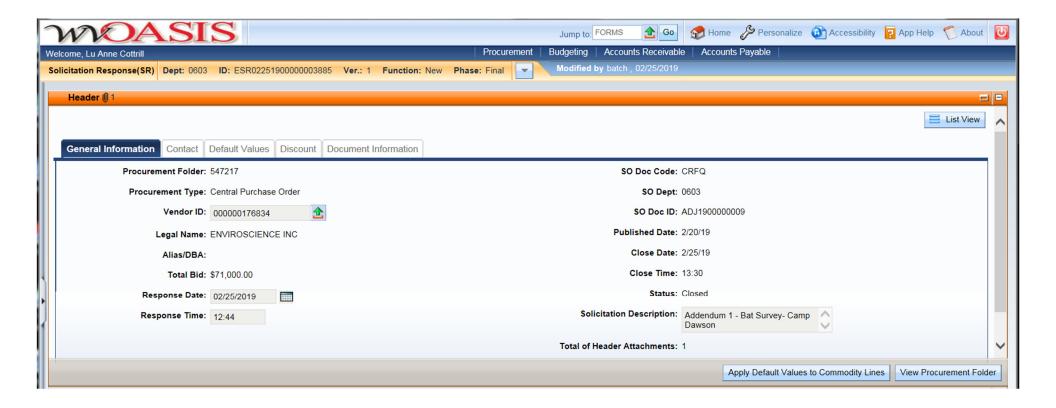
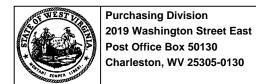


2019 Washington Street, East Charleston, WV 25305 Telephone: 304-558-2306 General Fax: 304-558-6026

Bid Fax: 304-558-3970

The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at *wvOASIS.gov*. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at *WVPurchasing.gov* with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.





State of West Virginia Solicitation Response

Proc Folder: 547217

Solicitation Description : Addendum 1 - Bat Survey- Camp Dawson

Proc Type: Central Purchase Order

Date issued	Solicitation Closes	Solicitation Response	Version
	2019-02-25 13:30:00	SR 0603 ESR02251900000003885	1

VENDOR

000000176834

ENVIROSCIENCE INC

Solicitation Number: CRFQ 0603 ADJ1900000009

Total Bid : \$71,000.00 **Response Date**: 2019-02-25 **Response Time**: 12:44:35

Comments:

FOR INFORMATION CONTACT THE BUYER

Stephanie L Gale (304) 558-8801 stephanie.l.gale@wv.gov

Signature on File FEIN # DATE

All offers subject to all terms and conditions contained in this solicitation

Page: 1 FORM ID: WV-PRC-SR-001

Line	Comm Ln Desc	Qty	Unit Issue Unit Price	e Ln Total Or Contract Amount
1	Bat Survey-Camp Dawson Army			\$71,000.00
	Training Site			

Comm Code	Manufacturer	Specification	Model #	
77111507				

Extended Description:

Critical Fauna Survey for the Indiana Bat and the Northern Long-Eared Bat per the attached specifications.













PRICE PROPOSAL FOR CRITICAL FAUNA SURVEY & ENDANGERED SPECIES PLAN FOR INDIANA BAT AN NORTHERN LONG-EARED BAT

Camp Dawson Army Training Site Kingwood, West Virginia

CRFQ ADJ1900000009

Prepared for: State of

State of West Virginia

Department of Administration

Purchasing Division

2019 Washington Street East Charleston, WV 25305-0130

Attn: Stephanie Gale

Project No.: 11981 **Date:** 2/25/2019

Prepared by:



5070 Stow Rd. Stow, OH 44224 800-940-4025 www.EnviroScienceInc.com

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1.0 INTRODUCTION

EnviroScience, Inc. (EnviroScience) is pleased to submit the following proposal to Camp Dawson to conduct bat consultation services. Included in the proposed services are agency coordination and mist netting surveys targeting the Indiana Bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis;* NLEB), as well as all other bats, in accordance with the 2018 United States Fish and Wildlife Service (USFWS) *Range-wide Indiana Bat Survey Guidelines*. EnviroScience has provided costs in accordance with the performance requirements stated in the State of West Virginia Request for Quotation CRFQ 0603 ADJ1900000009 and Addendum 1 of that solicitation. Services will be provided between May 1st and October 15th of 2019.

EnviroScience has been performing surveys for state and federally listed bat species for over 20 years. EnviroScience bat projects have included habitat surveys, roost emergence surveys, acoustic monitoring, mist net presence/absence surveys, radio telemetry tracking, informal and formal biological assessments, and all forms of project coordination for Endangered Species Act Section 7 compliance with the USFWS and state regulatory agencies. EnviroScience bat surveys range in size and scope depending on the project needs and have included extensive efforts for military facilities, utility corridors, large mining sites, the railroad industry, the oil and gas industry, and private development. Our biologists have the ability and experience to complete bat surveys throughout the full range of both the Indiana bat and NLEB. EnviroScience uses the most up-to-date equipment and agency protocols as well as strictly adheres to the recommended decontamination procedures to prevent the spread of White Nose Syndrome. All efforts are documented with reporting, including mapping, site and species data, photographs, and fully completed field data forms.

EnviroScience also has experience working with the Ohio Army National Guard on the most recent update to the Camp Ravenna Integrated Resource Management Plan, as well as their Planning Level Survey Reports. Additionally, EnviroScience conducted the 2016 bat surveys of the Camp Ravenna facility and the NASA Plum Brook Station facility.

2.0 KEY STAFF

EnviroScience has assembled a team of expert biologists and ecologists to conduct the proposed services. The team has extensive experience working on large scale ecological investigations throughout the United States as well as broad knowledge and experience with services identified in the Scope of Work for this proposal.

Table 1. List of Key Personnel on the EnviroScience Team

Key Personnel	Project Role	Qualifications
Jamie Willaman, Operations Manager	Project Manager, Agency Coordination, Report Compilation	Numerous large-scale bat surveys; in depth USFWS coordination experience.
Sean Kline, Bat Ecologist	Mist netting Technical Lead	West Virginia permitted bat biologist. Previous experience with Camp Dawson bat surveys and telemetry efforts.
Mary Gilmore, Bat Ecologist	Mist netting Team Lead	Federally permitted bat biologist. Numerous large-scale bat surveys and telemetry efforts.



Ms. Jamie Willaman is a senior member of the Natural Resources group specializing in federally-listed bats and wetland/stream delineations and permitting. As an endangered bat biologist, she has in-depth USFWS Section 7 consulting experience, knowledge of North American bats and their habitat, and 14 years of field survey practice, including habitat tree identification, mist-net surveys, acoustic monitoring surveys, and radio telemetry. She graduated from Kent State University with a Bachelor of Science in Conservation and one in Secondary Science Education in 2002. She has been working as a wetland delineator for over 16 years and began managing endangered bat surveys 14 years ago.

Ms. Willaman manages EnviroScience endangered bat surveys, including mist-net surveys, emergent surveys, habitat surveys, and she has been trained in using AnaBat and SonoBat for acoustical monitoring of populations. Ms. Willaman has had extensive training with Bat Conservation International (BCI), Bat Conservation and Management, and Bat Sense/BCID. She is a member of the Northeast Bat Working Group, the Midwest Bat Working Group, the Southern Bat Diversity Network, the Ohio Bat Working Group and has attended several bat blitz events. Her range of bat projects have included large parcels for energy and government clients, linear corridors for energy and transportation clients, and she has composed two Biological Assessment coordination documents for the NLEB.

Mr. Sean Kline will be the technical lead for the acoustic analysis and bat surveys at Camp Dawson Army Training Site. Mr. Kline is a member of the EnviroScience team specializing in threatened and endangered bats, wetland/stream delineating and permitting, and invasive species chemical and mechanical control measures. As an endangered bat biologist, Mr. Kline has over three years of experience conducting threatened and endangered habitat assessments and bat surveys of all types, including acoustic, mist net, radio telemetry, and hibernacula surveys.

Mr. Kline has a USFWS Indiana bat recovery permit through the extent of the bat's range and is a scientific collection permit holder for the state of West Virginia for two years. He has extensive field experience leading mist net surveys, conducting radio telemetry, and knowledge of threatened and endangered bats and their habitat. He is proficient in using Global Positioning Systems (GPS) to map ecological features, as well as the use of ArcMap for the creation of maps.

Mr. Kline has led threatened and endangered bat mist net surveys and habitat assessments throughout West Virginia. Additionally, Sean Kline assisted in the 2016 NLEB surveys as well as almost all the chemical control of invasive species at Camp Dawson Army Training Site, making him very familiar with the tracts, protocols, and procedures.

Ms. Mary Gilmore will be the technical lead for the acoustic analysis and bat surveys. Ms. Gilmore is a member of the EnviroScience team specializing in threatened and endangered bats and wetland/stream delineating and permitting. As an endangered bat biologist, Ms. Gilmore has over eight years of experience conducting threatened and endangered habitat assessments and bat surveys of all types, including acoustic, mist net, radio telemetry, and hibernacula surveys.

Ms. Gilmore has a USFWS Indiana bat recovery permit through the extent of the bat's range and is a Qualified Bat Surveyor with the Commonwealth of Pennsylvania. She has extensive field experience leading mist net surveys, conducting radio telemetry, and knowledge of threatened and endangered bats and their habitat. She is proficient in using GPS to map ecological features.

Ms. Gilmore has led threatened and endangered bat mist net surveys and habitat assessments throughout the eastern United States, including Illinois, Kentucky, Michigan, Missouri, New York,



Ohio, Pennsylvania, Tennessee, West Virginia, and Virginia. She is a member of the Ohio Bat Working Group, Kentucky Bat Working Group, Tennessee Bat Working Group, Midwest Bat Working Group, and the Southern Bat Diversity Network. Additionally, Ms. Gilmore led NLEB surveys at Ohio's Camp Ravenna Joint Military Training Center in 2015 and assisted with the Fort Drum surveys in 2011. She has extensive experience in both mist netting and radio telemetry tracking.

3.0 DETAILED SCOPE OF WORK

EnviroScience proposes to perform consultation and bat surveys at three tracts of Camp Dawson in Preston County, West Virginia, including the Pringle Tract, the Briery Tract, the Camp Dawson Cantonment Area, and the Volkstone Tract. Services will be completed from May of 2019 to November of 2019 in accordance with the performance requirements stated in the State of West Virginia Request for Quotation CRFQ 0603 ADJ1600000020 and Addendum 1 of that solicitation.

TASK ONE: KICK-OFF MEETING AND WEEKLY UPDATES

Within 15 days of contract award, the EnviroScience Project Manager and Technical Lead will meet the Camp Dawson Environmental personnel to coordinate the field schedule and develop an outline for the effort work plan. The meeting will be scheduled by Camp Dawson Personnel and will occur prior to fieldwork initiation.

TASK TWO: STUDY PLAN

Following the kick-off meeting with Camp Dawson Environmental personnel, EnviroScience will develop a summer survey work plan for the project. The work plan will include survey methodologies, data handling procedures, how results will be handled and reported, a breakdown of costs, a project schedule, the credentials of staff performing all efforts, and will be in an acceptable format to submit to the USFWS for site specific authorization of the project.

TASK THREE: FIELD SURVEY EFFORTS AND REPORTING

Acoustic Survey

Sean Kline of EnviroScience will lead the acoustic analysis services as the qualified biologist. Included in this task is an estimated 208 detector nights at the Briery, Pringle, Camp Dawson, and Volkstone Tracts of the facility. The estimated coverage is based on the USFWS survey effort requirements for presence/absence surveys of non-linear projects. The USFWS requires eight detector nights of survey per 123 acres of suitable summer habitat. According to an internal land analysis, the four areas contain about 2,953 acres of forested land that can be considered suitable summer habitat (Briery 1,251 acres; Pringle 1,150 acres; Camp Dawson 205 acres; and Volkstone 347 acres), therefore requiring a total of 208 detector nights to adequately survey the site.

The acoustic survey will be accomplished by setting multiple AnaBat recorders in areas of the site identified to have high potential of bat transverse and that meet the conditions to allow for effective bat pass recording. The survey will be conducted throughout the early roosting season to indicate which species may be present on the site and to direct where mist netting effort will be most effective. Recorded calls will be analyzed using one or more USFWS approved bat call identification programs per site and night. If the programs indicate the possible presence of an Indiana bat or NLEB call, then the recorded data from that site/night will be receive a qualitative analysis according to USFWS standards to further vet the call's validity.



Mist Net Survey

Sean Kline will additionally lead the bat mist net survey efforts. Mist net surveys will be conducted for an estimated 28 nights from May 15th to August 15th. It is anticipated that the survey effort will be accomplished by setting multiple net sets at each site, each night. Net sites will be determined in collaboration with the West Virginia Army National Guard Natural Resource Office according to acoustic results and previous year's captures. All guidelines in the USFWS 2018 Range-wide Indiana Bat Survey Guidelines will be followed. Standard measurements will be taken on all bats captured including sex, reproductive condition, and age. Survey locations, equipment, conditions, and results will be recorded on a standard mist netting data form. Representative photographs of each net set and captured species will be taken and all net sites will be recorded with GPS.

Radio Telemetry / Emergence Survey

If an Indiana bat or NLEB is captured during netting, it will be immediately fitted with a radio transmitter to track the bat to its diurnal roost. Telemetry tracking will begin immediately upon release of the bat and will continue until a roost is found or the dawn of night one. USFWS and West Virginia Division of Natural Resources will be contacted the morning following the capture. If a roost is not located on night one, tracking will continue during the day for the next seven days at a minimum of four hours per day. Once a diurnal roost is located, it will be surveyed for emergence for two nights to attain a population count. Costing for this task assumes the tagging and tracking of three bats; if additional bats are desired to be tracked (if captured) then the cost will increase by the amount of the additional transmitters and additional tracking and emergence count time that may be required.

Draft Survey Report

EnviroScience will compose a draft report detailing the findings of the field survey efforts. The report will detail the methods used to survey, the locations, conditions, and timing of each sampling event, the results of all survey efforts including detailed capture data, mapping of the survey sites created in GIS, a discussion of the survey findings, and all other information required by the USFWS for report submission. EnviroScience will submit two hard copies and one electronic copy of the Draft Survey Report and maps to Camp Dawson Environmental personnel for review.

Final Survey Report

Upon receiving written comments on the Draft Survey Report, EnviroScience will prepare a Final Survey Report and submit three hard copies bound in three ring binders and one electronic copy to Camp Dawson Environmental personnel, including SDSFIE 2.6 compliant GIS data.

PROJECT TIMELINE

Table 2. Project Deliverable and Payment Schedule

Deliverables	Date	Payment Schedule
Project Start Date	May 1, 2019	
Weekly Progress Reports	Weekly or Upon Request	
Completion of Presence/Absence Surveys	By August 15, 2019	
Completion of Draft Survey Report	By September 15, 2019	50% of Funds
Completion of Final Survey Report	By October 15, 2019	100% of Funds



4.0 QUALIFICATIONS AND EXPERIENCE

OVERALL COMPANY DESCRIPTION

EnviroScience has provided technical services and supported environmental design and regulatory requirements for federal, state, and municipal governments, ODOT and other departments of transportation, as well as mining, industrial, engineering, and private sector firms since 1989. Our staff brings a broad range of scientific, construction, engineering, and project management expertise to the table, providing a depth of staff and specialized ecological company focus that sets us apart from the competition. Our ecological consulting services are nationally-recognized and include restoration and environmental compliance assistance on projects of all sizes for freshwater mussels, bats, fisheries, aquatic surveys, and streams and wetlands. We additionally have a large bioassay and taxonomy identification laboratory to support various ecological and biomonitoring projects, including whole effluent toxicity and harmful algal bloom testing. EnviroScience is a small business headquartered in Stow, Ohio, with additional offices in Nashville, Tennessee and Richmond, Virginia.

Employing around 110 permanent employees, EnviroScience's staff includes over 90 scientists with Ph.D., M.S., and other advanced degrees and certifications. EnviroScience also features a Marine Services Group that employs a staff of fulltime ADCI commercial divers, including three certified supervisors. Together, EnviroScience employees create a network of highly specialized and skilled experts, each bringing a unique interpretation and perspective to problem solving. Few firms in the country retain as many biologists, divers, and scientists under one roof, and most our staff have over 10 years of experience in their respective fields.

Our reputation for *Excellence in Any Environment* has been built one project at a time using technically sound and proven scientific protocols, understanding current regulatory climates, accurate and detailed reporting, and a commitment to superior client service while remaining cost conscious. EnviroScience's technical expertise and company size is ideal to address almost any problem within our skill set, while allowing the agility and flexibility to meet the changing demands of projects. Incorporating breakthroughs in technology and regulatory compliance into every project enables EnviroScience to exceed our client's expectations while adhering to a fixed budget and meeting aggressive schedules.

A true test of performance is client satisfaction. Our dedication and technical excellence have resulted in many repeat clients and established EnviroScience as the premier service provider in this highly specialized and competitive field.

DEMONSTRATION OF PAST EXPERIENCE

For the past 20 years, EnviroScience has performed surveys for state and federally listed bat species. These projects have included habitat surveys, roost emergence surveys, acoustic monitoring, mist net presence/absence surveys, radio telemetry tracking, informal and formal biological assessments, and all forms of project coordination for Endangered Species Act Section 7 compliance with the USFWS and state regulatory agencies. EnviroScience bat surveys range in size and scope depending on the project needs and have included extensive efforts for military facilities, utility corridors, large mining sites, the railroad industry, and private development.

Our biologists have the experience and ability to complete bat surveys throughout the full range of both the Indiana bat and NLEB. EnviroScience uses the most up to date equipment and agency protocols as well as strictly adheres to the recommended decontamination procedures to prevent



the spread of White Nose Syndrome. All efforts are documented with reporting, which includes mapping, site and species data, photographs, and fully completed field data forms.

EnviroScience has significant experience with large multidisciplinary projects for government and private industry. A summary of our experience is contained in Table 3 below and several project highlights are included in Appendix I of this proposal.

Table 3. Bat Biologist Project Experience Matrix (Abbreviated).		vey	ıt	ırvey	metry	a/ Portal	Ę	on
SELECTED PROJECTS WITH SIMILAR ELEMENTS	Large Site	Habitat Survey	Mist Net Bat Survey	Acoustic Survey	Radio Telemetry	Hibernacula/ Surveys	Informal Consultation	Formal Consultation
Camp Ravenna Joint Military Training Center	•	•	•		•		•	
Pennsylvania Turnpike Winter Bat Survey		•		•		•		•
NASA Plum Brook Ecological Inventory	•	•	•	•			•	
Portsmouth Bypass Corridor Indiana Bat Surveys ODOT	•	•	•	•	•		•	•
Indiana Bat Mist-net Surveys at Various U.S. Army Training Facilities, Weldon Springs, Missouri	•	•	•		•		•	
Fabius Island Transmission Line	•	•	•		•		•	
Indiana bat Acoustic and Mist Net Survey, Johnson County, Missouri		•	•	•			•	
Fort Drum Bat Survey (sub-consultant)	•	•	•	•	•		•	
Tennessee DOT Multi-county Indiana Bat Mist Net Surveys	•	•	•	•	•	•	•	
Mist Net and Portal Surveys	•	•	•	•		•	•	
Pre-Construction Acoustic Monitoring for Proposed Windfarm Development		•		•			•	
White Nose Hibernacula Surveys		•				•	•	
Indiana Bat Surveys, Proposed Large Scale Natural Gas Pipeline	•	•	•	•	•		•	•
Indiana Bat Surveys Large Coal Mining Sites	•	•	•	•		•	•	



APPENDIX I

Resumes and Exemplary Project Summaries







EDUCATION

B.S. Conservation / Natural Resources, Minor Biology, Kent State University, 2002

B.S. Secondary Education, Comprehensive Science, Minor Geology, Kent State University, 2002

CERTIFICATIONS

38 Hour Army Corps of Engineers Wetland Delineation, Richard Chinn

OEPA Certified Data Collector Level 2, 2010

SCUBA Certification: Open Water, SSI 2005

MSHA Surface Mining

FRA Rail Safety

E-Rail Safe

AutoCAD

First Aid / CPR

YEARS OF EXPERIENCE

EnviroScience, Inc.: 14

Flickinger Wetland Service Group: 3

SEMINARS & TRAINING

Ohio Rapid Assessment Method (ORAM), OEPA Workshop 2001,

Qualitative Habitat Evaluation Index (QHEI) and Biocriteria Assessment, **OEPA 2003**

Headwater Habitat Evaluation Index (HHEI), OEPA Workshop 2003

JAMIE WILLAMAN

Ecological Operations Manager / Senior Bat Ecologist / Senior Wetland Biologist

Ms. Willaman is the EnviroScience Midwest Operations Manager. As operations manager she is responsible for project planning and tracking, the companywide work pipeline, process efficiency and policy, personnel, equipment, and vehicle scheduling, perspective employee interviews and is manager of the resource staff consisting of over 75 employees. In addition, Ms. Willaman is a senior member of the Natural Resources group specializing in the Federally Listed Bats and Wetland/Stream delineation and permitting. As an endangered bat biologist, she has in-depth USFWS Section 7 consulting experience, knowledge of northeastern bats and their habitat, and 13 years of field survey practice including habitat tree identification, mist-net surveys, acoustic monitoring surveys, and radio telemetry. Jamie graduated from Kent State University with a Bachelor of Science in Conservation and one in Secondary Science Education in 2002. She has been working as a wetland delineator for over sixteen years and began managing endangered bat surveys twelve years ago. Jamie has had extensive training with Bat Conservation International (BCI), Bat Conservation and Management, and Bat Sense/BCID. Ms. Willaman is a member of the Northeast Bat Working Group, the Midwest Bat Working Group, the Southern Bat Diversity Network, and the Ohio Bat Working Group and has attended several bat blitz events. Her range of bat projects have included large parcels for energy and government clients, linear corridors for energy and transportation clients, and she has composed two Biological Assessment coordination documents for the NLEB.

SELECTED PROJECT EXPERIENCE

Natural Resource and Endangered Species Compliance, Kokosing Construction, 2009-2018. Assessment, delineation, and habitat evaluation for over fifty sites throughout Ohio to assist the Kokosing Construction Company, Transportation Division, with natural resource compliance for design build highway construction projects. Projects have involved ODOT Section 107.1 assessments, jurisdictional delineations, stream assessments, endangered species surveys, and permitting with the USFWS, ODNR, OHPO, OEPA, and USACE.

Natural Resources Management Surveys and Plan, NASA, 2016-2017. Project manager for the inventory of species at both the Plum Brook Station and Lewis Field facilities of the NASA Glen Research Center. Inventories were completed to update the facilities Natural Research Management Plan. Scheduled, coordinated, and managed field survey efforts for rare plant, plant community, bird, fish, bat,



Mrs. Willaman has been the project manager of several large multi-year projects involving indepth field surveys and agency coordination efforts.

SEMINARS & TRAINING (CONT'D)

Project Development Process (PDP), ODOT Seminar 2005

Waterway Permits Training, ODOT

Ecological Training, ODOT 2005

Waterways Permitting, ODOT

U.S. Fish and Wildlife Consultant Training, USFWS 2005

Vegetative Index of Biotic Integrity (VIBI)Training, OEPA 2005

Amphibians of NE Ohio, OEPA 2007

Jurisdictional Determination, Post-Rapanos, USACE 2007

Bat Conservation and Management Training, BCM 2008

Bat Conservation and Management Training, BCI 2008

Bat Conservation Acoustic Monitoring Training, BCI 2010

Bat Conservation Advanced Capture Training, BCI 201 1

Acoustic Techniques and Analook Analysis Course, Bat Sense 2014

PROFESSIONAL AFFILIATIONS

Society of Wetland Scientists

Nature Conservancy Volunteer, White Pine Bog Preserve

Southern Bat Diversity Network Member and Bat Blitz Participant, 2011-2013

Midwest Bat Working Group

Northeast Bat Working Group

Ohio Bat Working Group Member Bat Conservation International

lepidopteran, and reptile and amphibian surveys and reporting. Compilation of a site wide management plan update.

Bat Hibernacula Search and Survey, Pennsylvania Turnpike Commission, **2016.** Project manager for a survey of a 14-mile proposed highway corridor and buffer area for the presence of winter bat habitat. Potential habitat was documented and trapped to determine the presence of hibernating bats. Project involved in-depth coordination with USFWS and PA Game Commission, logistics and scheduling, and the creation of a results report to submit to agencies for further compliance coordination.

Camp Ravenna Planning Level Bat Survey. Ravenna, Ohio 2015-16. Coordinated with USFWS for site specific authorization of a mist net survey of a 25,000-acre National Guard Training facility. Analyzed past capture data, past acoustic data, and aerial and natural resource mapping to determine the approximate location of 180 mist net locations. Assisted mist net surveys targeting Northern Long-eared bats, including bat handling, species ID and data logging, radio telemetry, and emergence counts.

Camp Ravenna INRMP Update. Ravenna, Ohio 2013-15. Project manager and technical writer for an update of the Camp Ravenna Integrated Natural Resource Management Plan (INRMP), in accordance with the methods, procedure and requirements of the Sikes Act. Update involved in-depth coordination with Ohio Army National Guard personnel, hosting agency meetings and coordination, integration of over 5 years of Planning Level Survey (PLS) species and land data, composition of separate PLS reports, update of military mission and range additions, integration of new listed species and management, recommendations of management practices, reformatting the document, and creation of 22 GIS maps.

Northern Long-eared bat Biological Assessment, Dominion, OH 2015. Lead writer of a Biological Assessment (BA) regarding the impacts of the Western Access Pipeline Project on the Federally Threatened Northern Long-eared Bat. Researched the most current available literature on the life history of the bat species and analyzed the impact all phases of pipeline construction will have on the species. Compiled appropriate mitigation measures for incidental take. The completed BA was coordinated the USFWS and a Biological Opinion for the project was issued.

Indiana bat and Northern Long-eared bat Biological Assessment, ODOT, OH **2014.** Lead writer of a Biological Assessment (BA) regarding the impacts of the ODOT/Federal Highway Administration Portsmouth Bypass Project on the Federally Endangered Indiana Bat and the Proposed Endangered Northern Long-eared Bat. Researched the most current available literature on the life history of the bat species



and analyzed the impact all phases of bypass construction will have on the species. The completed BA was coordinated the USFWS and a Biological Opinion for the project was issued.

Indiana bat Presence/Absence Survey, HG Energy, WV 2013. Project Manager and field leader for a mist net effort at two proposed pipeline projects spanning Lincoln, Tyler, and Wetzel Counties, WV. In combination a total of 72 net nights were performed and 90 bats from 4 species were captured. All field efforts and captured bat data were compiled into full reports submitted to the USFWS and concurrence with the Indiana Bat probable absence was attained.

Dominion Resources, Gas Pipeline, Wetlands Delineation and Assessment, various locations, OH, PA, WV, 2008-Present. Team member/field biologist for wetland delineation and assessment services for the replacement of existing gas pipelines in various locations throughout Ohio. Conducted fieldwork to delineate and assess wetland boundaries, functional assessment and determination of adjacency to other "Waters of the U.S." She assisted in preparation of letter reports, delineation reports, Stormwater Pollution Prevention Plan documents, USFWS, ODNR and State Historic Preservation Office documents, NWP 404, and 401 WQC documents for Dominion Resources.

Plum Brook Station Wetland Delineation. Sandusky, Ohio, 2011-2012. Delineation of approximately 6400 acres of property at the NASA Plum Brook Station in Sandusky, Ohio. Delineations began in summer 2011 and were completed in spring 2012. Mapping of resources and report compilation.

Indiana Bat Mist Net Survey, US Army, OH, MO, IN 2011. Coordination and management of 4 mist net survey efforts for the US Army at training facilities. Responsibilities included generation of a study scope, coordination with USFWS, location of suitable habitat and netting sites, bat capture and identification, and report generation. Capture of 15 Indiana bats and radio telemetry of 3 adult females.

Indiana Bat Mist Net Survey, ODOT, OH 2011. Selection of mist netting and habitat locations along a 24-kilometer proposed bypass in Portsmouth, Ohio. Coordination and management of 18 mist net survey sites. Responsibilities included generation of a study scope, coordination with USFWS, location of suitable habitat and netting sites, bat capture and identification, and report generation.

Rare, Threatened and Endangered Species/ Ecological Study/Wetlands Delineation on approximately 1400 acres for the Proposed Midwest Nuclear Station, Piketon, Pike County, OH 2010-11. Field ecologist for rare, threatened and endangered species surveys and wetlands and waters delineation survey conducted during the 2010 and 2011 field seasons. EnviroScience ecologists assessed the 1400-acre property, collected all data using GPS technology and provided mapped data using ESRI's ArcGIS software.

Individual 404 and 401 WQC, OAEI Salt Run North Mining Site, OH, 2009-2010. Compiled and produced all documentation for application to both the Ohio EPA and USACE for Clean Water Act permitting, including alternative analysis of three potential build plans, ecological impact analysis, social and economic analysis, public notice, wetland and stream mitigation formulation, and conceptual mitigation design using CCAD. The project involved intense coordination with the client, the client's engineers, federal and state agencies. Permits were received four months after submission.

Wetland Mitigation Monitoring, Kimble Mako and Shell Properties, 2008. Performed first year monitoring of two constructed



wetlands including delineation of all wetlands and other waters using the methods outlined in the Army Corps of Engineers Wetlands Delineation Manual (1987) and the Ohio Rapid Assessment Method v. 5.0 (2001), generation of As-built mapping using CCAD, vegetation inventory, recommendations of future wetland improvements, and report generation for the purpose of monitoring quality and development of the mitigation site.

Indiana Bat Survey Management, West Virginia Resources Eureka North Site, 2008. Coordination and management of an 1100+ acre endangered bat survey in southeastern Ohio. Responsibilities included generation of a study scope, coordination with USFWS, location of suitable habitat and netting sites, bat capture and identification, and report generation.

Wetland 401/404 Permitting of the Star Ridge Coal Mining Site, 2006-2007. Compiled and produced all documentation for application to both the Ohio EPA and USACE for Clean Water Act permitting, including alternative analysis of three potential build plans, ecological impact analysis, social and economic analysis, public notice, wetland and stream mitigation formulation, and conceptual mitigation design using CCAD. The project involved intense coordination with the client, the client's engineers, federal and state agencies. Permits were received four months after submission.

Wetlands, Waterways, and Indiana Bat Survey of OAEI Site, Brilliant, Ohio, 2005. Project manager of field operations for delineation of all wetlands, streams, and other aquatic systems of over 2000 acres for future development. The project followed methods outlined in the Corps of Engineers Wetlands Delineation Manual (1987), the Ohio Rapid Assessment Method v. 5.0 (2001) and the Headwater Habitat Evaluation Index (HHEI). Coordination with the USFWS for Indiana Bat survey and assistance with bat survey field operations. A detailed report and mapping using AutoCAD was provided for the designated areas upon conclusion of the project.

Wetlands and Other Waters Delineation of the Ravenna TLS, 2003-2006. Delineation of wetlands and other aquatic systems in over 2500 acres of the RTLS (formerly Ravenna Army Ammunition Plant), for future development. The project followed methods outlined in the Corps of Engineers Wetlands Delineation Manual (1987) and the Ohio Rapid Assessment Method v. 5.0 (2001). A detailed report and mapping using ArcView GIS was provided upon conclusion of the project.

Woodbury Stream Restoration and USACE NWP Permitting, City of Solon, OH 2004-2005. Coordination with client and agency regarding the preparation of necessary documents to complete the permitting application to authorize a stream restoration project under the Nationwide Permit 27 of the U.S. Army Corp of Engineers Program.

OTHER EXPERIENCE

Lab Assistant, NEOUCOM Neurobiology Department, Rootstown, Ohio. 2001. Assisted with a grant study on the genetic development of Zebra Fish. Aquarium maintenance, breeding of fish, animal testing training course, laboratory safety and maintenance, and assisted the doctor with general genetic testing procedures.

Customer Service Representative and Trainer, Xtrasource, Kent, Ohio. 1999-2001. Internal Electronic troubleshooting of audio/visual equipment and garage door openers, customer installation, programming and policy/warranty assistance, data entry and intranet navigation. Advanced to top level CSR and then New Employee Trainer.

Nature/Gardening Counselor, Kenwood Resident Camp, Kent, Connecticut. 1999. Planned and implemented nature study and gardening program to co-ed campers age 5-16. Helped plan and construct facility vegetable and herb garden.





EDUCATION

B.S. Wildlife and Fisheries Management, Minor in Conservation Ecology, West Virginia University, 2016

A.S. Wildlife Sciences and Fisheries Management and Aquaculture, Hocking College, 2014

CERTIFICATIONS

Combined Field Survey Techniques for Bats, Bat Survey Solutions, LLC

Ohio Rapid Assessment Method (ORAM), The Midwest Biodiversity Institute

Headwater Habitat Evaluation Index (HHEI), The Midwest Biodiversity Institute

Wetland Delineation Training, Swamp School, LLC.

Wildland Firefighter, 2014

CPR. 2017

YEARS OF EXPERIENCE

EnviroScience, Inc.: <1

AllStar Ecology, LLC.: 3

RELEVANT EXPERIENCE

Threatened and Endangered Bats

Wetland / Stream Delineating and Permitting

GPS

Habitat Assessments

Mist Net Surveys

Cave Portal Surveys

Radio Telemetry

SEAN KLINE

Bat Ecologist / Wetland and Stream Specialist

Mr. Kline is a member of the EnviroScience team specializing in threatened and endangered bats and wetland/stream delineating and permitting. As an endangered bat biologist, Mr. Kline has over 3 years' experience conducting threatened and endangered habitat assessments and bat surveys. Additionally, he has extensive field experience leading mist net surveys, conducting radio telemetry, and knowledge of threatened and endangered bats and their habitat. wetland/stream biologist, Mr. Kline as over 3 years' experience conducting wetland identifications and delineations, stream habitat assessments, and project reporting and permitting. He is proficient in using Global Positioning Systems (GPS) to map wetland boundaries and ecological features as well as the use of ArcMap. Mr. Kline has conducted ecological work throughout Ohio, West Virginia, and Pennsylvania.

SELECTED PROJECT EXPERIENCE

Potential Bat Roost Tree and Hibernacula. Undisclosed Clients, West Virginia, 2016-2018.

Surveyed hundreds of acres across West Virginia for T&E bat species suitable summer habitat, including potential roost trees and hibernacula. Led survey field crews as well as mapped habitat types and generated reports for various clients and agencies.

Undisclosed Client, Natural Gas Pipeline/Well Pad. Pleasants County, West Virginia. 2018. 120 net nights.

Conducted mist net surveys targeting threatened and endangered species of bats in West Virginia. Responsible for selecting, setting up and operating mist net stations and safe removal of bats from the nets. Handled and identified captured bats, measured and recorded morphological data, attached transmitters and utilized radio telemetry to determine and identify roost trees. Also, a part of a potential roost tree (PRT) and habitat assessment prior to mist net survey. Responsibilities included, but not limited to site preparation, field survey including mapping PRT's and landscape habitat using GPS, data management, map creation using ArcMap, and report generation.

Undisclosed Client, Natural Gas Pipeline. Pleasants County, West Virginia. 2018. 160 net nights.

Crew lead for four total crews for a large presence/absence mist net survey for a natural gas pipeline installation. Responsible for daily site access, crew and equipment transportation, mist net site selection and proper positioning of mist nets,



Mr. Kline is very experienced in leading and organizing endangered and threatened bat surveys including mist netting, acoustic, habitat, and cave portal.

PROFESSIONAL AFFILIATIONS

Southern Bat Diversity Network Member and Bat Blitz Participant, 2017

Kentucky Bat Working Group Member

Midwest Bat Working Group Member

Northeast Bat Working Group Member

Ohio Bat Working Group Member

Bat Conservation International Member

safe removal and proper identification of bats, radio transmitter attachment, and daily radio telemetry tracking of bats to roost trees.

Undisclosed Client, Natural Gas Pipeline. Pleasants County, West Virginia. 2018. 144 net nights.

Assistant crew lead for four total crews for a large presence/absence mist net survey for a natural gas pipeline and well pad installation. Responsible for daily site access, crew and equipment transportation, mist net site selection and proper positioning of mist nets, safe removal and proper identification of bats, radio transmitter attachment, and daily radio telemetry tracking of bats to roost trees. Also, a part of a potential roost tree and habitat assessment prior to mist net survey. Responsibilities included, but not limited to site preparation, field survey including mapping PRT's and landscape habitat using GPS, data management, map creation using ArcMap, and report generation.

Undisclosed Client, Mitigation Bank Property. Tyler County, West Virginia. 2018. 8 net nights.

Crew lead for a small presence/absence survey on a mitigation bank property associated with an oil and gas company. Survey was part of an ongoing monitoring effort of threatened and endangered species of bats post habitat enhancement efforts. These included installation of over 30 rocket boxes and girdling of 10 trees to improve roosting potential onsite.

Acoustic, Portal Assessment, and Mist Net Surveys, Smoke Hole Cave and surrounding landscape. Pendleton County, West Virginia. 2017. 2 net nights.

Conducted mist net and acoustic surveys for ongoing efforts to monitor a population of Virginia Big-eared bats (Corynorhinus townsendii) in Smoke Hole Cave as well as other threatened and endangered species of bats in the surrounding area. Responsible for selecting and managing mist net site locations, habitat assessment, site characterization and taxonomic identification of several species of bats, safe removal of bats from mist nets and harp trap, collecting morphological data, bat identification, acoustic surveys and analysis, and implementation of White Nose Syndrome protocols. 17 Virginia Big-eared bats were captured at the cave using a harp trap as well as one mist net throughout the survey period. Approximately 5 different species of bats were captured using only mist nets in the surrounding areas, including the Indiana bat (Myotis sodalis), Virginia Big-eared bats, Small footed bats (Myotis leibii), and the Hoary bat (Lasiurus cinereus).

Undisclosed Client, Mitigation Bank Property. Pocahontas County, West Virginia. 2017. 17 net nights.

Technician for a permitted biologist for a small presence/absence survey on a mitigation bank property associated with an oil and gas company. Survey was part of an ongoing monitoring effort of threatened and endangered species of bats post habitat enhancement efforts. These included installation of over 40 rocket boxes to improve roosting potential onsite.



Undisclosed Client, Natural Gas Pipeline/Pad. Doddridge County, West Virginia. 2017. 156 net nights.

Technician for permitted biologist as a part of four crews for a large presence/absence mist net survey for a natural gas pipeline and well pad installation. Responsible for daily site access, crew and equipment transportation, mist net site selection and proper positioning of mist nets, safe removal and proper identification of bats, radio transmitter attachment, and daily radio telemetry tracking of bats to roost trees. Also, a part of a potential roost tree and habitat assessment prior to mist net survey. Responsibilities included, but not limited to site preparation, field survey including mapping PRT's and landscape habitat using GPS, data management, map creation using ArcMap, and report generation.

Undisclosed Client, Natural Gas Pipeline/Pad. Ritchie/Tyler Counties, West Virginia. 2017. 30 net nights.

Technician for a permitted biologist as a part of four crews for a large presence/absence mist net survey for a natural gas pipeline and well pad installation. Responsible for daily site access, crew and equipment transportation, mist net site selection and proper positioning of mist nets, safe removal and proper identification of bats, radio transmitter attachment, and daily radio telemetry tracking of bats to roost trees. Also, a part of a potential roost tree and habitat assessment prior to mist net survey. Responsibilities included, but not limited to site preparation, field survey including mapping PRT's and landscape habitat using GPS, data management, map creation using ArcMap, and report generation.

Camp Dawson Army Training Center. Presence/Absence Survey, Preston County, West Virginia. 2016. 54 net nights.

Technician for multiple permitted biologists as a part of five crews for a large presence/absence mist net survey for threatened and endangered bat species monitoring on base. Responsible for assisting with mist net site selection and proper positioning of mist nets, safe removal and proper identification of bats, radio transmitter attachment, and daily radio telemetry tracking of bats to roost trees.

Undisclosed Clients, Natural Gas Pipelines and Pads, Multiple Counties, West Virginia. 2016-2018

Assisted in 2016-2017, and crew lead throughout 2018 on the construction, installation, monitoring and capturing of bats roosting in over one thousand 2-chambered rocket boxes. Responsibilities include but not limited to, construction oversight and management, crew lead on installation of boxes along pipeline rights-of-way and well pads, monitoring boxes for presence of bats twice yearly using previously installed guano traps, infra-red cameras, and red flash lights. If presence was confirmed, trapping of the occupants occurred the same day as the bats were leaving roosts using mist nets or funnel traps.





EDUCATION

B.S. Forestry and Wildlife Management, 2008

CERTIFICATIONS

40 hr OSHA HAZWOPER Training Course

40 hr USACE Basic Wetland Delineation, Wetland Training Institute, Inc.

10 hr OSHA Safety Training

Acoustic Techniques Analysis Course, Titley Scientific

AnalookW Analysis Course, Titley Scientific

Ohio Rapid Assessment Method (ORAM)

USFWS Indiana bat Recovery

Wetland Delineation Training, Wetland Training Institute, Inc.

CSX FRA Training

Canadian National Railroad Safety Training

YEARS OF EXPERIENCE

EnviroScience, Inc.: 5

Civil & Environmental Consultants. Inc:5

RELEVANT EXPERIENCE

Threatened and Endangered Bats

Wetland / Stream Delineating and Permitting

Endangered Habitat Assessments

MARY GILMORE

Senior Bat Ecologist / Wetland Ecologist

Ms. Gilmore is a senior member of the EnviroScience team specializing in threatened and endangered bats and wetland/stream delineating and permitting. As an endangered bat biologist, Ms. Gilmore has over 10 years' experience conducting threatened and endangered habitat assessments and bat surveys. Ms. Gilmore has a USFWS Indiana bat recovery permit through the extent on the bat's range and is a Qualified Bat Surveyor with the State of West Virginia and the Commonwealth of Pennsylvania. She has extensive field experience leading mistnet surveys, conducting radio telemetry, and knowledge of threatened and endangered bats and their habitat. As a wetland/stream biologist, Ms. Gilmore as over 8 years' experience conducting wetland identifications and delineations, stream habitat assessments, and project reporting and permitting. She is proficient in using Global Positioning Systems (GPS) to map wetland boundaries and ecological features. Ms. Gilmore has conducted ecological work throughout IL, IN, KS, KY, MI, MO, NY, OH, OK, PA, TN, WV, and VA.

SELECTED PROJECT EXPERIENCE

Mist-net, Portal search, and Wetland Delineation, Burgess & Niple / West Virginia Division of Highways, 2018. Surveyed 4.6-mile proposed highway corridor for endangered bats and potential bat portals. A total of 70 net-nights were completed and two northern long-eared bats were captured during mist-net surveys. Completed a routine wetland delineation within the proposed highway corridor.

Habitat Assessments and Conservation Planning, Appalachian Ohio Alliance / Ohio Department of Transportation, 2018. Assessed properties for suitability of potential bat habitat and assisted with drafting habitat assessment reporting and conservation planning. Properties were selected as part of a bat mitigation project.

Tennessee Department of Transportation, Various Counties TN, 2012, 2014, and Conducted Indiana bat mist-net and acoustic surveys for several new alignments and road widening projects throughout the state of TN.

Mist-net Survey, EMH&T, 2018. Conducted an Indiana bat and northern-long eared bat mist-net survey and reporting for the North of Jug Project.

Mussel Surveys, West Virginia Division of Highways, 2018. Assisted with endangered mussel surveys within the Tygart River.

Mussel Surveys, Pennsylvania Department of Transportation, 2018. Assisted with endangered mussel surveys and habitat assessments at various locations within Pennsylvania.



Ms. Gilmore has over 10 years of experience conducting threatened and endangered habitat assessments and bat surveys.

RELEVANT EXPERIENCE (CONT'D):

Mist Net Surveys

Radio Telemetry

Bat Hibernacula Surveys

GPS Mapping of Wetland Boundaries and Ecological Features

PROFESSIONAL AFFILIATIONS:

- Ohio Bat Working Group, Member
- Kentucky Bat Working Group, Member
- Tennessee Bat Working Group, Member
- Midwest Bat Working Group,
- Northeast Bat Working Group, Member
- Southern Bat Diversity Network, Member
- The Nature Conservancy Volunteer
- Cleveland Metroparks Volunteer



Mist-net Surveys, Virginia Department of Transportation, Various Counties in VA, 2015-2016. Project Manager for various presence/absence bat mist-net surveys throughout Virginia targeting northern long-eared and Indiana bats.

Bat Inventory Surveys, NASA, 2016 and Camp Ravenna Bat Survey. Ravenna, Ohio 2015-16. Utilized mist-net surveys and radio telemetry techniques to document the spatial and temporal use and distribution of bats within both the Plum Brook Station and Lewis Field facilities of the NASA Glen Research Center, and the 25,000-acre National Guard Training facility targeting rare/endagnered bats.

Bat Hibernacula Search and Survey, Pennsylvania Turnpike Commission, **2016.** Surveyed 14-mile proposed highway corridor for the presence of winter bat habitat. Various portals were surveyed using harp traps and mist-nets. Acoustic monitoring detectors were deployed at survey sites.

Rover Natural Gas Pipeline, Various Counties in OH, 2015. Contracted by TRC to conducted presence/absence mist-net surveys along 311-km of proposed natural gas pipeline in Ohio.

Transmission Line Replacement Project, Botetourt and Rockbridge Counties, VA, 2014. Field manager for Indiana bat mist-net surveys along proposed transmission line replacement project.

Kentucky Division of Fish and Wildlife Resources, White Nose Surveys, Various Counties, 2011 and 2014. Assisted with hibernacula white nose surveys at various counties through Kentucky.

Bluegrass Natural Gas Pipeline, Various Counties in KY, OH, PA, and WV, 2013. Conducted Indiana bat mist-net surveys for the proposed Bluegrass pipeline, approximately 625 miles in length.

Hibernacula Surveys, Pennsylvania Department of Transportation, Summerset County, PA, 2013. Assisted Qualified Indiana Bat Surveyor in conducting bat harp trap surveys on caves/abandoned mine portals.

Fort Drum, Jackson and Lewis Counties, NY, 2011. Contracted by Jackson Consulting to utilize mist-net surveys and radio telemetry techniques to document the spatial and temporal use and distribution of bats within Fort Drum Military Base.

Indiana Bat Foraging Research, Pickaway County, Ohio, 2008 and 2010. Assisted a graduate student studying the foraging patterns of Indiana bats. Approximately 34 Indiana bats were tracked to collect day roosting behavior and foraging behavior for the life of their transmitter.

Client

Ohio Army National Guard (OHARNG) Camp Ravenna Joint Military Trailing Center (CRJMTC)

Key Services Provided

- Endangered Species Survey
- Bat Survey
- Agency Coordination

Contact Brian Riley (614) 336-4564

<u>Project Duration</u> July 2015 - December 2016

ES Key Staff Jamie Willaman Mary Gilmore

BAT SURVEYS AT THE CAMP RAVENNA JMTC

Portage and Trumbull Counties, Ohio



The Ohio Army National Guard (OHARNG) is required to inventory, monitor and manage the biological resources at Camp Ravenna Joint Military Training Center (CRJMTC) and to ensure that implementation of the timber management program and other training mission development does not negatively impact any federally listed threatened, endangered, or candidate species. The CRJMTC is located within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened Northern Long-eared Bat (*Myotis septentrionalis*; NLEB). The U.S. Fish and Wildlife Service (USFWS) has agreed that the OHARNG should perform facility wide inventory surveys approximately every five years that emphasizes sampling at the most probable bat habitat areas.

EnviroScience, Inc. was contracted in 2015 to conduct a total of 120 net nights in the facility. In 2016, the contract was extended to include 120 additional net, for a total survey effort of 240 net nights for the 2015-2016 seasons. The methods used to survey followed the USFWS 2015/2016 Range-wide Indiana Bat Summer Survey Guidelines and Ohio Department of Natural Resources (ODNR) 2015/2016 guidance, except for the level of effort being modified from the presence/absence requirements to fit the CRJMTC budget and inventory needs.

Mist net surveys were conducted during a total of 52 nights during June through August of each year. A total of 58 net sites were surveyed for an overall survey effort of 238 net nights. In total, 470 bats of four species were captured, including Big Brown Bat (*Eptesicus fuscus*), the Eastern Red Bat (*Lasiurus borealis*), Hoary Bat (*Lasiurus cinereus*), and a single NLEB. The NLEB was radio tracked to a diurnal roost tree within CRJMTC. A drastic decrease in the number of cave dwelling bats using the CRJMTC for summer habitat was found in the 2015/2016 survey versus previous site wide surveys. The decrease in bat numbers is attributed to the White-nose Syndrome epidemic.



Client Pennsylvania Turnpike c/o McCormick Taylor

Key Services Provided

- USFWS/PGC Coordination
- Bat Winter Habitat Survey and Mapping
- Hibernacula Netting Survey
- Acoustic Monitoring
- Full Reporting

Contact Angela M. Schreffler (717) 540-6040

<u>Project Duration</u>
June - November 2016

EnviroScience Key Staff Jamie Willaman Mary Gilmore Greg Hocevar

WINTER BAT SURVEY FOR PENNSYLVANIA TURNPIKE TRANSPORTATION PROJECT

Allegheny County, Pennsylvania



Harp trap and acoustic monitor at entrance of bat hibernacula.

EnviroScience, Inc. assisted the PA Turnpike Commission (PTC) with listed bat coordination and compliance for the proposed Mon/Fayette Transportation Project, which is a fourteen mile, four-lane, tolled expressway between PA Route 51 in Jefferson Hills, PA and the Parkway East (I-376) in Monroeville, PA. The proposed project is in the range of the federally endangered Indiana bat (*Myotis sodalis*) and federally threatened Northern long eared bat (NLEB) (*Myotis septentrionalis*).

EnviroScience biologists assisted coordination with the United States Fish and Wildlife Service (USFWS) and the Pennsylvania Game Commission (PGC) to determine which surveys would be required and a timeline of surveys for the project.

EnviroScience performed a winter hibernacula habitat assessment on the approximately 79,400 linear foot study area (5,513-acres). This assessment was accomplished using a desktop determination to identify potential habitat areas and a pedestrian field survey to search the project area, in accordance with *The Pennsylvania Game Commission and United States Fish and Wildlife Service Protocol for Assessing Bat Use of Potential Hibernacula* (2012).

The desktop review resulted in approximately 2,940 acres of potential habitat that needed surveyed. The field survey resulted in the documentation 37 potential cave/portal openings within the project area. Of the 37 identified openings, 15 openings were found to possess the qualities and characteristics that would warrant further investigation as a potential hibernaculum through seasonal trapping.

The 15 identified potential hibernacula were further assessed by netting and acoustic monitoring. The netting/trapping survey resulted in the capture of one Tricolored bat (*Perimyotis subflavus*).

The PTC was able to conclude that no federally listed bats had winter habitat that would be affected by the proposed project.



<u>Client</u> NASA, under contract with Leidos

Key Services Provided

- Avian Surveys
- Bat Surveys
- Rare Plant Surveys
- Reptile/Amphibian Surveys
- Fish Surveys
- Plant Community Survey
- Species Management Plan

Contact Jen Thomas (330) 761-8910

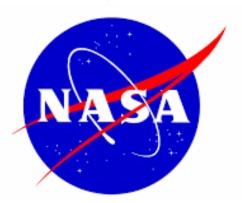
Project Cost \$300,000

Project Duration
April 2016- March 2017

ES Key Staff Jamie Willaman Michael Liptak, Ph.D. Tim Walters, Ph.D. Mary Gilmore Brian Slaby Nathan Knowles **Brooke Harrison** Ann Gilmore Teal Richards-Dimitrie Paul Anderson **Brad Bartelme** Alex Valigosky Ben Little Lisa Regula Meyer Lois Terveen Mike Gilligan Jerry Weidmann

ECOLOGICAL SURVEYS AT PLUM BROOK STATION & LEWIS FIELD

Sandusky, Ohio & Cleveland, Ohio



NASA facilities are required to maintain current records of species protected by the Endangered Species Act (ESA), and develop programs for the management of any protected species and their critical habitat where present on NASA property. To facilitate NASA Glenn Research Center's (GRC) compliance with the ESA and NASA policies, EnviroScience, Inc. and Leidos, Inc. proposed a strategy for the identification and management of protected species at the following facilities: Lewis Field, approximately 350 acres in Cleveland, and Plum Brook Station (PBS), approximately 6,400 acres in Sandusky, Ohio.

The strategy consists of three interrelated tasks:

- Perform biological surveys at Lewis Field and PBS to provide current records of protected species at these facilities
- 2) Update geographic information system (GIS) data layers identifying terrestrial plant communities and aquatic habitats, and incorporating locations of protected species at each facility
- 3) Update the management plan for the protected species, utilizing the GIS data as a management tool

Throughout 2016, EnviroScience biologists performed surveys of multiple taxa groups at both facilities. Surveys were performed to document birds, bats, reptiles/amphibians, fish, rare plants, butterflies, moths, and vegetative communities at each site, and technical reports were prepared for each survey. In addition, EnviroScience made recommendations for site management to maintain and improve habitat for protected species and important communities. These surveys and recommendations were compiled into a multi-volume technical report for NASA to use in its future management of natural areas on both properties.

EnviroScience EnviroScienceInc.com <u>Client</u> Ohio Department of Transportation (ODOT)

E.S. Project No. 6176

Key Services Provided

- Species Research
- Document Development
- Mapping in GIS
- Impact Assessment
- Effects Determination

Contact Matt Raymond

Project Duration 2013-2015

ES Project Cost \$39,930.00

Total Project Cost \$60,142.00

ES Key Staff Greg Zimmerman Jamie Willaman Mary Mahoney

BIOLOGICAL ASSESSMENT AND USFWS COORDINATION FOR INDIANA AND NORTHERN LONG-EARED BATS

Portsmouth Bypass Project - SCI-823-0.00 PID 19415; 16 mile Transportation Corridor





ODOT contracted EnviroScience to conduct a Biological Assessment for their proposed design-build four-lane limited access highway/bypass of Portsmouth, Ohio, part of the Appalachian Development Highway system. The proposed corridor is approximately 16 miles in length, bypassing approximately 26 miles of US 52 and US 23 through Portsmouth, Ohio.

EnviroScience had previously conducted mist-net surveys in compliance with the USFWS Summer Survey Protocol for the Presence/Absence of Indiana Bats on the project area and was highly familiar with both the project corridor and the local bat population.

In coordination with both ODOT and the USFWS, EnviroScience developed a formal Biological Assessment which included project federal nexus and consultation history, an analysis of the life histories of the Indiana and Northern Long-eared Bat including the most up to date research on the species, a summary of the environmental baseline of the project area, a detail of the project construction and timeline, a determined project action area based on species life history information and project construction details, a full effects analysis including direct, indirect, and cumulative impacts, a minimization and mitigation strategy, and a final effects determination. Along with the developed document the ES team created multiple maps in GIS to demonstrate current land uses, bat population information, and action area parameters.

This project involved intensive coordination with ODOT and amongst the ES team. Upon USFWS review, requested comments and modifications were extremely minimal and a formal Biological Opinion accepting the effects analysis and determination of the EnviroScience assessment was issued.



Client **US Army**

Key Services Provided

- Indiana Bat Mist Net Surveys
- Radio Telemetry
- Full Report and Coordination

Site Locations

- IN023 Kingsbury Local Training Area (LTA), LA Porte Co., Indiana
- MN0041 Weldon Springs LTA, St. James Co., Missouri
- OH094 Monclova LTA, Wood Co., Ohio
- IN008 Fort Ben Harrison U.S. Army Reserve Center, Marion Co., Indiana

Contact Marshal Brahman 612-713-3470

Project Duration June - September 2011

Total Project Cost \$53,000

ES Key Staff Jamie Willaman

INDIANA BAT MIST-NET SURVEYS AT MILITARY TRAINING FACILITIES

U.S. Army GSA Contract, Indiana, Missouri, & Ohio



EnviroScience, Inc. biologists conducted Indiana Bat mist-net surveys at four US Army training facilities in accordance with the USFWS Recovery Protocol for the Endangered Indiana Bat (Myotis sodalis). Acreage and available potential summer habitat for the species varied widely among the facilities. Coordination with the USFWS Regions 3 and 4 was conducted, via study scope preparation and approval, to determine the level of effort required at each EnviroScience biologists scouted and selected all netting sites according the parameters most likely to capture foraging or emerging Indiana Bats. A variety of net heights (single, double, and triple- high) and a variety of net widths (4, 5, 6, 9, 12, and 18 meter) were utilized throughout the four facilities. All captured bats were identified to species, weighed, photographed, measured for forearm length, and evaluated for sex, age, reproductive condition, and wing condition. Photographs, GPS coordinates, site drawings, and weather conditions were documented for each net night.

A total of 4 net nights were completed on each of the Monclova and Fort Ben Harrison facilities, due to their very low size and availability of potential habitat. No captures were made at Monclova and only one Eastern Red Bat (Lasiurus borealis) was captured at Fort Ben. A total 16 net nights were completed at the Kingsbury facility, resulting in the capture of 24 Eastern Red bats and 6 Big Brown bats (Eptesicus fuscus). A total of 56 net nights were completed at the Weldon Springs facility resulting in the capture of 215 bats from 7 species, including 123 Eastern Red, 6 Big Brown, 44 Northern Myotis (Myotis septentrionalis), 6 Evening (Nycticeius humeralis), 13 Tri-color (Perimyotis subflavus), 5 Little Brown (Myotis lucifugus), and 15 Indiana Bats. Three reproductive adult female Indiana Bats were fitted with Holohil radio transmitters (band width 172) and radio tracked for five days using two Wildlife Management receivers and triple element Yagi antennae. A report of all data, captures, and documentation was completed.

www.EnviroScienceInc.com

APPENDIX II Proposed Costing



EXHIBIT A Pricing Page

ALL LABOR, MATERIALS, EQUIPMENT, AND SUPPLIES NECESSARY TO CONDUCT CRITICAL FAUNA SURVEY FOR THE INDIANA BAT AND NORTHERN LONG-EARED BAT, ON CAMP DAWSON ARMY TRAINING SITE AT KINGWOOD, WV

The undersigned, hereafter called the Bidder, being familiar with and understanding the bidding documents; and being familiar with the required qualifications and the mandatory requirements of the Project with regards to the deliverables and associated timelines, hereby proposes to furnish labor, material, equipment, supplies, and transportation to perform the work as described in the bidding documents

BIDDERS COM	MPANY NAME: EnviroScience, Inc.
VENDOR ADD	RESS: 5070 Stow Road
	Stow, Ohio 44224
TELEPHONE:	(330) 688-0111
FAX NUMBER:	(330) 688-3858
E-MAIL ADDRE	SS: JWillaman@EnviroScienceInc.com
Seventy-one (\$\frac{71,000.0}{2}	thousand dollars
Failure to use th SIGNATURE:	is bid form may result in bid disqualification. DATE: 2/25/2019 Greg Zimmerman
	(Please Print)
TITLE:	Vice President

APPENDIX III Signed and Legal Documentation





CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 02/22/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER		CONTACT NAME:	Donald Gest		
	The Doan Brook Company	PHONE (A/C, No, Ext):	216.650.6211	FAX (A/C, No):	
	30749 W Landerwood	E-MAIL ADDRESS:	donald.gest@doanbrook.com		
	Pepper Pike, OH 44124		INSURER(S) AFFORDING COVERAGE		NAIC#
		INSURER A :	Berkley Nautilus		17370
INSURED	EnviroScience, Inc. and ES Holding, LLC	INSURER B:	Berkley Great Divide		25224
	<u> </u>	INSURER C :	Evanston Insurance Company		35378
	5070 Stow Road	INSURER D :	Zurich American Insurance Con	mpany	16535
	Stow, OH 44224	INSURER E :			
		INSURER F:			

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SI		POLICY EFF (MM/DD/YYYY)	POLICY EXP	LIMIT	s
	X CLAIMS-MADE X OCCUR	INOD V		(<u> </u>	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 1,000,000 \$ 100,000
						MED EXP (Any one person)	\$ 10,000
Α			ECP202681710	07/30/18	07/30/19	PERSONAL & ADV INJURY	\$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:					GENERAL AGGREGATE	\$ 2,000,000
	POLICY X PRO- JECT LOC					PRODUCTS - COMP/OP AGG	\$ 2,000,000
	OTHER:						\$
	AUTOMOBILE LIABILITY					COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
	X ANY AUTO					BODILY INJURY (Per person)	\$
В	OWNED SCHEDULED AUTOS ONLY	SCHEDULED BAP202680510 07/30/18 07/30	07/30/19	BODILY INJURY (Per accident)	\$		
	X HIRED AUTOS ONLY X NON-OWNED AUTOS ONLY					PROPERTY DAMAGE (Per accident)	\$
							\$
	UMBRELLA LIAB OCCUR					EACH OCCURRENCE	\$ 10,000,000
C	X EXCESS LIAB CLAIMS-MADE		MKLV4EFX100915	07/30/18	07/30/19	AGGREGATE	\$ 10,000,000
	DED X RETENTION \$ 10,000						\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N					X PER OTH-ER	
D	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?	N/A	1021253-00	07/30/18	07/30/19	E.L. EACH ACCIDENT	\$ 1,000,000
	(Mandatory in NH)		1021233-00	07/30/18	07/30/19	E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below					E.L. DISEASE - POLICY LIMIT	\$ 1,000,000
	Professional Errors & Omissions					Primary	1,000,000
A	Contractors Pollution Liability		ECP202681710	07/30/18	07/30/19	Primary	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER	CANCELLATION				
West Virginia Army National Guard 1707 Coonskin Drive Charleston WV 25311	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.				
Charleston WV 25511	AUTHORIZED REPRESENTATIVE				
	Donald Gest 216.650.6211 donald.gest@doanbrook.com				

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Jamie Willaman, Manager of Midwest Operations
(Name, Title)
(Printed Name and Title) 5070 Stow Road, Stow, Ohio 44224
(Address) (330) 688-0111 / (330) 688-3858
(Phone Number) / (Fax Number) <u>JWillaman@EnviroScienceInc.com</u> (email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

EnviroScience, Inc.			
(Company)			
GF2 -	Corporate	V)cc	President
(Authorized Signature) (Representative	Name, Title)		
Greg Zimmerman, Vice President (Printed Name and Title of Authorized)	Representative)		
2/25/2019			
Date)			
(330) 688-0111 / (330) 688-3858			
Phone Number) (Fax Number)			

ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.:

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received: (Check the box next to each addendum received)
Addendum No. 1
I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.
EnviroScience, Inc.
Company
Authorized Signature Gregory Zimnerman Corporate Vice President
-duminized Signature
2/25/2019
Date
NOTE: This addendum acknowledgement should be submitted with the bid to expedite

document processing.

REQUEST FOR QUOTATION Bat Survey Camp Dawson Army Training Site

10. VENDOR DEFAULT:

- 10.1. The following shall be considered a vendor default under this Contract.
 - **10.1.1.** Failure to perform Contract Services in accordance with the requirements contained herein.
 - 10.1.2. Failure to comply with other specifications and requirements contained herein.
 - **10.1.3.** Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.
 - 10.1.4. Failure to remedy deficient performance upon request.
- 10.2. The following remedies shall be available to Agency upon default.
 - 10.2.1. Immediate cancellation of the Contract.
 - 10.2.2. Immediate cancellation of one or more release orders issued under this Contract.
 - 10.2.3. Any other remedies available in law or equity.

11. MISCELLANEOUS:

11.1. Contract Manager: During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager:	Jamie Willaman	
Telephone Number:	(330) 688-0111	
Fax Number:(3	330) 688-3858	
Email Address:	Willaman@EnviroScienceInc.com	

West Virginia Ethics Commission Disclosure of Interested Parties to Contracts

(Required by W. Va. Code § 6D-1-2)

Name of Contracting Business Entity: <u>EnviroScience, Inc.</u> Address:	5070 Stow Road				
	Stow, Ohio 44224				
Name of Authorized Agent: Greg Zimmerman Address:	5070 Stow Rd., Stow, OH 44224				
Contract Number: <u>CRFQ 0603 ADJ1900000009</u> Contract Descrip	tion: Bat Survey - Camp Dawson				
Governmental agency awarding contract: _State of WV Purchasing Division					
☐ Check here if this is a Supplemental Disclosure					
List the Names of Interested Parties to the contract which are known or reasonal entity for each category below (attach additional pages if necessary):	ably anticipated by the contracting business				
 Subcontractors or other entities performing work or service under the	e Contract				
 Any person or entity who owns 25% or more of contracting entity (no Check here if none, otherwise list entity/individual names below. 	t applicable to publicly traded entities)				
3. Any person or entity that facilitated, or negotiated the terms of, the services related to the negotiation or drafting of the applicable contraction. Check here if none, otherwise list entity/individual names below. Signature: Date Signed Notary Verification	e applicable contract (excluding legal ct)				
State of Ohio, County ofSummit					
I, Gregory F. Zimmerman, the autentity listed above, being duly sworn, acknowledge that the Disclosure herein penalty of perjury.					
Taken, sworn to and subscribed before me this day ofFell	bruary, 2019				
To be completed by State Agency: Date Received by State Agency: Date submitted to Ethics Commission: Governmental agency submitting Disclosure:	R. Pedone				

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

- "Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.
- "Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.
- "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

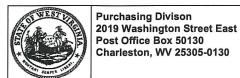
AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: EnviroScience, Inc.	
Authorized Signature:	Date: 2/25/2019
State of Ohio	
County of Summit , to-wit:	
Taken, subscribed, and sworn to before me this 25 day of February	uary , 20 <u>19</u> .
My Commission expires	
AFFIX SEAL HERE NOTARY P	UBLIC_Pelseca R. Pedone

Rebecca R. Pedone Resident Summit County Notary Public. State of Ohio My Commission Expires: 5/30/2023

Purchasing Affidavit (Revised 01/19/2018)



State of West Virginia Request for Quotation 34 — Service - Prof

Proc Folder: 547217

Doc Description: Bat Survey- Camp Dawson

Proc Type: Central Purchase Order

 Date Issued
 Solicitation Closes
 Solicitation No
 Version

 2019-02-08
 2019-02-25
 CRFQ
 0603 ADJ1900000009
 1

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV 25305

US

VENDOR

Vendor Name, Address and Telephone Number:

EnviroScience, Inc.

5070 Stow Road, Stow, Ohio 44224

(330) 688-0111

FOR INFORMATION CONTACT THE BUYER

Stephanie L Gale (304) 558-8801

Signature X 🏷

stephanie.l.gale@wv.gov

All offers subject to all terms and conditions contained in this solicitation

FEIN# 34-1603505

DATE 2/25/2019

Page: 1

FORM ID: WV-PRC-CRFQ-001