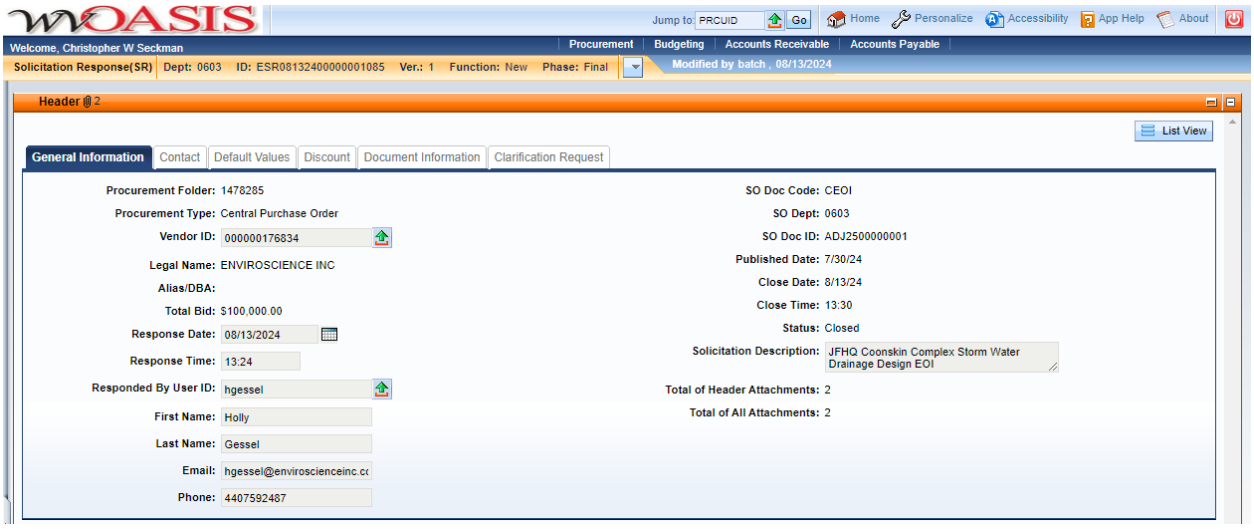
The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency 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.


WVOASIS
Jump to: PRCUID Go
Home
Personalize
Accessibility
App Help
About
Welcome, Christopher W Seckman
Procurement
Budgeting
Accounts Receivable
Accounts Payable
Solicitation Response(SR) Dept: 0603 ID: ESR08132400000001085 Ver.: 1 Function: New Phase: Final
Modified by batch , 08/13/2024
Header 2
List View
General Information
Contact
Default Values
Discount
Document Information
Clarification Request
Procurement Folder: 1478285
Procurement Type: Central Purchase Order
Vendor ID: 000000176834
Legal Name: ENVIROSCIENCE INC
Alias/DBA:
Total Bid: $100,000.00
Response Date: 08/13/2024
Response Time: 13:24
Responded By User ID: hgessel
First Name: Holly
Last Name: Gessel
Email: hgessel@enviroscienceinc.c
Phone: 4407592487
SO Doc Code: CEOI
SO Dept: 0603
SO Doc ID: ADJ2500000001
Published Date: 7/30/24
Close Date: 8/13/24
Close Time: 13:30
Status: Closed
Solicitation Description: JFHQ Coonskin Complex Storm Water Drainage Design EOI
Total of Header Attachments: 2
Total of All Attachments: 2

Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Solicitation Response

Proc Folder:	1478285
Solicitation Description:	JFHQ Coonskin Complex Storm Water Drainage Design EOI
Proc Type:	Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2024-08-13 13:30	SR 0603 ESR08132400000001085	1

VENDOR

000000176834
ENVIROSCIENCE INC

Solicitation Number: CEOI 0603 ADJ2500000001

Total Bid: 100000 **Response Date:** 2024-08-13 **Response Time:** 13:24:56

Comments:

FOR INFORMATION CONTACT THE BUYER
David H Pauline
304-558-0067
david.h.pauline@wv.gov

Vendor
Signature X **FEIN#** **DATE**

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

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	JFHQ Coonskin Complex Storm Water Drainage Design EOI				100000.00

Comm Code	Manufacturer	Specification	Model #
81101508			

Commodity Line Comments:

Extended Description:

Provide professional architectural and engineering design services per the attached documentation.

Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Centralized Expression of Interest

Proc Folder: 1478285 **Doc Description:** JFHQ Coonskin Complex Storm Water Drainage Design EOI **Proc Type:** Central Purchase Order			**Reason for Modification:**
Date Issued	**Solicitation Closes**	**Solicitation No**	**Version**
2024-07-30	2024-08-13 13:30	CEOI 0603 ADJ2500000001	1

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON WV 25305
US

VENDOR

Vendor Customer Code:

Vendor Name : EnviroScience, Inc.

Address : 129

Street : Green Bag Road

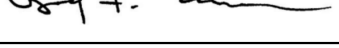
City : Morgantown

State : WV **Country :** USA **Zip :** 26501

Principal Contact : Greg Zimmerman, Vice President

Vendor Contact Phone: 800.940.4025 **Extension:**

FOR INFORMATION CONTACT THE BUYER
David H Pauline
304-558-0067
david.h.pauline@wv.gov

Vendor Signature X  **FEIN#** 34-1603505 **DATE** August 13, 2024

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

ADDITIONAL INFORMATION

The West Virginia Purchasing Division, for the agency, the West Virginia Army National Guard, Construction and Facilities Management Office, is soliciting Expressions of Interest from qualified firms to provide professional architectural and engineering design services to develop construction documents for the construction of a storm water drainage plan at the WV Army National Guard Base (Coonskin Complex), located in Charleston, Kanawha County, WV, per the attached documentation.

INVOICE TO	SHIP TO
ADJUTANT GENERALS OFFICE 1707 COONSKIN DR CHARLESTON WV 25311 US	ADJUTANT GENERALS OFFICE 1703 COONSKIN DR CHARLESTON WV 25311-1085 US

Line	Comm Ln Desc	Qty	Unit Issue
1	JFHQ Coonskin Complex Storm Water Drainage Design EOI		

Comm Code	Manufacturer	Specification	Model #
81101508			

Extended Description:
Provide professional architectural and engineering design services per the attached documentation.

SCHEDULE OF EVENTS

Line	Event	Event Date

JOINT FORCE HEADQUARTERS COONSKIN COMPLEX STORM WATER DRAINAGE DESIGN EXPRESSION OF INTEREST

West Virginia Army National Guard

Prepared for:

Mr. David H. Pauline
Department of Administration
Purchasing Division
2019 Washington Street East
Charleston, West Virginia 25305

Project No.: 24-0964
Date: 8/13/2024

Prepared by:

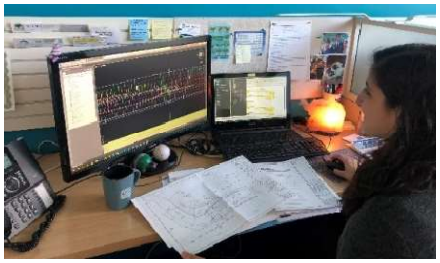
EnviroScience
Excellence In Any Environment
129 Greenbag Road
Morgantown, WV 26501
800-940-4025
www.EnviroScienceInc.com

1.0 QUALIFICATIONS, EXPERIENCE, AND PAST PERFORMANCE

Employing around 180 permanent employees, EnviroScience is comprised of five Practice Areas, each focusing on different aspects of environmental consulting. EnviroScience's Compliance Services Practice Area is a team of 15 experts includes multiple professional engineers focused on providing clients with efficient, creative, cost-conscious, and time-sensitive solutions to environmental challenges while ensuring high-quality work products. Our engineers and scientists offer services to the private sector as well as federal, state, and municipal agencies. Services include stormwater management facility design, BMP development and implementation, environmental permitting, and infrastructure upgrades. EnviroScience's staff includes over 100 scientists with advanced degrees and certifications. EnviroScience is a fully-licensed engineering and design firm within Ohio, as well as West Virginia, Tennessee, Michigan, Pennsylvania, and Virginia.

1.1 STORMWATER MANAGEMENT & GREEN INFRASTRUCTURE

EnviroScience has performed numerous engineering projects for state and local entities, including engineering designs for site improvements, stormwater management facilities, and wetland and stream restoration projects throughout multiple counties, park districts, and private industries. Our experience includes designing stormwater control systems, developing SWPPPs, and inspecting stormwater management systems. We have developed creative solutions for BMPs, such as infiltration systems to eliminate stormwater runoff discharge, green infrastructure to reduce nutrient runoff to local waterways, and erosion and sediment control systems to prevent sediment-laden stormwater runoff from construction sites.



EnviroScience's engineering expertise is focused on developing sustainable stormwater systems and restoring aquatic systems. EnviroScience often incorporates green infrastructure solutions with existing grey installations or uses them to retrofit, update infrastructure, and for new installations. Green Infrastructure can be designed and implemented in an urban setting as a stormwater management solution. Many municipalities realize that their current stormwater systems and waterways no longer have the capacity to convey current flows and meet stormwater quality requirements. To provide needed storage capacity, flow control, and water quality treatment, lead engineer Sheila Rayman frequently incorporates bioretention cells, off-line basins, and expanded flood areas into existing municipal systems. The resulting design provides a combination of green facilities and standard pipe installations that address low-volume storms and temporary storage during higher-order storm events. Her expertise also includes designing and installing underground stormwater management systems that provide treatment without occupying valuable land on industrial and commercial sites.

EnviroScience is a specialized consulting firm, which allows us to provide professional services for smaller-scale engineering projects such as parking lot and trail creation, infrastructure improvements, and stormwater upgrades. Our specialization is an advantage over a larger firm's mentality, where the value of a project is often placed on the budget. Our engineering managers welcome the opportunity to develop personal relationships with clients and provide our efforts to meet their needs, regardless of the budget.

EnviroScience's extensive design-build experience provides a significant advantage over traditional engineering firms since we are frequently in the field alongside the construction contractor as our designs are implemented. As such, we evaluate and design our projects with an eye toward their future construction needs and requirements. Because of this involvement, our projects are innovative yet practical from a construction standpoint, and our cost estimations are more precise than the typical firm.

1.2 STREAM AND WETLAND RESTORATION

Our Restoration team's interest is rooted in our desire to be at the forefront of ecological restoration and establish creative, cutting-edge restoration techniques of exceptional quality. This reputation has been built on the success of projects ranging from small design-build restoration and bank stabilization projects on intermittent streams to large dam removals on the Cuyahoga River. Lead by Angelina Hotz, P.E., our engineering team works together with our biologists to design natural and integrated restoration projects based on sound science and extensive data collection and analysis. As a key component of the restoration team, our engineers specialize in the hydrology and hydraulic requirements for stream and wetland improvement and stabilization projects. These projects often include various cost estimation, construction document preparation, and project oversite. For example, during construction, our engineers have developed predictions of riverbed elevations and sediment transport and performed bioengineering along both banks at dam sites along with the full restoration of the area.

All our design-build restoration projects have met or exceeded their ecological performance criteria goals and have been released from the Nationwide 27 permitting requirements on or ahead of schedule. EnviroScience performs an average of 15–20 Nationwide Permits and 10–15 401 Water Quality Certifications annually for various clients and project types. We have over 20 staff qualified to prepare and submit Section 401/404 permitting. In addition, we regularly obtain flood hazard permits and conduct cultural resource investigations.

1.3 PROJECT EXPERIENCE SIMILAR TO PROPOSED PROJECT

The following project summaries highlight select projects that pertain to the services similar to the Coonskin Complex SW Drainage Improvements project.

PROJECT HIGHLIGHT No. 1

McKinley Creek Regional Detention Facility, Stormwater Improvements

Painesville Township, Lake County, Ohio

The Lake County Stormwater Management Department and Painesville Township expressed concerns about a golf course restoration site, specifically regarding increased flows in a tributary to McKinley Creek during periods of heavy rainfall. The McKinley Creek Tributary is located west of Bacon Road and north of SR-2, in the northeastern portion of Painesville Township. It flows north, converges with McKinley Creek, and discharges to Lake Erie. EnviroScience engineered a multifunctional plan to resolve these water management issues. These plans included engineering a retrofit of two irrigation ponds into a single stormwater management basin and engineered and constructed an extended detention marsh stormwater basin with native plantings to reduce pollutant levels in surface water. EnviroScience planted native plants along 300 linear feet of a new and restored naturally meandering stream channel to increase vegetative cover across the site. The remainder of the 15 acres was reforested to establish a tree canopy.

Client
Lake County Stormwater Management Department

Contact
Timothy Miller
(440) 350-5904
Tim.Miller@lakecountyohio.gov

Project Duration
2018–2022

ES Project Cost
$170,000

ES Key Staff
Sheila Rayman, P.E.
Angelina Hotz, P.E.

These improvements transformed an approximate 15-acre stormwater easement area into a regional stormwater facility by providing water quality and quantity control for the contributing watershed to the unnamed tributary of McKinley Creek. This multifunctional improvement uses green infrastructure methods to reduce the volume of runoff through infiltration; provides a means to improve water quality and nutrient reduction by increasing the tree canopy with site-wide native plantings and vegetated buffer areas, repurposes the irrigation ponds as stormwater quantity control basins, and uses the stream bank restoration of McKinley Creek Tributary to provide additional flood storage and water removal via wetland plantings. EnviroScience completed the engineering design of this project in 2021, and construction was completed in 2022. The overall project allows for long-term runoff removal and reduction of nonpoint source pollutants that have historically discharged to McKinley Creek. Ultimately, the new facilities will bring relief to the residents of Lake County and Painesville Township.

PROJECT HIGHLIGHT No. 2

Stormwater Management Improvements: Basin Retrofit & Conveyance System Upgrade

Princeton, West Virginia

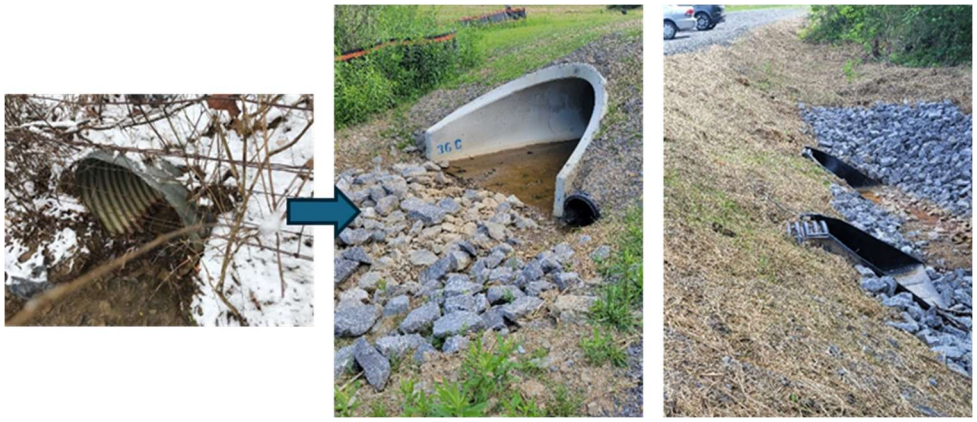
Client
Confidential

Contact
Confidential

Project Duration
2022 - 2023

Project Cost
$56,000

ES Key Staff
Sheila Rayman, P.E
Dominic Nardis
Julie Bigham
Angelina Hotz, P.E.



a.) Existing Outfall **b.) New Outfall** **c.) Stormwater Reconnected to Historic Stream**

An industrial facility in Princeton WV is located adjacent to a dam that is regulated by WVDEP's Dam Safety division. Decades ago, an aesthetic pond was constructed on the site with a spillway that directed stormwater discharge to a ditch between the facility and the dam. To support Dam Safety, EnviroScience and the facility owner developed an improvement plan to alleviate overflow from the pond and limit stormwater discharge toward the dam. EnviroScience completed a wetland delineation and determined there would be no impacts to environmentally-sensitive areas resulting from the proposed improvements.

Members of EnviroScience's Restoration team assessed the area and determined that a stream had been diverted to create the pond. This project reconnected the stream by discharging the offsite runoff back to the original stream. This improvement restored the biological and habitat benefits to the stream and aided in the reduction of outflow from the pond by decreasing the inflow. EnviroScience engineers were then able to retrofit the pond to serve as a stormwater management facility to provide flow control and improve water quality. A new main stormwater outfall was designed with a rock channel dissipater to reduce discharge velocity and limit sediment from entering the dam watershed. EnviroScience's Construction Administration and Management team worked closely with WVDEP's Dam Safety division, WV Conservation Agency, local NCRS division, and WV DOH. Developing these relationships enhanced the success of this project and strengthened client and regulatory relations.

PROJECT HIGHLIGHT No. 3

Leib & Parker Ditch Drainage Improvements

Franklin County, Ohio

Leib & Parker Ditch, ex conditions

Client
Franklin County, Ohio

Contact
James R Ramsey, PE
(614) 525-7469

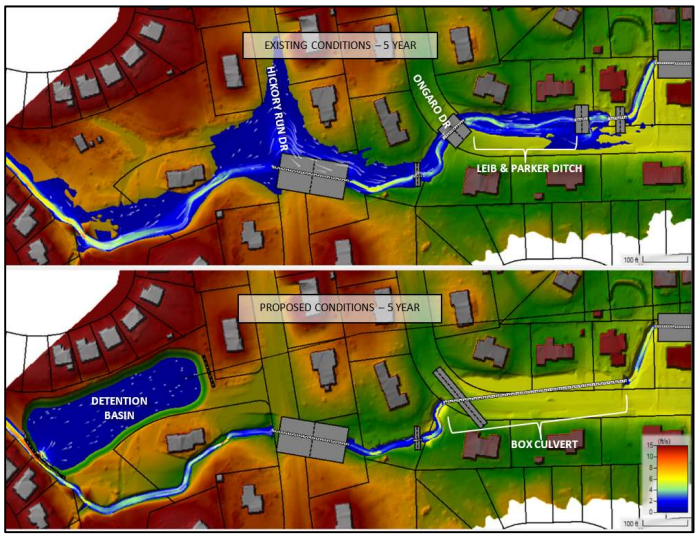
Project Duration
2023-2024

ES Project Cost
$40,000

ES Key Staff
Kevin Wienhold, P.E.
Sheila Rayman, P.E.
Angelina Hotz, P.E.

Franklin County Engineer's Office (FCEO) hired EnviroScience to investigate concerns regarding erosion issues associated with an existing petition ditch, referred to as the Leib & Parker Ditch, within a residential neighborhood of Columbus, Ohio. The study area includes 1,200 linear feet of ditch with a 1.0-square mile contributing drainage area. Channel instability and inadequate drainage structures resulted in periodic road overtopping and the formation of a meandering geometry which is now encroaching on two homes. The FCEO requested preliminary concepts to combat erosion & reduce flooding using *green* methods immediately upstream of the problem area, including floodplain expansion, bank stabilization & natural stream enhancements.

EnviroScience completed initial site assessment and collected morphological data within the wetted width of the channel. Garcia Surveyors assisted EnviroScience in obtaining site survey within the proposed work limits. EnviroScience developed an existing conditions base map using GIS data, LiDAR, and survey data. EnviroScience then performed hydrologic analysis to define the drainage basin and develop design storms to determine volumetric flows for the system. Hydraulic analysis was used to route these flows through the ditch and existing structures to determine culvert capacity, identify any choke points, quantify potential floodplain storage volume, and determine critical variables such as velocity and shear stress for the channel banks and bed.



HEC-RAS 2D results for Existing (top) vs Proposed (bottom) conditions, velocity distribution for 5-year event.

EnviroScience performed 2D hydraulic simulations to compare existing conditions and proposed conditions for four scenarios. These scenarios included (1) installing an offline stormwater detention pond upstream of the problem areas, (2) bank stabilization and countermeasures, (3) natural stream enhancements including adjusting dimension, pattern and profile to balance sediment supply and transport with prevailing energy gradients, and (4) traditional stormwater solutions, including culvert resizing, channel dredging/straightening, and adding riprap and boulder toes to the channel. The H&H analysis revealed the most feasible design for combatting erosion and preventing nuisance flooding without creating additional problems upstream or downstream.

Immediate benefits identified by H&H modeling of the proposed improvements included potential for additional stormwater capacity for higher frequency storms and reduction of flooding potential by upsizing drainage structures. The next and final phase of the project, as authorized by FCEO, will have EnviroScience completing the final design of the drainage improvements.

PROJECT HIGHLIGHT No. 4

Englewood Drive Stormwater Improvements
Village of Silver Lake, Summit County, Ohio

Before, during, and after photos of stormwater improvements.

Client
Village of Silver Lake, Ohio

Contact
Mark Lipan
Service Director
(330) 923-5233

Project Duration
2019 - 2022

Project Cost
$68,800

ES Key Staff
Sheila Rayman, P.E
Angelina Hotz, P.E.

EnviroScience met with Mr. Mark Lipan, Service Director for the Village of Silver Lake, to discuss incorporating stormwater management features into their proposed mile-long roadway improvements to Englewood Drive. The Village intends to install curbs and sidewalks and to address stormwater control in this area which has a history of flooding. The work included an in-depth evaluation of the current drainage conditions, recommendations for improvements and stormwater management facilities, including green infrastructure (GI) alternatives, final roadway improvement design document preparation, and construction administration services.

As part of the drainage evaluation, a detailed site review and assessment of the current drainage patterns and condition of Englewood Drive were completed. EnviroScience established the feasibility of GI treatment methods, evaluating existing slopes, drainage areas, and space available for different practices. EnviroScience engineers used this information to prepare stormwater calculations to estimate the footprint of the proposed facilities and approximate work limits. Bioretention areas, grass swale and curb cuts, underground storage, and infiltration swales were all considered for this design. Additionally, the design included evaluating the roadway and right-of-way area's topographic data to determine the best way to incorporate the stormwater management features and roadway improvements specified by the Village. At the completion of this project, the compliance team engineers and experts delivered a successful stormwater management system with green infrastructure alternatives with a final roadway design that resulted in an improved, less flood-prone area suitable for sidewalks and greater enjoyment of the neighborhood for residents.

1.3.1 Project Personnel

We understand that the overall success of a project is largely dependent on the continuity and competence of the assigned personnel. Because the core business of EnviroScience focuses on providing high-quality construction and environmental support services, a prerequisite for our team's success is our ability to recruit, hire, and retain qualified staff. We have assembled a team of individuals that meets the necessary technical requirements and provide a degree of flexibility to allow for unexpected project demands.

EnviroScience will provide design and engineering services, with Kevin Wienhold, P.E., serving as the project manager. Kevin is a water resource engineer who will lead the hydrologic and hydraulic (H&H) modeling efforts. Kevin has led many successful model-design-bid-build projects as a project manager with EnviroScience and in his previous roles. Additional support will be provided by Angelina Hotz, P.E. a restoration project manager with 11 years of experience in engineering project design and management, Sheila Rayman, P.E., a senior engineer with over 25 years of experience who will complete technical reviews of the designs, Jason Craven, P.E., a civil

engineer with over 25 years of experience in design and permitting, and Jeff Niehaus, a biologist with 16 years of experience, who will lead data collection and fieldwork efforts. The Compliance Engineering Team will be supported in the design process by Julie Bingham, who has over 25 years of experience assessing, designing, and restoring waterways.

Additionally, EnviroScience has four dedicated GIS staff if needed to support the creation of exhibits and maps for use in public meetings and coordination with property owners and other project stakeholders. In addition to these key personnel highlighted above, EnviroScience has a wealth of support staff who will ensure the timely completion of this project. EnviroScience will subcontract surveying and geotechnical services, as necessary, based on authorized scope items. EnviroScience anticipates requesting quotes from several licensed surveying and geotechnical firms to obtain the best price for the work to be performed.

2.0 KEY TECHNICAL PERSONNEL INDIVIDUAL QUALIFICATIONS

The following table provides an overview of our team's staff, roles, experience, and education. Their certifications and training are provided in the next section. Short bios of our key staff are provided below.

Table 4. Key Personnel Information Overview

Name	Role / Duties	Years of Exp.	Education
EnviroScience, Inc.			
Kevin Wienhold, P.E.	Project Manager, Lead Stormwater Engineer	10	M.S. Civil Engineering, University of Texas at Arlington
Angelina Hotz, P.E.	Project Engineer	11	B.S. Civil Engineering, University of Dayton
Jason Craven, P.E.	Civil Engineer	25	B.S. Civil Engineering, Ohio University
Julie Bingham	Restoration Design Manager	25	M.S. Biology, University of Akron B.A. Biology, Hiram College
Sheila Rayman, P.E.	Compliance Services Manager, Senior Engineer; Infrastructure Design; Stormwater Design and Management Technical Lead; Permitting and Compliance	26	B.S. Civil Engineering, University of Akron
Jeff Niehaus	Data Collection; Construction Oversight	15	B.S. Biology, Ohio State University
Cam Turney	GIS Deliverables		

2.1.1 Proposed Project Manager

EnviroScience is pleased to propose **Kevin J. Wienhold, P.E.**, as the **Project Manager** and **Lead Stormwater Engineer**. Kevin joined EnviroScience in 2022 serving as Water Resources Engineer for Compliance Services where he specializes in low-impact development and green infrastructure with an emphasis on weaving nature back into the built environment. Kevin has a wide range of experience with water resources problems including stormwater planning, surface and groundwater hydrology studies, floodplain mapping, sediment transport analysis, flood control and storm drain system and BMP design. Kevin provides hydrologic and hydraulic analysis for stormwater design, floodplain permitting, river stabilization and restoration, dam removal analysis for water quality and quantity, drainage improvements for park trails, design and retrofitting of bioretention ponds, and assists clients and communities in achieving environmental regulatory compliance with stormwater management including SWPPPs and SPCCs. In previous roles, Kevin participated in and led several Stormwater Management Plans, Stormwater Infrastructure Asset Risk Ranking Assessments, and Capital Improvement Plans.

As a graduate of the water resources engineering master's program at the University of Texas at Arlington (UTA), Kevin gained professional engineering experience, first as a research assistant and later as a consultant. He found tremendous fulfillment studying the impacts of urbanization along the Trinity River, participated in the development of an advanced flood warning system, processed flood inundation maps ranging from "nuisance floods" to extreme events such as Hurricane Harvey, and helped launch one of the first drone academic research programs in the Dallas-Fort Worth metroplex for the acquisition of flood prediction data, RTK-grade surveying, river morphology and change detection, wetland delineation and other water-related issues.

Kevin graduated from Cleveland State University with a Bachelor of Science in Environmental Science and earned a Master of Science in Civil Engineering from UTA. Kevin is a licensed Professional Engineer in Ohio and North Carolina.

Angelina Hotz, P.E., ENV SP, Environmental Engineer, is a registered engineer in Ohio and West Virginia and manages the design, engineering, and plan development of restoration projects. She has been involved in restoration projects throughout Northeast Ohio for organizations such as the City of Akron, Summit Metro Parks, and the MetroParks of the Toledo Area. Angelina has headed the design of over 30 stream and wetland restoration projects as the lead engineer for the Restoration Practice Area. With over 10 years of consulting experience, Angelina is versed in site civil design, hydraulic modeling using HEC-RAS, cost estimating, stormwater management plan development, MS4 compliance, and project management. She is Rogen Level 1 trained and has experience completing floodplain permitting and FEMA coordination.

2.1.2 Additional Key Staff

Julie Bingham, Restoration Biologist, is EnviroScience's stream and wetland Restoration Practice Area Director. In her 23 years of experience, she has designed and implemented over 80 projects, the majority of which have been in Northeast Ohio. Julie is truly a hands-on stream and wetland restoration biologist. Her background in biology, morphological assessment, restoration, design, and implementation experience makes her a unique team leader. Julie additionally has an extensive level of training in ecological design, having completed all of the Rosgen Applied Fluvial Morphology training classes (Level 1 through 4), as an Ohio EPA certified Level 3 Qualified Data Collector for fish sampling and Qualitative Habitat Evaluation Index (QHEI) analyses, and she is a Certified Ecological Restoration Practitioner (CERP) through the Society for Ecological Restoration. She completed her Master of Science degree at the University of Akron, which focused on pioneering innovative restoration performance assessment methods. She excels at construction oversight and ensuring a project is implemented properly.

Sheila Rayman, P.E., is EnviroScience's most experienced environmental engineer specializing in stormwater design and permitting and is the Director of EnviroScience's Compliance Services Practice Area. Sheila has spent 26 years as a consultant and municipal engineer, project manager, stormwater compliance advisor, and infrastructure and restoration designer. She has a B.S. in Civil Engineering from the University of Akron and is a registered engineer in the states of Ohio, Michigan, Tennessee, Pennsylvania, Virginia, and West Virginia. She assists clients in reaching and maintaining compliance with regulating authorities. Her expertise in residential, commercial, and industrial development and environmental permitting provides experience-based assistance to both private and public sectors. Sheila has extensive experience in infrastructure assessments, optimization, planning, and design; stormwater and wet weather master planning; and construction management and inspections. She works with clients on meeting environment compliance, which allowed her to define and utilize data collection techniques to improve accuracy and streamline reporting.

Her wide range of experience includes implementation of stormwater retrofits in urban areas, environmental studies, compliance with government regulations, and flood plain permitting and certifications.

Jason Craven, P.E., comes to EnviroScience with over 25 years of experience in the land development community. He provided top-level project management and technical leadership in the mining industry as well in recreational, residential, commercial, and industrial land development. The diverse nature of his work demands proficiency in issues related to stormwater management, sanitary disposal, potable water distribution, roadway layout and design, earthen dam design, construction, and inspection, and permitting. Mr. Craven has extensive experience in environmental regulatory and permitting as he was the lead state regulatory engineer for the Ohio Department of Natural Resources. Mr. Craven's broad expertise, regulatory experience, and ability to make critical environmental and cost-effective decisions makes him a welcome addition to the EnviroScience team.

Jim Sargiovanni, CESSWI is regional operations manager for the Environmental Stormwater Inspection Group within Compliance Services at EnviroScience, where his responsibilities consist of managing projects and professionals for environmental inspections following SWPPP guidelines and proper management of stormwater during construction and post construction. He is a Certified Erosion, Sediment, and Storm Water Inspector (CESSWI) and holds an Inspection and Maintenance Certification for Storm Water Control Measures in Ohio

Dr. Michael Liptak, Senior Ecologist, is a member of the ecological survey team where he specializes in wetlands ecology, wetland restoration, and mitigation wetland design. Dr. Liptak earned his Ph.D. at Ohio State University under the noted wetland ecologist Dr. William Mitsch and completed his graduate research on the created wetlands at the Olentangy River Wetland Research Park in Columbus. He has over 25 years of experience in wetlands research and consulting and is a Certified Senior Ecologist (Ecological Society of America). His primary responsibilities at EnviroScience Inc. include wetland mitigation planning, wetland assessments, threatened and endangered plant identification and delineations, technical report preparation, and permitting.

Jeff Niehaus, Biologist, is an experienced field biologist specializing in aquatic ecology and stream restoration. His expertise in fish biology, ecology, and habitat requirements is applied to stream and wetland design. Jeff is an integral figure in developing and constructing EnviroScience's stream and wetland restoration projects. He has completed Rosgen Levels 1-3 and has many years of applied morphological survey and analysis. His duties include stream characterization and morphology surveys, data analysis, design implementation, and construction oversight. Additionally, Jeff is an FAA-certified drone pilot.

Cam Turney, GIS Specialist has been with EnviroScience, Inc. since 2022 and currently serves as a GIS Analyst. He provides GIS maps and geospatial data for environmental surveys including wetland and aquatic, terrestrial, and restoration designs. Cam's experience across multiple GIS platforms, CAD, and GPS allows for a versatile use of all collected data. Cam manages EnviroScience's GPS equipment across all locations. Cam's motivation and responsive communication helps provide excellent quality maps and serves a key role in our GIS services.

3.0 LICENSES AND CERTIFICATIONS OF KEY TECHNICAL STAFF

Kevin Wienhold, P.E. Water Resources Engineer	• Registered Professional Engineer, Ohio – License No. 89604 • Registered Professional Engineer, North Carolina – License No. 53443 • FAA Remote Pilot, 3924627
Angelina Hotz, P.E. Project Manager / Environmental Engineer	• Registered Professional Engineer, Ohio – License No. 81803 • Registered Professional Engineer, West Virginia – License No. 024213 • Rosgen Applied Fluvial Morphology Level 1 • ENV SP, Institute for Sustainable Infrastructure Envision Sustainability Professional
Julie Bingham Senior Restoration Biologist	• Certified Ecological Restoration Practitioner • Rosgen Stream Morphology Levels 1–4 • Ohio EPA Qualified Data Collector QHEI Level 3; Ohio EPA Qualified Data Collector QHEI Level 3 and Fish Evaluation Level 3 • Ohio EPA Primary Headwater Habitat Assessment; Ohio EPA ORAM v. 5.0
Sheila Rayman, P.E. Senior Environmental Engineer	• Registered Professional Engineer, Ohio – License No. 68368 • Registered Professional Engineer, Michigan, West Virginia, Virginia, Pennsylvania, Tennessee • FHWA – NHI Safety Inspection of In-Service Bridges • CPESC Certification No. 00013073
Jason Craven, P.E. Project Engineer	• Professional Engineer, State of Ohio • MSHA Dam Safety Inspection
Jimmy Sargiovanni Compliance Field Services Manager	• Certified Erosion, Sediment and Storm Water Inspector (CESSWI) • Inspection and Maintenance Certification for Storm Water Control Measures in Ohio • 8 Hr. Stormwater Management during Construction Course (2012) • American Red Cross Adult and Child First Aid/CPR/AED
Michael Liptak, Ph.D. Senior Wetland Ecologist	• Certified Senior Ecologist (Ecological Society of America) • USACE Wetland Delineator Certification • Biocriteria and QHEI; • Identification of Grasses, Rushes, and Sedges • Forested Wetland Restoration Course, Wetlands Training Institute • Planning Hydrology for Constructed Wetlands Course
Jeff Niehaus Restoration Biologist	• FAA Certified Commercial Drone Pilot • Rosgen Levels 1–3 Wildland Hydrology • Ohio EPA Level 2 QDC Training for Stream Habitat Assessment (QHEI) and Aquatic Macroinvertebrate Collection and Identification

3.1.1 Availability of Staff

Currently, EnviroScience's availability is as follows: PM Kevin Wienhold – 30%, Angelina Hotz – 25%, Sheila Rayman – 20%, Jason Craven – 30%, Jimmy Sargiovanni – 15%, Julie Bingham – 25%, Dr. Liptak – 25%, and Jeff Niehaus – 35%, Cam Turney – 15%. We remain flexible in our schedule and have numerous resources available to meet any project timelines for the WVARNG. EnviroScience has extensive experience maintaining schedules and prioritizes completing projects within the time limits established by our clients, typically on or below budget.

3.1.2 Communication

Maintaining constant collaboration with stakeholders throughout the design process is a key tenant of our strength and success as a team. Our partnership strongly advocates the value of a multidisciplinary approach in addressing project constraints and opportunities. We plan to maintain consistent communication between our team and the

WVARNG, beginning with a kickoff meeting after the project award through design and construction. Following the kickoff meeting, we would recommend bi-weekly meetings or monthly meetings at the preference of WVARNG. We will develop a schedule with appropriate milestones and meetings to deliver the project goals successfully.

3.1.3 Quality control

EnviroScience operates under company-wide and project-specific Quality Assurance (QA) protocols and Quality Assurance Project Plans (QAPPs) and has a full-time QA officer to ensure the integrity of our work products and associated data. At each milestone, design plans are given a minimum of three levels of review for each design deliverable. One of our engineers (Sheila Rayman or Angelina Hotz) will provide a review of each sheet, notes, calculations, etc., as part of a redline comment process. Overall, the EnviroScience QA program is designed to minimize systematic error, encourage constructive and well-documented problem solving, and provide a framework for continuous improvement.

4.0 SCOPE OF WORK AND PROJECT UNDERSTANDING

Our team understands that the West Virginia Army National Guard WVARNG is seeking a consultant to investigate improvements for the Coonskin Complex JFHQ in Charleston, WV and to finalize designs for all necessary improvements to alleviate flooding. The WVARNG JFHQ is located on a 685-acre parcel northeast of downtown Charleston, West Virginia and includes the Yeager Airport and approximately six areas, each comprised of several multiple story and appurtenant structures. It is located to the northeast of the confluence of the Kanawha River and Elk River and is bounded approximately by Barlow Drive to the northwest, Keystone Drive to the southwest, Greenbrier Street to the southeast, Henry C Hoppy Shores Drive to the east, and the Coonskin Branch of the Elk River to the north. It is directly to the west of Capital High School.

4.1.1 Coonskin Complex Drainage Study/Model

The Coonskin Complex Storm Water Drainage Improvements Study is focused on reducing peak flows and pollutants in stormwater runoff flowing to the Elk and Kanawha Rivers. The study and preliminary design will include investigating stormwater detention basins, wetland areas, two-stage ditches, and other potential solutions for stormwater storage. The final deliverables are designed to identify feasible improvement areas supported by reservoir and detention hydrograph routings coupled with H&H stream modeling and cost estimates to allow WVARNG to make a Go/No Go decision.

To gain a comprehensive and thorough understanding of the surrounding drainage conditions, EnviroScience will review previously completed drainage and development studies. We anticipate a field walk of the Coonskin Complex project area to observe and collect this essential field data. We assume that the WVARNG will assist with the initial contact, coordination, and messaging with landowners to convey the intent and benefit of the project. Upon incorporation of stakeholder comments and approval from the WVARNG, EnviroScience would proceed into preliminary design including additional data collection, watershed analysis, hydraulic analysis, preliminary grading concept preparation, and generation of quantities and anticipated costs for construction of the preliminary design. Final deliverables will include preliminary design plans, cost estimates, preliminary permitting evaluation, easement acquisition evaluation and public meeting assistance.

4.1.2 Coonskin Complex Design-Bid-Build

Final Design for the Coonskin Complex entails generation of final construction drawings, estimates, permits, easements, and other tasks necessary for project construction through a design-bid-build delivery method. Updates to the hydraulic model will be necessary to incorporate final design elements as well as proposed drainage improvements.

To advance the preliminary design to final, our team anticipates the need for detailed topographical survey, primarily focusing on collection of surface utilities, manholes, catch basins, inlets, morphological features, and in-stream elevations throughout the project area. EnviroScience will seek bids from Professional Surveyors and A/E firms to assist in completing this task.

During final design it is also recommended that easement acquisition from landowners be finalized such that appropriate construction access and post-construction maintenance can occur. Also, design would include anticipated planting mixes and landscaping plans to ensure that native communities thrive in the project areas. Native communities once established can compete with invasive species which are prevalent in the area. The planting plan will be focused on woody shrub plants and trees to create a future wooded riparian condition.

As part of the final design, EnviroScience will submit the necessary federal permitting such that construction can occur in jurisdictional waterways. We anticipate this project being permitted via a Section 404 Nationwide Permit 27 Restoration. This permit allows the modification and fill of jurisdictional streams and wetlands to create ecological uplift. Even though the project has a flood management focus it also has benefits to water quality and habitat by reversing the numerous negative impairments from channelization. Our permitting staff anticipates coordination with WVDNR and USFWS as part of the Nationwide Permit 27 application.

4.1.3 Final Deliverables

EnviroScience will provide the following final deliverables during the course of this project:

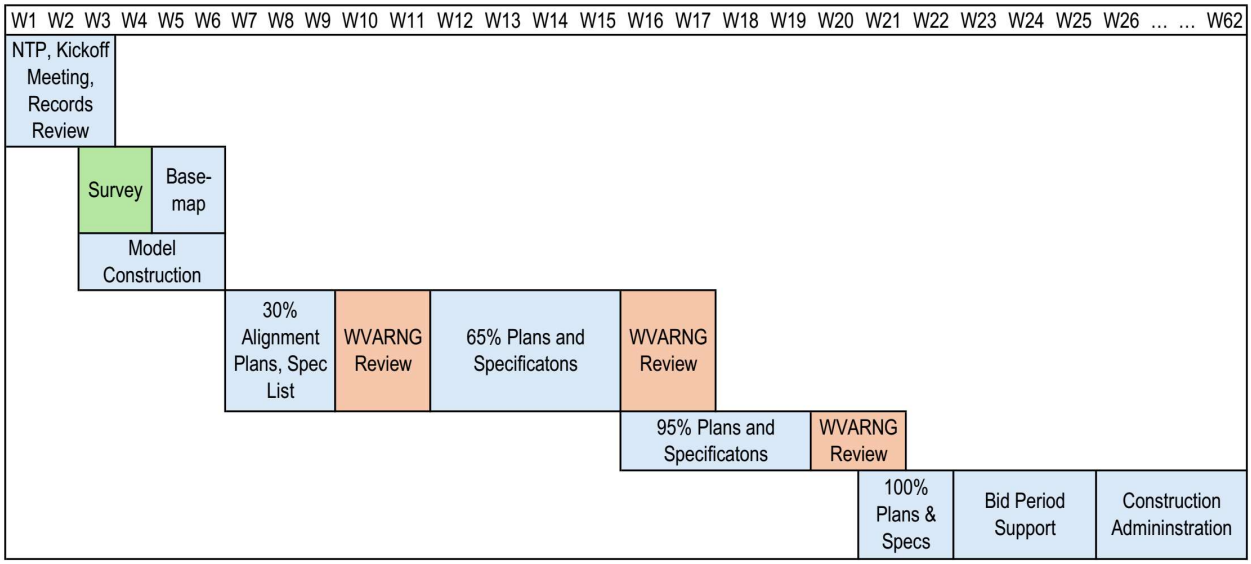
- Provide a complete design including all engineering, including mechanical, electrical, and plumbing and architectural disciplines to prepare construction bid documents for West Virginia State Purchasing. Key design elements will include utilizing energy efficient, economically and maintenance friendly equipment.
- EnviroScience will research and investigate the location of existing utilities, and provide drawings and specifications of any and all aspects of project as needed and directed by the owner and/or state agency, utility company or other approval authority for Charleston, West Virginia.
- Provide drawings and specifications, submitted at 35%, 65%, 95% and 100%. Cost estimates will be revised and submitted with each submittal at 35%, 65%, 95% and 100%.
- Provide construction bid services and administrative services to the Owner.

4.1.4 As Authorized Tasks

EnviroScience will perform construction administration as authorized by WVARNG. A focus of this phase will be controlling sediment transport and minimizing disruptions to site operations.

4.1.5 Project Schedule

The project schedule is as defined below.



5.0 REFERENCES

References for work performed by EnviroScience similar to that listed in the request for qualifications are listed below:

Mr. Mike Johnson
Chief of Conservation
Summit Metro Parks
975 Treaty Line Rd.
Akron, Ohio 44313
330-865-8057 x221
Mjohnson@summitmetroparks.org

Mr. Mark W. Lipan
Service Director
Village of Silver Lake
2961 Kent Rd.
Silver Lake, Ohio 44224
440-923-5233
mlipan@villageofsilverlake.com

Mr. Timothy A. Miller, MPA, CPMSM
Director
Lake County Stormwater Management Dept.
105 Main street, Suite A305
Painesville, OH 44077
440-350-5904
Tim.Miller@lakecountyohio.gov

Ms. Kim McGreal
Environmental Services Manager
Cleveland Airport System
5300 Riverside Dr.
Cleveland, OH 44181-0009
216-265-6615
kmcgreal@clevelandairport.com