

# INDIANA BAT (*Myotis sodalis*) Mist Net Survey Report

**Star City Development**

**Monongalia County, West Virginia**

*Prepared for:*

**Mon-View, LLC**

*Prepared by:*



**August 23, 2013**

## Table of Contents

<u>Section</u>	<u>Page</u>
1.0 Introduction .....	1
2.0 Methodology .....	2
3.0 Results .....	3
4.0 Conclusion .....	9

### Figures

Project Location Map  
Aerial Map

### Appendices

Appendix A – Agency Correspondence  
Appendix B – Scientific Collection Permits  
Appendix C – Survey Data Forms  
Appendix D – Photographs

## 1.0 Introduction

This report presents the findings of an Indiana bat (*Myotis sodalis*) mist net survey conducted at the proposed Mon-View, LLC – Star City Development located in Monongalia County, West Virginia. The proposed project site is located on the Osage and Morgantown North, WV 7.5' U.S.G.S. Quadrangles off of exit 155 along I-79 in Morgantown, WV (39°38'36" 80°00'20"). The proposed project site consists of several land tracts totaling an approximate 372.2 acres (Project Location Map). The project area consists of ~325 acres of forested habitat (Aerial Map).

The Indiana bat presence/absence mist net survey was conducted by Pittsburgh Wildlife & Environmental, Inc. (PWE) from July 9, 2013 to August 13, 2013. The purpose of the survey was to confirm the presence or probable absence of the Indiana bat within the vicinity of the project area. The survey was based upon PWE's professional judgment and the technical criteria outlined in the U.S. Fish & Wildlife Service (USF&WS) 2013 Revised Range Wide Indiana Bat Summer Survey Guidelines, dated May 2013.

## **2.0 Methodology**

### *2.1 Mist Net Survey*

PWE biologists traversed the site by vehicle, ATV, and foot to identify potential bat habitat (roosting areas, foraging areas, drinking pools, and flight corridors) within the permit area. The initial field reconnaissance was completed in order to document the suitability of the forest for Indiana bat use and to establish mist net sites that would maximize the success of the survey. In addition, PWE conducted the reconnaissance in order to determine if any open portals occur within the area. Given the size of the site and total acreage of forested habitat within the permit area a total of seventy-two (72) mist net nights were proposed by PWE and approved by the USFWS. Refer to the Agency correspondence presented in Appendix A.

The Indiana Bat mist net survey was completed with strict adherence to the USF&WS 2013 Revised Range Wide Indiana Bat Summer Survey Guidelines dated May 2013 and was authorized by the WV Department of Natural Resources, Scientific Collection Permits; 2013.198, 2013.199, 2013.200 and 2013.187. A copy of the collection permit amendments is presented in Appendix B. All bats were identified by an authorized Collection Permit holder. All collections made during the survey were recorded on field data sheets which are presented in Appendix C. Photographs of the mist net sites and representative bats were taken during the survey and are presented in Appendix D.

## 3.0 Results

### *3.1 Mist Net Survey*

PWE identified Twenty-eight (28) mist net locations within the study area that contained at least two of the following bat habitats; roosting areas, foraging areas, drinking pools, and/or flight corridors. These sites identified during the reconnaissance had the highest potential to capture an Indiana bat (refer to Aerial Map).

A total of 81 net nights were completed from July 19 through August 13, 2013. Each mist net location survey began at sunset and lasting for a minimum of 5 hours. No severe weather was encountered (precipitation, strong winds, and/or temperatures dropping below 50° F) during the surveys.

The following section provides a detailed description of the mist net sites and presents the results of the trapping effort. A table summarizing the results of the survey (by site) is presented in Table 1 and a summary of all the bats captured (by species) is presented in Table 2 following the site descriptions.

Mist net Site 01 was sampled over a period of 3 days. The initial survey night was July 19, 2013. On this date, five mist net sets, one triple high 9 meter long net was erected within a forested corridor, one double high 6 meter long net was erected within a forested corridor, one triple high 9 meter long net was erected within a forested corridor, one single high 6 meter long net was erected over a puddle, and one double high 6 meter long net was erected within a forested corridor. During the first survey night, four bats were captured.

The second survey night was conducted on July 20, 2013. On this date, five mist net sets, one triple high 9 meter long net was erected within a forested corridor, one double high 6 meter long net was erected within a forested corridor, one triple high 9 meter long net was erected within a forested corridor, one single high 6 meter long net was erected over a puddle, and one double high 6 meter long net was erected within a forested corridor. During the second survey night, three bats were captured.

The third survey night was conducted on July 21, 2013. On this date, five mist net sets, one triple high 9 meter long net was erected within a forested corridor, one double high 6 meter long net was erected within a forested corridor, one triple high 9 meter long net was erected within a forested corridor, one single high 6 meter long net was erected over a puddle, and one double high 6 meter long net was erected within a forested corridor. During the third survey night, four bats were captured.

Mist net Site 02 was sampled over a period of 3 days. The initial survey night was July 19, 2013. On this date, five mist net sets, one quad high 12 meter long net was erected within a forested corridor, one triple high 12 meter long net was erected within a forested corridor, one single high 6 meter long net was erected over a pool, one single high 9 meter long net was erected over a pool, and one single high 3 meter long net was erected over a forested stream. During the first survey night, eight bats were captured.

The second survey night was conducted on July 20, 2013. On this date, five mist net sets, one quad high 12 meter long net was erected within a forested corridor, one triple high 12 meter long net was erected within a forested corridor, one single high 6 meter long net was erected over a pool, one single high 9 meter long net was erected over a pool, and one single high 3 meter long net was erected over a forested stream. During the second survey night, three bats were captured.

The third survey night was conducted on July 21, 2013. On this date, five mist net sets, one quad high 12 meter long net was erected within a forested corridor, one triple high 12 meter long net was erected within a forested corridor, one single high 6 meter long net was erected over a pool, one single high 9 meter long net was erected over a pool, and one single high 3 meter long net was erected over a forested stream. During the third survey night, four bats were captured.

Mist net Site 03 was sampled over a period of 2 days. The initial survey night was August 12, 2013. On this date, three mist net sets, one triple high 6 meter long net was erected within a forested corridor, one triple high 12 meter long net was erected within a

forested corridor, and one single high 6 meter long net was erected within a forested corridor. During the first survey night, two bats were captured.

The second survey night was conducted on August 13,, 2013. On this date, three mist net sets, one triple high 6 meter long net was erected within a forested corridor, one triple high 12 meter long net was erected within a forested corridor, and one single high 6 meter long net was erected within a forested corridor. During the second survey night, one bat was captured.

Mist net Site 04 was sampled over a period of 3 days. The initial survey night was July 22, 2013. On this date, five mist net sets, one triple high 9 meter long net was erected within a forested corridor, one double high 6 meter long net was erected within a forested corridor, one triple high 12 meter long net was erected within a forested corridor, one double high 6 meter long net was erected within a forested corridor, and one single high 6 meter long net was erected within a forested corridor. During the first survey night, 14 bats were captured.

The second survey night was conducted on July 23, 2013. On this date, five mist net sets, one triple high 9 meter long net was erected within a forested corridor, one double high 6 meter long net was erected within a forested corridor, one triple high 12 meter long net was erected within a forested corridor, one double high 6 meter long net was erected within a forested corridor, and one single high 6 meter long net was erected within a forested corridor. During the second survey night, two bats were captured.

The third survey night was conducted on July 24, 2013. On this date, five mist net sets, one triple high 9 meter long net was erected within a forested corridor, one double high 6 meter long net was erected within a forested corridor, one triple high 12 meter long net was erected within a forested corridor, one double high 6 meter long net was erected within a forested corridor, and one single high 6 meter long net was erected within a forested corridor. During the third survey night, four bats were captured.

Mist net Site 05 was sampled over a period of 3 days. The initial survey night was July 22, 2013. On this date, five mist net sets, one triple high 6 meter long net was erected

along a forested edge, one triple high 9 meter long net was erected within a forested corridor, one triple high 6 meter long net was erected within a forested corridor, one double high 6 meter long net was erected within a forested corridor, and one double high 3 meter long net was erected along a forest edge. During the first survey night, 11 bats were captured.

The second survey night was conducted on July 23, 2013. On this date, five mist net sets, one triple high 6 meter long net was erected along a forested edge, one triple high 9 meter long net was erected within a forested corridor, one triple high 6 meter long net was erected within a forested corridor, one double high 6 meter long net was erected within a forested corridor, and one double high 3 meter long net was erected along a forest edge. During the second survey night, seven bats were captured.

The third survey night was conducted on July 24, 2013. On this date, five mist net sets, one triple high 6 meter long net was erected along a forested edge, one triple high 9 meter long net was erected within a forested corridor, one triple high 6 meter long net was erected within a forested corridor, one double high 6 meter long net was erected within a forested corridor, and one double high 3 meter long net was erected along a forest edge. During the third survey night, 11 bats were captured.

Mist net Site 06 was sampled over a period of 3 days. The initial survey night was July 19, 2013. On this date, five mist net sets, one triple high 9 meter long net was erected within a forested corridor, one triple high 6 meter long net was erected within a forested corridor, one single high 6 meter long net was erected within a forested stream corridor, one single high 6 meter long net was erected within a forested stream corridor, and one single high 3 meter long net was erected within a forested stream corridor. During the first survey night, five bats were captured.

The second survey night was conducted on July 20, 2013. On this date, five mist net sets, one triple high 9 meter long net was erected within a forested corridor, one triple high 6 meter long net was erected within a forested corridor, one single high 6 meter long net was erected within a forested stream corridor, one single high 6 meter long net was erected within a forested stream corridor, and one single high 3 meter long net was

erected within a forested stream corridor. During the second survey night, one bat was captured.

The third survey night was conducted on July 21, 2013. On this date, five mist net sets, one triple high 9 meter long net was erected within a forested corridor, one triple high 6 meter long net was erected within a forested corridor, one single high 6 meter long net was erected within a forested stream corridor, one single high 6 meter long net was erected within a forested stream corridor, and one single high 3 meter long net was erected within a forested stream corridor. During the third survey night, three bats were captured.

The following tables summarize the bats captured by site (Table 1) and by species (Table 2).

**Table 1 Summary of Bats Captured – By Site**

	Big Brown bat	Eastern Red bat	Little Brown bat	Tri-Colored bat	Total
Site 1	5	2	2	2	11
Site 2	9	6	0	0	15
Site 3	0	3	0	0	3
Site 4	15	5	0	0	20
Site 5	26	3	0	0	29
Site 6	6	3	0	0	9
Total	61	22	2	2	<b>87</b>

**Table 2 Summary of Total Bats Captured – By Species**

	Male	Female	Unknown	Total
Big Brown bat	26	33	2	61
Eastern Red bat	9	8	5	22
Little Brown bat	2	0	0	2
Tri-Colored bat	1	1	0	2
	38	42	7	<b>87</b>

### *3.2 Winter Habitat Survey*

Based upon the literature review and discussion with representatives from Mon-View, LLC five documented abandoned mine portals were identified within the site. On August 21, 2013, PWE biologist completed an on-site Phase I survey within the entire project area. The biologist covered the project area by foot and vehicle. The five potential mine entrance areas were found during the site investigation. All five of these historic mine entrances were found to have been previously closed. Photos of the closed entrances are presented in Appendix D. No other potential winter bat habitat areas were identified within the project area.

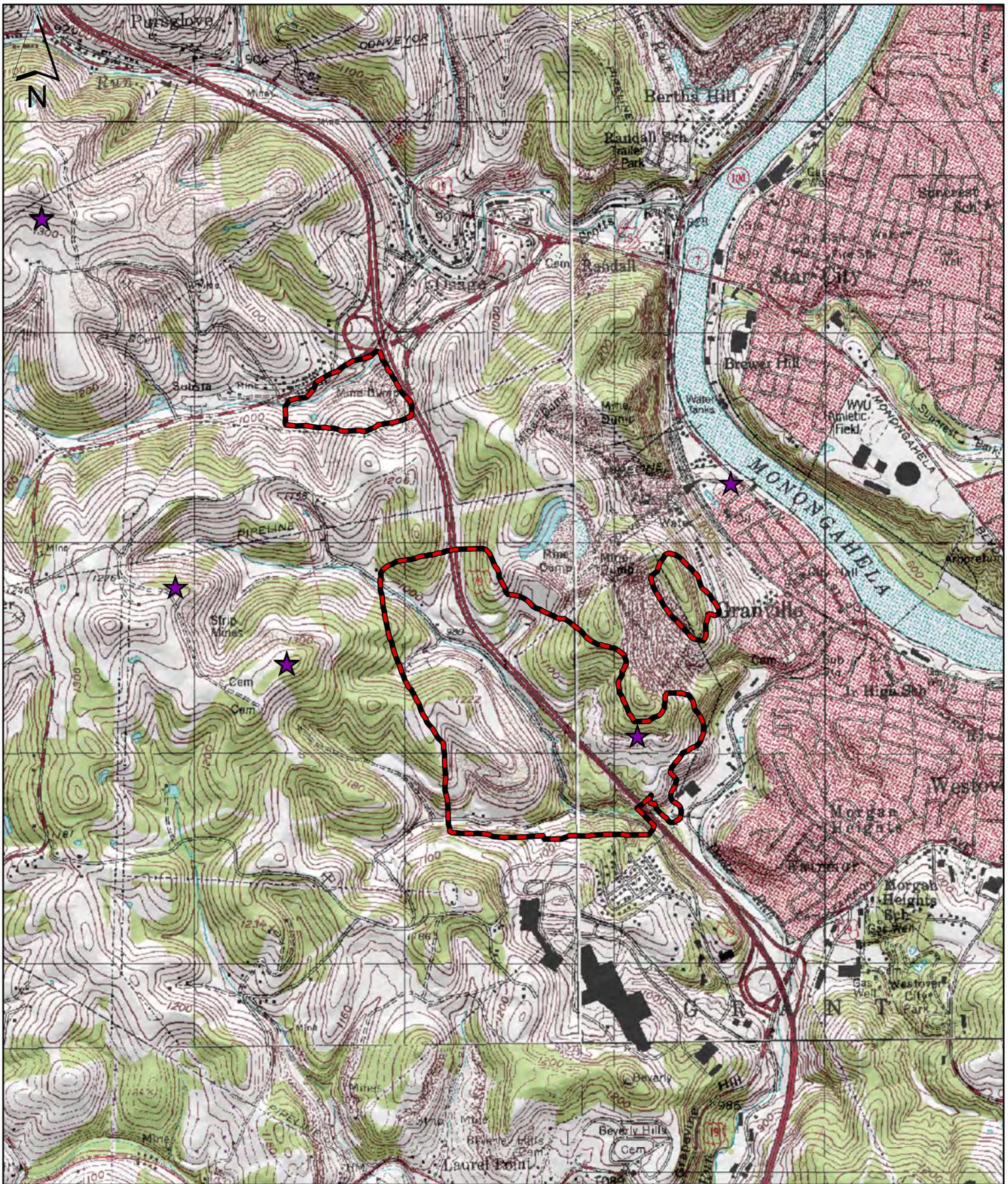
## 4.0 Conclusion

From July 19 to August 13, 2013, PWE conducted an Indiana bat (*Myotis sodalis*) mist net survey at the proposed Mon-View, LLC – Star City Development located in Monongalia County, West Virginia. The proposed project site is located on the Osage and Morgantown North, WV 7.5' U.S.G.S. Quadrangles off of the Chaplin exit along I-79 in Morgantown, WV (39°38'36" 80°00'20").

A total of eighty-one (81) net nets were completed within the project area. During the mist net survey a total of 87 bats representing four (4) species were captured and identified. No Indiana bats were captured during the survey.

Lastly, no open portals were observed within the study area during the mist net survey and the Phase I assessment. The five identified historic mines were all found to be closed.

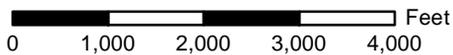
## FIGURES



**Legend**

-  Permit Area (372.2 Acres)
-  Potential Mine

1 in = 2,000 feet



*Prepared for:*

**Mon-View, LLC**

*Prepared by:*

**Pittsburgh Wildlife & Environmental, Inc.**

**Location Map**

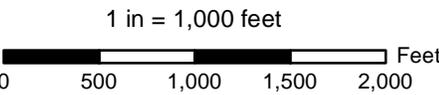
**Star City Development**

**Monongalia County, WV**



**Legend**

-  Permit Area (372.2 Acres)
-  Forest (325 Acres)
-  Mist Net Site
-  Potential Mine



*Prepared for:*  
**Mon-View, LLC**  
*Prepared by:*  
**Pittsburgh Wildlife & Environmental, Inc.**

**Aerial Map**  
**Star City Development**  
**Monongalia County, WV**

**APPENDIX A**  
**AGENCY CORRESPONDENCE**



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

West Virginia Field Office  
694 Beverly Pike  
Elkins, West Virginia 26241

### Concurrence Form for Indiana Bat Mist Net Study Plans

Contact Name: Neil Bossart

Email Address or Fax Number: nbossart@windstream.net

Project: Star City Project Monongalia Co WV

The U.S. Fish and Wildlife Service has reviewed the study plan you submitted on July 15 and we concur with the proposed survey methods. You propose sampling at 6 net sites for activities proposed within 320 acres/kilometers of potential bat habitat. Each net site should have 4 net sets and be sampled for 3 nights. Therefore, this survey would have a total effort of 72 net nights.

Should Indiana bats (*Myotis sodalis*) be captured during this survey, you should conduct additional surveys including radio-tracking, roost tree identification, and emergence counts. This additional information will assist the Service and your client(s) in any consultations conducted under section 7 of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U. S. C. 1531 *et seq.*). Additional surveys are also recommended if other Federally-listed endangered bats are located.

We request that the following be provided in the final survey reports:

- 1) Name, permit number, and location (latitude, longitude) of the proposed project;
- 2) A map with the project boundary and net sites indicated;
- 3) A description of the survey effort, including number of nets used at each site, distance between net sets, and selection of net sites;
- 4) Color photos of the net sites;
- 5) Copies of field data sheets;
- 6) Any additional information that may be relevant, such as weather and habitat conditions; and
- 7) A description of whether any potential bat hibernacula (caves/abandoned mine portals) may be present on site, and a summary of any surveys planned or conducted.

Reports may be submitted on CD. Please be aware that these survey activities require a valid West Virginia Scientific Collectors Permit, which can be acquired from the West Virginia Division of Natural Resources, Elkins Operation Center, Ward Road, Elkins, West Virginia 26241 (contact Barbara Sargent at 304-637-0245). Please provide a copy of your valid permit with your final report. **All Federally-listed species captured must be reported to the U.S. Fish and Wildlife Service, West Virginia Field Office, within 24 hours.** If you have questions regarding this finding or report requirements, please contact Liz Stout at (304) 636-6586 or at the letterhead address.

Biologist  Date: 8/12/13

John E. Schmidt, Field Supervisor  Date: 8/13/13



July 15, 2013

Ms. Barb Douglas

USFWS  
694 Beverly Pike  
Elkins, WV 26241

Subject: Request for Concurrence  
Indiana Bat Mist Net Survey  
Star City Development  
Monongalia County, WV

Dear Ms. Douglas:

Pittsburgh Wildlife & Environmental, Inc. (PWE) and Alliance Consulting, Inc. (Alliance) is requesting concurrence relating to an Indiana bat (*Myotis sodalis*) mist net survey and authorization to proceed. Mon-View has contracted Alliance to perform presence/probable absence mist net surveys for the following project area.

The Star City Development, proposed by Mon-View is located in Monongalia County, West Virginia. The proposed project area is located on the Osage and Morgantown North, WV 7.5' U.S.G.S. Quadrangles off of the Chaplin exit along I-79 in Morgantown (39°38'36.0" 80°00'20.0") (Location Map). The proposed project area consists of several land tracts totaling ~344.5 acres. The project area consists of ~ 320 acres of forested habitat located along forested ridge tops and hill sides (Aerial Map).

The mist-net survey is scheduled to start in July and will be completed under West Virginia DNR Permit # 2013.153, 2013.154, 2013.187, 2013.198, 2013.199, and 2013.200 The mist-net survey will strictly follow the technical criteria outlined in the U.S. Fish and Wildlife Service (USFWS) 2013 Revised Range-wide Indiana bat Summer Survey Guidelines dated May 2013, as well as any additional recommendations by the you or the USF&WS.

At this time, PWE and Alliance proposes to complete a minimum of 72 net nights within the project area. The survey will begin at sunset and last for a minimum of 5 hours each night. In the case of severe weather including precipitation, strong winds, and/or temperatures dropping below 50 degrees Fahrenheit during the initial survey effort, surveys will be terminated and resurveyed under suitable conditions.

If an Indiana bat (*Myotis sodalis*) or other federally listed bat species are captured during the mist net surveys the bat identification will be documented with photographs showing clear identification characteristics. PWE and Alliance will also affix a radio transmitter to the back of the bat and attempt to track it until the transmitter fails or falls off of the bat.

If a roost area is identified during tracking of an endangered bat, exit counts will be



conducted for a minimum of 2 days per roost area identified when possible. Additionally, we will spend a maximum of 2 additional nights netting in the attempt to capture a maximum of 1 additional endangered bat. If any additional endangered bats are captured PWE will also affix a radio transmitter to the back of the bat and attempt to track it until the transmitter fails or falls off of the bat.

We will perform nightly telemetry surveys to define the travel routes and the limits of foraging areas for each radio-tagged bat. Telemetry data collected will not include triangulation.

At this time, we respectfully request concurrence for the number of mist net nights proposed and authorization to initiate the mist net survey.

Please sign and return this letter along with any additional requests or guidelines if necessary. If you have any questions or require additional information, please contact me at [nbossart@windstream.net](mailto:nbossart@windstream.net) or at (717) 860-7679.

Very truly yours,

Pittsburgh Wildlife & Environmental, Inc.

Neil Bossart  
Project Manager

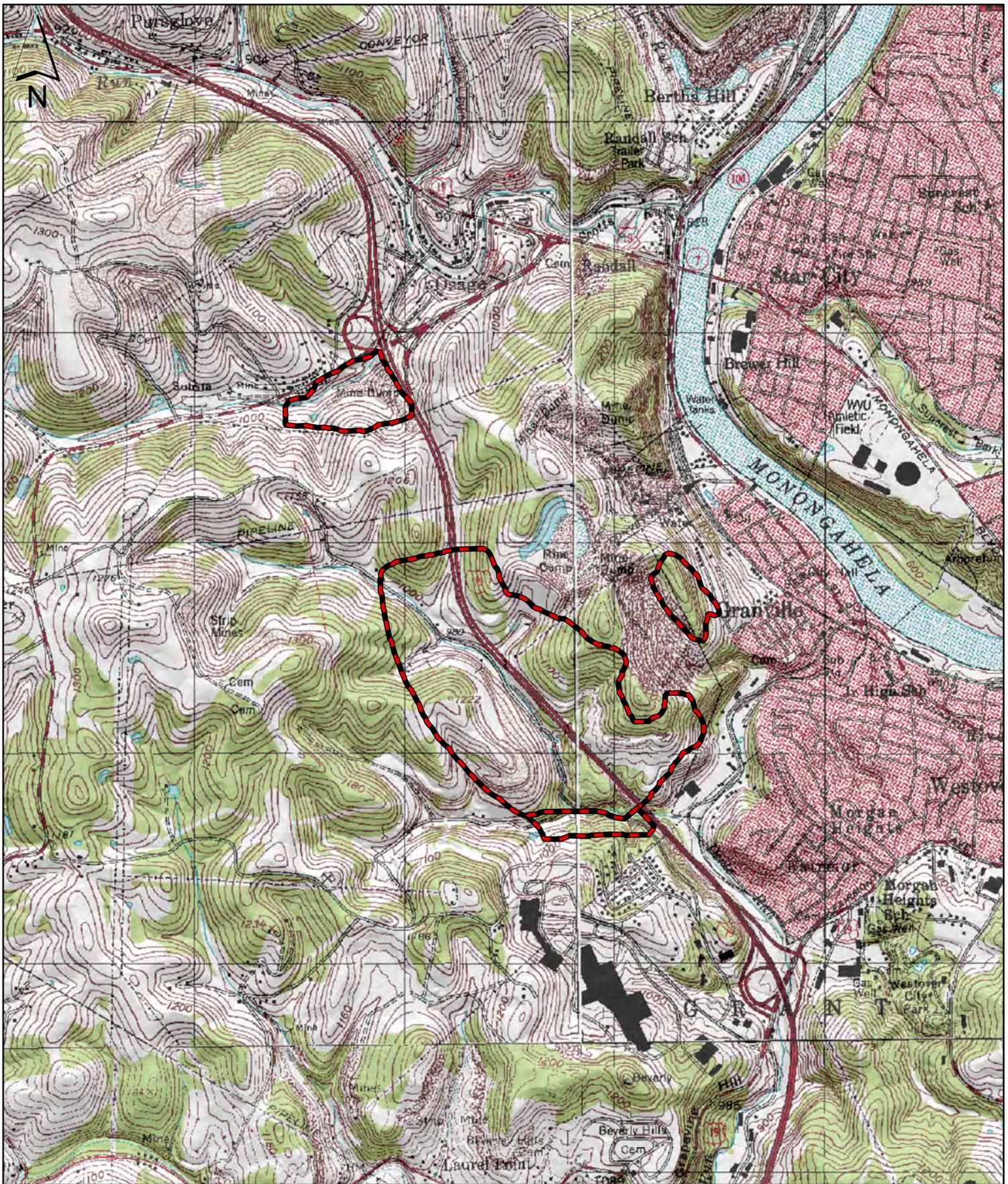
cc: Braden Hoffman - Alliance  
Barb Sargent - WVDNR

CONCURRENCE:

Indiana Bat Mist Net Survey  
Star City Development  
Monongalia County, WV

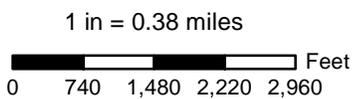
\_\_\_\_\_  
Ms. Barb Douglas  
USFWS

\_\_\_\_\_  
Date



**Legend**

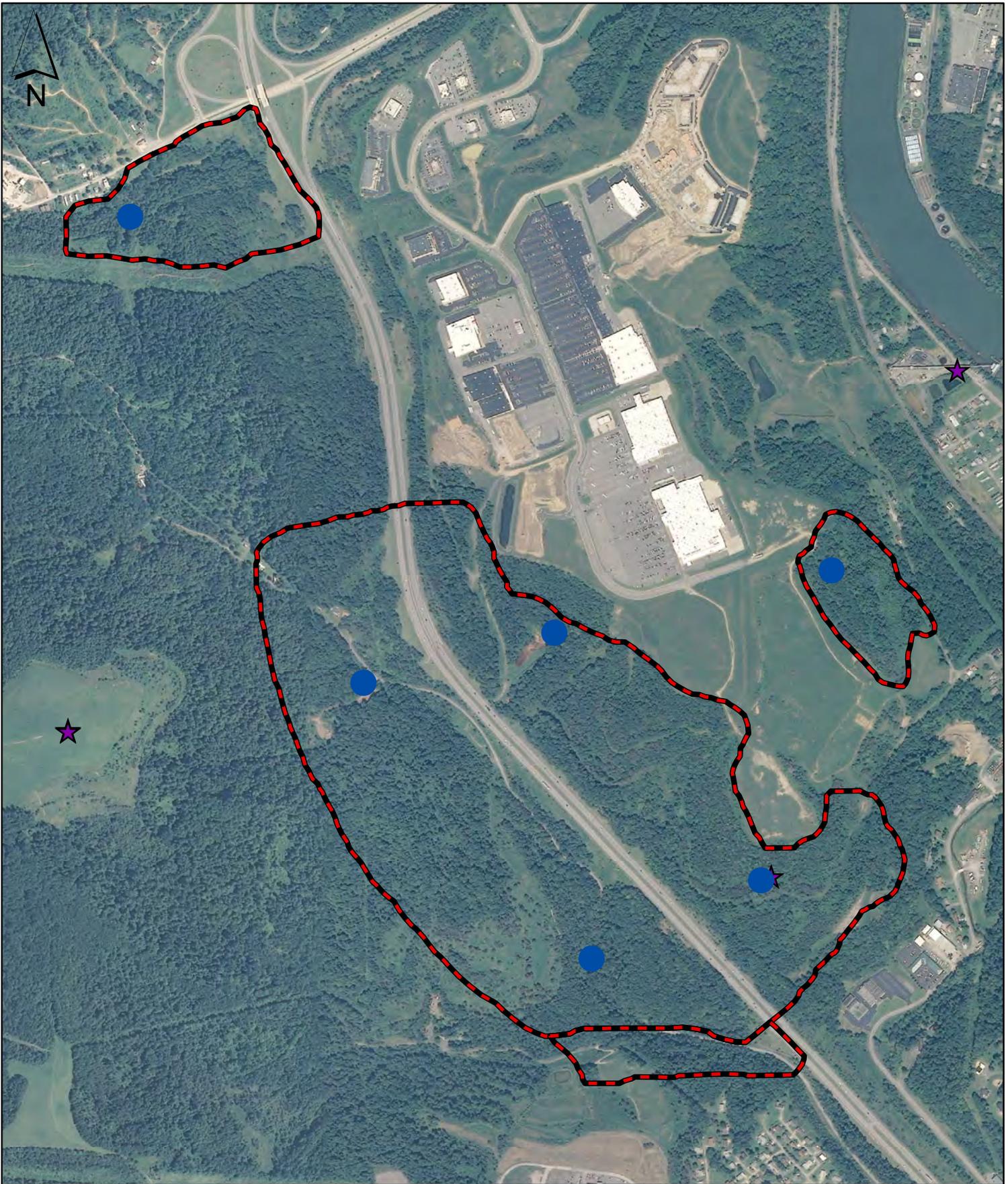
 Permit Area



Prepared by:  
**Pittsburgh Wildlife  
& Environmental, Inc.**

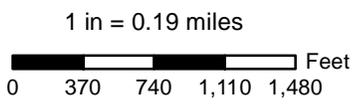
**Location Map**

**Star City Development  
Mon View**  
**Monongalia County, WV**



**Legend**

-  Permit Area
-  Potential Site
-  Potential Mine



Prepared for:  
 Alliance Consulting, Inc.  
 Engineers Contractors Scientists 

Prepared by:  
 Pittsburgh Wildlife  
 & Environmental, Inc.

**Aerial Map**

**Star City Development  
 Mon View**

**Monongalia County, WV**

**APPENDIX B**  
**SCIENTIFIC COLLECTION PERMITS**



**DIVISION OF NATURAL RESOURCES**  
Wildlife Resources Section  
Operations Center  
P.O. Box 67  
Elkins, West Virginia 26241-3235  
Telephone (304) 637-0245  
Fax (304) 637-0250

Earl Ray Tomblin  
*Governor*

Frank Jezioro  
*Director*

**ADDENDUM TO SCIENTIFIC COLLECTING PERMIT NO. 2013.187**

Permittee: Elise Merrill  
Address: Sanders Environmental, Inc.  
322 Borealis Way  
Bellefonte, PA 16823

Expiration Date: October 31, 2013

THE FOLLOWING PROVISIONS ARE ADDED TO THIS PERMIT Mistnetting surveys are permitted near Granville, Monongalia County (Star City Development – Mon View).

**THIS ADDENDUM MUST BE ATTACHED TO ORIGINAL PERMIT.**

Must be signed before valid.

Signature of permittee

  
Scientific Collecting Permit Coordinator

Date of issue 7-17-2013



**DIVISION OF NATURAL RESOURCES**  
Wildlife Resources Section  
Operations Center  
P.O. Box 67  
Elkins, West Virginia 26241-3235  
Telephone (304) 637-0245  
Fax (304) 637-0250

Earl Ray Tomblin  
*Governor*

Frank Jezioro  
*Director*

**ADDENDUM TO SCIENTIFIC COLLECTING PERMIT NO. 2013.198**

Permittee: Neil Bossart  
Address: Pittsburgh Wildlife & Environmental, Inc.  
853 Beagle Club Road  
McDonald, PA 15057

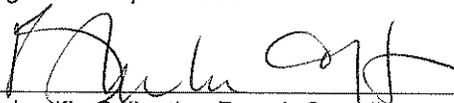
Expiration Date: October 31, 2013

THE FOLLOWING PROVISIONS ARE ADDED TO THIS PERMIT Mistnetting surveys are permitted near Granville, Monongalia County (Star City Development – Mon View).

**THIS ADDENDUM MUST BE ATTACHED TO ORIGINAL PERMIT.**

Must be signed before valid.

\_\_\_\_\_  
Signature of permittee

  
\_\_\_\_\_  
Scientific Collecting Permit Coordinator

Date of issue 7-17-2013



**DIVISION OF NATURAL RESOURCES**

Wildlife Resources Section

Operations Center

P.O. Box 67

Elkins, West Virginia 26241-3235

Telephone (304) 637-0245

Fax (304) 637-0250

Earl Ray Tomblin  
*Governor*

Frank Jezioro  
*Director*

**ADDENDUM TO SCIENTIFIC COLLECTING PERMIT NO. 2013.199**

Permittee: Brian Cooper  
Address: Pittsburgh Wildlife & Environmental, Inc.  
853 Beagle Club Road  
McDonald, PA 15057

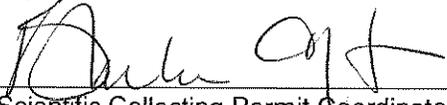
Expiration Date: October 31, 2013

THE FOLLOWING PROVISIONS ARE ADDED TO THIS PERMIT Mistnetting surveys are permitted near Granville, Monongalia County (Star City Development – Mon View).

**THIS ADDENDUM MUST BE ATTACHED TO ORIGINAL PERMIT.**

Must be signed before valid.

\_\_\_\_\_  
Signature of permittee

  
\_\_\_\_\_  
Scientific Collecting Permit Coordinator

Date of issue 7-17-2013



**DIVISION OF NATURAL RESOURCES**  
Wildlife Resources Section  
Operations Center  
P.O. Box 57  
Elkins, West Virginia 26241-3235  
Telephone (304) 637-0245  
Fax (304) 637-0250

Earl Ray Tomblin  
*Governor*

Frank Jezioro  
*Director*

**ADDENDUM TO SCIENTIFIC COLLECTING PERMIT NO. 2013.200**

Permittee: Jennifer Dreibelbis  
Address: Pittsburgh Wildlife & Environmental, Inc.  
853 Beagle Club Road  
McDonald, PA 15057

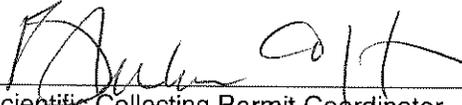
Expiration Date: October 31, 2013

THE FOLLOWING PROVISIONS ARE ADDED TO THIS PERMIT Mistnetting surveys are permitted near Granville, Monongalia County (Star City Development – Mon View).

**THIS ADDENDUM MUST BE ATTACHED TO ORIGINAL PERMIT.**

Must be signed before valid.

\_\_\_\_\_  
Signature of permittee

  
\_\_\_\_\_  
Scientific Collecting Permit Coordinator

Date of issue 7-17-2013

**APPENDIX C**  
**SURVEY DATA FORMS**

# PWE Bat Survey Data Form

Project Name: Star City Development Date: 07/19/2013 Scientists: K. Kochar

Township: - State: WV County: Monongalia USGS Quad: Osage

Start Weather: 23.0 (°C) humid (feel) 1 - 3 mp (wind) 100% (sky) 21:00 (Time) Datum: NAD 83

Mid Weather: 20.0 (°C) humid (feel) Calm (wind) 70% (sky) 23:30 (Time) Lat: 39 ° 39 ' 6.70 "

End Weather: 18.0 (°C) humid (feel) Calm (wind) 50% (sky) 02:00 (Time) Long: 80 ° 0 ' 56.60 "

Identification By: N. Bossart Site Number: 1 Night Number: 1 Moon Phase: 3/4 rise 17:44 set 02:47

Site Description: Forested hillside with roads, powerlines, and mine pond

Net Length (m) X Height (nets) Habitat # of Net Sets at Site: 5 Time Started: 21:05 Time Ended: 02:05

Net	Length (m)	X	Height (nets)	Habitat
A:	<u>9</u>	X	<u>3</u>	Road
B:	<u>6</u>	X	<u>2</u>	Road
C:	<u>6</u>	X	<u>1</u>	Puddle
D:	<u>9</u>	X	<u>3</u>	Road

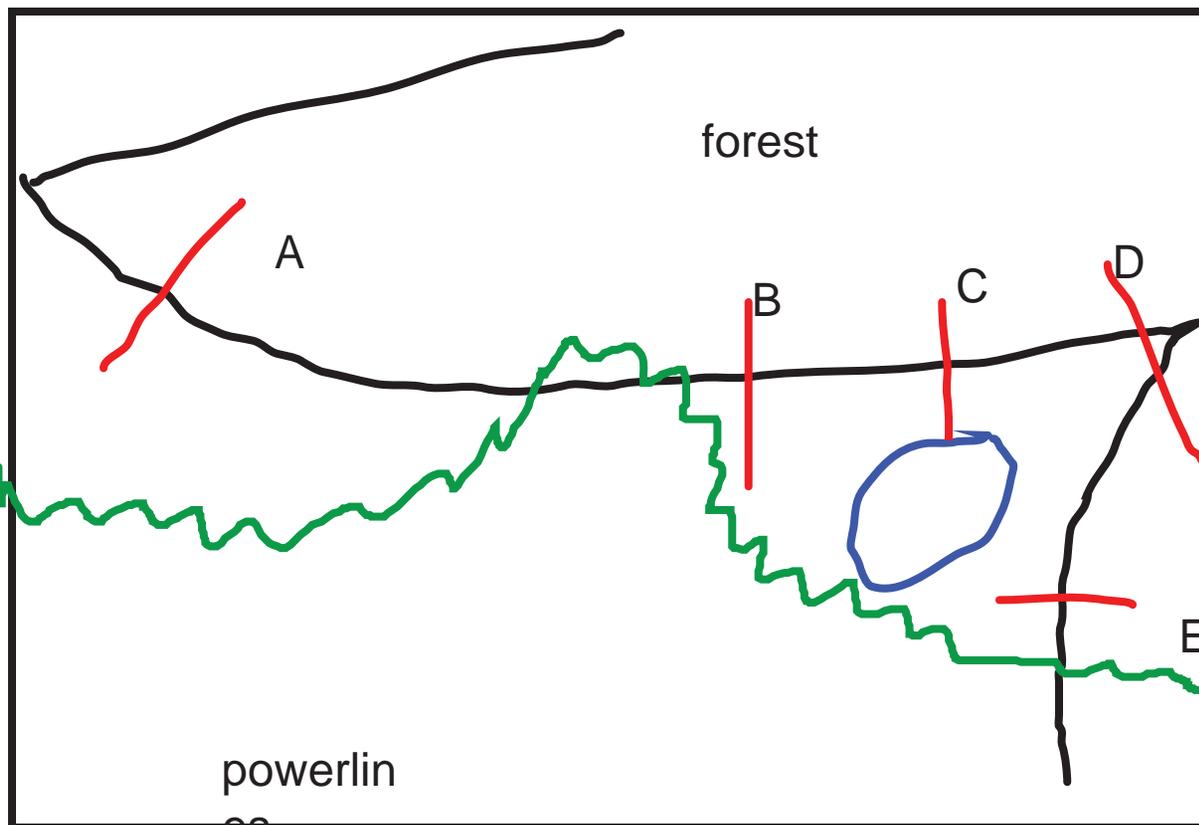
Bat Activity (time): 21:00

Other Wildlife Observed: \_\_\_\_\_

Whip-poor-will = \_\_\_\_\_

Notes / Comments: Net E 6m x 2h Road

Date Entered into Database: \_\_\_\_\_



Sketch site with net locations, label nets with letters; include streams and roads.

# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 1

Night Number: 1

Date: 07/19/2013

Page 2 of 2

	Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1	Big Brown bat	<i>Eptesicus fuscus</i>	21:20	J	M	NR	13.6	47.0	18	No	No	A	
2	Big Brown bat	<i>Eptesicus fuscus</i>	22:30	J	M	NR	13.7	47.0	6	No	No	D	Recapture
3	Big Brown bat	<i>Eptesicus fuscus</i>	22:45	J	M	NR	16.5	48.0	8	No	No	D	
4	Little Brown bat	<i>Myotis lucifugus</i>	01:30	A	M	NR	5.8	36.0	7	No	No	B	
5	-	-		-	-	-				-	-		
6	-	-		-	-	-				-	-		
7	-	-		-	-	-				-	-		
8	-	-		-	-	-				-	-		
9	-	-		-	-	-				-	-		
10	-	-		-	-	-				-	-		
11	-	-		-	-	-				-	-		
12	-	-		-	-	-				-	-		
13	-	-		-	-	-				-	-		
14	-	-		-	-	-				-	-		
15	-	-		-	-	-				-	-		
16	-	-		-	-	-				-	-		
17	-	-		-	-	-				-	-		
18	-	-		-	-	-				-	-		
19	-	-		-	-	-				-	-		
20	-	-		-	-	-				-	-		
21	-	-		-	-	-				-	-		
22	-	-		-	-	-				-	-		
23	-	-		-	-	-				-	-		
24	-	-		-	-	-				-	-		
25	-	-		-	-	-				-	-		
26	-	-		-	-	-				-	-		
27	-	-		-	-	-				-	-		
28	-	-		-	-	-				-	-		
29	-	-		-	-	-				-	-		
30	-	-		-	-	-				-	-		

**Submit**

# PWE Bat Survey Data Form

Project Name: Star City Development Date: 07/20/2013 Scientists: K. Kochar

Township: - State: WV County: Monongalia USGS Quad: Osage

Start Weather: 23.0 (°C) warm (feel) Calm (wind) 40% (sky) 21:00 (Time) Datum: NAD 83

Mid Weather: 21.0 (°C) humid (feel) Calm (wind) 20% (sky) 23:30 (Time) Lat: 39 ° 39 ' 6.70 "

End Weather: 20.0 (°C) warm (feel) Calm (wind) 20% (sky) 02:00 (Time) Long: 80 ° 0 ' 56.60 "

Identification By: N. Bossart Site Number: 1 Night Number: 2 Moon Phase: 3/4 rise 18:45 set 03:46

Site Description: Forested hillside with roads, powerlines, and mine pond

Net Length (m) X Height (nets) Habitat # of Net Sets at Site: 5 Time Started: 21:05 Time Ended: 02:05

Net	Length (m)	X	Height (nets)	Habitat
A:	<u>9</u>	X	<u>3</u>	Road
B:	<u>6</u>	X	<u>2</u>	Road
C:	<u>6</u>	X	<u>1</u>	Puddle
D:	<u>9</u>	X	<u>3</u>	Road

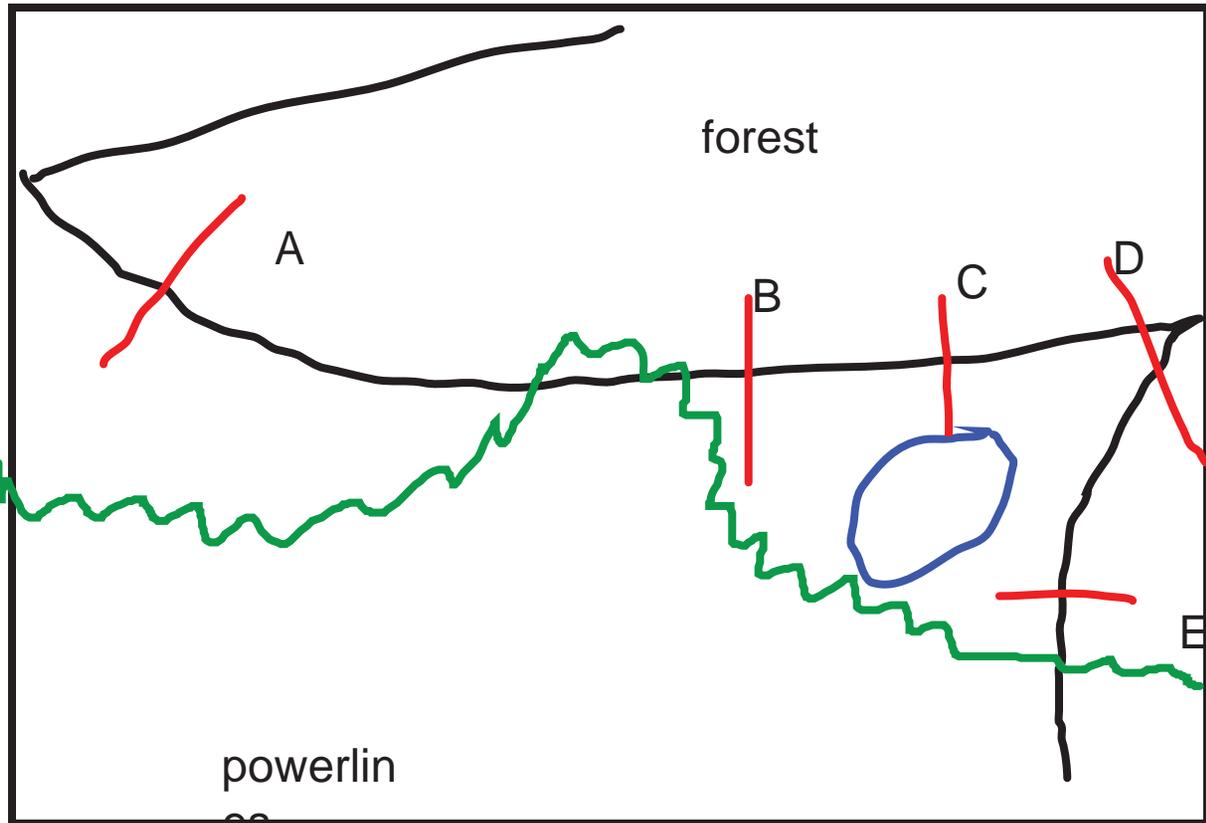
Bat Activity (time): 20:55

Other Wildlife Observed: \_\_\_\_\_

Whip-poor-will = \_\_\_\_\_

Notes / Comments: Net E 6m x 2h Road

Date Entered into Database: \_\_\_\_\_



Sketch site with net locations, label nets with letters; include streams and roads.

# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 1

Night Number: 2

Date: 07/20/2013

Page 2 of 2

	Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1	Little Brown bat	Myotis lucifugus	23:10	J	M	NR	6.1	36.0	10	No	No	D	
2	Tri-colored bat	Perimyotis subflavus	23:10	A	M	NR	7.1	34.0	6	No	No	A	
3	Big Brown bat	Eptesicus fuscus	22:45	J	M	NR	16.3	47.5	8	No	No	A	
4	-	-		-	-	-				-	-		
5	-	-		-	-	-				-	-		
6	-	-		-	-	-				-	-		
7	-	-		-	-	-				-	-		
8	-	-		-	-	-				-	-		
9	-	-		-	-	-				-	-		
10	-	-		-	-	-				-	-		
11	-	-		-	-	-				-	-		
12	-	-		-	-	-				-	-		
13	-	-		-	-	-				-	-		
14	-	-		-	-	-				-	-		
15	-	-		-	-	-				-	-		
16	-	-		-	-	-				-	-		
17	-	-		-	-	-				-	-		
18	-	-		-	-	-				-	-		
19	-	-		-	-	-				-	-		
20	-	-		-	-	-				-	-		
21	-	-		-	-	-				-	-		
22	-	-		-	-	-				-	-		
23	-	-		-	-	-				-	-		
24	-	-		-	-	-				-	-		
25	-	-		-	-	-				-	-		
26	-	-		-	-	-				-	-		
27	-	-		-	-	-				-	-		
28	-	-		-	-	-				-	-		
29	-	-		-	-	-				-	-		
30	-	-		-	-	-				-	-		

**Submit**

# PWE Bat Survey Data Form

Project Name: Star City Development Date: 07/21/2013 Scientists: K. Kochar

Township: - State: WV County: Monongalia USGS Quad: Osage

Start Weather: 25.0 (°C) humid (feel) Calm (wind) 60% (sky) 21:00 (Time) Datum: NAD 83

Mid Weather: 22.0 (°C) humid (feel) Calm (wind) 30% (sky) 23:30 (Time) Lat: 39 ° 39 ' 6.70 "

End Weather: 21.0 (°C) humid (feel) Calm (wind) 40% (sky) 02:00 (Time) Long: 80 ° 0 ' 56.60 "

Identification By: N. Bossart Site Number: 1 Night Number: 3 Moon Phase: Full rise 19:39 set 04:53

Site Description: Forested hillside with roads, powerlines, and mine pond

Net Length (m) X Height (nets) Habitat # of Net Sets at Site: 5 Time Started: 21:05 Time Ended: 02:05

Net	Length (m)	X	Height (nets)	Habitat
A:	<u>9</u>	X	<u>3</u>	Road
B:	<u>6</u>	X	<u>2</u>	Road
C:	<u>6</u>	X	<u>1</u>	Puddle
D:	<u>9</u>	X	<u>3</u>	Road

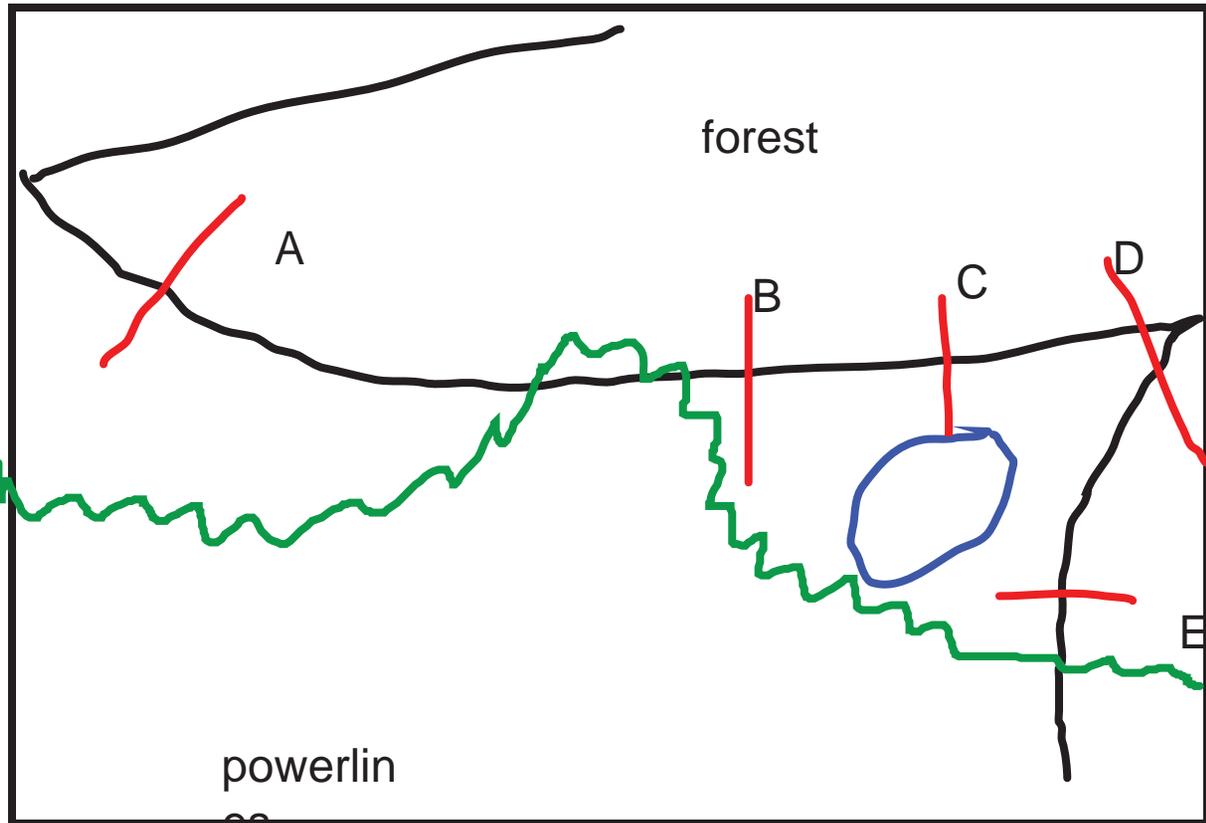
Bat Activity (time): 20:55

Other Wildlife Observed: \_\_\_\_\_

Whip-poor-will = 0

Notes / Comments: Net E 6m x 2h Road

Date Entered into Database: \_\_\_\_\_



Sketch site with net locations, label nets with letters; include streams and roads.

# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 1

Night Number: 3

Date: 07/21/2013

Page 2 of 2

	Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1	Tri-colored bat	<i>Perimyotis subflavus</i>	22:40	J	F	NR	5.7	35.0	18	No	No	D	
2	Big Brown bat	<i>Eptesicus fuscus</i>	23:30	J	M	NR	15.7	45.5	16	No	No	D	
3	Eastern Red bat	<i>Lasiurus borealis</i>	23:40	J	F	NR			12	No	No	A	Released
4	Eastern Red bat	<i>Lasiurus borealis</i>	01:20	J	F	NR			16	No	No	A	Released
5	-	-		-	-	-				-	-		
6	-	-		-	-	-				-	-		
7	-	-		-	-	-				-	-		
8	-	-		-	-	-				-	-		
9	-	-		-	-	-				-	-		
10	-	-		-	-	-				-	-		
11	-	-		-	-	-				-	-		
12	-	-		-	-	-				-	-		
13	-	-		-	-	-				-	-		
14	-	-		-	-	-				-	-		
15	-	-		-	-	-				-	-		
16	-	-		-	-	-				-	-		
17	-	-		-	-	-				-	-		
18	-	-		-	-	-				-	-		
19	-	-		-	-	-				-	-		
20	-	-		-	-	-				-	-		
21	-	-		-	-	-				-	-		
22	-	-		-	-	-				-	-		
23	-	-		-	-	-				-	-		
24	-	-		-	-	-				-	-		
25	-	-		-	-	-				-	-		
26	-	-		-	-	-				-	-		
27	-	-		-	-	-				-	-		
28	-	-		-	-	-				-	-		
29	-	-		-	-	-				-	-		
30	-	-		-	-	-				-	-		

**Submit**

# PWE Bat Survey Data Form

Project Name: Star City Development

Date: 07/19/2013 Scientists: Elise Merrill

Township: \_\_\_\_\_ State: WV

County: Monongalia

USGS Quad: Osage

Start Weather: 22.5 (°C) humid (feel) Calm (wind) 100% (sky) 21:07 (Time)

Datum: NAD 83

Mid Weather: 21.4 (°C) humid (feel) Calm (wind) 70% (sky) 23:40 (Time)

Lat: 39 ° 38 ' 30.70 "

End Weather: 21.2 (°C) warm (feel) Calm (wind) 50% (sky) 02:07 (Time)

Long: 80 ° 0 ' 27.80 "

Identification By: \_\_\_\_\_

Site Number: 2 Night Number: 1 Moon Phase: 3/4 rise 17:45 set 02:54

Site Description: forested road; pipeline; small stream; dominant species: sycamore, poplar, maple

Net	Length (m)	X	Height (nets)	Habitat
A:	<u>12</u>	X	<u>4</u>	<u>over road</u>
B:	<u>12</u>	X	<u>3</u>	<u>over pipeline</u>
C:	<u>9</u>	X	<u>1</u>	<u>over pond</u>
D:	<u>6</u>	X	<u>1</u>	<u>over pond</u>

# of Net Sets at Site: 5 Time Started: 21:07 Time Ended: 02:07

Bat Activity (time): 20:59

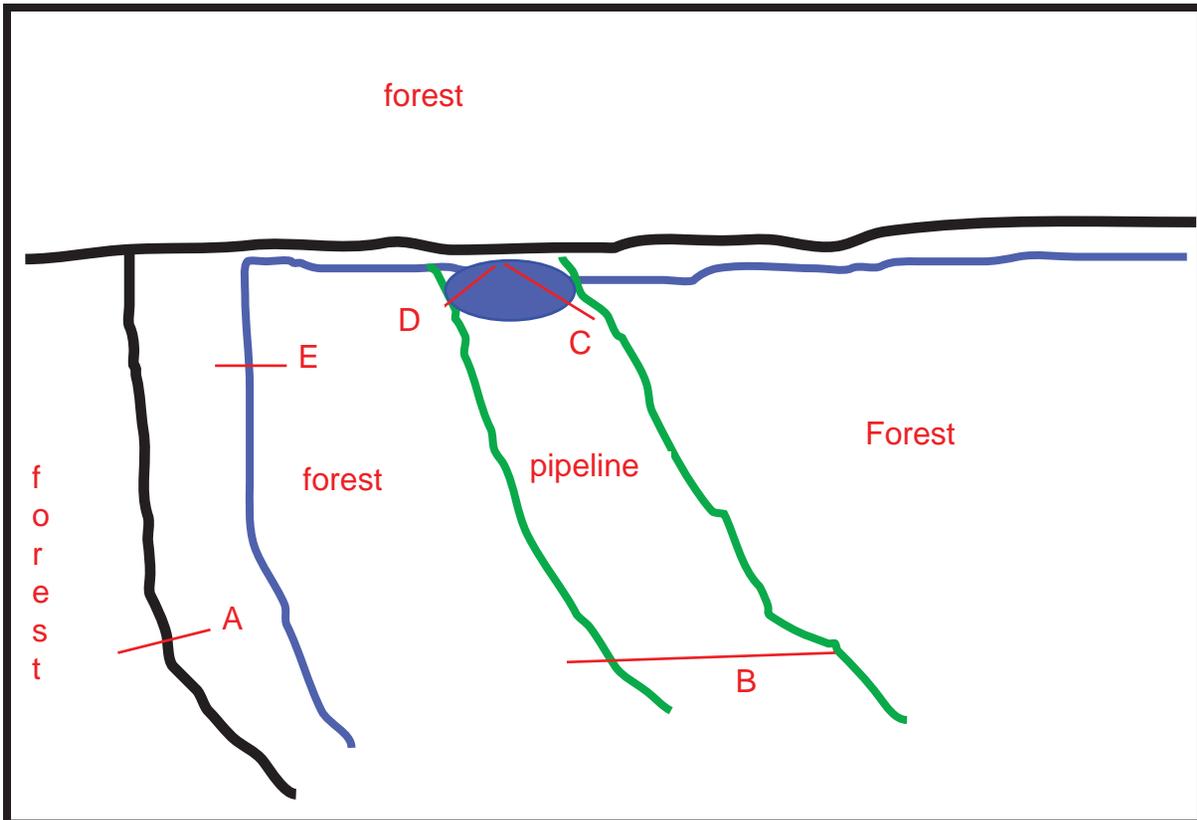
Other Wildlife Observed: \_\_\_\_\_

Whip-poor-will = 0

Notes / Comments: \_\_\_\_\_

E: 3m x 1H - over small stream

Date Entered into Database: \_\_\_\_\_



Sketch site with net locations, label nets with letters; include streams and roads.

# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 2

Night Number: 1

Date: 07/19/2013

Page 2 of 2

	Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1	Big Brown bat	<i>Eptesicus fuscus</i>	22:10	J	M	NR	13.8	44.0	8	No	No	A	0
2	Big Brown bat	<i>Eptesicus fuscus</i>	22:30	J	F	NR	13.7	47.0	10	No	Yes	A	1
3	Big Brown bat	<i>Eptesicus fuscus</i>	23:45	J	M	NR	15.8	47.5	12	No	Yes	A	0
4	Big Brown bat	<i>Eptesicus fuscus</i>	00:10	A	F	Lac	21.9	48.0	9	No	No	A	1
5	Big Brown bat	<i>Eptesicus fuscus</i>	00:15	J	M	NR	16.1	43.5	14	No	Yes	B	1
6	Eastern Red bat	<i>Lasiurus borealis</i>	01:20	A	F	Lac	13.1	41.0	15	No	No	A	1
7	Eastern Red bat	<i>Lasiurus borealis</i>	01:35	A	F	Lac	16.4	40.0	6	No	No	B	0
8	Eastern Red bat	<i>Lasiurus borealis</i>	01:48	A	F	Lac	16.4	40.0	6	No	No	A	0
9	-	-		-	-	-				-	-		
10	-	-		-	-	-				-	-		
11	-	-		-	-	-				-	-		
12	-	-		-	-	-				-	-		
13	-	-		-	-	-				-	-		
14	-	-		-	-	-				-	-		
15	-	-		-	-	-				-	-		
16	-	-		-	-	-				-	-		
17	-	-		-	-	-				-	-		
18	-	-		-	-	-				-	-		
19	-	-		-	-	-				-	-		
20	-	-		-	-	-				-	-		
21	-	-		-	-	-				-	-		
22	-	-		-	-	-				-	-		
23	-	-		-	-	-				-	-		
24	-	-		-	-	-				-	-		
25	-	-		-	-	-				-	-		
26	-	-		-	-	-				-	-		
27	-	-		-	-	-				-	-		
28	-	-		-	-	-				-	-		
29	-	-		-	-	-				-	-		
30	-	-		-	-	-				-	-		

**Submit**



# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 2

Night Number: 2

Date: 07/20/2013

Page 2 of 2

	Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1	Eastern Red bat	<i>Lasiurus borealis</i>	21:10	J	M	NR	8.3	38.5	18	No	No	A	0 - very small
2	Big Brown bat	<i>Eptesicus fuscus</i>	21:40	J	M	NR	14.3	46.5	11	No	No	B	1
3	Big Brown bat	<i>Eptesicus fuscus</i>	23:10	J	M	NR	13.7	46.5	8	No	No	B	1
4	-	-		-	-	-				-	-		
5	-	-		-	-	-				-	-		
6	-	-		-	-	-				-	-		
7	-	-		-	-	-				-	-		
8	-	-		-	-	-				-	-		
9	-	-		-	-	-				-	-		
10	-	-		-	-	-				-	-		
11	-	-		-	-	-				-	-		
12	-	-		-	-	-				-	-		
13	-	-		-	-	-				-	-		
14	-	-		-	-	-				-	-		
15	-	-		-	-	-				-	-		
16	-	-		-	-	-				-	-		
17	-	-		-	-	-				-	-		
18	-	-		-	-	-				-	-		
19	-	-		-	-	-				-	-		
20	-	-		-	-	-				-	-		
21	-	-		-	-	-				-	-		
22	-	-		-	-	-				-	-		
23	-	-		-	-	-				-	-		
24	-	-		-	-	-				-	-		
25	-	-		-	-	-				-	-		
26	-	-		-	-	-				-	-		
27	-	-		-	-	-				-	-		
28	-	-		-	-	-				-	-		
29	-	-		-	-	-				-	-		
30	-	-		-	-	-				-	-		

**Submit**

# PWE Bat Survey Data Form

Project Name: Star City Development

Date: 07/21/2013 Scientists: Elise Merrill

Township: \_\_\_\_\_ State: WV

County: Monongalia

USGS Quad: Osage

Start Weather: 22.2 (°C) warm (feel) Calm (wind) 60% (sky) 21:00 (Time)

Datum: NAD 83

Mid Weather: 20.2 (°C) cool (feel) Calm (wind) 30% (sky) 23:30 (Time)

Lat: 39 ° 38 ' 30.70 "

End Weather: 20.3 (°C) cool (feel) Calm (wind) 10% (sky) 02:00 (Time)

Long: 80 ° 0 ' 27.80 "

Identification By: \_\_\_\_\_

Site Number: 2 Night Number: 3 Moon Phase: Full rise 19:38 set 04:54

Site Description: forested road; pipeline; small stream; dominant species: sycamore, poplar, maple

Net	Length (m)	X	Height (nets)	Habitat
A:	<u>12</u>	X	<u>4</u>	<u>over road</u>
B:	<u>12</u>	X	<u>3</u>	<u>over pipeline</u>
C:	<u>9</u>	X	<u>1</u>	<u>over pond</u>
D:	<u>6</u>	X	<u>1</u>	<u>over pond</u>

# of Net Sets at Site: 5

Time Started: 21:00 Time Ended: 02:00

Bat Activity (time): \_\_\_\_\_

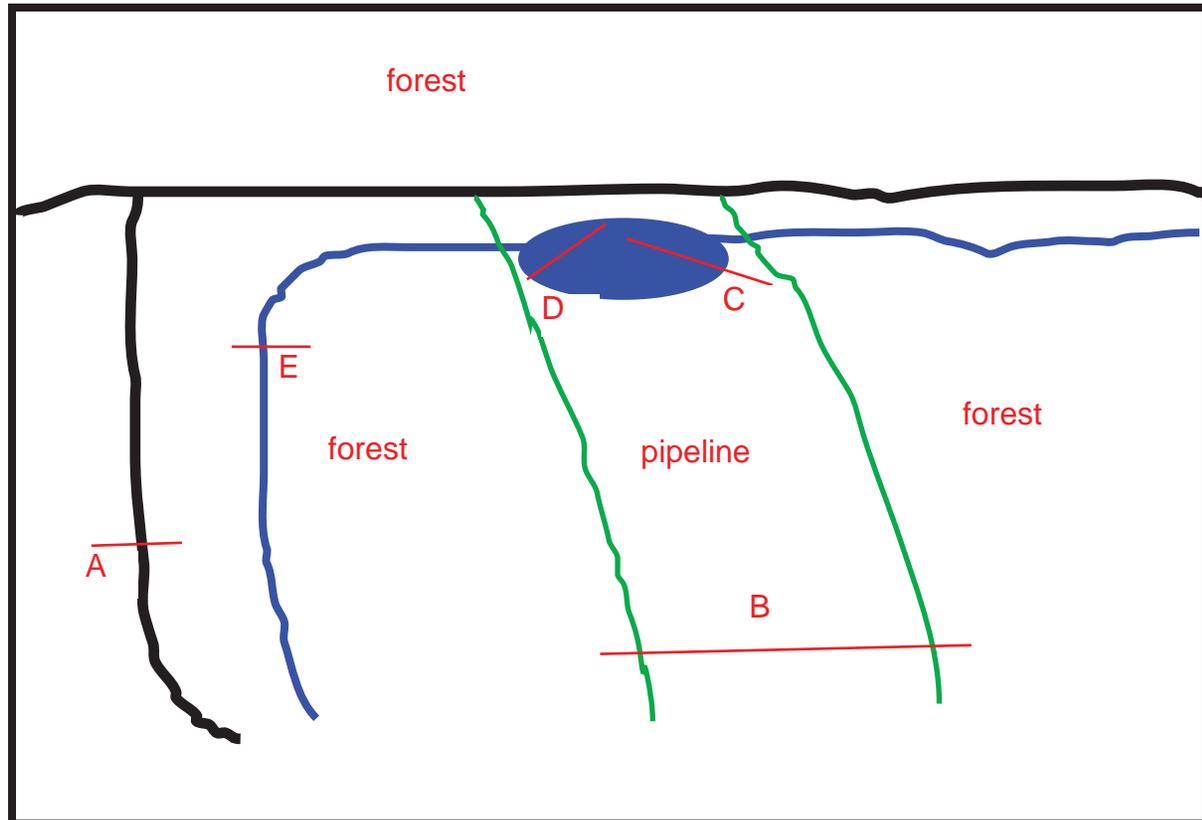
Other Wildlife Observed: \_\_\_\_\_

Whip-poor-will = 0

Notes / Comments: \_\_\_\_\_

E: 3m x 1H - over small stream

Date Entered into Database: \_\_\_\_\_



Sketch site with net locations, label nets with letters; include streams and roads.

# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 2

Night Number: 3

Date: 07/21/2013

Page 2 of 2

	Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1	Big Brown bat	Lasiurus cinereus	21:45	A	F	Post Lac	19.0	50.0	9	No	No	A	0
2	Eastern Red bat	Lasiurus borealis	21:45	A	M	NR	11.6	37.0	1	No	No	C	0
3	Eastern Red bat	Lasiurus borealis	21:55	J	M	NR	9.9	39.5	18	No	No	A	0
4	Big Brown bat	Eptesicus fuscus	22:47	J	F	NR	13.4	47.5	21	No	No	B	0
5	-	-		-	-	-				-	-		
6	-	-		-	-	-				-	-		
7	-	-		-	-	-				-	-		
8	-	-		-	-	-				-	-		
9	-	-		-	-	-				-	-		
10	-	-		-	-	-				-	-		
11	-	-		-	-	-				-	-		
12	-	-		-	-	-				-	-		
13	-	-		-	-	-				-	-		
14	-	-		-	-	-				-	-		
15	-	-		-	-	-				-	-		
16	-	-		-	-	-				-	-		
17	-	-		-	-	-				-	-		
18	-	-		-	-	-				-	-		
19	-	-		-	-	-				-	-		
20	-	-		-	-	-				-	-		
21	-	-		-	-	-				-	-		
22	-	-		-	-	-				-	-		
23	-	-		-	-	-				-	-		
24	-	-		-	-	-				-	-		
25	-	-		-	-	-				-	-		
26	-	-		-	-	-				-	-		
27	-	-		-	-	-				-	-		
28	-	-		-	-	-				-	-		
29	-	-		-	-	-				-	-		
30	-	-		-	-	-				-	-		

**Submit**



# PWE Bat Survey Data Form

Project Name: Star City Developoment

Site Number: 3

Night Number: 1

Date: 08/12/2013

Page 2 of 2

	Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1	Eastern Red bat	<i>Lasiurus borealis</i>	20:50	A	F	NR	7.2	39.0	12	No	No	B	
2	Eastern Red bat	<i>Lasiurus borealis</i>	22:10	J	F	NR	11.4	40.5	24	No	No	B	
3	-	-		-	-	-				-	-		
4	-	-		-	-	-				-	-		
5	-	-		-	-	-				-	-		
6	-	-		-	-	-				-	-		
7	-	-		-	-	-				-	-		
8	-	-		-	-	-				-	-		
9	-	-		-	-	-				-	-		
10	-	-		-	-	-				-	-		
11	-	-		-	-	-				-	-		
12	-	-		-	-	-				-	-		
13	-	-		-	-	-				-	-		
14	-	-		-	-	-				-	-		
15	-	-		-	-	-				-	-		
16	-	-		-	-	-				-	-		
17	-	-		-	-	-				-	-		
18	-	-		-	-	-				-	-		
19	-	-		-	-	-				-	-		
20	-	-		-	-	-				-	-		
21	-	-		-	-	-				-	-		
22	-	-		-	-	-				-	-		
23	-	-		-	-	-				-	-		
24	-	-		-	-	-				-	-		
25	-	-		-	-	-				-	-		
26	-	-		-	-	-				-	-		
27	-	-		-	-	-				-	-		
28	-	-		-	-	-				-	-		
29	-	-		-	-	-				-	-		
30	-	-		-	-	-				-	-		

**Submit**

# PWE Bat Survey Data Form

Project Name: Star City Development Date: 08/13/2013 Scientists: G. Veron

Township: \_\_\_\_\_ State: WV County: Monongahela USGS Quad: Morgantown North

Start Weather: 22.0 (°C) warm (feel) 3 - 5 mp (wind) 100% (sky) 20:45 (Time) Datum: NAD 83

Mid Weather: 18.0 (°C) warm (feel) 3 - 5 mp (wind) 100% (sky) 23:15 (Time) Lat: 39 ° 38 ' 43.80 "

End Weather: 13.0 (°C) cool (feel) 3 - 5 mp (wind) 100% (sky) 01:30 (Time) Long: 79 ° 59 ' 43.70 "

Identification By: N. Bossart Site Number: 3 Night Number: 2 Moon Phase: 1/4 rise 13:21 set 23:54

Site Description: Small hillside woodlot

Net Length (m) X Height (nets) Habitat # of Net Sets at Site: 3 Time Started: 20:45 Time Ended: 01:45

Net	Length (m)	X	Height (nets)	Habitat
A:	<u>6</u>	X	<u>3</u>	<u>Corridor</u>
B:	<u>12</u>	X	<u>3</u>	<u>Corridor</u>
C:	<u>6</u>	X	<u>1</u>	<u>Corridor</u>
D:	<u>-</u>	X	<u>-</u>	

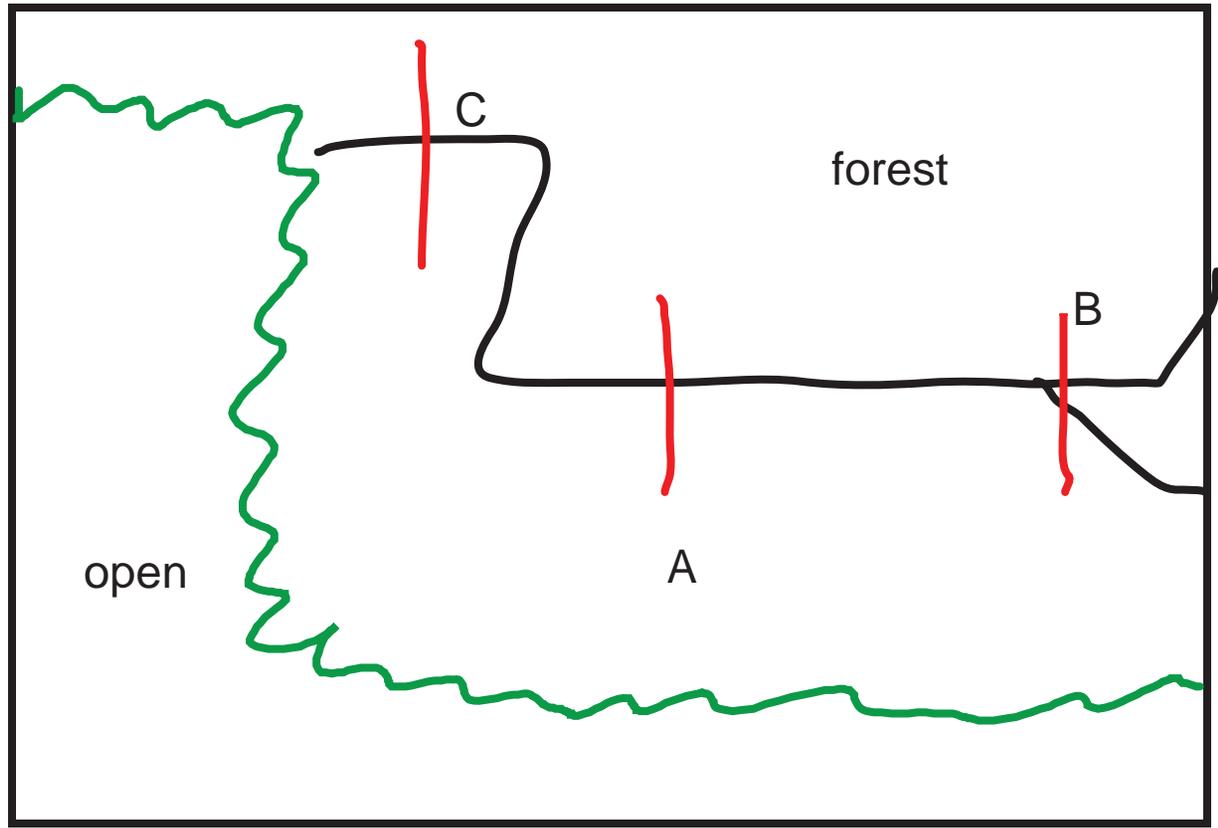
Bat Activity (time): 20:45

Other Wildlife Observed: Deer, turkey

Whip-poor-will = 0

Notes / Comments: \_\_\_\_\_

Date Entered into Database: \_\_\_\_\_



Sketch site with net locations, label nets with letters; include streams and roads.

# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 3

Night Number: 2

Date: 08/13/2013

Page 2 of 2

	Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1	Eastern Red bat	Lasiurus borealis	23:00	J	M	SCR	10.5	41.0	7	No	No	B	
2	-	-		-	-	-				-	-		
3	-	-		-	-	-				-	-		
4	-	-		-	-	-				-	-		
5	-	-		-	-	-				-	-		
6	-	-		-	-	-				-	-		
7	-	-		-	-	-				-	-		
8	-	-		-	-	-				-	-		
9	-	-		-	-	-				-	-		
10	-	-		-	-	-				-	-		
11	-	-		-	-	-				-	-		
12	-	-		-	-	-				-	-		
13	-	-		-	-	-				-	-		
14	-	-		-	-	-				-	-		
15	-	-		-	-	-				-	-		
16	-	-		-	-	-				-	-		
17	-	-		-	-	-				-	-		
18	-	-		-	-	-				-	-		
19	-	-		-	-	-				-	-		
20	-	-		-	-	-				-	-		
21	-	-		-	-	-				-	-		
22	-	-		-	-	-				-	-		
23	-	-		-	-	-				-	-		
24	-	-		-	-	-				-	-		
25	-	-		-	-	-				-	-		
26	-	-		-	-	-				-	-		
27	-	-		-	-	-				-	-		
28	-	-		-	-	-				-	-		
29	-	-		-	-	-				-	-		
30	-	-		-	-	-				-	-		

**Submit**

# PWE Bat Survey Data Form

Project Name: Star City Development Date: 07/22/2013 Scientists: N. Shimp

Township: \_\_\_\_\_ State: WV County: Monongalia USGS Quad: Osage

Start Weather: 20.7 (°C) humid (feel) Calm (wind) 100% (sky) 21:00 (Time) Datum: NAD 83

Mid Weather: 20.3 (°C) humid (feel) Calm (wind) 100% (sky) 23:30 (Time) Lat: 39 ° 38 ' 44.75 "

End Weather: 20.2 (°C) humid (feel) Calm (wind) 100% (sky) 02:00 (Time) Long: 80 ° 0 ' 19.53 "

Identification By: J. Dreibelbis Site Number: 4 Night Number: 1 Moon Phase: Full rise 20:27 set 06:05

Site Description: Forested area with access roads and old forest roads

Net Length (m) X Height (nets) Habitat # of Net Sets at Site: 5 Time Started: 21:00 Time Ended: 02:00

Net	Length (m)	X	Height (nets)	Habitat
A:	<u>9</u>	X	<u>3</u>	<u>Old road</u>
B:	<u>6</u>	X	<u>2</u>	<u>Old road</u>
C:	<u>12</u>	X	<u>3</u>	<u>Access road</u>
D:	<u>6</u>	X	<u>2</u>	<u>Forest corridor</u>

Bat Activity (time): 20:52

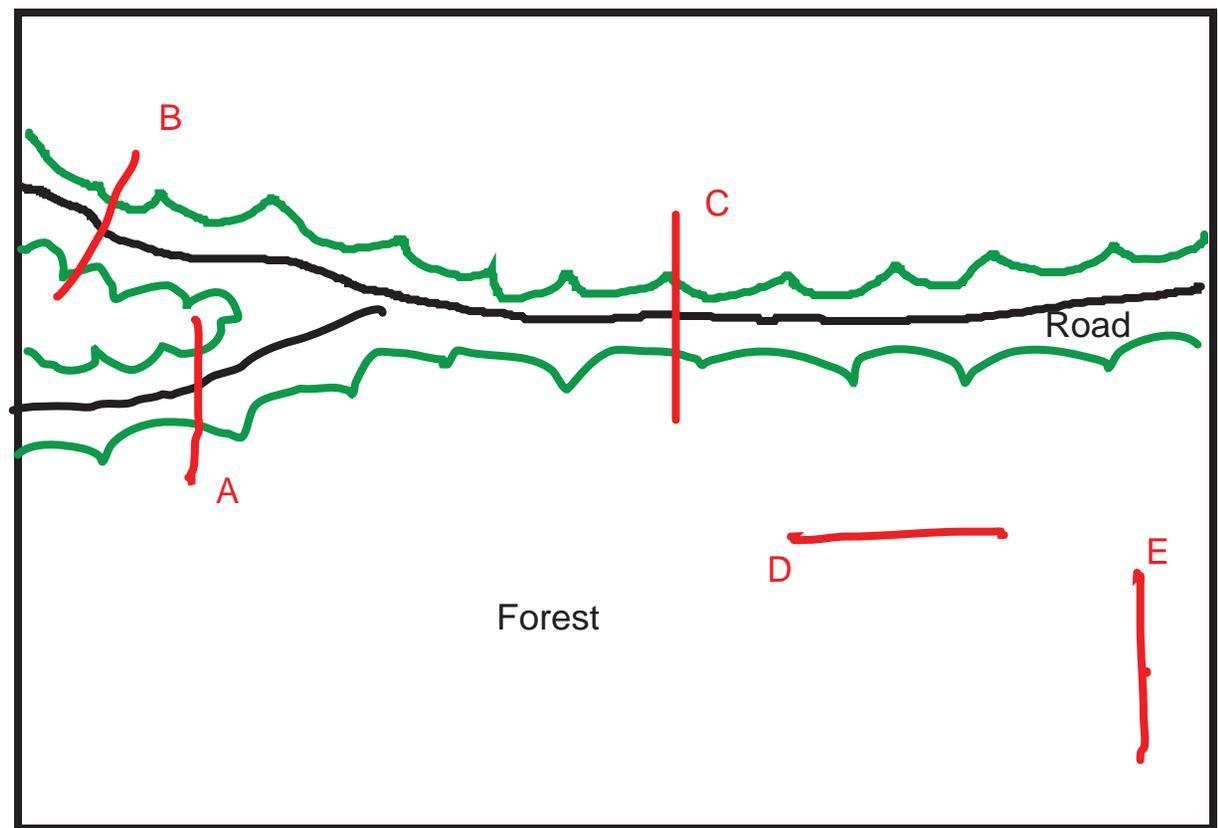
Other Wildlife Observed: \_\_\_\_\_

Whip-poor-will = 0

Notes / Comments: \_\_\_\_\_

E: 6x1 net in a forest corridor

Date Entered into Database: \_\_\_\_\_



Sketch site with net locations, label nets with letters; include streams and roads.

# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 4

Night Number: 1

Date: 07/22/2013

Page 2 of 2

	Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1	Eastern Red bat	<i>Lasiurus borealis</i>	21:00	J	M	NR	8.0	38.0	15	No	No	C	
2	Big Brown bat	<i>Eptesicus fuscus</i>	21:30	A	F	Post Lac	21.0	51.0	20	No	No	C	
3	Big Brown bat	<i>Eptesicus fuscus</i>	21:30	A	F	Post Lac	19.3	46.5	15	No	No	C	
4	Big Brown bat	<i>Eptesicus fuscus</i>	21:30	J	M	Post Lac	11.6	46.0	20	No	No	C	
5	Big Brown bat	<i>Eptesicus fuscus</i>	21:40	A	F	NR	16.8	47.0	20	No	No	C	
6	Big Brown bat	<i>Eptesicus fuscus</i>	21:40	J	F	NR	15.9	48.0	18	No	No	C	
7	Big Brown bat	<i>Eptesicus fuscus</i>	21:40	A	F	Post Lac	19.1	48.0	7	No	No	E	
8	Big Brown bat	<i>Eptesicus fuscus</i>	21:50	J	F	NR	15.2	47.0	20	No	No	A	
9	Eastern Red bat	<i>Lasiurus borealis</i>	21:50	-	-	-			12	No	No	C	Escaped
10	Big Brown bat	<i>Eptesicus fuscus</i>	21:50	A	F	Post Lac	19.0	47.0	8	No	No	C	
11	Big Brown bat	<i>Eptesicus fuscus</i>	22:10	A	F	Post Lac	18.9	47.5	20	No	No	C	
12	Big Brown bat	<i>Eptesicus fuscus</i>	22:10	A	F	Post Lac	20.4	49.0	6	No	No	E	
13	Big Brown bat	<i>Eptesicus fuscus</i>	22:50	J	M	NR	16.1	45.0	10	No	No	A	
14	Big Brown bat	<i>Eptesicus fuscus</i>	23:10	A	M	NR	18.2	47.0	8	No	No	D	
15	-	-		-	-	-				-	-		
16	-	-		-	-	-				-	-		
17	-	-		-	-	-				-	-		
18	-	-		-	-	-				-	-		
19	-	-		-	-	-				-	-		
20	-	-		-	-	-				-	-		
21	-	-		-	-	-				-	-		
22	-	-		-	-	-				-	-		
23	-	-		-	-	-				-	-		
24	-	-		-	-	-				-	-		
25	-	-		-	-	-				-	-		
26	-	-		-	-	-				-	-		
27	-	-		-	-	-				-	-		
28	-	-		-	-	-				-	-		
29	-	-		-	-	-				-	-		
30	-	-		-	-	-				-	-		

**Submit**

# PWE Bat Survey Data Form

Project Name: Star City Development Date: 07/23/2013 Scientists: N. Shimp

Township: \_\_\_\_\_ State: WV County: Monongalia USGS Quad: Osage

Start Weather: 18.6 (°C) cool (feel) 3 - 5 mp (wind) 100% (sky) 21:00 (Time) Datum: NAD 83

Mid Weather: 18.2 (°C) cool (feel) Calm (wind) 70% (sky) 23:30 (Time) Lat: 39 ° 38 ' 44.75 "

End Weather: 18.2 (°C) cool (feel) Calm (wind) 20% (sky) 02:00 (Time) Long: 80 ° 0 ' 19.53 "

Identification By: J. Dreibelbis Site Number: 4 Night Number: 2 Moon Phase: Full rise 21:09 set 07:18

Site Description: Forested area with access roads and old forest roads

Net Length (m) X Height (nets) Habitat # of Net Sets at Site: 5 Time Started: 21:00 Time Ended: 02:00

Net	Length (m)	X	Height (nets)	Habitat
A:	<u>9</u>	X	<u>3</u>	<u>Old road</u>
B:	<u>6</u>	X	<u>2</u>	<u>Old road</u>
C:	<u>12</u>	X	<u>3</u>	<u>Access road</u>
D:	<u>6</u>	X	<u>2</u>	<u>Forest corridor</u>

Bat Activity (time): 20:28

Other Wildlife Observed: \_\_\_\_\_

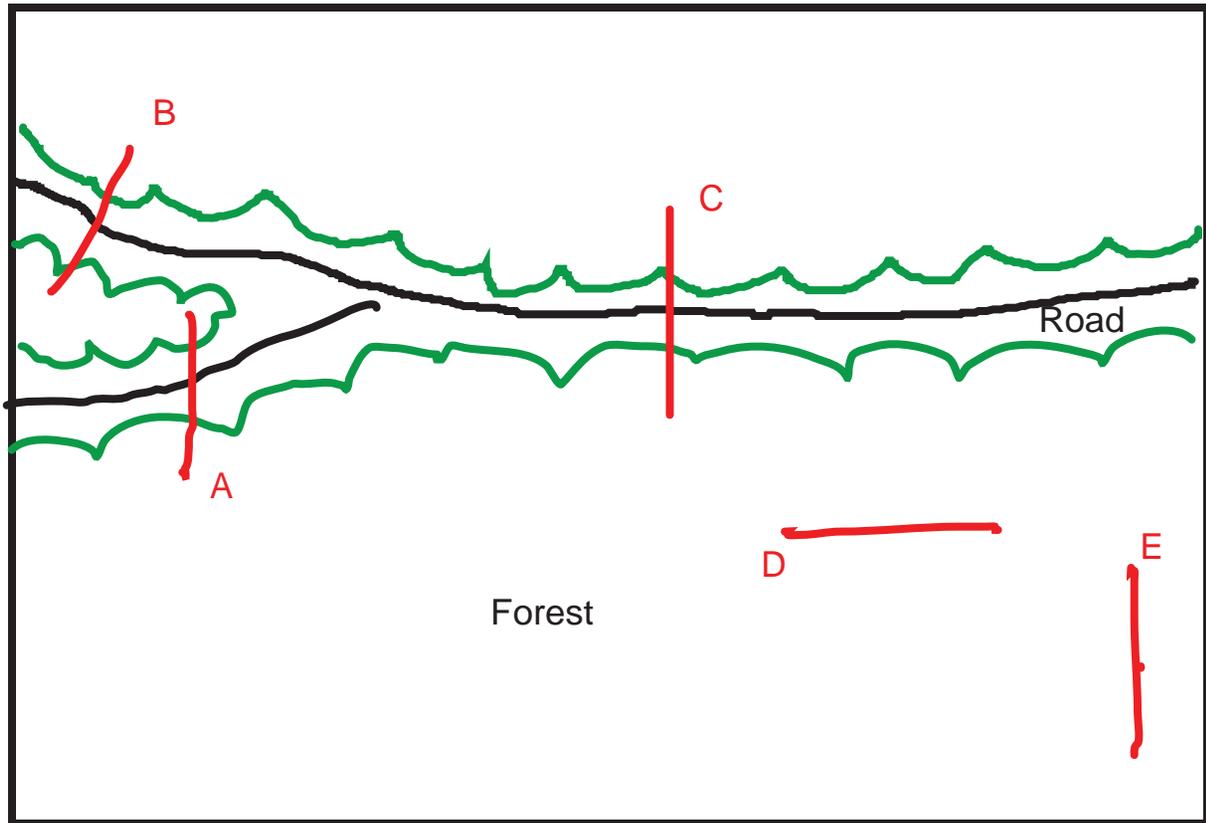
Whip-poor-will = 0

Notes / Comments: \_\_\_\_\_

E: 6x1 net in a forest corridor

Rain from 20:50-21:45

Date Entered into Database: \_\_\_\_\_



Sketch site with net locations, label nets with letters; include streams and roads.

# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 4

Night Number: 2

Date: 07/23/2013

Page 2 of 2

	Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1	Big Brown bat	<i>Eptesicus fuscus</i>	22:10	A	F	Lac	18.4	48.0	22	No	No	A	
2	Eastern Red bat	<i>Lasiurus borealis</i>	23:10	-	-	-			20	-	-	A	Escaped
3	-	-		-	-	-				-	-		
4	-	-		-	-	-				-	-		
5	-	-		-	-	-				-	-		
6	-	-		-	-	-				-	-		
7	-	-		-	-	-				-	-		
8	-	-		-	-	-				-	-		
9	-	-		-	-	-				-	-		
10	-	-		-	-	-				-	-		
11	-	-		-	-	-				-	-		
12	-	-		-	-	-				-	-		
13	-	-		-	-	-				-	-		
14	-	-		-	-	-				-	-		
15	-	-		-	-	-				-	-		
16	-	-		-	-	-				-	-		
17	-	-		-	-	-				-	-		
18	-	-		-	-	-				-	-		
19	-	-		-	-	-				-	-		
20	-	-		-	-	-				-	-		
21	-	-		-	-	-				-	-		
22	-	-		-	-	-				-	-		
23	-	-		-	-	-				-	-		
24	-	-		-	-	-				-	-		
25	-	-		-	-	-				-	-		
26	-	-		-	-	-				-	-		
27	-	-		-	-	-				-	-		
28	-	-		-	-	-				-	-		
29	-	-		-	-	-				-	-		
30	-	-		-	-	-				-	-		

**Submit**

# PWE Bat Survey Data Form

Project Name: Star City Development Date: 07/24/2013 Scientists: N. Shimp

Township: \_\_\_\_\_ State: WV County: Monongalia USGS Quad: Osage

Start Weather: 16.2 (°C) cool (feel) Calm (wind) Clear (sky) 21:00 (Time) Datum: NAD 83

Mid Weather: 14.6 (°C) cool (feel) Calm (wind) 50% (sky) 23:30 (Time) Lat: 39 ° 38 ' 44.75 "

End Weather: 14.1 (°C) cool (feel) Calm (wind) Clear (sky) 02:00 (Time) Long: 80 ° 0 ' 19.53 "

Identification By: J. Dreibelbis Site Number: 4 Night Number: 3 Moon Phase: 3/4 rise 21:46 set 08:30

Site Description: Forested area with access roads and old forest roads

Net Length (m) X Height (nets) Habitat # of Net Sets at Site: 5 Time Started: 21:00 Time Ended: 02:00

Net	Length (m)	X	Height (nets)	Habitat
A:	<u>9</u>	X	<u>3</u>	<u>Old road</u>
B:	<u>6</u>	X	<u>2</u>	<u>Old road</u>
C:	<u>12</u>	X	<u>3</u>	<u>Access road</u>
D:	<u>6</u>	X	<u>2</u>	<u>Forest corridor</u>

Bat Activity (time): 20:45

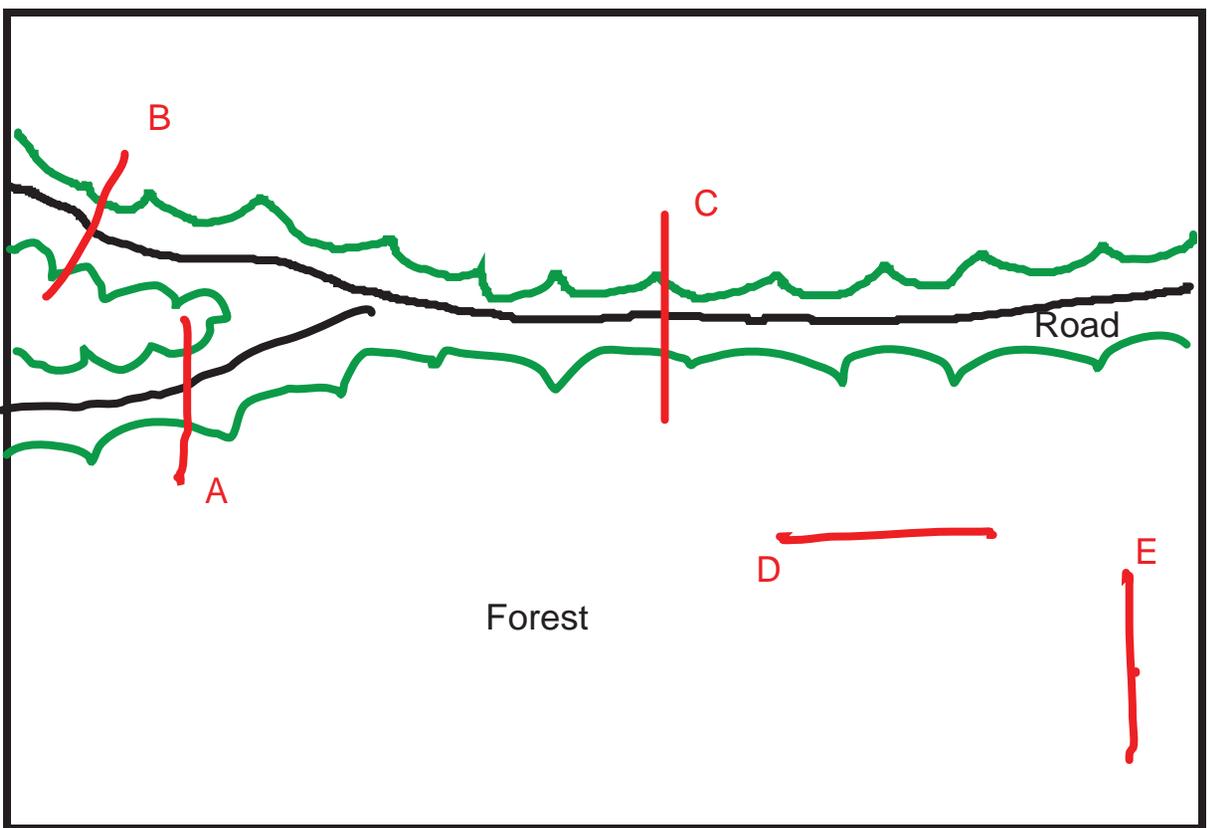
Other Wildlife Observed: \_\_\_\_\_

Whip-poor-will = 0

Notes / Comments: \_\_\_\_\_

E: 6x1 net in a forest corridor

Date Entered into Database: \_\_\_\_\_



Sketch site with net locations, label nets with letters; include streams and roads.

# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 4

Night Number: 3

Date: 07/24/2013

Page 2 of 2

	Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1	Eastern Red bat	<i>Lasiurus borealis</i>	21:05	J	M	NR	7.8	39.0	10	No	No	C	
2	Eastern Red bat	<i>Lasiurus borealis</i>	21:05	J	M	NR	8.0	39.0	20	No	No	C	
3	Big Brown bat	<i>Eptesicus fuscus</i>	21:30	J	M	NR	13.5	47.0	16	No	No	C	
4	Big Brown bat	<i>Eptesicus fuscus</i>	22:00	A	F	Post Lac	21.4	48.0	12	No	No	C	
5	-	-		-	-	-				-	-		
6	-	-		-	-	-				-	-		
7	-	-		-	-	-				-	-		
8	-	-		-	-	-				-	-		
9	-	-		-	-	-				-	-		
10	-	-		-	-	-				-	-		
11	-	-		-	-	-				-	-		
12	-	-		-	-	-				-	-		
13	-	-		-	-	-				-	-		
14	-	-		-	-	-				-	-		
15	-	-		-	-	-				-	-		
16	-	-		-	-	-				-	-		
17	-	-		-	-	-				-	-		
18	-	-		-	-	-				-	-		
19	-	-		-	-	-				-	-		
20	-	-		-	-	-				-	-		
21	-	-		-	-	-				-	-		
22	-	-		-	-	-				-	-		
23	-	-		-	-	-				-	-		
24	-	-		-	-	-				-	-		
25	-	-		-	-	-				-	-		
26	-	-		-	-	-				-	-		
27	-	-		-	-	-				-	-		
28	-	-		-	-	-				-	-		
29	-	-		-	-	-				-	-		
30	-	-		-	-	-				-	-		

**Submit**

# PWE Bat Survey Data Form

Project Name: Star City Development

Date: 07/22/2013

Scientists: Elise Merrill

Township: \_\_\_\_\_ State: WV

County: Monongalia

USGS Quad: Morgantown North

Start Weather: 20.1 (°C) cool (feel) Calm (wind) 100% (sky) 21:05 (Time)

Datum: NAD 83

Mid Weather: 20.3 (°C) cool (feel) Calm (wind) 100% (sky) 23:35 (Time)

Lat: 39 ° 38 ' 20.40 "

End Weather: 19.9 (°C) cool (feel) Calm (wind) 100% (sky) 02:05 (Time)

Long: 79 ° 59 ' 48.50 "

Identification By: \_\_\_\_\_

Site Number: 5

Night Number: 1

Moon Phase: Full

rise 20:26

set 06:06

Site Description: young forest with thick understory, field edge; dominant species: locust

Net	Length (m)	X	Height (nets)	Habitat
A:	<u>6</u>	X	<u>3</u>	<u>field edge</u>
B:	<u>9</u>	X	<u>3</u>	<u>atv trail</u>
C:	<u>6</u>	X	<u>3</u>	<u>atv trail</u>
D:	<u>6</u>	X	<u>2</u>	<u>atv trail</u>

# of Net Sets at Site: 5

Time Started: 21:05

Time Ended: 02:05

Bat Activity (time): 20:44

Other Wildlife Observed: \_\_\_\_\_

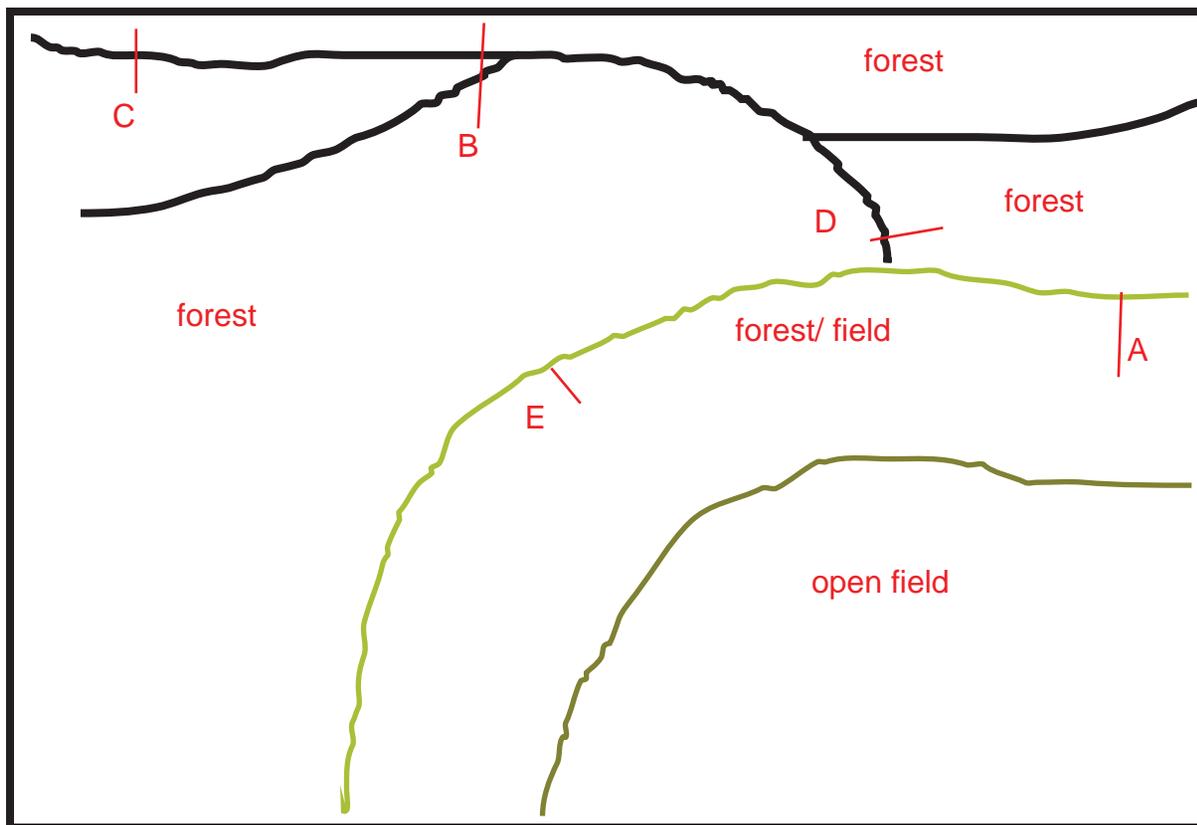
Whip-poor-will = 0

Notes / Comments: \_\_\_\_\_

E: 3m x 2H - field edge

light rain 1:40

Date Entered into Database: \_\_\_\_\_



Sketch site with net locations, label nets with letters; include streams and roads.

# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 5

Night Number: 1

Date: 07/22/2013

Page 2 of 2

	Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1	Big Brown bat	<i>Eptesicus fuscus</i>	21:30	J	F	NR	14.0	45.5	17	No	Yes	A	0
2	Big Brown bat	<i>Eptesicus fuscus</i>	21:30	A	M	NR	17.2	46.5	19	No	No	A	1
3	Big Brown bat	<i>Eptesicus fuscus</i>	21:30	A	F	Post Lac	16.7	46.0	20	No	Yes	A	1
4	Big Brown bat	<i>Eptesicus fuscus</i>	21:45	J	F	NR	13.0	48.5	18	No	No	A	1
5	Big Brown bat	<i>Eptesicus fuscus</i>	22:25	A	F	Post Lac	16.7	47.5	10	No	No	A	0
6	Big Brown bat	<i>Eptesicus fuscus</i>	22:25	A	F	Post Lac	18.5	48.5	20	No	No	A	1
7	Big Brown bat	<i>Eptesicus fuscus</i>	22:42	A	F	Lac	19.4	45.0	21	No	Yes	A	1
8	Big Brown bat	<i>Eptesicus fuscus</i>	23:00	A	F	Lac	17.8	46.5	12	No	Yes	E	0
9	Big Brown bat	<i>Eptesicus fuscus</i>	23:16	A	F	Post Lac	20.2	49.5	19	No	No	A	1
10	Big Brown bat	<i>Eptesicus fuscus</i>	23:16	A	F	Post Lac	21.1	47.0	13	No	No	A	1
11	Big Brown bat	<i>Eptesicus fuscus</i>	01:18	A	M	NR	15.5	47.0	22	No	No	A	0
12	-	-		-	-	-				-	-		
13	-	-		-	-	-				-	-		
14	-	-		-	-	-				-	-		
15	-	-		-	-	-				-	-		
16	-	-		-	-	-				-	-		
17	-	-		-	-	-				-	-		
18	-	-		-	-	-				-	-		
19	-	-		-	-	-				-	-		
20	-	-		-	-	-				-	-		
21	-	-		-	-	-				-	-		
22	-	-		-	-	-				-	-		
23	-	-		-	-	-				-	-		
24	-	-		-	-	-				-	-		
25	-	-		-	-	-				-	-		
26	-	-		-	-	-				-	-		
27	-	-		-	-	-				-	-		
28	-	-		-	-	-				-	-		
29	-	-		-	-	-				-	-		
30	-	-		-	-	-				-	-		

**Submit**

# PWE Bat Survey Data Form

Project Name: Star City Development

Date: 07/23/2013

Scientists: Elise Merrill

Township: \_\_\_\_\_ State: WV

County: Monongalia

USGS Quad: Morgantown North

Start Weather: 20.1 (°C) cool (feel) 1 - 3 mp (wind) 100% (sky) 21:00 (Time)

Datum: NAD 83

Mid Weather: 18.1 (°C) cool (feel) Calm (wind) 80% (sky) 23:25 (Time)

Lat: 39 ° 38 ' 20.40 "

End Weather: 17.9 (°C) cool (feel) Calm (wind) 60% (sky) 02:00 (Time)

Long: 79 ° 59 ' 48.50 "

Identification By: \_\_\_\_\_

Site Number: 5

Night Number: 2

Moon Phase: Full

rise 21:08

set 07:19

Site Description: young forest with thick understory, field edge; dominant species: locust

Net	Length (m)	X	Height (nets)	Habitat
A:	<u>6</u>	X	<u>3</u>	<u>edge of field</u>
B:	<u>9</u>	X	<u>3</u>	<u>atv trail</u>
C:	<u>6</u>	X	<u>3</u>	<u>atv trail</u>
D:	<u>6</u>	X	<u>2</u>	<u>atv trail</u>

# of Net Sets at Site: 5

Time Started: 21:00

Time Ended: 02:00

Bat Activity (time): 20:34

Other Wildlife Observed: \_\_\_\_\_

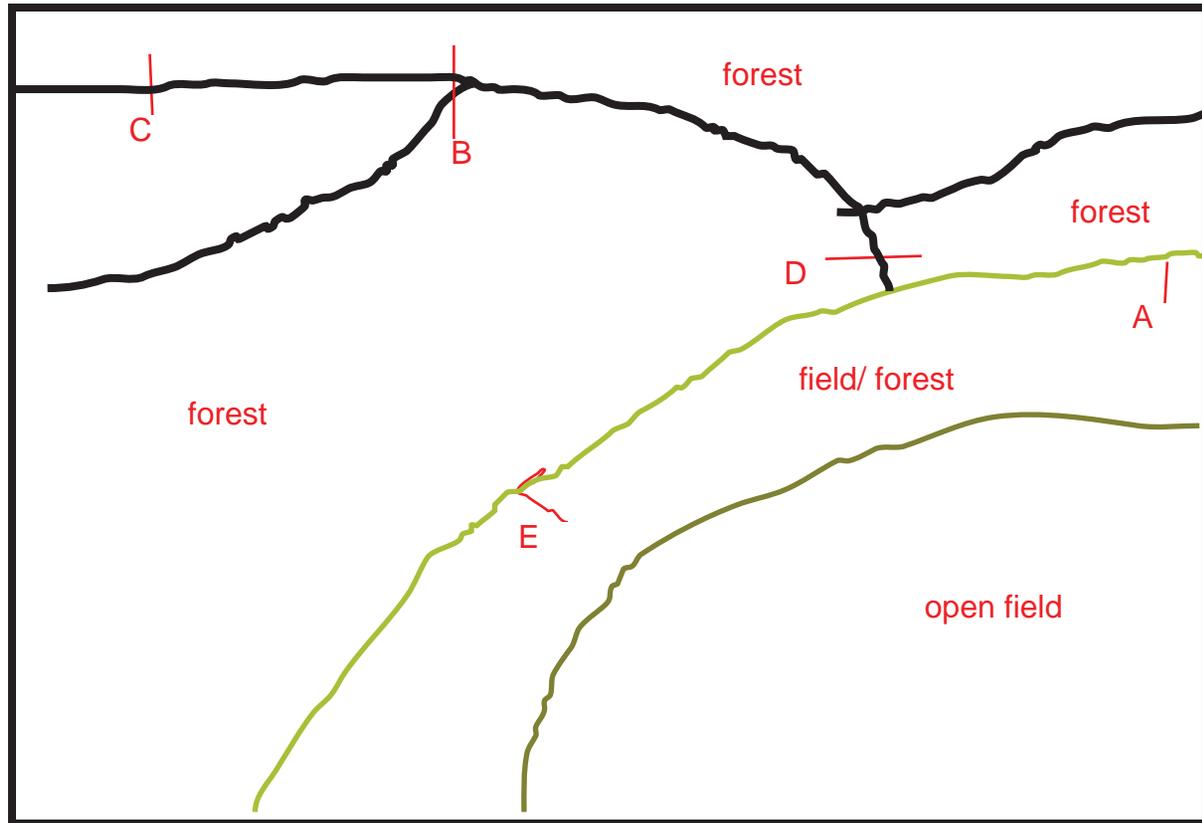
Whip-poor-will = 0

Notes / Comments: \_\_\_\_\_

E: 3m x 2H - edge of field

Severe storm - 20:45-21:30

Date Entered into Database: \_\_\_\_\_



Sketch site with net locations, label nets with letters; include streams and roads.

# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 5

Night Number: 2

Date: 07/23/2013

Page 2 of 2

Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1 Big Brown bat	<i>Eptesicus fuscus</i>	22:20	J	M	NR	14.7	48.0	20	No	No	A	0
2 Big Brown bat	<i>Eptesicus fuscus</i>	22:20	J	F	NR	13.9	46.5	18	No	Yes	A	0
3 Big Brown bat	<i>Eptesicus fuscus</i>	22:38	A	F	Post Lac	20.9	48.0	17	No	Yes	A	1
4 Big Brown bat	<i>Eptesicus fuscus</i>	22:38	J	M	NR	14.0	46.0	22	No	Yes	A	0
5 Big Brown bat	<i>Eptesicus fuscus</i>	22:55	J	M	NR	13.4	47.0	22	No	Yes	A	0
6 Eastern Red bat	<i>Lasiurus borealis</i>	23:30	A	M	NR	11.2	39.5	21	No	No	A	0
7 Eastern Red bat	<i>Lasiurus borealis</i>	23:45	J	M	NR	7.9	40.0	5	No	No	A	0
8 -	-		-	-	-				-	-		
9 -	-		-	-	-				-	-		
10 -	-		-	-	-				-	-		
11 -	-		-	-	-				-	-		
12 -	-		-	-	-				-	-		
13 -	-		-	-	-				-	-		
14 -	-		-	-	-				-	-		
15 -	-		-	-	-				-	-		
16 -	-		-	-	-				-	-		
17 -	-		-	-	-				-	-		
18 -	-		-	-	-				-	-		
19 -	-		-	-	-				-	-		
20 -	-		-	-	-				-	-		
21 -	-		-	-	-				-	-		
22 -	-		-	-	-				-	-		
23 -	-		-	-	-				-	-		
24 -	-		-	-	-				-	-		
25 -	-		-	-	-				-	-		
26 -	-		-	-	-				-	-		
27 -	-		-	-	-				-	-		
28 -	-		-	-	-				-	-		
29 -	-		-	-	-				-	-		
30 -	-		-	-	-				-	-		

**Submit**

# PWE Bat Survey Data Form

Project Name: Star City Development

Date: 07/24/2013

Scientists: Elise Merrill

Kyle Kocher

Township: \_\_\_\_\_

State: WV

County: Monongalia

USGS Quad: Morgantown North

Start Weather: 17.6 (°C) cool (feel) Calm (wind) 10% (sky) 21:00 (Time)

Datum: NAD 83

Mid Weather: 15.6 (°C) cool (feel) Calm (wind) 80% (sky) 23:30 (Time)

Lat: 39 ° 38 ' 20.40 "

End Weather: 14.9 (°C) cool (feel) Calm (wind) Clear (sky) 02:00 (Time)

Long: 79 ° 59 ' 48.50 "

Identification By: \_\_\_\_\_

Site Number: 5 Night Number: 3

Moon Phase: Full rise 21:45 set 08:31

Site Description: young forest with thick understory, field edge; dominant species: locust

Net	Length (m)	X	Height (nets)	Habitat
A:	<u>6</u>	X	<u>3</u>	<u>edge of field</u>
B:	<u>9</u>	X	<u>3</u>	<u>atv trail</u>
C:	<u>6</u>	X	<u>3</u>	<u>atv trail</u>
D:	<u>6</u>	X	<u>2</u>	<u>atv trail</u>

# of Net Sets at Site: 5

Time Started: 21:00 Time Ended: 02:00

Bat Activity (time): 20:34

Other Wildlife Observed: \_\_\_\_\_

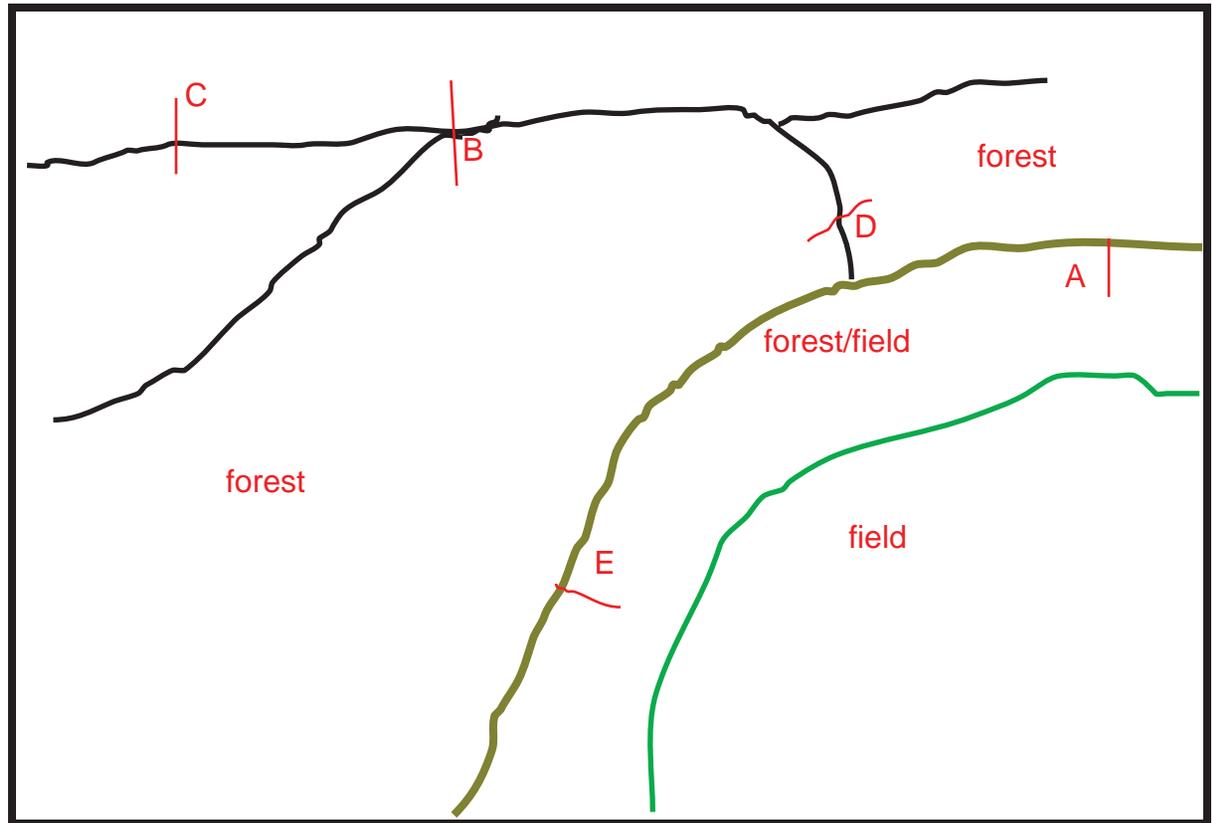
Whip-poor-will = 0

Notes / Comments: \_\_\_\_\_

E: 3m x 2H - edge of field

Severe storm - 20:50-21:45

Date Entered into Database: \_\_\_\_\_



Sketch site with net locations, label nets with letters; include streams and roads.

# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 5

Night Number: 3

Date: 07/24/2013

Page 2 of 2

	Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1	Big Brown bat	<i>Eptesicus fuscus</i>	21:18	J	F	NR	15.8	49.5	16	No	Yes	A	1
2	Big Brown bat	<i>Eptesicus fuscus</i>	21:18	J	M	NR	12.7	44.5	6	No	Yes	A	1
3	Big Brown bat	<i>Eptesicus fuscus</i>	21:18	J	F	NR	13.9	47.5	3	No	Yes	A	1
4	Big Brown bat	<i>Eptesicus fuscus</i>	21:18	A	M	NR	12.6	46.0	12	No	No	A	0
5	Big Brown bat	<i>Eptesicus fuscus</i>	21:18	J	M	NR	12.0	47.0	22	No	Yes	A	1
6	Big Brown bat	<i>Eptesicus fuscus</i>	21:18	J	F	NR	13.4	45.5	18	No	Yes	A	0
7	Big Brown bat	<i>Eptesicus fuscus</i>	21:18	J	M	NR	12.5	46.0	17	No	No	A	0
8	Big Brown bat	<i>Eptesicus fuscus</i>	21:18	A	F	Post Lac	16.5	49.5	10	No	Yes	A	1
9	Big Brown bat	<i>Eptesicus fuscus</i>	21:18	J	M	NR	12.4	44.5	16	No	Yes	A	1
10	Big Brown bat	<i>Eptesicus fuscus</i>	21:18	A	M	NR	13.3	46.0	7	No	No	A	0
11	Eastern Red bat	<i>Lasiurus borealis</i>	22:16	J	M	NR	5.9	39.5	22	No	No	A	0
12	-	-		-	-	-				-	-		
13	-	-		-	-	-				-	-		
14	-	-		-	-	-				-	-		
15	-	-		-	-	-				-	-		
16	-	-		-	-	-				-	-		
17	-	-		-	-	-				-	-		
18	-	-		-	-	-				-	-		
19	-	-		-	-	-				-	-		
20	-	-		-	-	-				-	-		
21	-	-		-	-	-				-	-		
22	-	-		-	-	-				-	-		
23	-	-		-	-	-				-	-		
24	-	-		-	-	-				-	-		
25	-	-		-	-	-				-	-		
26	-	-		-	-	-				-	-		
27	-	-		-	-	-				-	-		
28	-	-		-	-	-				-	-		
29	-	-		-	-	-				-	-		
30	-	-		-	-	-				-	-		

**Submit**

# PWE Bat Survey Data Form

Project Name: Star City Development Date: 07/19/2013 Scientists: E. Okon

Township: \_\_\_\_\_ State: WV County: Monongalia USGS Quad: Morgantown North

Start Weather: 24.9 (°C) humid (feel) Calm (wind) 100% (sky) 21:00 (Time) Datum: NAD 83

Mid Weather: 21.4 (°C) humid (feel) Calm (wind) 100% (sky) 23:00 (Time) Lat: 39 ° 38 ' 5.41 "

End Weather: 21.0 (°C) humid (feel) Calm (wind) 100% (sky) 02:00 (Time) Long: 80 ° 0 ' 0.99 "

Identification By: J. Dreibelbis Site Number: 6 Night Number: 1 Moon Phase: 3/4 rise 17:44 set 02:47

Site Description: Forested area with access roads and small streams

Net Length (m) X Height (nets) Habitat # of Net Sets at Site: 5 Time Started: 21:00 Time Ended: 02:00

Net	Length (m)	X	Height (nets)	Habitat
A:	<u>9</u>	X	<u>3</u>	<u>Access road</u>
B:	<u>6</u>	X	<u>3</u>	<u>Access road</u>
C:	<u>6</u>	X	<u>1</u>	<u>Stream corridor</u>
D:	<u>6</u>	X	<u>1</u>	<u>Stream corridor</u>

Bat Activity (time): 21:05

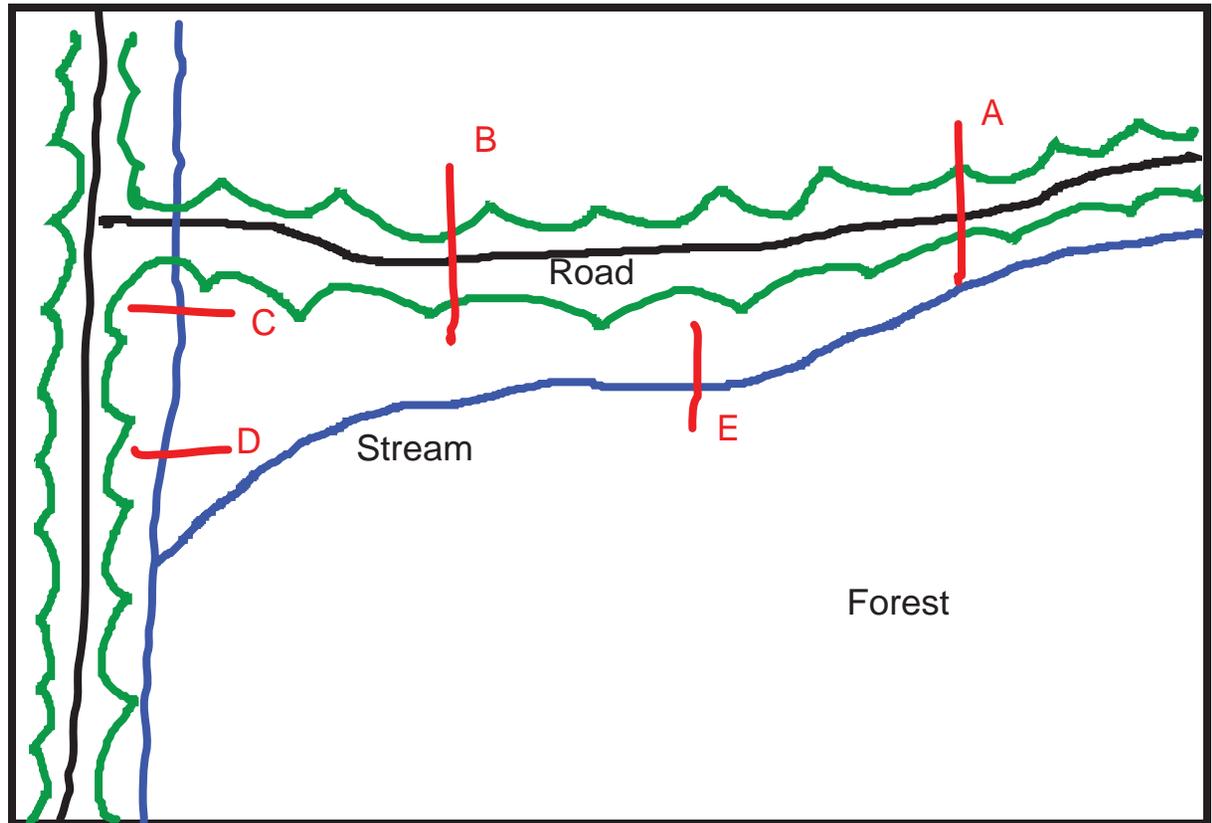
Other Wildlife Observed: \_\_\_\_\_

Whip-poor-will = 0

Notes / Comments: \_\_\_\_\_

E: 3x1 net over stream corridor

Date Entered into Database: \_\_\_\_\_



Sketch site with net locations, label nets with letters; include streams and roads.

# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 6 Night Number: 1

Date: 07/19/2013

Page 2 of 2

	Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1	Big Brown bat	<i>Eptesicus fuscus</i>	21:30	A	F	Post Lac	17.8	47.5	8	No	No	A	
2	Big Brown bat	<i>Eptesicus fuscus</i>	22:20	J	M	NR	13.5	43.0	8	No	No	B	
3	Big Brown bat	<i>Eptesicus fuscus</i>	22:20	J	F	NR	18.6	49.5	10	No	No	A	
4	Eastern Red bat	<i>Lasiurus borealis</i>	23:20	-	-	-			20	-	-	A	Escaped
5	Eastern Red bat	<i>Lasiurus borealis</i>	00:00	J	F	NR	9.4	42.0	21	No	No	B	
6	-	-		-	-	-				-	-		
7	-	-		-	-	-				-	-		
8	-	-		-	-	-				-	-		
9	-	-		-	-	-				-	-		
10	-	-		-	-	-				-	-		
11	-	-		-	-	-				-	-		
12	-	-		-	-	-				-	-		
13	-	-		-	-	-				-	-		
14	-	-		-	-	-				-	-		
15	-	-		-	-	-				-	-		
16	-	-		-	-	-				-	-		
17	-	-		-	-	-				-	-		
18	-	-		-	-	-				-	-		
19	-	-		-	-	-				-	-		
20	-	-		-	-	-				-	-		
21	-	-		-	-	-				-	-		
22	-	-		-	-	-				-	-		
23	-	-		-	-	-				-	-		
24	-	-		-	-	-				-	-		
25	-	-		-	-	-				-	-		
26	-	-		-	-	-				-	-		
27	-	-		-	-	-				-	-		
28	-	-		-	-	-				-	-		
29	-	-		-	-	-				-	-		
30	-	-		-	-	-				-	-		

Submit

# PWE Bat Survey Data Form

Project Name: Star City Development Date: 07/20/2013 Scientists: E. Okon

Township: \_\_\_\_\_ State: WV County: Monongalia USGS Quad: Morgantown North

Start Weather: 20.9 (°C) humid (feel) Calm (wind) 60% (sky) 21:00 (Time) Datum: NAD 83

Mid Weather: 19.9 (°C) humid (feel) Calm (wind) 70% (sky) 23:00 (Time) Lat: 39 ° 38 ' 5.41 "

End Weather: 19.7 (°C) humid (feel) Calm (wind) 100% (sky) 02:00 (Time) Long: 80 ° 0 ' 0.99 "

Identification By: J. Dreibelbis Site Number: 6 Night Number: 2 Moon Phase: 3/4 rise 18:04 set 03:46

Site Description: Forested area with access roads and small streams

Net Length (m) X Height (nets) Habitat # of Net Sets at Site: 5 Time Started: 21:00 Time Ended: 02:00

Net	Length (m)	X	Height (nets)	Habitat
A:	<u>9</u>	X	<u>3</u>	<u>Access road</u>
B:	<u>6</u>	X	<u>3</u>	<u>Access road</u>
C:	<u>6</u>	X	<u>1</u>	<u>Stream corridor</u>
D:	<u>6</u>	X	<u>1</u>	<u>Stream corridor</u>

Bat Activity (time): 21:09

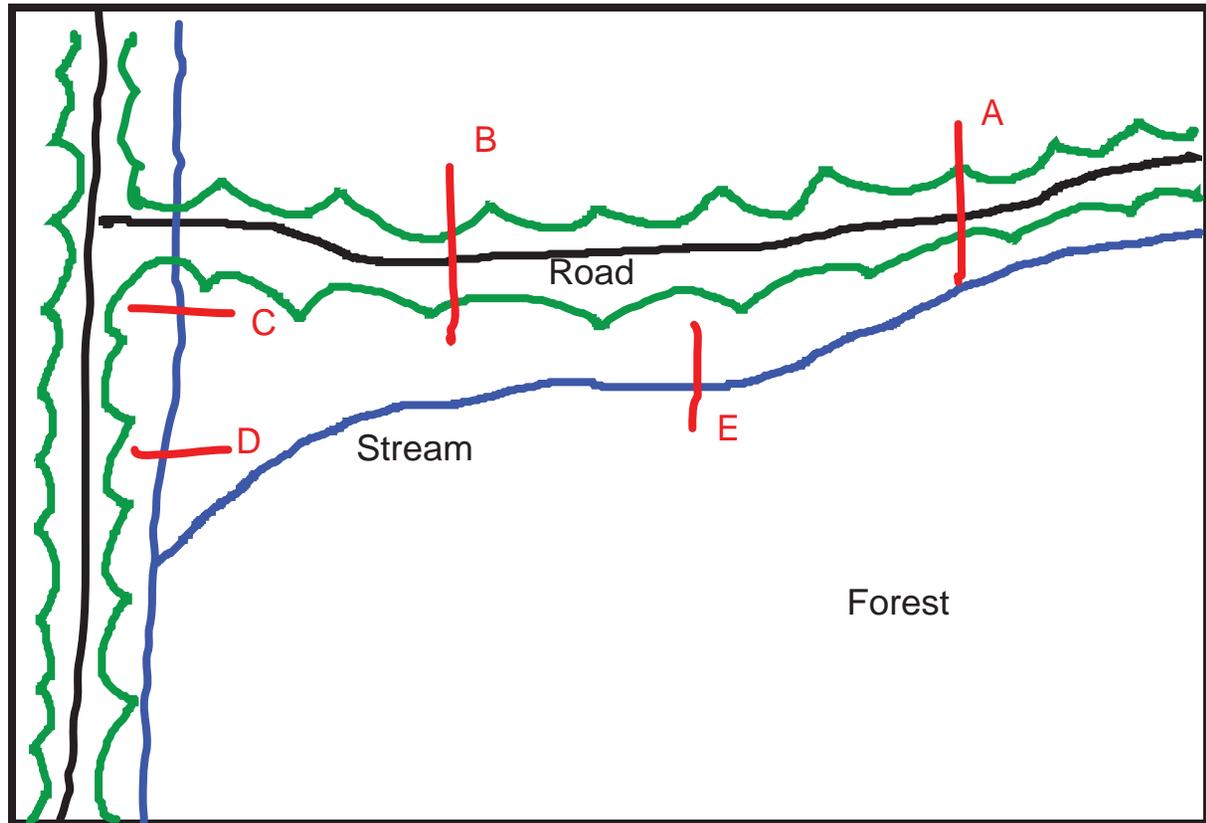
Other Wildlife Observed: \_\_\_\_\_

Whip-poor-will = 0

Notes / Comments: \_\_\_\_\_

E: 3x1 net over stream corridor

Date Entered into Database: \_\_\_\_\_



Sketch site with net locations, label nets with letters; include streams and roads.

# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 6 Night Number: 2

Date: 07/20/2013

Page 2 of 2

Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1 Big Brown bat	<i>Eptesicus fuscus</i>	22:20	A	F	Post Lac	19.9	46.0	7	No	No	A	
2 -	-		-	-	-				-	-		
3 -	-		-	-	-				-	-		
4 -	-		-	-	-				-	-		
5 -	-		-	-	-				-	-		
6 -	-		-	-	-				-	-		
7 -	-		-	-	-				-	-		
8 -	-		-	-	-				-	-		
9 -	-		-	-	-				-	-		
10 -	-		-	-	-				-	-		
11 -	-		-	-	-				-	-		
12 -	-		-	-	-				-	-		
13 -	-		-	-	-				-	-		
14 -	-		-	-	-				-	-		
15 -	-		-	-	-				-	-		
16 -	-		-	-	-				-	-		
17 -	-		-	-	-				-	-		
18 -	-		-	-	-				-	-		
19 -	-		-	-	-				-	-		
20 -	-		-	-	-				-	-		
21 -	-		-	-	-				-	-		
22 -	-		-	-	-				-	-		
23 -	-		-	-	-				-	-		
24 -	-		-	-	-				-	-		
25 -	-		-	-	-				-	-		
26 -	-		-	-	-				-	-		
27 -	-		-	-	-				-	-		
28 -	-		-	-	-				-	-		
29 -	-		-	-	-				-	-		
30 -	-		-	-	-				-	-		

**Submit**

# PWE Bat Survey Data Form

Project Name: Star City Development Date: 07/21/2013 Scientists: N. Shimp

Township: \_\_\_\_\_ State: WV County: Monongalia USGS Quad: Morgantown North

Start Weather: 22.5 (°C) humid (feel) Calm (wind) Clear (sky) 21:00 (Time) Datum: NAD 83

Mid Weather: 20.4 (°C) cool (feel) Calm (wind) 50% (sky) 23:30 (Time) Lat: 39 ° 38 ' 5.41 "

End Weather: 19.6 (°C) cool (feel) Calm (wind) 100% (sky) 02:00 (Time) Long: 80 ° 0 ' 0.99 "

Identification By: J. Dreibelbis Site Number: 6 Night Number: 3 Moon Phase: Full rise 19:39 set 04:53

Site Description: Forested area with access roads and small streams

Net Length (m) X Height (nets) Habitat # of Net Sets at Site: 5 Time Started: 21:00 Time Ended: 02:00

Net	Length (m)	X	Height (nets)	Habitat
A:	<u>9</u>	X	<u>3</u>	<u>Access road</u>
B:	<u>6</u>	X	<u>3</u>	<u>Access road</u>
C:	<u>6</u>	X	<u>1</u>	<u>Stream corridor</u>
D:	<u>6</u>	X	<u>1</u>	<u>Stream corridor</u>

Bat Activity (time): 20:59

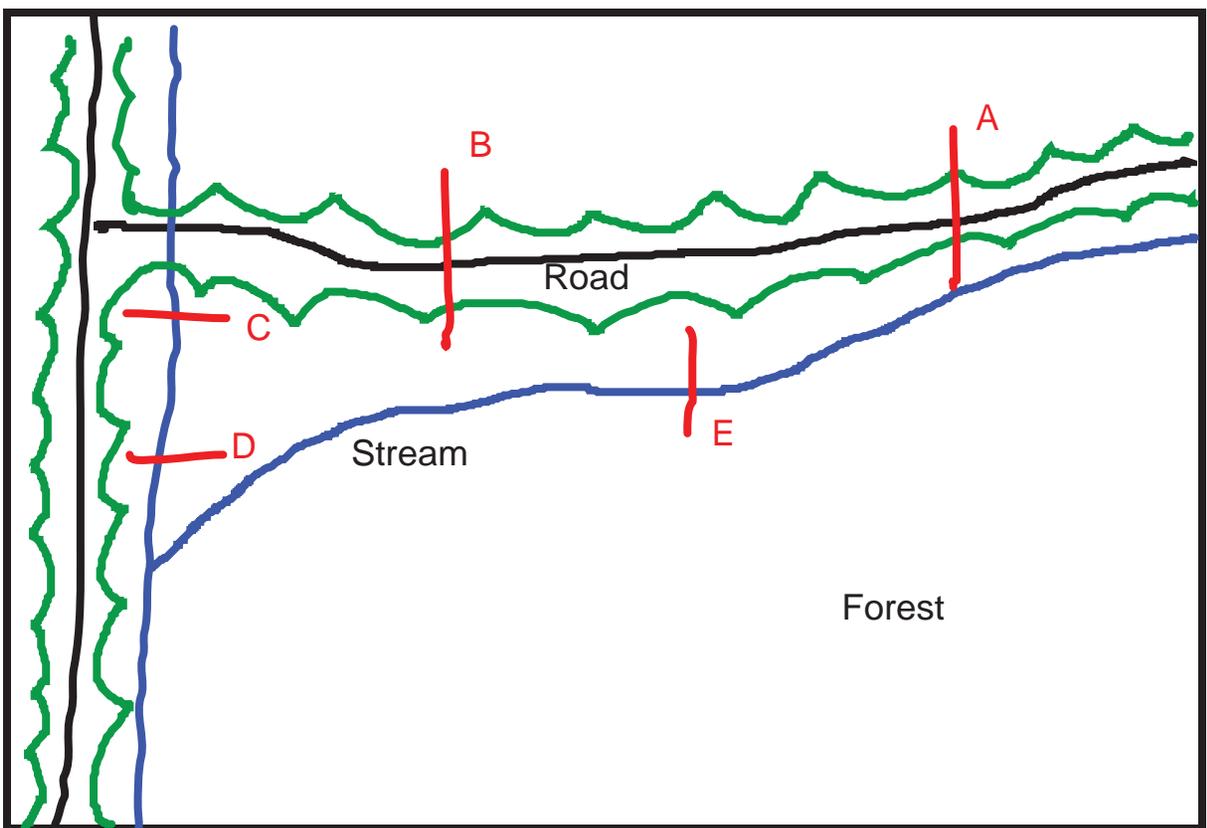
Other Wildlife Observed: \_\_\_\_\_

Whip-poor-will = 0

Notes / Comments: \_\_\_\_\_

E: 3x1 net over stream corridor

Date Entered into Database: \_\_\_\_\_



Sketch site with net locations, label nets with letters; include streams and roads.

# PWE Bat Survey Data Form

Project Name: Star City Development

Site Number: 6

Night Number: 3

Date: 07/21/2013

Page 2 of 2

	Common Name	Scientific Name	Time	Age	Sex	Reprod Condition	Weight (g)	Forearm Length (mm)	Height in Net (ft)	Band	Parasite	Net	Comments / WNS Score
1	Big Brown bat	<i>Eptesicus fuscus</i>	22:00	J	F	NR	13.2	46.5	15	No	No	B	
2	Eastern Red bat	<i>Lasiurus borealis</i>	22:20	J	M	NR	7.8	38.0	12	No	No	A	
3	Big Brown bat	<i>Eptesicus fuscus</i>	22:30	J	M	NR	15.3	47.0	10	No	No	A	
4	-	-		-	-	-				-	-		
5	-	-		-	-	-				-	-		
6	-	-		-	-	-				-	-		
7	-	-		-	-	-				-	-		
8	-	-		-	-	-				-	-		
9	-	-		-	-	-				-	-		
10	-	-		-	-	-				-	-		
11	-	-		-	-	-				-	-		
12	-	-		-	-	-				-	-		
13	-	-		-	-	-				-	-		
14	-	-		-	-	-				-	-		
15	-	-		-	-	-				-	-		
16	-	-		-	-	-				-	-		
17	-	-		-	-	-				-	-		
18	-	-		-	-	-				-	-		
19	-	-		-	-	-				-	-		
20	-	-		-	-	-				-	-		
21	-	-		-	-	-				-	-		
22	-	-		-	-	-				-	-		
23	-	-		-	-	-				-	-		
24	-	-		-	-	-				-	-		
25	-	-		-	-	-				-	-		
26	-	-		-	-	-				-	-		
27	-	-		-	-	-				-	-		
28	-	-		-	-	-				-	-		
29	-	-		-	-	-				-	-		
30	-	-		-	-	-				-	-		

**Submit**

**APPENDIX D**  
**PHOTOGRAPHS**



**Photo 1: View of net A at mist net site 01.**



**Photo 2: View of net B at mist net site 01.**



**Photo 3: View of net C at mist net site 01.**



**Photo 4: View of net D at mist net site 01.**



**Photo 5: View of net E at mist net site 01.**



**Photo 6: View of net A at mist net site 02.**



**Photo 7: View of net B at mist net site 02.**



**Photo 8: View of net C and D at mist net site 02.**



**Photo 9: View of net E at mist net site 02.**



**Photo 10: View of net A at mist net site 03.**



**Photo 11: View of net B at mist net site 03.**



**Photo 12: View of net C at mist net site 03.**



**Photo 13: View of net A at mist net site 04.**



**Photo 14: View of net B at mist net site 04.**



**Photo 15: View of net C at mist net site 04.**



**Photo 16: View of net D at mist net site 04.**



**Photo 17: View of net E at mist net site 04.**



**Photo 18: View of net A at mist net site 05.**



**Photo 19: View of net B at mist net site 05.**



**Photo 20: View of net C at mist net site 05.**



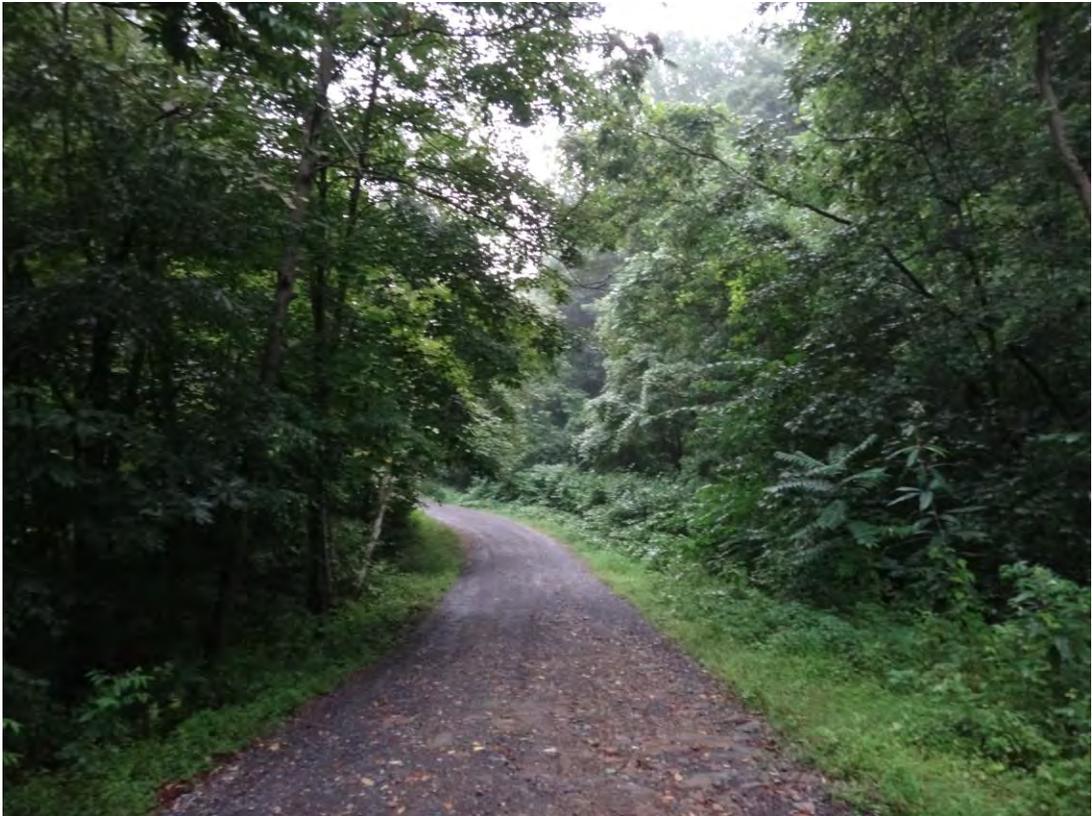
**Photo 21: View of net D at mist net site 05.**



**Photo 22: View of net E at mist net site 05.**



**Photo 23: View of net A at mist net site 06.**



**Photo 24: View of net B at mist net site 06.**



**Photo 25: View of net C at mist net site 06.**



**Photo 26: View of net D at mist net site 06.**



**Photo 27: View of net E at mist net site 06.**



**Photo 28: View of Little Brown bat captured at mist net site 01.**



**Photo 29: View of Tri-colored bat captured at mist net site 01.**



**Photo 30: View of Eastern Red bat captured at mist net site 06.**



**Photo 31: View of net Big Brown bat captured at mist net site 02.**



**Photo 32: View of closed abandoned mine entrance 1.**



**Photo 33: View of closed abandoned mine entrance 2.**



**Photo 34: View of closed abandoned mine entrance 3.**



**Photo 35: View of closed abandoned mine entrance 4.**



**Photo 36: View of closed abandoned mine entrance 5.**