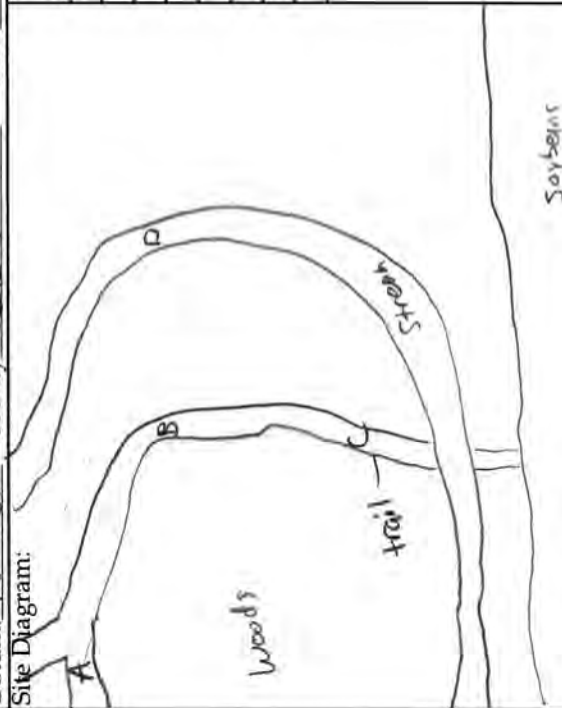
Beaufort Wind Scale
0 Calm: <1 mph
1 Light air: 1-3 mph
2 Light breeze: 4-6 mph
3 Gentle breeze: 7-10 mph
4 Moderate breeze: 11-16 mph

Please Return to:

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(859) 925-9012

Mist Net Site Habitat Sheet Site No. 14 Project No./Name 412 / Emerson Creek Date 7/23/15
 Lat/Lon: UTM: N/E N 41.22 4734 W/N W 83.028039 Zone 18 Observers Eric Smith, Todd Bixler
 Datum: NAD83 County Seneca State OH Quad Watson

Site Diagram:



Net	Height (m)	Length (m)	Dates
A	9	9	
B	6	6	
C	6	6	
D	6	6	
E			
F			

Dominant Vegetation					
1.	Red Maple	4.			
2.	Red oak	5.			
3.	Elm	6.			

Net Set by Habitat					
Habitat	A	B	C	D	E
River					
Stream				X	
Pond					
Corridor	X	X	X		
Cave					
Mine					
Forest					
Gap					
Other					

Indiana Bat Habitat Characterization (Choose appropriate score for each habitat characteristic)

- 2 **Roost habitat:** 1. Poor: No or few snags >= 5" DBH with sloughing bark or other usable roost features (cracks, crevices, etc)
 2. Moderate: Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.
 3. Optimal: Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.
- 2 **Water Resources:** 1. Poor: bat drinking resources not present at the site.
 2. Moderate: Ephemeral or intermittent streams or ponded areas present but too cluttered to allow many bats to drink easily or simultaneously. No corridors, openings or canopy gaps allow bats easy access to the resource.
 3. Optimal: Streams or ponds (including road ruts) present that appear to offer drinking resource throughout the majority of the summer. Flyways to resources are available.
- 2 **Forest Structure:** (if hardwoods are absent or nearly absent or if stand is monoculture, area automatically qualifies as a 1: poor).
 1. Poor: Habitat even aged and young. Trees smaller than 5 inch DBH. Understory growth cluttered and restricts flying/foraging
 2. Moderate: some diversity in age of trees in the stand. Trees 5 to 15 inches present. Understory clutter dominant but not ubiquitous. Trees greater than 15" DBH may be present but rare.
 3. Optimal: Mature forest. Diverse age classes of trees present. Trees > 15 inch DBH frequent. Varying tree height and treefalls allow for frequent small openings and gaps that facilitate bat foraging.
- 2 **Land Cover:** 1. Poor: Square kilometer surrounding site predominantly un-forested. Few mature trees present not connected to other areas of trees.
 2. Marginal: Trees present in the form of small woodlots and wooded fence rows. Little connection to adjacent forested areas.
 3. Optimal: Area is largely forested. Wooded stands are connected to other wooded stands via wooded stream, fence row, or other wooded corridor.

8 **Total Habitat Score** (Should be between 4 & 12)

Comments:

Please return to:
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 859-925-9012



Mist Netting Data Form

Sheet 1 of 1

Site No. 15 Project No./Name 412 / EMERALD CREEK Date 7-24-15
 Site Location Clatsop Alford July 19
 County Seaside State OR Time Up 9:00 Time Down 2:00
 Lat/Lon: UTM: N/E 41.2308 W/N -03.0152 Zone 18 Datum NAD83 Observers Eric Smith
Todd Bixler

COPPERHEAD
ENVIRONMENTAL SERVICES

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	10:20	EPFU	J	M	NR	14	45	D	2.5	0	—	—	—
2	11:50	EPFU	A	F	L	20.5	44	D	1.5	0	—	—	—
3													
4													
5													
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29													
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Species Abbreviations: Corynorhinus rafinesquii (CORA); Corynorhinus t. virginianus (COV1); Eptesicus fuscus (EPFU); Lasiurus borealis (LABO); Lasiurus cinereus (LACI); Lasiurus seminolus (LASE); Lasiurus noctivagus (LANO); Myotis austroriparius (MYAU); Myotis grisescens (MYGR); Myotis leibii (MYLE); Myotis lucifugus (MYLU); Myotis septentrionalis (MYSE); Myotis sodalis (MYSO); Nycticeius humeralis (NYHU); Perimyotis subflavus (PESU); Tadarida brasiliensis (TABR)

Other Abbreviations: Male: M; Female: F; Pregnant: P; Lactating: L; Post Lactating: PL; Scrotal: S; Non Repro: NR

Moon Phase	%	Wax / Wane
Sun		
Moon		

Time	Temp (F)	Sky	Wind	No. Bats
9:30	76	0	0	0
10:30	75	0	0	1
11:30	73	0	0	1
12:30	72	0	0	0
1:30	72	0	0	0
2:30	70	0	0	0

Sky Code
0 Clear
1 Few Clouds
2 Partly Cloudy
3 Cloudy or overcast
4 Fog or smoke
5 Drizzle or light rain
6 Heavy rain - thunder storm

Beaufort Wind Scale
0 Calm: <1 mph
1 Light air: 1-3 mph
2 Light breeze: 4-6 mph
3 Gentle breeze: 7-10 mph
4 Moderate breeze: 11-16 mph

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Mist Netting Data Form

Site No. 15 Project No./Name 412 / Emerson Creek Date 7-31-15
 Site Location CAGEK AK06 14-4 19
 County Seneca State 6H Time Up 8:50 Time Down 2:00
 Lat/Lon; UTM: N/E 41.2008 W/N -83.0152 Zone 18 Datum NAD83 Observers MTM, THS



COPPERHEAD
 SYSTEMS, INC.

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	10:00	EPFL	A	F	PL	19	47	E	0.5	0	—	—	—
2	10:00	EPFL	A	F	PL	18	47	E	4	0	—	—	—
3	11:45	MYSE	A	F	PL	7.5	35	A	1	0	—	17345	—
4													
5													
6													
7													
8													
9													
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Acoustic Survey: Unit type _____ Unit # _____ Date _____ Start time _____ Stop time _____
 Date _____ Start time _____ Stop time _____
 Date _____ Start time _____ Stop time _____
 Coordinates _____

Weatherproofing _____

Comments: _____

Moon Phase 100%		Wax / Wane	
Rise	Set		
Sun	0625		0850
Moon	0123		0910

Time	Temp (F)	Sky	Wind	No. Bats
9:00	72	0	0	0
10:00	72	0	1	2
11:00	72	0	1	1
12:00	70	2	1	0
1:00	66	0	1	0
2:00	65	0	1	0

Sky Code	
0	Clear
1	Few Clouds
2	Partly Cloudy
3	Cloudy or overcast
4	Fog or smoke
5	Drizzle or light rain
6	Heavy rain - thunder storm

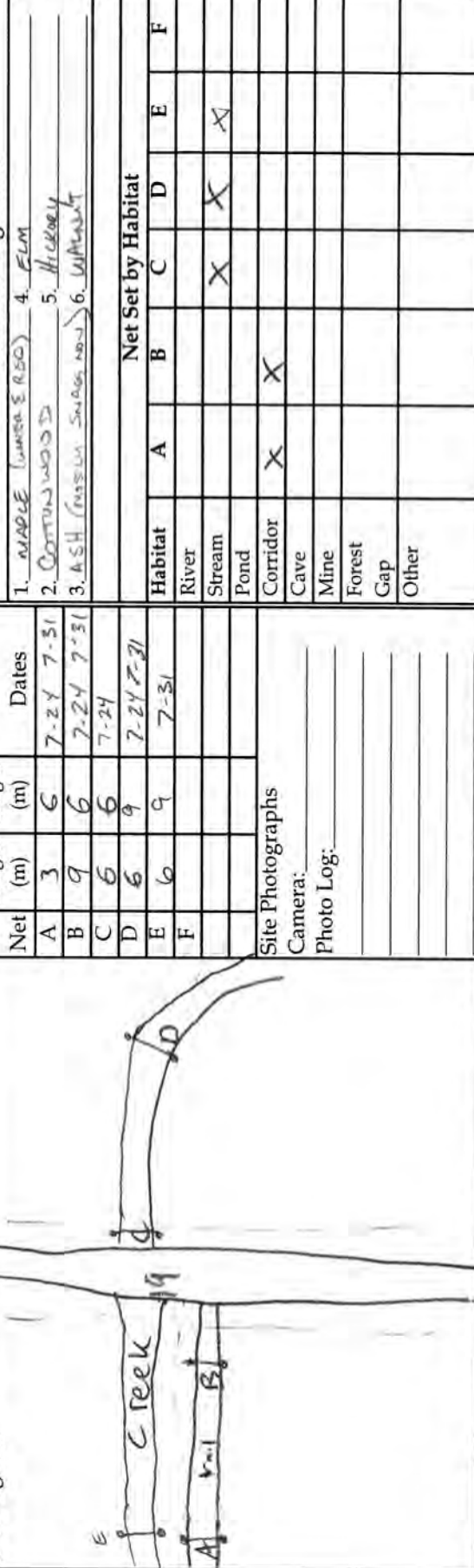
Beaufort Wind Scale	
0	Calm: <1 mph
1	Light air: 1-3 mph
2	Light breeze: 4-6 mph
3	Gentle breeze: 7-10 mph
4	Moderate breeze: 11-16 mph

Please Return to:
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 (859) 925-9012

Mist Net Site Habitat Sheet

Date 7-24-15Observers ELS, MTM, TABProject No./Name 412 / EMERSON CREEKSite No. 15 Zone W/N - 83.0152County SENECAState OH Quad WatsonLat/Lon, UTM: N/E 41, 2008 W/N -83.0152Datum: NAD83

Site Diagram:



Indiana Bat Habitat Characterization (Choose appropriate score for each habitat characteristic)

- 2 Roost habitat: 1. Poor: No or few snags $\geq 5"$ DBH with sloughing bark or other usable roost features (cracks, crevices, etc)
2. Moderate: Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.
3. Optimal: Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.
- 3 Water Resources: 1. Poor: bat drinking resources not present at the site.
2. Moderate: Ephemeral or intermittent streams or ponded areas present but too cluttered to allow many bats to drink easily or simultaneously. No corridors, openings or canopy gaps allow bats easy access to the resource.
3. Optimal: Streams or ponds (including road cuts) present that appear to offer drinking resource throughout the majority of the summer. Flyways to resources are available.
- 2 Forest Structure: (if hardwoods are absent or nearly absent or if stand is monoculture, area automatically qualifies as a 1: poor).
1. Poor: Habitat even aged and young. Trees smaller than 5 inch DBH. Understory growth cluttered and restricts flying/foraging
2. Moderate: some diversity in age of trees in the stand. Trees 5 to 15 inches present. Understory clutter dominant but not ubiquitous. Trees greater than 15" DBH may be present but rare.
3. Optimal: Mature forest. Diverse age classes of trees present. Trees >15 inch DBH frequent. Varying tree height and treefalls allow for frequent small openings and gaps that facilitate bat foraging.
- 3 Land Cover: 1. Poor: Square kilometer surrounding site predominantly un-forested. Few mature trees present not connected to other areas of trees.
2. Marginal: Trees present in the form of small woodlots and wooded fence rows. Little connection to adjacent forested areas.
3. Optimal: Area is largely forested. Wooded stands are connected to other wooded stands via wooded stream, fence row, or other wooded corridor.

16 Total Habitat Score (Should be between 4 & 12)

Comments:

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859-925-9012



Mist Netting Data Form

Sheet 1 of 2

Site No. 16 Project No./Name 41201 Emerson Creek Date 7-23-15
 Site Location Pond in wood lot west of CR-18 and south of East county Rd 24
 County SARASOTA State FL Time Up 0900am Time Down 0200pm
 Cat/Lon: UTM: N/E 41.157652 W/N -82.989259 Zone 18N Datum WGS84 Observers B. Renley / R. McGee

COPPERHEAD
SERVICES, INC.

Moon Phase %		Wax / Wane	
Rise	Set		
Sun	6:12	20:52	
Moon	13:28	00:45	

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	9:30	EPFU	Escaped						3				
2	9:40	EPFU	A	F	PL	175	44	A	2	0	N/A	N/A	N/A
3	9:50	EPFU	A	F	PL	195	47	D	2	0	N/A	N/A	N/A
4	10:20	EPFU	J	M	N/L	95	43	A	5	0	N/A	N/A	N/A
5	10:40	EPFU	A	F	PL	190	47	A	6	1	N/A	N/A	N/A
6	11:00	EPFU	J	F	N/L	150	46	A	7	0	N/A	N/A	N/A
7	11:20	EPFU	A	F	PL	220	49	A	6	0	N/A	N/A	N/A
8													
9													
10													
11													
12													
13													
14													
15													
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Species Abbreviations: Corynorhinus rafinesquii (CORA); Corynorhinus t. virginianus (COVI); Eptesicus fuscus (EPFU); Lasiurus borealis (LABO); Lasiurus cinereus (LACI); Lasiurus seminolus (LASE); Lasiurus noctivagus (LANO); Myotis austroriparius (MYAU); Myotis grisescens (MYGR); Myotis leibii (MYLE); Myotis lucifugus (MYLU); Myotis septentrionalis (MYSE); Myotis sodalis (MYSO); Nycticeius humeralis (NYHU); Perimyotis subflavus (PESU); Tadarida brasiliensis (TABR)

Other Abbreviations: Male: M; Female: F; Pregnant: P; Lactating: L; Post Lactating: PL; Scrotal: S; Non Repro: NR

Sky Code	
0	Clear
1	Few Clouds
2	Partly Cloudy
3	Cloudy or overcast
4	Fog or smoke
5	Drizzle or light rain
6	Heavy rain - thunder storm

Beaufort Wind Scale	
0	Calm: <1 mph
1	Light air: 1-3 mph
2	Light breeze: 4-6 mph
3	Gentle breeze: 7-10 mph
4	Moderate breeze: 11-16 mph

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 p. 1

Mist Netting Data Form

Site No. 16 Project No./Name 412.01 Emerson Creek Date 7-27-15
 Site Location Pond in wood lot West of CR 18 + South of East County Rd 24
 County Seneca State NY Time Up 8:55 Time Down 01:55
 Lat/Lon: UTM: 18QJH 4157652 WPN -82.989259 Zone 18QJH Observers B. Remley/R. McGovern



#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	10:00	EPFU	A	F	PL	4.5	46	A	3	0	N/A	N/A	N/A
2	10:00	EPFU	A	M	NR	16.0	45	A	3	0	N/A	N/A	N/A
3	10:00	EPFU	A	F	PL	18.5	48	A	4	0	N/A	N/A	N/A
4	10:30	EPFU	J	M	NR	13.5	46	A	2.5	0	N/A	N/A	N/A
5	11:00	EPFU	J	M	NR	15.0	45	C	1.5	0	N/A	N/A	N/A
6	11:50	EPFU	A	M	NR	19.0	46	A	2	0	N/A	N/A	N/A
7	12:40	LADO	J	F	NR	9.0	41	C	1.5	0	N/A	N/A	N/A
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Time	Temp (F)	Sky	Wind	No. Bats
900	77	0	0	N/A
1000	74	1	0	0
1100	73	1	0	4
1200	71	0	0	7
1300	70	0	0	7
2000	69	0	0	

Sky Code	0	1	2	3	4	5	6
	Clear	Few Clouds	Partly Cloudy	Cloudy or overcast	Fog or smoke	Drizzle or light rain	Heavy rain - thunder storm

Beaufort Wind Scale	0	1	2	3	4
	Calm: <1 mph	Light air: 1-3 mph	Light breeze: 4-6 mph	Gentle breeze: 7-10 mph	Moderate breeze: 11-16 mph

Acoustic Survey: Unit type _____ Unit # _____ Date _____ Start time _____ Stop time _____
 Date _____ Start time _____ Stop time _____
 Date _____ Start time _____ Stop time _____
 Coordinates _____
 Weatherproofing _____
 Comments: _____

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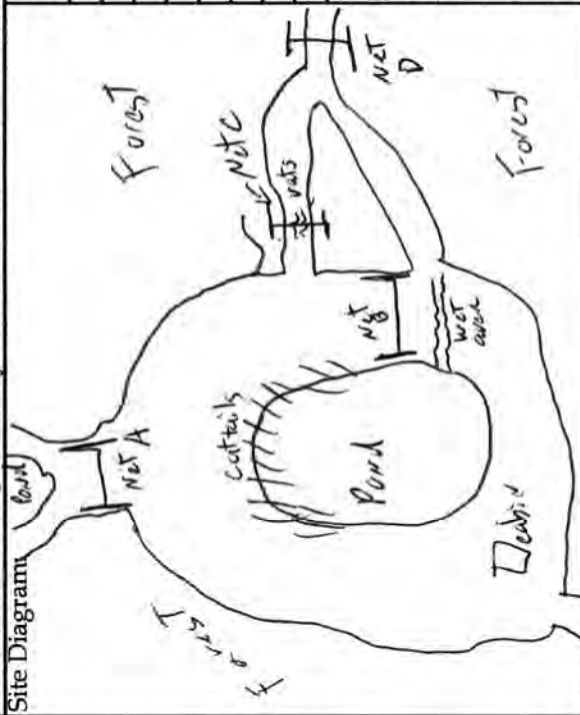
Mist Net Site Habitat Sheet

Site No. 16 Project No./Name 4201, Emerson Creek Date 7-23-15

Lat/Lon: UTM: N 41.157652 W 82.984259 Zone — Observers B. Penley / B. McCreger

Datum: NAD83 County: Seneca State: NY Quad: Firside

Net	(m)	Dates
1.	Sugar maple	4. Red Oak



				Dominant Vegetation							
	Net	Height (m)	Length (m)	Dates	1. Sugar maple	4. Red Oak					
	A	7.8	9	7/23/15 + 7/27	2. Gray-barked Hickory	5.					
	B	5.2	12	7/23/15 + 7/27	3. Oak - white	6.					
	C	5.2	6	7/23/15 + 7/27							
	D	5.2	6	7/23/15 + 7/27							
	E										
	F										
Site Photographs					Net Set by Habitat						
Camera:					Habitat	A	B	C	D	E	F
Photo Log: Downloaded					River						
to google drive site 16					Stream						
					Pond edge		✓				
					Corridor	✓		✓	✓		
					Cave						
					Mine						
					Forest						
					Gap						
					Other						

Roost habitat: 1. **Poor:** No or few snags $\geq 5"$ DBH with sloughing bark or other usable roost features (cracks, crevices, etc)
2. **Moderate:** Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.
3. **Optimal:** Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.

- Roost habitat:** 1. **Poor:** No or few snags ≥ 5 " DBH with sloughing bark or other usable roost features (cracks, crevices, etc)
2. **Moderate:** Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.
3. **Optimal:** Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.
- Water Resources:** 1. **Poor:** bat drinking resources not present at the site.
2. **Moderate:** Ephemeral or intermittent streams or ponded areas present but too cluttered to allow many bats to drink easily or simultaneously. No corridors, openings or canopy gaps allow bats easy access to the resource.
3. **Optimal:** Streams or ponds (including road ruts) present that appear to offer drinking resource throughout the majority of the summer. Flyways to resources are available.
- Forest Structure:** (if hardwoods are absent or nearly absent or if stand is monoculture, area automatically qualifies as a 1: poor).
1. **Poor:** Habitat even aged and young. Trees smaller than 5 inch DBH. Understory growth cluttered and restricts flying/foraging
2. **Moderate:** some diversity in age of trees in the stand. Trees 5 to 15 inches present. Understory clutter dominant but not ubiquitous. Trees greater than 15" DBH may be present but rare.
3. **Optimal:** Mature forest. Diverse age classes of trees present. Trees > 15 inch DBH frequent. Varying tree height and treefalls allow for frequent small openings and gaps that facilitate bat foraging.
- Land Cover:** 1. **Poor:** Square kilometer surrounding site predominantly un-forested. Few mature trees present not connected to other areas of trees.
2. **Marginal:** Trees present in the form of small woodlots and wooded fence rows. Little connection to adjacent forested areas.
3. **Optimal:** Area is largely forested. Wooded stands are connected to other wooded stands via wooded stream, fence row, or other wooded corridor.

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COPPERHEAD
In Vitro Infusion Corporation

Mist Netting Data Form

Sheet 1 of 2

Site No. 17 Project No./Name 412.01 Emerson Creek Date 7-24-15Site Location Wood lot next to soybean field off North township Rd 183County Seneca State OH Time Up 0900 Time Down 0200 amUTM: N 41 17 585 Datum WGS84 Zone 18Observers B. Benley / R. McGeeCOPPERHEAD
CORPORATION

Moon Phase	%	60	Way / Wane
Sun	Rise	6:13	20:51
Moon	14:26	NMS	

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	9:30	EPFU	J	F	NR	130	48	D	5	0	N/A	N/A	N/A
2	10:20	LABO	A	F	PL	140	39	D	4.5	0	N/A	N/A	N/A
3	10:50	EPFU	A	F	PL	23	50	A	3.5	0	N/A	N/A	N/A
4	11:10	EPFU	J	F	NR	143	44	A	2.5	0	N/A	N/A	N/A
5	11:30	EPFU	A	M	NR	157	45	A	2	0	N/A	N/A	N/A
6	12:20	EPFU	A	M	NR	170	46	D	6.5	0	N/A	N/A	N/A
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Other Abbreviations: Male: M; Female: F; Pregnant: P; Lactating: L; Post Lactating: PL; Scrotal: S; Non Repro: NR

Sky Code

0	Clear
1	Few Clouds
2	Partly Cloudy
3	Cloudy or overcast
4	Fog or smoke
5	Drizzle or light rain
6	Heavy rain - thunder storm

Beaufort Wind Scale

0	Calm: <1 mph
1	Light air: 1-3 mph
2	Light breeze: 4-6 mph
3	Gentle breeze: 7-10 mph
4	Moderate breeze: 11-16 mph

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Mist Netting Data Form

Site No. 17 Project No./Name 412.01 / Emerson Creek Date 7-30-15
 Site Location Wood lot next to Gaybears field off North township Rd 183
 County Sawyer State OH Time Up 0855 Time Down 0200
 Lat/Lon: UTM: N17E 41.17565 Datum NAD83 Observers B. Reuley/c. Blay/P. McGee
 Zone 18N -62.96033



#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDL	G/H/B/T	Band# Type	Freq.
1	9:50	EPFU	J	F	NR	120	46	D	6	0	N/A	N/A	N/A
2	10:00	EPFU	J	M	NR	140	46	D	4	0	N/A	N/A	N/A
3													
4													
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Acoustic Survey: Unit type _____ Unit # _____ Date _____ Start time _____ Stop time _____
 Date _____ Start time _____ Stop time _____
 Date _____ Start time _____ Stop time _____
 Coordinates _____

Weatherproofing _____

Comments: _____

Moon Phase	%	Rise	Set
Sun		6:25 am	8:52 pm
Moon		8:10 pm	5:35 am

Time	Temp (F)	Sky	Wind	No. Bats
9:00	76	0	1	N/A
10:00	73	0	1	2
11:00	73	0	1	0
12:00	69	0	1	0
01:00	68	0	1	0
02:00	67	0	1	0

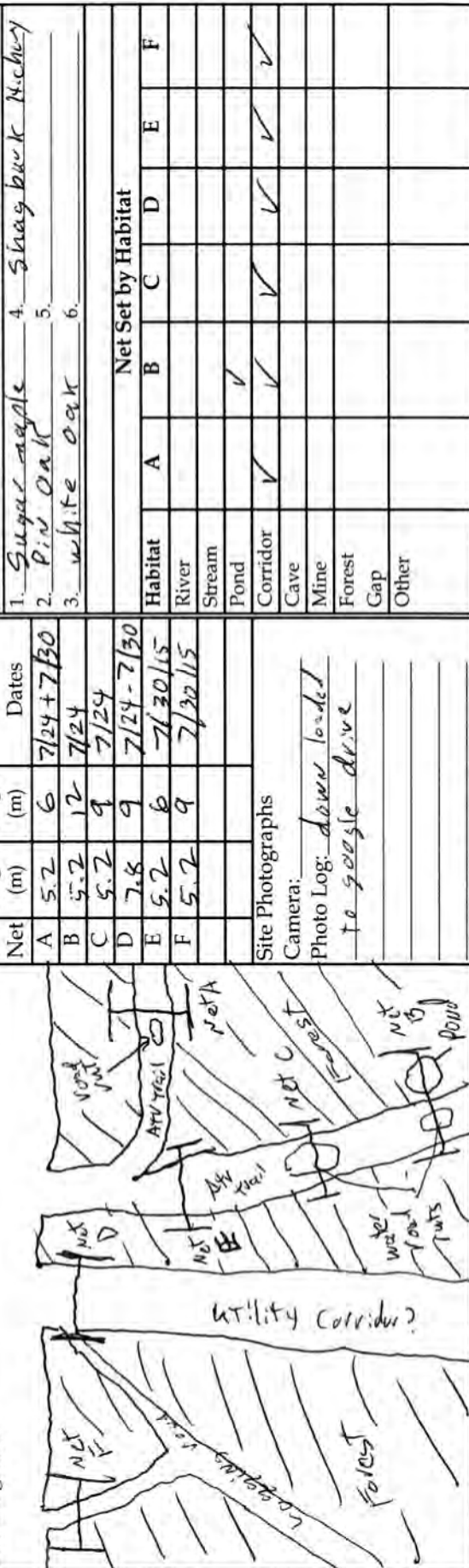
Sky Code
0 Clear
1 Few Clouds
2 Partly Cloudy
3 Cloudy or overcast
4 Fog or smoke
5 Drizzle or light rain
6 Heavy rain - thunder storm

Beaufort Wind Scale
0 Calm: <1 mph
1 Light air: 1-3 mph
2 Light breeze: 4-6 mph
3 Gentle breeze: 7-10 mph
4 Moderate breeze: 11-16 mph

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Mist Net Site Habitat Sheet Site No. 17 Project No./Name 41201 Emerson Creek Date 7-24-15
 (Lat/Lon): UTM: N 82.96083 Zone 18 Observers B. Benley / R. McGee
 Datum: NAD83 County Seneca State NY Quad Fipside
 Site Diagram:



Indiana Bat Habitat Characterization (Choose appropriate score for each habitat characteristic)

3

Roost habitat: 1. Poor: No or few snags >= 5" DBH with sloughing bark or other usable roost features (cracks, crevices, etc)
2. Moderate: Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.
3. Optimal: Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.

3

Water Resources: 1. Poor: bat drinking resources not present at the site.
2. Moderate: Ephemeral or intermittent streams or ponded areas present but too cluttered to allow many bats to drink easily or simultaneously. No corridors, openings or canopy gaps allow bats easy access to the resource.
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Indiana Bat Habitat Characterization (Choose appropriate score for each habitat characteristic)

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3 **Water Resources:** 1. Poor: bat drinking resources not present at the site.
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 2. Marginal: Trees present in the form of small woodlots and wooded fence rows. Little connection to adjacent forested areas.
 3. Optimal: Area is largely forested. Wooded stands are connected to other wooded stands via wooded stream, fence row, or other wooded corridor.

11 **Total Habitat Score** (Should be between 4 & 12)

Comments:

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 859-925-9012

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 ENVIRONMENTAL CONSULTING

Mist Netting Data Form

Site No. 18 Project No./Name 412.01 / Apex - Emerson Lake Watershed Date 26-July 2015
 Site Location Wardell Lake + Garrison Lake stream State OH Time Up 2035 Time Down 0155
 County Seneca W/N -82.92827 Zone — Datum NAD 83
 Lat/Lon; UTM: N/E 41.17919 Observers ST. Sameray



COPPERHEAD

[illegible]

Beaufort Wind Scale	
0	Calm: <1 mph
1	Light air: 1-3 mph
2	Light breeze: 4-6 mph
3	Gentle breeze: 7-10 mph
4	Moderate breeze: 11-16 mph

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Commission of Ohio Docketing Information System on

12/26/2018 3:24:16 PM

in

Case No(s). 17-2295-EL-BGN

Summary: Application Exhibit R Part 4 of 11 electronically filed by Teresa Orahood on behalf of Dylan F. Borchers