



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.

Header @ 1

List View

General Information | Contact | Default Values | Discount | Document Information | Clarification Request

Procurement Folder: 1717189

Procurement Type: Central Purchase Order

Vendor ID: 000000185474

Legal Name: TERRACON CONSULTANTS INC

Alias/DBA:

Total Bid: \$0.00

Response Date: 08/20/2025

Response Time: 10:15

Responded By User ID: vmervin

First Name: Vanessa

Last Name: Ervin

Email: vanessa.ervin@terracon.com

Phone: 3043440821

SO Doc Code: CEOI

SO Dept: 0313

SO Doc ID: DEP2600000001

Published Date: 8/13/25

Close Date: 8/20/25

Close Time: 13:30

Status: Closed

Solicitation Description: AML - EOI Pre-Qualification for Consultants

Total of Header Attachments: 1

Total of All Attachments: 1



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: 1717189
Solicitation Description: AML - EOI Pre-Qualification for Consultants
Proc Type: Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2025-08-20 13:30	SR 0313 ESR08202500000001174	1

VENDOR
000000185474
TERRACON CONSULTANTS INC

Solicitation Number: CEOI 0313 DEP2600000001
Total Bid: 0
Response Date: 2025-08-20
Response Time: 10:15:04
Comments:

FOR INFORMATION CONTACT THE BUYER
Joseph (Josh) E Hager III
(304) 558-2306
joseph.e.hageriii@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	EOI Engineering Design Services				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments:

Extended Description:

EOI Engineering Design Services



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: 1717189

Doc Description: AML - EOI Pre-Qualification for Consultants

Reason for Modification:

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2025-08-01	2025-08-20 13:30	CEOI 0313 DEP2600000001	1

BID RECEIVING LOCATION

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

VENDOR

Vendor Customer Code: 000000185474

Vendor Name : Terracon Consultants, Inc.

Address : 912 Morris Street

Street :

City : Charleston

State : WV

Country : US

Zip : 25301

Principal Contact : Bob Barclay

Vendor Contact Phone: 304-344-0821

Extension:

FOR INFORMATION CONTACT THE BUYER

Joseph (Josh) E Hager III
(304) 558-2306
joseph.e.hageriii@wv.gov

Vendor
Signature X

FEIN# 42-1249917

DATE 08/20/2025

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

ADDITIONAL INFORMATION

The Acquisitions and Contract Administration Section of the Purchasing Division is soliciting vendors to prequalify to provide proposals on Expression(s) of Interest(s) ("EOI") for the West Virginia Department of Environmental Protection, Division of Land Restoration, Office of Abandoned Mine Lands and Reclamation (WVDEP-DLR-AML) from qualified firms to provide architectural/engineering services pursuant to HB 3429.

The purpose of the project is to solicit pre-qualifications for the purpose of making available a list of pre-qualified Consultants.

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
1	EOI Engineering Design Services		

Comm Code	Manufacturer	Specification	Model #
81100000			

Extended Description:
EOI Engineering Design Services

SCHEDULE OF EVENTS

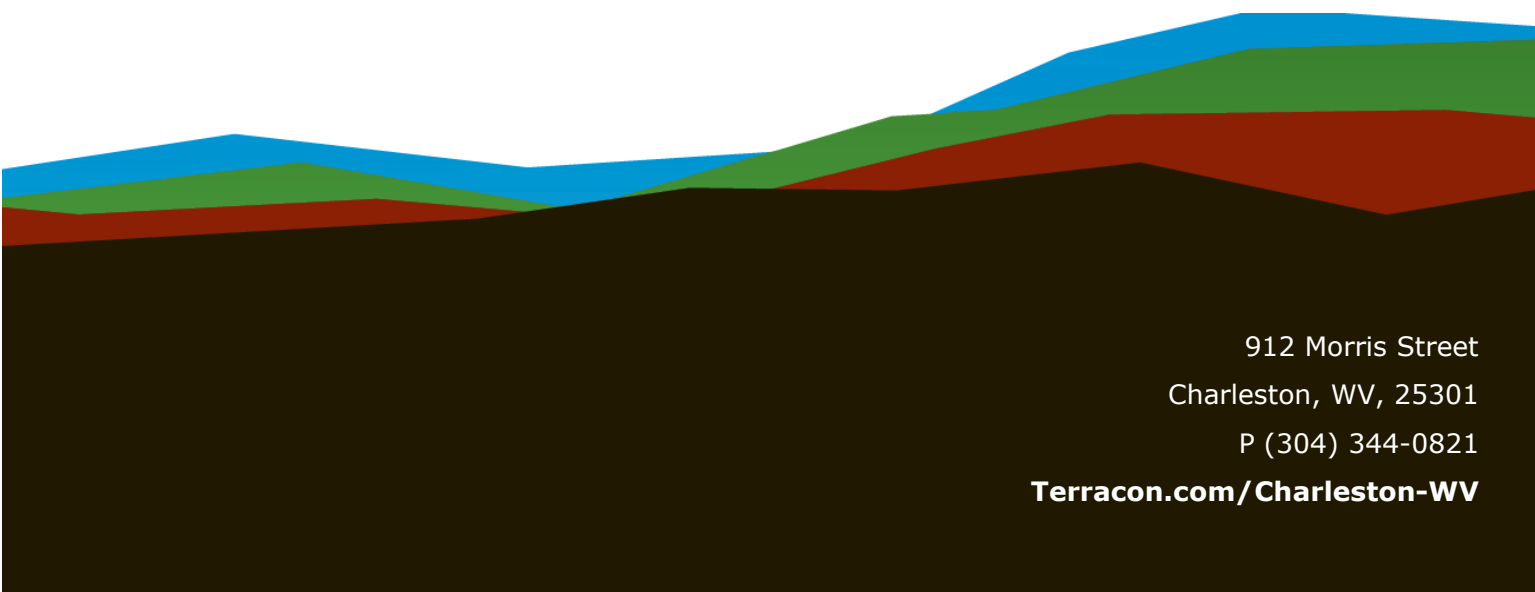
<u>Line</u>	<u>Event</u>	<u>Event Date</u>
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West Virginia Department of Environmental Protection

AML – EOI Pre-Qualification for Consultants

CEOI 0313 DEP2600000001

August 20, 2025



912 Morris Street
Charleston, WV, 25301
P (304) 344-0821

Terracon.com/Charleston-WV



912 Morris Street
Charleston, WV, 25301
P (304) 344-0821
F (304) 342-4711
Terracon.com

West Virginia Department of Administration
Purchasing Division
2019 Washington Street, East
Charleston, WV 25305

Attn: Joseph E. Hager, III, Buyer
E: Joseph.E.HagerIII@wv.gov

Re: Expression of Interest for Pre-Qualification

Dear Mr. Hager:

On behalf of Terracon Consultants, Inc. (Terracon), I am pleased to submit our qualifications for consideration in your pre-qualification process for West Virginia Department of Environmental Protection, Division of Land Restoration, Office of Abandoned Mine Lands and Reclamation. We appreciate the opportunity to express our interest in supporting your organization and contributing to the success of the initiative to resolving public safety issues as mine fires & subsidence, hazardous highwalls, mining-impacted water supplies, open shafts and portals, and other dangers resulting from mining before 1977. Terracon is a national leader in the fields of environmental and geotechnical engineering as well as construction testing and inspection with more than 170 offices nationwide and is eager to provide planning, realty, design, and construction inspection services for the West Virginia Department of Environmental Protection.

Terracon has a proven track record of delivering high-quality environmental, engineering, and construction inspection services across the country. With over 45 years of experience in West Virginia, a dedicated team of professionals, and a commitment to excellence, we are confident in our ability to meet and exceed the expectations outlined in your pre-qualification criteria.

Terracon will partner with White Brothers Consulting, LLC and Rettew to deliver the highest quality services. Thank you for considering Terracon to be a pre-qualified architectural/engineering services provider.

Sincerely,

Terracon Consultants, Inc.

Bob Barclay, P.G.

Senior Associate/Operations Manager

Aaron Reel, P.E.

Operations Manager



AML Consultant Qualification Questionnaire

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

AML CONSULTANT QUALIFICATION QUESTIONNAIRE

Attachment "A"

PROJECT NAME WVDEP AML Prequalification		DATE (DAY, MONTH, YEAR) August 20, 2025		FEIN 42-1249917																																					
1. FIRM NAME Terracon Consultants, Inc.		2. HOME OFFICE BUSINESS ADDRESS 10841 S. Ridgeview Road, Olathe KS 66061		3. FORMER FIRM NAME H.C. Nutting Company																																					
4. HOME OFFICE TELEPHONE 913-599-6886	5. ESTABLISHED (YEAR) 1965	6. TYPE OWNERSHIP Individual <u>Corporation</u> Partnership Joint-Venture		6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES <u>NO</u>																																					
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE 912 Morris Street, Charleston WV / 304-344-0821 / Bob Barclay / 4																																									
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM Bob Barclay, PG			8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS Aaron Reel, PE, Senior Geotechnical Engineer																																						
9. PERSONNEL BY DISCIPLINE																																									
<table border="0"> <tr> <td>953 ADMINISTRATIVE</td> <td>— ECOLOGISTS</td> <td>— LANDSCAPE ARCHITECTS</td> <td>12 STRUCTURAL ENGINEERS</td> </tr> <tr> <td>44 ARCHITECTS</td> <td>— ECONOMISTS</td> <td>14 MECHANICAL ENGINEERS</td> <td>— SURVEYORS</td> </tr> <tr> <td>88 BIOLOGIST</td> <td>139 ELECTRICAL ENGINEERS</td> <td>2 MINING ENGINEERS</td> <td>— TRAFFIC ENGINEERS</td> </tr> <tr> <td>35 CADD OPERATORS</td> <td>648 ENVIRONMENTALISTS</td> <td>— PHOTOGRAMMETRISTS</td> <td>3891 OTHER</td> </tr> <tr> <td>6 CHEMICAL ENGINEERS</td> <td>— ESTIMATORS</td> <td>2 PLANNERS: URBAN/REGIONAL</td> <td></td> </tr> <tr> <td>140 CIVIL ENGINEERS</td> <td>357 GEOLOGISTS</td> <td>— SANITARY ENGINEERS</td> <td></td> </tr> <tr> <td>178 CONSTRUCTION INSPECTORS</td> <td>1 HISTORIANS</td> <td>597 SOILS ENGINEERS</td> <td></td> </tr> <tr> <td>— DESIGNERS</td> <td>3 HYDROLOGISTS</td> <td>— SPECIFICATION</td> <td>7110 TOTAL PERSONNEL</td> </tr> <tr> <td>— DRAFTSMEN</td> <td></td> <td>WRITERS</td> <td></td> </tr> </table>						953 ADMINISTRATIVE	— ECOLOGISTS	— LANDSCAPE ARCHITECTS	12 STRUCTURAL ENGINEERS	44 ARCHITECTS	— ECONOMISTS	14 MECHANICAL ENGINEERS	— SURVEYORS	88 BIOLOGIST	139 ELECTRICAL ENGINEERS	2 MINING ENGINEERS	— TRAFFIC ENGINEERS	35 CADD OPERATORS	648 ENVIRONMENTALISTS	— PHOTOGRAMMETRISTS	3891 OTHER	6 CHEMICAL ENGINEERS	— ESTIMATORS	2 PLANNERS: URBAN/REGIONAL		140 CIVIL ENGINEERS	357 GEOLOGISTS	— SANITARY ENGINEERS		178 CONSTRUCTION INSPECTORS	1 HISTORIANS	597 SOILS ENGINEERS		— DESIGNERS	3 HYDROLOGISTS	— SPECIFICATION	7110 TOTAL PERSONNEL	— DRAFTSMEN		WRITERS	
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— DRAFTSMEN		WRITERS																																							
<p>TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: <u>5</u></p> <p>*RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.</p>																																									
10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																																									

12. A. Is your firm's personnel experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?

☒ YES Description and Number of Projects: Terracon's AML personnel experience began in 1980 and has exceeded over 50 projects to include impoundment reclamation, mine subsidence, coal refuse piles, abandoned drifts, stream restoration, etc.

NO

B. Is your firm experienced in Soil Analysis?

☒ YES Description and Number of Projects: 50 years to include hundreds of projects.

NO

C. Is your firm experienced in hydrology and hydraulics?

☒ YES Description and Number of Projects: 50 years to include hundreds of projects.

NO

D. Does your firm produce its own Aerial Photography and Develop Contour Mapping?

☒ YES Description and Number of Projects: Terracon provides aerial photography using drones, but does not provide contour mapping.

NO

E. Is your firm experienced in domestic waterline design? (Include any experience your firm has in evaluation of aquifer degradation as a result of mining.)

YES Description and Number of Projects: Terracon has personnel experienced in this discipline for hundreds of projects.

NO

F. Is your firm experienced in Acid Mine Drainage
Evaluation and Abatement Design?

☒ YES Description and Number of Projects: Terracon personnel have served as lead role in the AMD Section of
MD DOE, Mining Program and have provided AMD services for numerous projects in WV, MD, and PA.

NO

G. Is your firm experienced in construction oversight?

☒ YES Description and Number of Projects: Terracon has provided construction oversight for over 50 years for hundreds of projects.

NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Fioravante, Michael, A.	25	20	6

Brief Explanation of Responsibilities

Michael has over 45 years of experience in the civil/mining/geotechnical consulting industry. He is a senior geotechnical, civil and environmental engineer for projects including landslides, dams, levees, waste and water projects, earth works, mine permitting and planning, environmental projects and permitting and similar activities. His certifications include Mine Safety & Health Administration Annual Trainer, Mine Safety & Health Administration Approved Fatality Investigator, West Virginia Department of Environmental Protection Certified Engineer for permit preparation. Michael has been the responsible for AML projects throughout the state of West Virginia starting in 1980. He was the Engineer of Record for the AML 2004 award-winning Ned's Branch Impoundment project.

EDUCATION (Degree, Year, Specialization)

BS, Civil Engineering, 1978

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

Professional Engineer, WV

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Reel, Aaron, C.			

Brief Explanation of Responsibilities

Aaron is a Senior Engineer for Terracon with experience that includes field investigations, laboratory testing, instrumentation analysis, design and construction management. Mr. Reel has significant specialty geotechnical design and construction experience including the design and installation of earth retaining structures including temporary excavation support systems, drilled shafts and micropile foundations and ground improvement for seepage reduction, settlement control and bearing capacity. Mr. Reel has overseen the completion of several AML deep mine drilling and grouting for pre-construction and post-construction subsidence control and remediation.

EDUCATION (Degree, Year, Specialization)

MS, Civil Engineering, 2008, BS, Civil Engineering, 2005

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

American Society of Civil Engineers

Professional Engineer: OH, MD, PA, WV

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Ridgway, Matthew, T.	10	10	

Brief Explanation of Responsibilities

Mr. Ridgway has a proven history as a geotechnical engineer performing and overseeing tasks including preliminary site investigations, engineering analysis and design and construction over site while maintaining cost-savings initiatives. He has extensive earth retention projects including ground control plans for stabilization of abandoned underground mines across multiple states.

EDUCATION (Degree, Year, Specialization)

BS, Civil Engineering, 2013, BS, Mining Engineering, 2013

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

Professional Engineer: CO, KY, MD, MO, NC, NJ, PA, SC, UT, VA, WV, and WY

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Trent A. Sustich		15	

Brief Explanation of Responsibilities

Mr. Sustich has completed environmental studies for over 15 years. He has experience in performing NEPA documentation, wet-land identification and delineation, benthic macro invertebrate collection and stream function evaluations, threatened and endangered species investigations, water quality investigations, permit preparation, Phase I Environmental Site Assessments and groundwater and soil sampling.

EDUCATION (Degree, Year, Specialization)

B.S., 2011, Physical/Environmental Geography

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

US EPA Certified Asbestos Contractor/Supervisor - PA
US EPA Certified Asbestos Inspector - PA, WV, OH
US EPA Certified Asbestos Management Planner - PA

14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AML DESIGN SERVICES

MicroSoft Office Suite, AutoCAD, Adobe software, Bentley software, RocScience Suites, ArcGIS Pro, LPILE,

PSSLOPE

Drone equipment for aerial photography capabilities.

Drilling equipment: One (1) GeoProbe 3230 drill rig, three (3) geotechnical drill rigs, and multiple support vehicles.

[illegible]

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
No West Virginia AML projects				

TOTAL NUMBER OF PROJECTS:	TOTAL ESTIMATED CONSTRUCTION COSTS: \$
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16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS

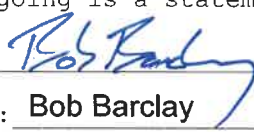
PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
Corridor H, Kerens to Parsons District 8	Construction Materials Testing	E.L. Robinson Charleston, WV		Unknown	\$900,000
Red Sulphur Bridge District 9	Geotechnical Engineering and Drilling	L.A. Gates, Inc. Beckley, WV		Unknown	\$65,000
Superior Bridge District 10	Construction Materials Observa- tion and Testing	Orders Construc- tion, Co. St. Albans, WV		Unknown	\$25,000
Hardy CO 23/12 VA State Line District 5	Geotechnical Engineering and Drilling	HDR, Inc. Charleston, WV		Unknown	\$980,000
Tunnel Bridge District 10	Geotechnical Engineering and Drilling	White Brothers, LLC Charleston, WV		Unknown	\$125,000
Parkersburg - St. Mary's Road District 3	Construction Materials Observa- tion and Testing	Mountaineer Contractors Kingwood, WV		Unknown	\$100,000
Craddock Brothers Bridge District 3	Geotechnical Drilling and Con- crete Coring	HDR, Inc. Charleston WV		Unknown	\$119,000

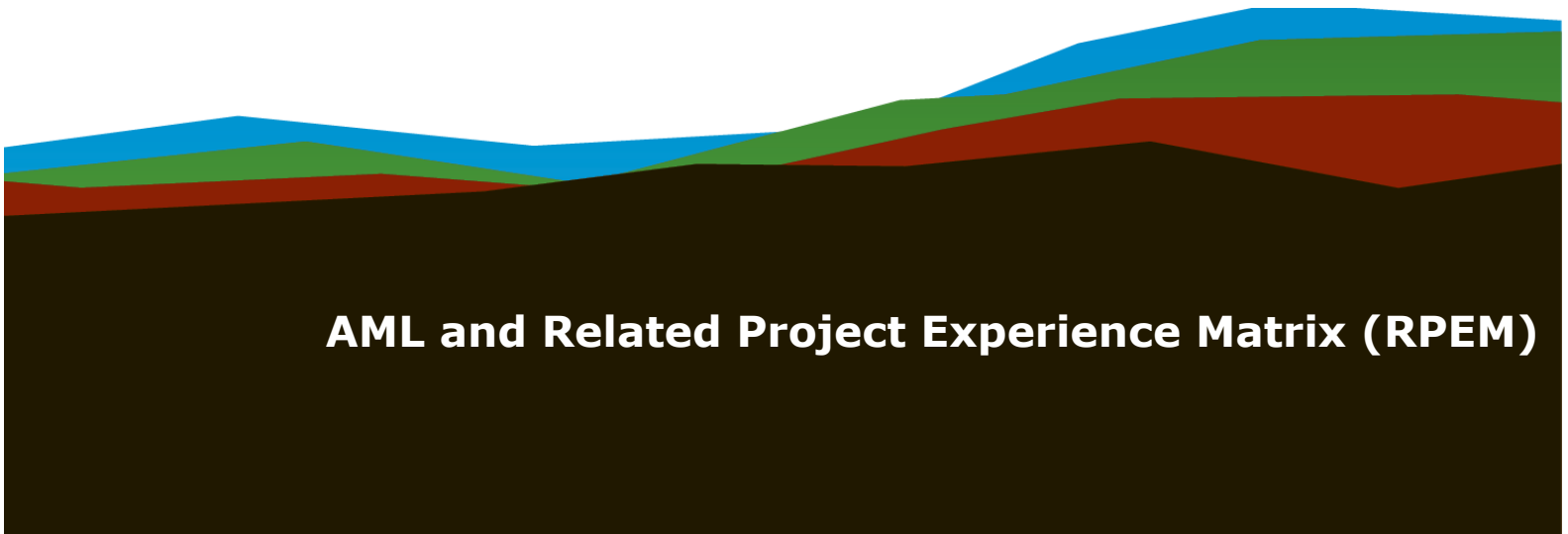
17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD

[illegible]

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS CONSTRUCTION OVERSIGHT ON PROJECTS

[illegible]

19. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)					
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
Buffalo Creek Bridge Geotechnical Engineering, Preston Co., WV	WVDOH Charleston, WV	Unknown	2024	No	Modjeski & Masters
Riggleman Arch Geotechnical Engineering, Hardy Co., WV	WVDOH Charleston, WV	Unknown	2024	No	AECOM
PFC Tracy Rohrbaugh Memorial Bridge Geotechnical Engineering, Grant Co., WV	WVDOH Charleston, WV	Unknown	2024	No	White Brothers, LLC
Scott Miller Hill Bypass Post Design Services Roane Co., WV	WVDOH Charleston, WV	Unknown	2024	Yes	Burgess & Niple, Inc.
Morgantown Industrial Park Access Road Geotechnical Services Monongalia Co., WV	WVDOH Charleston, WV	Unknown	2024	No	HNTB
Bristol Bridge Geotechnical Drilling Randolph Co., WV	WVDOH Charleston, WV	Unknown	2023	No	Modjeski & Masters
20. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.					
21. The foregoing is a statement of facts.					
Signature: <u></u> Printed Name: <u>Bob Barclay</u>			Title: <u>Operations Manager</u>		Date: <u>08/20/2025</u>



AML and Related Project Experience Matrix (RPEM)

AML and RELATED PROJECT EXPERIENCE MATRIX																									
PROJECT	Exp. Basis C=Corp. P=Personnel *	Additional Info Provided in Section (s) **	PROJECT EXPERIENCE REQUIREMENTS																PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional						
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Nitigation/ Replacement	Construction Inspection/Managem ent	Water Treatment	Active/Passive Water Treatment Systems	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	M. Fioravante	B. Sapen					
Ned's Branch Impoundment	P		X			X					X	X	X			X	X	X	M/P						
Low Cap Impoundment	P		X			X		X		X	X		X			X	X	X	M/P						
Harewood Refuse Pile	P		X			X		X			X	X	X			X		X	M/P						
Troy Town Mine Site	P				X	X					X		X			X		X	M/P						
Amherstdale Mine Site	P			X	X	X					X	X	X			X	X	X	M/P						
Crites Mine Blowout	P			X	X	X					X	X	X						M/P						
Frozen Branch Refuse Pile	P		X			X					X	X	X			X	X	X	M/P						
Deckers Creek Mine Drainage	P			X		X					X	X			X				M/P						
Valley Point #12	C			X		X					X	X	X	X	X					P					
Kelly's Creek	C			X		X					X	X		X	X					P					
Friend's of Coal Cheat AMD Projects	C					X					X	X		X	X		X			P					
Friend's of Deckers Creek AMD Projects	C					X					X	X	X	X	X		X			P					

* List whether project experience is corporate or personnel based or both.

** Use this area to provide specific sections or pages if needed for reference.

*** List Primary Design personnel and their functional capacity for the projects listed.



Abandoned Mine Lands Contractor Information Form

ABANDONED MINE LANDS (AML) CONTRACTOR INFORMATION FORM

You must complete this form for your AML contracting officer to request an eligibility evaluation from the Office of Surface Mining Reclamation and Enforcement (OSMRE) to determine if you are eligible to receive an AML contract. This requirement can be found under OSMRE's regulations at 30 CFR 874.16. **NOTE:** This form must be signed and **dated within 30 days** of submission to be considered for a current bid.

Part A: General Information

Business Name: Terracon Consultants, Inc.
Tax ID #: 42-1249917
Address: 912 Morris Street
City, State, & Zip: Charleston, West Virginia 25301
Phone Number: 304-344-0821
Email Address: bob.barclay@terracon.com

Part B: Obtain an Organizational Family Tree (OFT) from the Applicant Violator System (AVS)

If you plan to certify the existing AVS information or submit updates under Part C, you must include an OFT. Instructions for downloading an OFT from the AVS can be found at: <https://www.osmre.gov/sites/default/files/2022-02/OMB%201029-0119%20instructions.pdf>. If you require assistance you may contact the AVS Office by phone at: 800-643-9748, or by email at: avshelp@osmre.gov.

Part C: Certifying and updating information in the AVS

Select one of the options, follow the instructions for the selected option, sign, and date below.

I, Bob Barclay, have express authority to certify that:
(Print Name)

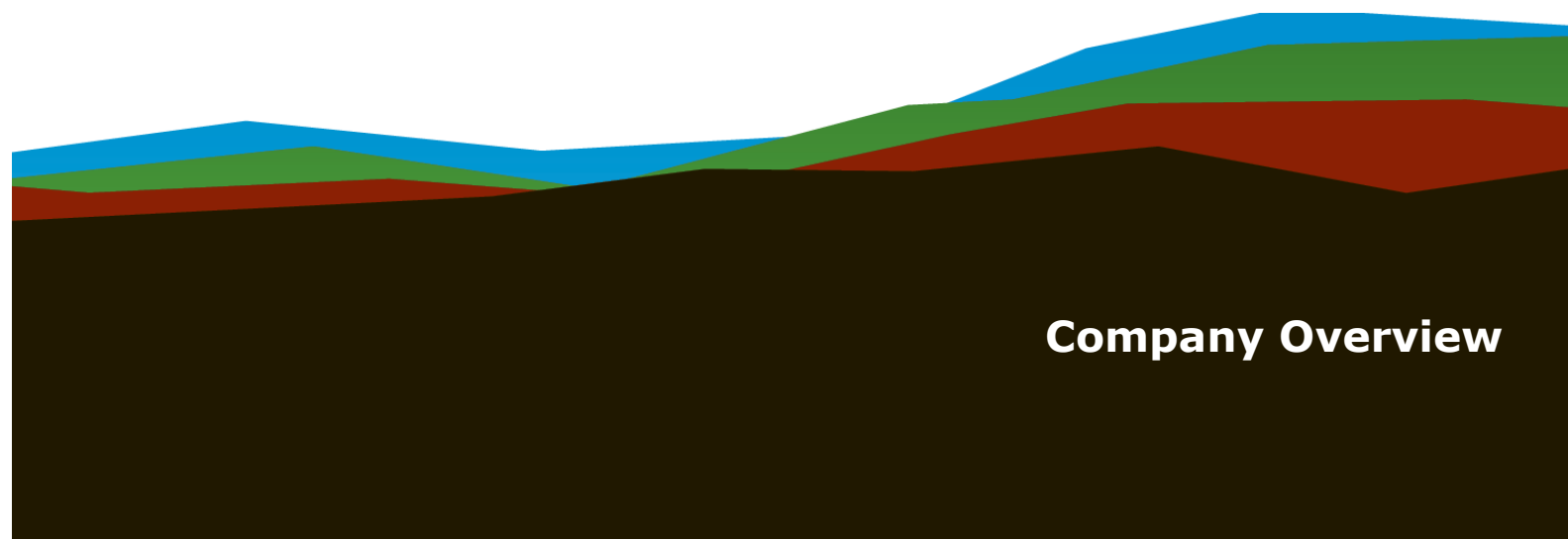
- ☒ 1. Our business is listed in the AVS. The information is accurate, complete, and up to date. (If you select this option, you must attach an Entity OFT from the AVS to this form). Do not complete Part D.
- ☐ 2. Our business is in the AVS. The information needs to be updated. (If you select this option, you must attach an Entity OFT from the AVS to this form). Complete Part D to provide the missing or corrected information.
- ☐ 3. Our business is not listed in the AVS. The information needs to be added. Complete Part D to provide the information.

8/20/2025

Date


SignatureOperations Manager

Title



Company Overview

Company Overview



Company Profile

Wherever you are on your project journey, Terracon's employee-owners are ready to meet you where you are and help you reach your goal. Since our founding in 1965, Terracon has grown and evolved to become a thriving, employee-owned, multidiscipline engineering consulting firm delivering facilities, environmental, geotechnical, and materials services. Our more than 7,000 curious minds include engineers, scientists, architects, facilities experts, and field professionals focused on solving engineering and technical challenges from more than 180 locations nationwide. On-time and real-time data-driven insights, provided by our talented employee-owners, create an unmatched client experience that spans the lifecycle of any project from earth to sky.

Terracon consistently ranks as a top 20 design firm by *Engineering News-Record*. Our successful growth has included organic expansion and innovation as well as the acquisition of more than 60 firms with specialized capabilities. A focused and uncompromising dedication to safety has been integral to how we support our employees, clients, and communities.

Throughout the life of your project, we won't just point the way – we'll go with you. Together, we are explorers turning big ideas into reality for our partner clients, employees, and the world around us.

From site selection to the design and construction, to maintaining the life of the structure, we'll help you achieve success through engineering and scientific expertise, a passion for problem-solving, and a drive to explore.

We're ready when – and where – you are. **Explore with us**

ENR Rankings 2024

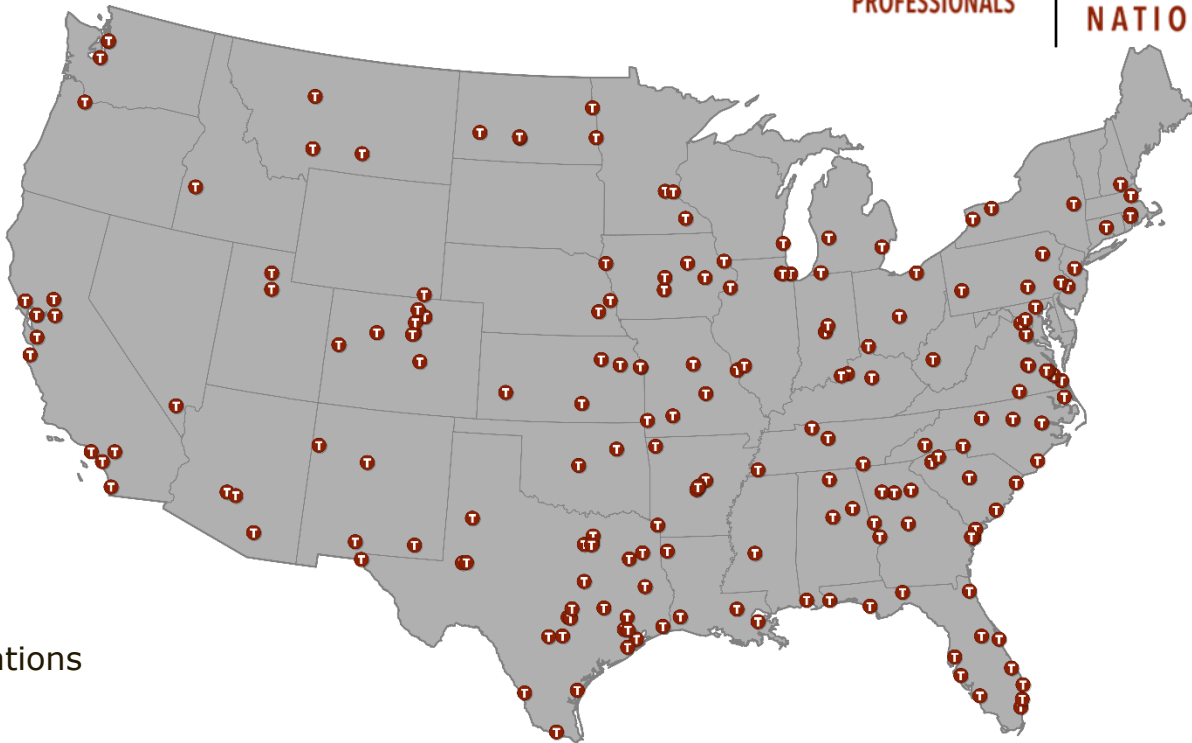
#2	Asbestos and Lead Abatement
#10	Top 100 Pure Designers
#18	Top 500 Design Firms
#44	Top 150 Global Design Firms
#71	Top 200 Environmental Firms



Company Overview

7,000+
PROFESSIONALS

180+
LOCATIONS
NATIONWIDE



Locations

Alabama

Birmingham
Huntsville
Mobile
Oxford

Arizona

Avondale
Phoenix
Tucson

Arkansas

Cabot
Fayetteville-PMI
Little Rock
Little Rock-PMI
Little Rock-HEI
NW Arkansas

California

Colton
East Bay (Concord)
Concord Lab
Lodi
Los Angeles
Monterey
Orange County
Sacramento
San Diego

Colorado

Colorado Springs
Denver
Eagle
Fort Collins
Fort Collins EXPL SVCS
Golden
Grand Junction
Greeley
Longmont

Connecticut

Hartford

Florida

Brevard
Fort Lauderdale

Florida (Cont'd.)

Fort Myers
Jacksonville
Miami
Pensacola
Port St. Lucie
Sarasota
Tallahassee
Tallahassee-Panama City
Tampa
West Palm Beach-DET
Winter Park

Georgia

Athens
Atlanta
Atlanta North
Columbus
LaGrange
Macon
Savannah
Savannah-Telfair

Idaho

Boise

Illinois

Chicago
Glendale Heights
Hartford-SMA
Lombard-Wang
Engineering

Indiana

Indianapolis North
Indianapolis West

Iowa

Ames
Cedar Falls
Cedar Rapids
Des Moines
Dubuque
Quad Cities (Bettendorf)
Sioux City

Kansas

Garden City
Lenexa
Manhattan
Olathe-Corporate
Topeka
Wichita

Kentucky

Lexington
Louisville
Louisville EXPL SVCS

Louisiana

Baton Rouge
Lake Charles
New Orleans
Shreveport

Maryland

Baltimore Metro-S&L
Germantown

Massachusetts

Boston Metro

Michigan

Detroit
Grand Rapids
Niles

Minnesota

Minneapolis
Rochester
St. Paul

Mississippi

Jackson

Missouri

Columbia
Joplin
Des Moines
Springfield
St. Louis

Montana

Billings
Bozeman
Great Falls

Nebraska

Lincoln
Omaha

Nevada

Las Vegas

New Hampshire

Manchester

New Jersey

Northern New Jersey
Philadelphia East

New Mexico

Albuquerque
Carlsbad
Gallup
Las Cruces

New York

Albany-Dente
Buffalo
Rochester

North Carolina

Asheville
Charlotte
Elizabeth City
Greensboro
Greenville
Raleigh
Wilmington

North Dakota

Bismarck
Bismarck-MAC
Dickinson
Fargo
Grand Forks

Ohio

Cincinnati
Cleveland
Columbus

Oklahoma

Oklahoma City
Tulsa

Oregon

Portland

Pennsylvania

Harrisburg-S&L
North East EXPL SVCS
Philadelphia West
Pittsburgh-S&L

Rhode Island

Providence
Providence EXPL SVCS

South Carolina

Bluffton
Charleston
Columbia
Greenville/Spartanburg
Greenville/Spartanburg
EXPL SERVICES
Myrtle Beach

Tennessee

Chattanooga
Memphis
Nashville
Nashville-Clarksville

Texas

Austin
Austin-FAC
Beaumont
College Station
Conroe
Corpus Christi
DFW Metro
DFW Metro EXPL
SERVICES

El Paso
Fort Worth
Freeport
Frisco
Houston
Houston N. Loop
Laredo
League City
Longview
Lubbock

Texas (Cont'd.)

Lufkin
Midland
Midland-Sport
Pharr
Round Rock
San Antonio
Seguin
Texarkana
Tyler
Waco

Utah

Ogden
Salt Lake City

Virginia

DC Metro South
DC Metro West
Newport News-TAM
Richmond-TAM
South Hill
Virginia Beach-GET
Williamsburg-GET
Williamsburg-TAM

Washington

Seattle/Seattle -EHS
Training
Seattle-Lynnwood
Tacoma

West Virginia

Charleston
Morgantown

Wisconsin

Milwaukee

Wyoming

Cheyenne



Terracon Services

Environmental

Negotiating the complexities of environmental issues can be challenging and time-consuming. Terracon relies upon demonstrated experience and knowledge of local conditions and regulations to deliver solutions that are timely, practical, and make good business sense.

- Building Environmental Sciences
- Remedial Design and Implementation
- Due Diligence + Transactional Support, including Phase I Environmental Site Assessment (ESA) and Phase II ESA or Limited Site Investigation (LSI)
- Site Closure through various CEQ Programs (including AZ, GA, IL, IA, KS, MO, NE, NC, OK, SC, and TX)
- Industrial Hygiene Consulting
- Regulatory Compliance
- Stormwater Pollution Prevention Plans (SWPPP)
- Environmental Planning and Permitting, including Natural and Cultural Resources, Wetland Delineation, and Threatened and Endangered Species Surveys
- Brownfields + Site Redevelopment
- Stage1 Geotechnical and Environmental



Facilities

Facility owners, managers, and investors face many technical and financial performance challenges when achieving a maximum return on their building investments. Terracon is a valuable partner to restore, enhance, and increase your building performance, reducing potential risks and liabilities. Terracon's licensed architects and engineers provide the following Facilities services:

- Property/Facility Condition Assessments
- Building Enclosure Consulting and Testing
- Engineering and Materials Diagnostics
- Mechanical, Electrical, Plumbing (MEP), and Energy Diagnostics
- Energy/Building Performance Modeling
- Facility Asset Management Consulting
- Remedial Design and Construction Management
- Structural and Materials Consulting
- Commissioning/Retro-Commissioning, including BECx, Cx, RetroCx

Geotechnical

Design and construction of reliable foundations and infrastructure require a thorough understanding of soil, rock, and groundwater conditions. Through Terracon's nationwide network of geotechnical professionals, access to historical subsurface exploration data from thousands of locations across the country, and GIS-enabled geology mapping, we can accurately anticipate ground conditions and develop the right work plan to explore a site. Our innovative technologies and collaborative approach allow us to provide practical design recommendations. Terracon's Geotechnical services include:

- Stage1 Predictive Analysis Delivered via GeoReport®
- Subsurface Exploration (Soil Borings, In-Situ Testing, Geophysical)
- Laboratory Testing
- Geotechnical Design
- Collaborative Reporting/Decision Making
- Geophysical, including GPR, ReMi, and more can be used for seismic site class, finding buried pockets of rubble/old buildings/foundations, locating rebar, etc.)
- Construction Monitoring and Support
- Pavement Management

Materials

Proper selection, quality, workmanship, and performance of construction materials play a vital role in ensuring that today's buildings and infrastructure perform adequately over long periods. We work with clients to minimize material replacements, reduce the likelihood of deterioration, avoid potential failures, and investigate and evaluate construction materials-related problems and failures when they do occur.

- Construction Quality Assurance/Quality Control
- Construction/Special Inspection
- Materials Engineering
- Field and Laboratory Testing and Analysis
- Construction Observation and Monitoring
- Pavement Consulting and Engineering
- Structural Steel and Nondestructive Testing



SELECT SITE

ASSESSMENT OF LAND

- Specialized data consulting and analytics for siting and suitability studies
- Preliminary Environmental and Geotechnical Desktop Studies Based on Existing Proprietary and Public Data
- Environmental Contamination Concerns (Phase I, Phase II)
- Soil/Site Conditions

- (Geotechnical/Geophysical)
- Natural/Cultural Resource Studies
- Geological Hazards
- Feasibility

EXISTING STRUCTURES

- Property Condition Assessments
- Environmental Due Diligence
- Hazardous Materials Assessments
- Environmental/Regulatory Compliance
- Repurposing Feasibility

MANAGE ASSETS

BUILDING AND OCCUPANT HEALTH

- Building Enclosure Air/Water Infiltration Investigations
- Industrial Hygiene/Indoor Air Quality
- Hazardous Materials O & M Plans and Management
- ADA Compliance
- Energy Management and Usage Studies
- Structural & Materials Assessment/Monitoring

UNANTICIPATED ISSUES

- Rapid Response – Spills
- Natural and Manmade Disaster Response
- Property Transaction Support
- Repair/Maintenance Design and Construction Management
- Cause and Origin Diagnostic Investigations

ASSET MANAGEMENT

- Facility Asset Management Programs
- Pavement and Roof Evaluation/Management
- MEP Studies
- Immediate and Long Term Capital Expenditures
- UST Management

MANAGE ASSETS

- Re/Retro Commissioning
- System Replacement/Rehabilitation Design and Construction Administration
- Facility Condition Assessments
- Repurposing Evaluation

LIFECYCLE



DESIGN/MITIGATE

BUILDING DESIGN ASSISTANCE

- Geotechnical Engineering and Foundation Design
- Building Enclosure, Design Reviews, Plans and Details
- MEP and Building Enclosure Commissioning Consulting
- Materials Selection Consulting
- LEED Consulting and Gap Analysis
- Code Compliance and Specifications Review

MITIGATION OF SITE ISSUES PRIOR TO SITE DEVELOPMENT OR DEMOLITION

- Environmental Site Investigations
- Regulatory/Risk Management Assistance
- Remedial Design and Action Plans
- Natural and Cultural Resource Compliance
- Storm water Planning and Compliance
- Groundwater/De-watering
- Hazardous Materials Abatement Design and Management
- Disposal of Hazardous Materials
- Brownfields Assistance

DESIGN/MITIGATE

CONSTRUCT

CONSTRUCTION QA/QC

- Testing and Inspection of Construction Materials
- Observation of Foundation and Pavement Installation
- Failure/Non-compliance Investigations
- Detection of Changed Conditions
- Construction Administration Support
- Construction Consulting/Owner's Rep Services
- Vibration Monitoring
- Building Enclosure Testing, Observations, and Consulting
- MEP and Building Enclosure Commissioning

CONSTRUCT

ENVIRONMENTAL COMPLIANCE

- Air Monitoring and Oversight
- Remedial Management and Oversight
- Construction Monitoring for Environmental Compliance
- UST Removals and Compliance
- Perimeter Air Monitoring
- Storm Water Monitoring

Terracon Qualifications

Project Management and Collaboration

The main benefit of selecting Terracon is the confidence and simplicity of knowing we can deliver multiple projects within the schedule and with consistent quality through a single point of contact. We bring WVDEP this benefit through the extensive depth of our environmental professionals and engineering resources across multiple office locations within WV. To complete a project of this importance and magnitude, Terracon will complete the project using multiple teams split into geographical areas.

Terracon's Project Manager, Aaron Reel, P.E., will be WVDEP's primary point of contact within Terracon and will manage the workflow of the projects and facilitate safety and collaboration. Other Terracon project managers may be included (reporting to Aaron), depending on the number of tasks awarded to Terracon. Terracon will facilitate regular project update meetings with all parties involved for the duration of the project. Terracon will coordinate with WVDEP's project managers on the schedule and duration of the meetings.

Quality Assurance

So that the project and the Terracon Team quality assurance requirements are achieved, our Project Manager, in concert with our Quality Assurance Manager, is accountable for the overall quality of the project. They will be responsible for verifying that all project phases have followed the applicable quality control criteria, project quality review, and company policies. Our Quality Assurance Programs have been utilized successfully on major local and national projects.

Our primary mechanism for achieving quality on every project lies with the individual performing the work. Each employee has responsibilities for professional, technical, or administrative quality, whether on client projects or internal service assignments. To ensure our personnel executes their responsibilities, our QA team members will be responsible for conducting checks and reviews, as required, as the work progresses to verify that the following elements of quality control are continuously addressed during the project:

- Operational procedures
- Qualifications of personnel
- Condition and accuracy of instruments and equipment
- Standard materials
- Statistical evaluations
- Supervisory review of technical procedures and documents
- Use of control standards for evaluation of activities
- Sample identification, protection, chain-of-custody, storage and disposition
- Data recording, identification, security, checking, routing, filing, and distribution

Our Team has established specific operational positions, procedures, practices, and programs to ensure quality service to our clients at the individual project level. They include:

- Lines of responsibility, authority, and accountability
- Standard processes and practices
- Quality control of project execution
- Project quality assurance

Our Project Quality Review Program more specifically defines our requirements for assuring quality at the project level. This is outlined in our Project Quality Review Manual (PQRM). The review process of any project deliverable is a critical element of quality control and is a cornerstone of our commitment to quality and excellence. The PQRM expands on specific Quality Control and Quality Assurance responsibilities established in our overall Quality Program.

Familiarity with the Area/Region



We have completed hundreds of Geotechnical, Environmental, and Geophysical projects throughout the West Virginia. We have diligently tracked data on subsurface conditions and project findings for all these projects and routinely utilize this information to benefit our clients' strategic decision-making. We understand the unique geological and environmental issues relevant to key regions. Our experts are familiar with navigating various local, state, and federal regulations and processes that may overlap at any site. Our 6,000 professionals add depth of expertise, fortify bench strength, and bring value to our clients and partners. Our nationwide network of professionals allows us to initiate services easily on one or multiple contracts or task orders simultaneously. Our resources, including one of the country's largest drill rig fleets (130+ drill rigs) and more than 60 USACE-validated laboratories, mean extensive support for various clients and partners. We have the know-how, having successfully executed thousands of geotechnical and environmental contracts since 1965. We understand the nuances of federal, state, and local permitting and consultation requirements needed for successful project completion. We apply our comprehensive knowledge of NEPA and WV AML processes from project pursuit through closeout.

Capacity to Execute Multiple Task Orders

Regarding the question of current workload and capacity, Terracon's nationwide environmental team of more than 1,200 environmental engineers and scientists (including 800+ Geotechnical and Civil Engineers), operate at an average of 65% to 70% capacity. This allows our teams the ability to work on multiple projects concurrently (both large and small) to meet our client's needs. Our environmental team routinely accepts project portfolios consisting of dozens to hundreds of sites, with project completion often in 30 to 90-day schedule. With the benefit of having many multi-site portfolio contracts, and demonstrated experience with both teaming partners, Terracon has developed the understanding and necessary resources to efficiently manage and conduct assessment and remediation services at multiple locations for an individual client.

This capacity also allows us to accept new work without disruption to service and timeliness. Our nationwide professionals combined with our innovative project management and communications systems, gives Terracon the ability to seamlessly deploy technical experience and resources where needed, when needed. This allows Terracon to manage multiple projects simultaneously throughout the WV at any given time. Our broad geographic presence allows us to work consistently and efficiently across state and local regulatory jurisdictions.

- We have the current resources in place – Our capacity and resources include over 7,000 professionals, including multiple personnel with similar qualifications/ experience. Upon prequalification for this work, we can begin competing for, and working on, multiple simultaneous TOs
- We have proven experience managing multiple simultaneous task orders on other large IDIQ contracts. The Terracon team has proven experience executing prime IDIQ contracts with multiple concurrent TOs. We understand the resources and commitments required to successfully perform this work for WVDEP

Terracon Approach

Planning Work

Terracon personnel will perform initial planning work which will include all related consultations, investigations, report generation, applications, etc. required to perform the work as tasked. We anticipate consultations relative to National Environmental Policy Act (NEPA), West Virginia Division of Natural Resources (WVDNR), West Virginia Historic Preservation Office (SHPO), WV Regional Planning consultation, US Forest Service, US Fish and Wildlife Service (USFWS) will be necessary to properly plan the work. In addition, Terracon will coordinate with WVDEP in the eve any other consultation(s) or permit(s) needed to perform the Work.

An initial Desktop Review of the site(s) to assess known locations of threatened and endangered species, wetlands, cultural resources, and streams will be performed to guide the development of the project. Terracon has significant planning resources in the WV area and has performed such services on numerous significant projects for State, Local, and Federal projects and clients.

Realty Work

All realty related work, which encompasses all necessary research and subsequent right of entry agreements being set into place for the site(s) to be sufficiently and legally investigated, designed, and for a final design to be constructed, will be performed by Terracon personnel. We anticipate performing courthouse research to determine legal property ownership and dutifully documenting the findings, obtaining Exploratory Rights of Entry (EROE) from affected landowners, obtaining Construction Rights of Entry (CROE) from landowners, keeping logs of all conversations with landowners, data collection, reporting, and developing boundary surveys on an as-needed basis.

Prior to commencing any fieldwork, rights of entry which include the Terracon Team, the WVDEP-DLR-AML, and Office of Surface Mining Reclamation & Enforcement (OSMRE) will be obtained. Such preliminary realty and right of entry agreement acquisition is standard practice for Terracon. We complete thousands of geotechnical and environmental investigations across the United States on an annual basis and secure agreements to legally perform the work in accordance with State, Local, and Federal requirements.

Design Work

Design related work will be performed by the full Terracon Team, consisting of Terracon, White Brothers, and Rettew personnel. The combined team employs personnel capable of completing all required engineering, survey, mapping and other related services necessary to successfully design an engineered, permanent solution that fully addresses the issues and problems that each project presents. In addition, Terracon as the largest geotechnical engineering firm in the United States will complete all required site and geotechnical investigations. To successfully complete the work, the Terracon Team will fully remove and mitigate dangers to private individuals or the public that are currently present, not introduce new dangers, and be stamped by a Registered Professional Engineer in the State of WV for design and Registered Professional Surveyor in the State of WV for survey for all deliverables. Additional design Work components include but are not limited to: National Pollutant Discharge Elimination System (NPDES) construction stormwater General Permit registration, West Virginia Department of Highways MM-109 encroachment permits, Army Corps of Engineers consultations, Department of Health Permits, and county permits as applicable, including floodplain permits. Design Work that the Terracon Team will also likely perform includes: developing construction plans and technical specifications for all aspects to reclaim mine portals, drainage controls and systems, slope stabilization, coal refuse and mine spoil reclamation, stream and / or channel restoration, subsidence repair, temporary and permanent access or accesses for construction and future maintenance, stormwater and erosion and sediment control, regrading and revegetation, any required water treatment systems, and any remediation for all other conditions encountered on the project sites. Although the respective team firms have limited recent WV AML project experience, the Team members assigned to the design work tasks have significant AML related experience under previous working engagements.

Construction Oversight Work

The Terracon Team will provide the construction management of all design projects that progress to construction throughout the successful completion of construction activities. Construction Oversight Work including but may not be limited to: Daily Inspection with documentation for the duration of the Construction and through the warranty period until final release, Engineering Oversight and Support, review and approval of contractor-provided as-builts, and Final Engineer's Certification Report of the project. Terracon's Project Manager will assign inspector(s) based on the project type and level of experience needed to successfully complete the oversight. Terracon will provide WVDEP with resumes and reference lists of inspector(s) prior to commencement of the construction oversight for each project. The construction inspector(s) will act as the onsite point of contact with the Contractor and will convey all construction related activities and scheduling with the Terracon Team and the Construction Manager.

Safety

Safety is one of Terracon's core values, and our commitment to an "Incident and Injury-Free (IIF)" philosophy is one of the pillars of our culture. Successful execution and delivery include the need to work safely and keep our employees and the public safe **every** day. Terracon is very much a safety-oriented company. We strive to build health and safety into all aspects of our business and the thinking of our employees. The culture is continued further in our everyday work culture, with all meetings beginning with an IIF moment and safety discussion.

What is Incident and Injury-Free (IIF)?

IIF is about care and concern for people. It is our personal and organizational commitment at all levels of the company to everyone going home safe to their family **every** day. Safety is held as a core value and an operational priority. Working safely is an inseparable part of working correctly, just as much as other operational priorities, particularly quality, budget, and schedule. IIF is our commitment to our people, whom we value for who they are and what they do.

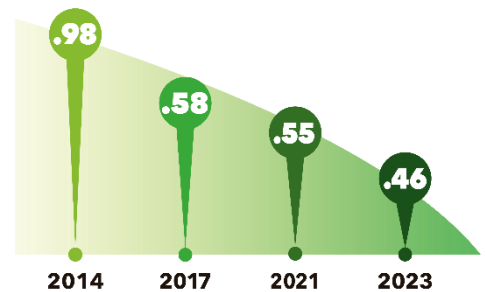
Conducting our work safely means conducting our work in the only acceptable way. Incidents, injuries, and accidents will not be viewed as problems to make go away but as opportunities to strengthen IIF. IIF is about developing a mindset intolerant of any incidents or injuries, no matter how minor or infrequent.

Our Rules to Live By

IIF is built upon *Our Rules to Live By*, the foundation of Terracon's IIF culture. These give employees clear, specific ways to stay safe on the job, covering essential aspects of safety, including personal protective equipment (PPE), equipment and tools, working at heights and depths, motorized vehicle safety, and reporting injuries. We regularly follow and discuss *Our Rules to Live By* in our offices and on job sites to ensure everyone is following these fundamental rules. Our focus on pre-task planning also serves to reinforce this message **every** day.

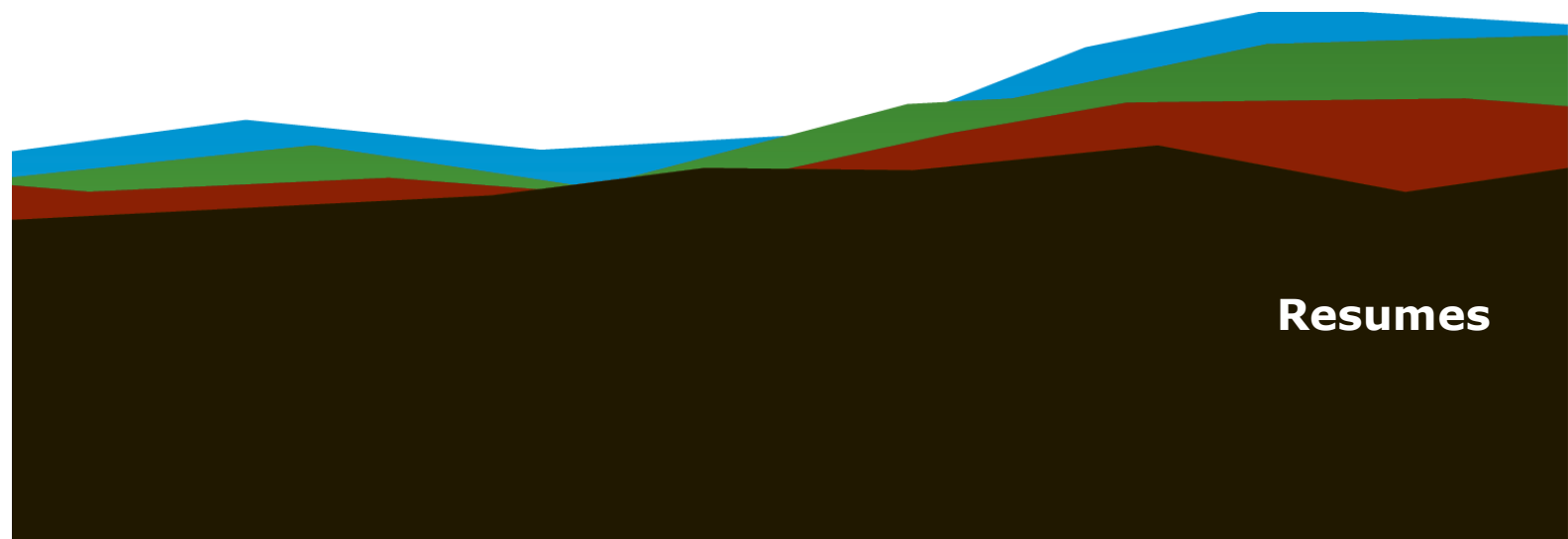
We cannot just tell someone to "be safe." We can request our employees to follow *Our Rules to Live By*. These rules include pre-task planning for each task **every** day, as well as following the safe work practices they have been trained to follow to complete work at a task level. *Our Rules to Live By* have made a measurable difference in keeping our employees safe and in helping us preserve the trust and business with our clients.

TRIR



Terracon's TRIR has decreased by more than 80 percent in our safety journey. This is accompanying an increase of more than 3,000 employees, demonstrating Terracon's unwavering commitment to building safety and well-being into all aspects of our business. Our clients can be assured that Terracon employees have a high level of safety awareness extending to every single project and job site, so it is safe for your staff, property owners, innocent bystanders, and our staff.*

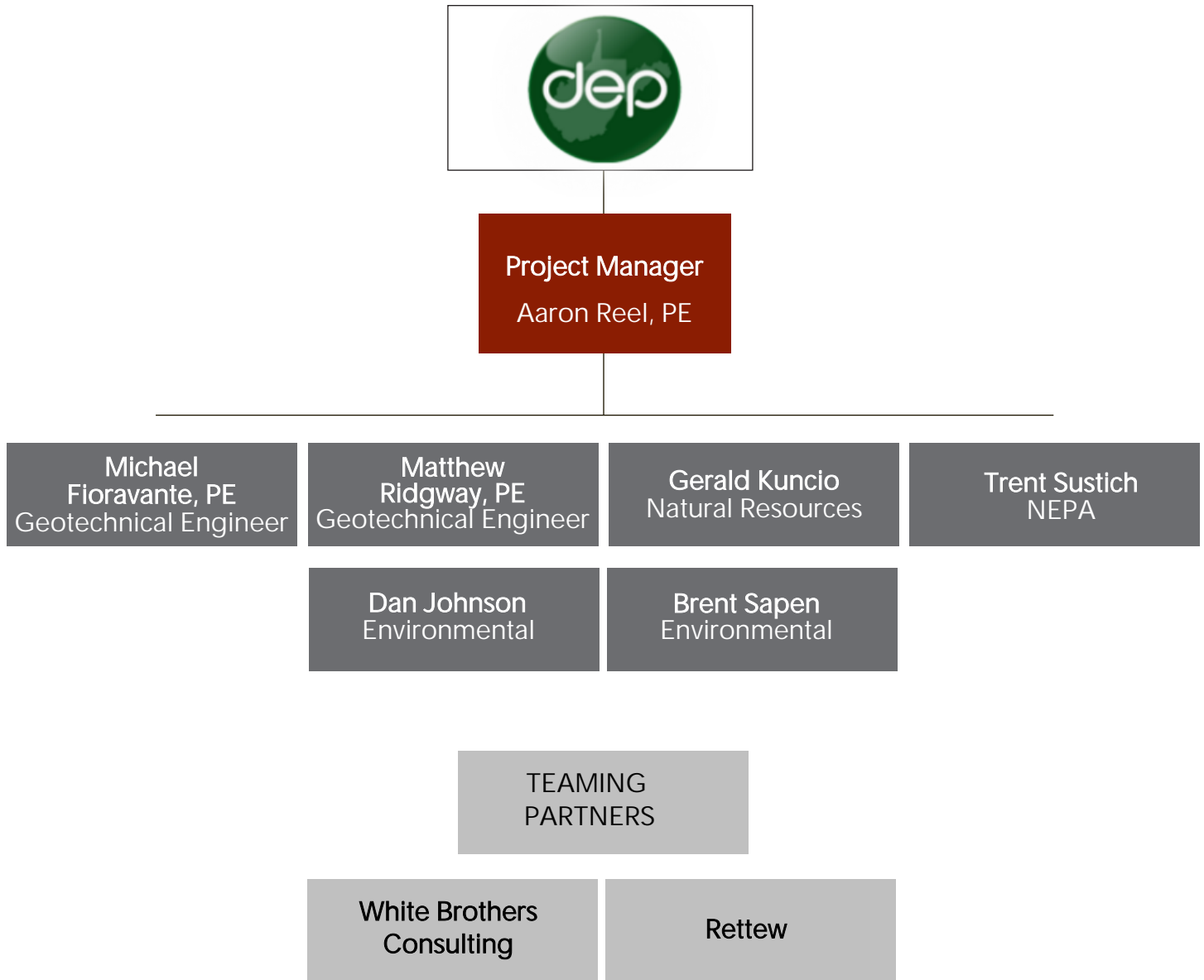
**Terracon uses the standard TRIR*



Organizational Chart

KEY TEAM MEMBERS

Terracon has put a qualified team together with key contacts listed below including teaming partners.



Aaron C. Reel, P.E.

Senior Engineer – Geotechnical Services

PROFESSIONAL EXPERIENCE

Mr. Reel is a Senior Engineer for Terracon with over 18 years of diverse geotechnical engineering and construction experience across a wide range of industries and markets. His experience includes field investigations, laboratory testing, instrumentation, analysis, design, and construction management. Mr. Reel has significant specialty geotechnical construction experience including the design and installation of earth retaining structures, including temporary excavation support systems; drilled shafts and micropile foundations; and ground improvement for seepage reduction, settlement control, and bearing capacity. His project experience includes residential projects, large industrial and commercial developments, and public infrastructure projects with total construction costs exceeding US\$100 million. Mr. Reel has provided engineering and construction services on private, municipal, state, and federal dam stabilization and rehabilitation projects throughout the United States.

Mr. Reel's current responsibilities include formulating laboratory and field investigations and evaluation of respective data, development of alternative solutions to routine and complex geotechnical, geological, and environmental projects for commercial, industrial, and governmental clients, supervising lower-level technical staff and field crews, and independently evaluating, selecting, and applying standard and innovative engineering techniques, procedures, and criteria on projects.

RELEVANT PROJECT EXPERIENCE

Penn Lake Dam & Spillway Improvement Project – Phase 1 *

Project consisted of geotechnical investigation and engineering assessment of deficiencies at historic dam and spillway and make recommendations for repairs and improvement to comply with PA Dam Safety standards.

Bluestone Dam Safety Assurance – Phase 4 *

Provided quality control during the construction phase of a USACE "Mega Project". This phase consisted of the design and installation of over 275 high-capacity, multi-strand rock anchors to address stability of a concrete gravity dam. The anchors ranged in size from 5- to 61-strands with design loads of more than 2 million pounds each.

Kentucky Lock Addition*

The geotechnical portion of this project first consisted of a multi-phase treatment program to reduce the seepage potential and improve the strength characteristics of the solution-prone limestone bedrock of the Fort Payne formation underlying both the existing and new locks. The initial phase of the foundation treatment consisted of a limited, low-mobility grout, program to fill large voids identified as critical during the exploratory drilling program. The following foundation treatment program consisted of a two-phase high-mobility grout program. This project also included the design and installation of 30-strand tie-down anchors through the existing lock monoliths and into the underlying bedrock to prevent movement of the existing lock wall during excavation.



EDUCATION

Master of Engineering, Civil Engineering,
The Pennsylvania State University, 2008

Bachelor of Science, Civil Engineering,
The Pennsylvania State University, 2005

REGISTRATIONS

Professional Engineer:
Ohio (87086), Maryland (58212),
Pennsylvania (PE78201), West Virginia (20133)

AFFILIATIONS

American Society of Civil Engineers

PRESENTED WORKS

"Challenges of Grouting in Karst for the Upstream Monoliths of the Kentucky Lock Addition", 2011 USACE Infrastructure Systems Conference (ISC)

"Design & Construction of a Combination Cofferdam System for a Dam Rehabilitation Project", 2015 Association of State Dam Safety Officials (ASDSO), Northeast Regional Conference

"High Precision Pilot Hole Drilling Utilizing Real-Time Optical Guidance and Verification Techniques", 2018 North American Tunneling Conference (NATC)

Canonsburg Lake Dam Renovations*

Managed the specialty geotechnical construction efforts to bring a historic concrete gravity dam into compliance with PA Dam Safety standards. This was accomplished by installing 28 EA post-tensioned anchors in an existing concrete dam and passive dowels along the top of the dam and along the crest of the spillway.

Antietam Dam Upgrading*

This project consisted of increasing the stability of a historic masonry dam to comply with PA Dam Safety standards. This was accomplished by pressure grouting the dam and foundation interface with a triple-line grout curtain and installing post-tensioned strand anchors and passive bar anchors on the downstream face of the dam.

Reconstruction of Gilboa Dam, CAT-211*

This phase of the project consisted of completing several exploratory drill holes in the vicinity of the Shandaken Tunnel Intake Structure to identify the soil and rock properties as well as rock profiles in the area. Soil sampling was completed through the use of split-spoon (SS) sampling and rock was rotary core (HQ) drilled and logged to complete the investigation. Additional work included the installation of piezometers in several of the exploratory drill holes to continuously monitor water levels at the site.

Center Hill Dam Foundation Grouting*

The objective of this USACE project was to drill through the overburden and underlying Ordovician carbonates of the Catheys, Cannon, Hermitage, and Carters Formations, identify and characterize the solution features in the foundation material, and repair the features through a multi-stage remediation program. Remedial grouting was performed to treat the core and foundation interface and foundation bedrock by injecting balanced stable grout mixtures through a multi-stage process into the foundation materials and was monitored using the IntelliGrout® system. In conjunction with the foundation repair program, this project included the installation of state of the art manual and electronic equipment to monitor the stability of the dam during the repair including inclinometers, extensometers, and piezometers.

Clearwater Dam Major Rehabilitation*

The objective of this USACE project was to drill exploratory borings to locate the solution features in the foundation material, determine the permeability of these materials, repair the foundation materials, install instrumentation to monitor piezometric levels and water temperatures within the embankment, and to assist in determining the depth of a proposed cutoff wall. Remedial grouting was performed to treat the core and foundation interface, epikarst areas, and foundation bedrock by injecting balanced stable grout mixtures into the foundation materials and was monitored using the IntelliGrout® system.



STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

To all to whom these presents shall come Greeting

"Know Ye" That The State Board of Registration for Professional Engineers
of the State of West Virginia, reposing special confidence in
the Intelligence, Integrity and Discretion of

Aaron C. Reel

DOES IN PURSUANCE OF AUTHORITY VESTED IN IT
by law hereby certify that he having submitted
satisfactory evidence of his ability and experience is a

REGISTERED PROFESSIONAL ENGINEER

Registration Number 20133

"To Hold" and use such title in the practice of his profession,
subject to the conditions prescribed by law.



Given under the hand of the
Seal of the Board at the Capitol in the
City of Charleston,
This 6th day of March
in the year of our Lord 2013
and of the State
the One Hundred Forty-Ninth

Members of the Board

Leonard J. Thomas, Jr.

Richard E. Dwyer

Bhajan S. Sahja

William E. Piersen

Michael A. Fioravante, P.E.

Senior Engineer, Geotechnical Services

PROFESSIONAL EXPERIENCE

Michael is a long-time resident of Charleston, West Virginia having worked for over 45 years in the civil/mining/geotechnical consulting engineering industry, waste industry, and safety and loss. He is a senior geotechnical and environmental engineer with significant experience in other disciplines. From Chief Engineer to Chief Operating officer of a NASDAQ traded company to a Senior Safety/ Loss Consultant with a major workers compensation company Mike has held management positions for most of his career completing many projects in the eastern United States.

Michael graduated from the West Virginia Institute of Technology in 1978 earning a Bachelor of Science in Civil Engineering. He can provide strategic planning and oversight for engineering projects to expert testimony for construction and accident investigations.

Michael has participated in a wide variety of civil/geotechnical and mining engineering projects. Such projects include a full scope of geotechnical projects, landslides, dams, levees, project management, office manager, water and waste projects, earth works, mine permitting and planning, environmental projects and permitting and similar activities. Safety and Loss projects include accident and fatal investigations, OSHA training and review, employee handbooks, and expert testimony for injury cases and similar activities. He has engaged in accident training provided by MSHA. He has also been called upon by the State of West Virginia to address imminent threat of life projects including impoundment failures and landslides.

PROJECT EXPERIENCE

Mining Experience

Since 1978, Michael has worked on mining projects throughout West Virginia, Kentucky, Ohio, Virginia, Pennsylvania, Maryland, and Illinois. His experience includes design, permitting, investigation, calculations, Abandoned Mine Land remediation plans, safety plans, and mine evaluations for insurance viability. Major clients included Eastern Associated Coal, Cannelton Coal, A.T. Massey, Kermit Coal Company, Westmoreland Coal Company, Wolf Creek Colliers to include their multiple subsidiary operations and the West Virginia Department of Environmental Protection and other state agencies.

Some of the key areas of his expertise are:

- Underground Mining: Prepared permits and calculations for underground operations to include mine layout, roof control plans, ventilation plans, pillar design, water control, environmental impact, probable hydrologic consequences, and mine viability.
- Surface Mining: Prepared permits and calculations for surface mines to include mine layout, valley fill design, backfill design, probable hydrologic consequence, NPDES Permit, Acid Base Accounting, reclamation plans., highwall evaluation to include contour mining, area mining, mountaintop removal, and restoration work including re-establishing approximate original contours, stabilizing valley fills, and mitigating acid mine drainage
- Coal Refuse Disposal: Prepared permits to include both dry and wet refuse disposal, impoundment design, erosion and sediment control, engineering reports.
- Preparation Plant and Ancillary Facilities: Prepared facility permits to include erosion and sediment control, probable hydrologic consequences, and reclamation plans.

EDUCATION

Bachelor of Science, Civil Engineering, West Virginia Institute of Technology, 1978

REGISTRATIONS

Registered Professional Engineer, WV #014163

CERTIFICATIONS

Mine Safety & Health Administration: Certified MSHA Annual Trainer.

Mine Safety & Health Administration: Approved Fatality Investigation Certification.
West Virginia Department of Environmental Protection
Certified Engineer for permit preparation.

WORK HISTORY

Terracon Consultants; 2018-present

AWARDS

2004 National Award for Abandoned Mine Lands for the best design for the Ned's Branch Impoundment Failure Remediation located in Gilbert, West Virginia

- Abandoned Mine Lands: Prepared abandoned mine land remediation plans for refuse impoundments, underground mines, surface mines, and coal preparation facilities.
- On-Call Emergency Consultation: Performed numerous designs and consultation with the West Virginia Department of Environmental Protection on emergency situations involving failed impoundments, failed landslides, failed valley fills, and underground barrier failures.
- Safety and Loss: Performed numerous underground and surface mines evaluations for insurance viability including mine plan reviews, roof and pillar design, highwall viability, and impoundment evaluations.
- Subsidence: Evaluated subsidence from underground mines for foundation designs and land development.
- Highwall/Auger Mining: Prepared permits for highwall mining operations, highwall calculations, web calculations, and safety plans.
- Developed plans for land development on abandoned mine sites to include municipal landfills, buildings, and solar farms.
- As part of his work, Michael has spent considerable time making field visits to underground and surface mines, including the working faces.

Underground Mines

- West Virginia, Kentucky, Ohio, Virginia, Pennsylvania, Maryland, and Illinois
- Visited the working face and ancillary areas in mines with coal seams ranging from 36 inches to 20 feet thick.
- Provided opinions on the working conditions, geologic conditions, and mine planning.

Surface Mines

- West Virginia, Kentucky, Ohio, Virginia, Pennsylvania, Maryland, and Illinois
- Mining operations to including contour mines, area mines, and mountain top removal operations.
- Have inspected operations in highwall and valley fill areas as well as sediment and erosion control devices.

Abandoned Mine Land Projects

- Ned's Branch Impoundment
- Low Gap Impoundment
- Harewood Refuse Pile
- Troy Town Mine Site
- Amherstdale Mine Site
- Crites Mine Blow Out

Innovation

He pioneered design and construction of end dump valley fills and coal refuse impoundment designs. Designed innovated techniques for reclamation for abandoned mine land projects.

Threatened/Endangered Species Evaluations – Mr. Sustich has assisted in several threatened/endangered species evaluations for transportation projects in both Pennsylvania and West Virginia. He worked as an assistant in a Long Eared Owl and Northern Goshawk survey for Corridor H, as well as evaluated potential habitat within the project area for Timber Rattlesnake, Green Salamander, and Southern Rock Vole. Mr. Sustich has been involved in Indiana Bat evaluations performing portal sweeps, potential roost tree identification, and assisting in mist netting and harp trapping on projects for the Pennsylvania Department of Transportation (PennDOT) and the West Virginia Division of Highways (WV DOH).

Groundwater and Soil Sampling – Mr. Sustich has been involved in projects requiring groundwater well purging and sampling. He has performed pre-drill water sampling at residential properties prior to producers drilling Marcellus Shale wells. He has performed work for the Pennsylvania Department of Transportation and private clients.

Asbestos Inspections – Mr. Sustich is certified in Pennsylvania for asbestos inspections and supervisor oversight during abatement activities. He has performed several asbestos inspections for both the public sector and private clients in the Western Pennsylvania and West Virginia area.

Indoor Air Quality Investigations – Mr. Sustich has performed several indoor air quality investigations for mold/ mildew for private clients at both residential and commercial properties.

Hazardous Materials Investigations – Mr. Sustich was involved in the pre-demolition hazardous materials investigation of all of the buildings on the campus of the Department of Veteran Affairs Highland Park Hospital in Pittsburgh.

Environmental Site Assessments – Mr. Sustich has been involved with several Phase I ESAs for private clients. He has completed assessments at sites ranging from small commercial properties to medical office buildings.

PROJECT EXPERIENCE

Berkeley Springs Asbestos Inspections, Morgan County, West Virginia – Mr. Sustich served as environmental specialist for the asbestos inspection of several buildings on a property bought by the state. The project was part of an open-end asbestos survey contract providing inspection services for transportation projects throughout the state.

Interstate 79 Improvements, Monongalia County, West Virginia – Mr. Sustich is serving as environmental specialist for improvements at I-79 Exits 152, 153, and 155. His role has included natural resource identification for Exits 153 and 155 and the coordination and completion of the CEE document for Exit 153.

West Run Road Preliminary Investigation and Engineering (PIE) Study, Monongalia County, West Virginia – Mr. Sustich served as environmental specialist for the West Run Road widening project. His duties included stream and wetland identification and delineation and the coordination and completion of the CEE document.

Chief Logan State Park Road Project EA and Finding of No Significant Impact, Logan County, West Virginia – Mr. Sustich served as environmental specialist for the development of a new roadway in Chief Logan State Park. With the Chief Logan Lodge, Hotel, and Convention Center outside the boundaries of the Chief Logan State Park, a need was created to connect the activity areas of the park with the Convention Center. The environmental documentation included an aquatic resources report, Section 4(f) and Section 6 (f) evaluations, and an environmental assessment. The project was a finalist for the WVDOH 2013 Engineering Excellence Award in the planning, traffic, and environmental category. Mr. Sustich was involved in conducting stream, wetland, and waste investigations along the proposed route.

Buffalo Creek Connector CE, Boone and Logan Counties, West Virginia – Mr. Sustich served as environmental specialist for preparation of a CE for construction of an upgraded



Matthew T. Ridgway, PE

Senior Engineer

Mr. Ridgway has diverse experience assisting clients with management, project management, engineering and managing the design and construction of complex projects. He has a proven history as a geotechnical engineer performing and overseeing tasks including preliminary site investigations, engineering analysis and design and construction oversight while maintaining cost-savings initiatives. Mr. Ridgway is an effective communicator and has effectively overseen and managed several projects with multiple stakeholders who share different interest. He successfully deals with complex issues in a highly stressful and ever-changing environments. Mr. Ridgway has worked in a wide variety of both public and private sector projects and is able to use this diversity of experience to provide new and creative solutions to complex problems. Mr. Ridgway will ensure that project teams have the resources and support needed to not only meet but exceed expectations.

PROFESSIONAL EXPERIENCE

Project Engineer; Ground Control, Wyoming OSM; Wyoming. Designed ground control plans for stabilization of abandoned underground mines at multiple sites in Wyoming including underneath Interstate 90. Project included the assessment of existing mine conditions, analysis of existing overburden and the development of a grout control plan.

Project Manager; Ground Control; Frostburg State University; Maryland. Conducted subsurface investigation for the determination of extents and condition of an abandoned under ground room and pillar mine for a site with proposed residential structure. Developed grouting control plan for project site based on the observed conditions. Oversaw grouting program of the project.

Project Manager; High Wall Stability; Confidential Client; Pennsylvania. Performed field investigation of existing bedrock to create a rockfall arrestment system along a 50 foot tall highwall adjacent to a property boundary in Williamsport, Pennsylvania.

Project Manager; Ground Control; Confidential Client; Ohio. Managed the ground control investigation and design for the development of a power station above an abandoned room and pillar mine. Developed mine grouting plan to control subsidence at targeted key across the 200-acre project site.

Project Manager; Ground Control; Confidential Client; West Virginia. Oversaw subsurface field investigation and desktop evaluation of existing mine conditions for multiple underground and surface mines over a 1,000 acres site. Provided recommendations that included removal and replacement of material, dynamic compaction and grouting control plans to mitigate subsidence at targeted areas throughout the site.

Project Manager; Mine Fire, West Virginia DEP; Maryland. Managed the field investigation and provided technical guidance and recommendation for the control of multiple mine fires at refuse sites in southern West Virginia.

Project Manager; Ground Control, WV BRIM ; West Virginia. Performed forensic analysis for the potential of subsidence damage to structures across the state of West Virginia. Scope included desktop study and analysis, field evaluations, subsurface investigations (when appropriate) and determination of cause of failure mechanism.

EDUCATION

BS, Civil Engineering,
West Virginia University,
2013

BS, Mining Engineering,
West Virginia University,
2013

AREA OF EXPERTISE

Geotechnical Engineering

Instrumentation

Mine Site Reclamation

Slope Stability

Deep Foundation

Ground Control

Forensic Investigation

Geostructures

LICENSE

Professional Engineer:
(CO, KY MD,MO,NC,NJ,
PA,SC,UT,VA, WV and WY)

YEARS OF EXPERIENCE

9

YEARS WITHIN FIRM

3

Gerald M. Kuncio

Group Leader – Cultural Resources

Mr. Kuncio is the Senior Historian in Terracon's Cultural Resources Service Group in the Pittsburgh, PA office. He has more than 38 years of experience (27 at Skelly and Loy) in historic research and preparing historic contexts, National Register of Historic Places (NRHP) and National Historic Landmarks (NHL) nominations, NRHP eligibility and effect evaluations, bridge rehabilitation analyses, Historic American Engineering Record (HAER) documentations, and historic interpretation. He has been Project Manager or Principal Investigator on hundreds of projects in Pennsylvania, Maryland West Virginia, Delaware, and New York. He has evaluated nearly all types of standing structures, including high-style architectural and vernacular buildings; commercial, industrial, and religious structures; rural and agricultural landscapes and farms; military buildings and sites; suburban subdivisions and houses, historic districts of all kinds; and historic bridges. Mr. Kuncio's qualifications exceed the Secretary of Interior's Standards and Guidelines for historian and architectural historian under 36 CFR 61.

PROFESSIONAL EXPERIENCE

Mr. Kuncio has been Project Manager or Principal Investigator on a number of large historic resource survey projects, including surveys of the 540-mile-long Pennsylvania Turnpike System; the Delaware, Lackawanna, & Western Railroad's 39-mile-long Clarks Summit to Hallstead Cutoff in northeastern Pennsylvania; the U.S. 220 Tier One National Highway System project, a five-county, two-state planning initiative featuring five corridors of approximately 45 miles in length in West Virginia and Maryland; the 47 mile-long Maglev High-Speed Rail corridor study in western Pennsylvania; and multiple Pennsylvania Army National Guard resources throughout the state of Pennsylvania. He has also overseen six countywide surveys in West Virginia, and prepared hundreds of eligibility and effect determinations. He has analyzed the effect that proposed hydroelectric power projects would have on existing United States Army Corps of Engineers (USACE) facilities, navigation systems, and surrounding resources at eight dams in Western Pennsylvania and West Virginia. Other projects that have involved coordination with the USACE include completing a HAER recordation of bridge piers spanning the navigation channel in Pittsburgh's Monongahela River and assessing the visual impact of an overhead electrical transmission line across a navigable waterway in a Mid-Atlantic state.

Mr. Kuncio started, and continues to grow, the Pittsburgh office's historic preservation practice. He has participated in the development of historic preservation plans for the Brownsville Commercial Historic District in Fayette County, for Moon Township in Allegheny County, and for the Ambridge Commercial Historic District in Beaver County, all in Pennsylvania. He also co-prepared a NRHP nomination for a multi-modal transportation complex in the City of Pittsburgh and managed the preparation of four other high-profile NRHP nominations in Pittsburgh, including one for Point State Park, which is nationally significant in the area of Urban Planning and Design. Mr. Kuncio also recently completed a NHL nomination for an early twentieth-century machine shop and foundry in Greene County, Pennsylvania, a representative example of a small, family-owned "job shop," an important component of the nation's industrial history. In total, Mr. Kuncio has authored, co-authored, or edited 29 NRHP and NHL nominations over the course of his career (including Multiple Property Documentation Forms) on topics as diverse as the National Road, the Allegheny Portage Railroad, the strike headquarters in the 1892 Homestead Lock-Out, the Bedford Springs Mineral Resort, as well as various coal patch towns, county seats, bridges, historic farms and farmsteads throughout the Mid-Atlantic region.



EDUCATION

Master of Arts, American History,
1993, University of Delaware

Bachelor of Arts, American History,
1982, Duquesne University

YEARS OF EXPERIENCE

38 Years

Mr. Kuncio is also an expert on historic bridges. High-profile bridge rehabilitation projects on which he has worked include Pittsburgh's world-famous Smithfield Street Bridge; Bethlehem's Hill-to-Hill Bridge, which features a one-of-a kind truss; Allentown's Eighth Street Bridge, a monumental 1913, reinforced concrete, open-spandrel arch bridge; and the English Center Bridge in Lycoming County, one of the last remaining short-span suspension bridge in Pennsylvania. In all cases, he ensured that the proposed rehabilitation would be in keeping with the Secretary of Interior's Standards for the Treatment of Historic Properties. Mr. Kuncio was also Principal Investigator and Project Manager for Project Keystone, a pilot project which developed a management plan and maintenance manual for 124 stone arch bridges in the Greater Philadelphia region. He authored the maintenance manual, which is being used by bridge maintenance and repair forces throughout the state, and co-authored the final management plan. He has completed all manner of bridge-related reports, including bridge rehabilitation analyses, HAER and state-level recordations, driving tour brochures, websites, posters, NRHP nominations, and wayside exhibits. He has also discussed Pittsburgh's world-famous historic bridges on the History Channel's™ program Modern Marvels.

Mr. Kuncio served for six years on the Pennsylvania State Historic Preservation Board, which develops statewide historic preservation policies and reviews NRHP nominations prior to their submission to the National Park Service. He also served a two-year term on the board of Preservation Pennsylvania, the Commonwealth's only statewide historic preservation organization. He has taught courses and classes on historic preservation on both the graduate and undergraduate level at colleges and universities in Pennsylvania and Maryland. He has helped develop NRHP requirements for bridges, railroads and railroad bridges, and post-World War II suburbs. He has presented papers at a variety of conferences, including at the Society for Industrial Archeology and the Pennsylvania Statewide Conference on Heritage.

Prior to joining Terracon, Mr. Kuncio worked for HAER, documenting steel mills in Pittsburgh's Monongahela Valley. He produced a detailed historic context on United States Steel's Monongahela Valley operations from their inception through their closure in the 1980s. Mr. Kuncio also has extensive knowledge on railroads in the Mid-Atlantic Region and is the former Chief Curator of the B&O Railroad Museum in Baltimore, where he planned, researched, and presented major and minor exhibits on railroading and the social history of railroads. He also launched the museum's B&O Railroad Oral History project, which recorded interviews with railroaders and railroad executives on their experiences at the B&O and its corporate successors. As an employee with the Pennsylvania State Historic Preservation Office (PA SHPO), Mr. Kuncio was a liaison to the Southwestern Pennsylvania Heritage Preservation Commission, an organization dedicated to preserving, interpreting, and adaptively reusing sites, structures, and buildings associated with the industrial history of a nine-county region in southwestern Pennsylvania. He chaired the initial grants review panel and played a key role in developing two Pennsylvania State Heritage Parks.

Trent A. Sustich

Group Manager, Natural Resources/NEPA

Mr. Sustich is the Group Manager, Natural Resources/NEPA, in Terracon's Pittsburgh office. During his 15-year consulting career, he has completed environmental studies and managed open-end contracts for various clients and contracts for PennDOT, the Pennsylvania Turnpike Commission, the U.S. Army Corps of Engineers, the Southwestern Pennsylvania Commission, and Allegheny County. He has experience performing NEPA documentation, project management, project scoping, wetland identification and delineation, benthic macroinvertebrate collection and stream function evaluations, threatened and endangered species investigations including the Indiana Bat, Long Eared Owl, and Northern Goshawk, water quality investigations, permit preparation, asbestos inspections, Phase I Environmental Site Assessments, and groundwater and soil sampling.

PROFESSIONAL EXPERIENCE

National Environmental Policy Act (NEPA) Documentation – Mr. Sustich has experience completing NEPA documentation in both Pennsylvania and West Virginia. He has led and assisted in the completion of Environmental Assessments (EAs), Categorical Exclusion Evaluations (CEEs), and Pennsylvania's Bridge and Roadway Programmatic Agreements (BRPAs). Mr. Sustich is also involved in Environmental Justice assessments and Section 4(f) Evaluations.

Project Management – Mr. Sustich has experience managing several bridge and roadway projects, as well as Phase I ESA projects. His duties include proposal and budget preparation and management.

Project Scoping – Mr. Sustich has experience compiling statements of interests for a variety of transportation related projects. His duties include field scoping, organizing environmental write-ups across all services groups, and responses to selection criteria for PennDOT proposals.

Wetland Identification/Delineation – Mr. Sustich has experience leading and assisting many wetland identification/delineation and permitting projects for transportation, mining, and energy projects in Pennsylvania and West Virginia. He has experience in wetland function evaluation using the USACE Wetland Evaluation Technique II, Hydrogeomorphic Classification, and New England USACE Descriptive Method.

Benthic Macroinvertebrate Collection/Stream Function Evaluations – Mr. Sustich is a permitted benthic macroinvertebrate sampler in West Virginia. He has assisted in macroinvertebrate sampling for several jobs in Pennsylvania and West Virginia, including the I-70 Widening Project in Pennsylvania, and the Chief Logan Connector and Corridor H Projects in West Virginia. He has also been involved in sampling for numerous private client projects located in Pennsylvania and West Virginia. He also has experience evaluating streams using the West Virginia and Kentucky HGM Stream Assessment, EPA Rapid Bioassessment Protocols for Streams and Rivers, and the West Virginia Stream Condition Index (WVSCI).

Biological Evaluations – Mr. Sustich has performed several indoor air quality investigations for mold/mildew for private clients at residential and commercial properties, as well as schools. He has evaluated indoor versus outdoor conditions, and collected both air and swab samples to determine quality of potentially hazardous air quality.



EDUCATION

Bachelor of Science, B.S.,
Physical/Environmental
Geography, The
Pennsylvania State
University, 2011

REGISTRATIONS/ CERTIFICATIONS

U.S. EPA Certified Asbestos
Contractor/Supervisor, PA

U.S. EPA Certified Asbestos
Inspector, PA, WV, OH

U.S. EPA Certified Asbestos
Management Planner, PA

OSHA HAZWOPER/40HR/
8HR Refresher

YEARS OF EXPERIENCE
15 Years

roadway from WV 85 to CR 16. He conducted stream and wetland surveys and was involved in Indiana Bat roost tree identification.

Coalfields Expressway Project, Raleigh and Wyoming Counties, West Virginia – Mr. Sustich served as environmental specialist for the Public-Private Partnership (P3) project constructing a new section of 4 lane highway that will connect Beckley to Mullens. His duties included stream and wetland identification and delineation, mine portal identification and assessment, and harp trapping for Indiana and Northern Long Eared Bats.

Corridor H Project, Grant, Hardy, Randolph and Tucker Counties, West Virginia – Mr. Sustich is serving as environmental specialist for post-ROD environmental and natural resources studies and an EIS re-evaluation for the Corridor H Project. Functional areas include rare, threatened, and endangered species; wetlands and streams; archaeology and historic resources; traffic and noise; and agency coordination, public involvement, and mitigation. Specifically, Mr. Sustich's duties included leading and assisting in the Long Eared Owl survey, Goshawk survey, Indiana Bat and Northern Long-Eared Bat surveys, stream and wetland investigations, and macroinvertebrate sampling.

Glenville Roundabout, Gilmer County, West Virginia – Mr. Sustich served as environmental specialist for natural resource and socioeconomic studies involved in the construction of a roundabout. His duties included stream and wetland identification and delineation, benthic macroinvertebrate collection, and socioeconomic mapping. **Danville Industrial Park Access Road Project, Boone County, West Virginia** - Mr. Sustich served as lead environmental specialist for the construction of a new access road to a proposed industrial park. He lead several field crews conducting stream and wetland identification and delineation, benthic macroinvertebrate collection, and he assisted in mist netting for Indiana and Northern Long Eared bats.

Wellsburg Bridge Project, Brooke County, West Virginia, Jefferson County, Ohio – Mr. Sustich served as environmental specialist for natural resources studies and 401/404 permit preparation for the construction of a new bridge over the Ohio River connecting Wellsburg, WV to Brilliant, OH. His duties included stream and wetland identification and delineation, benthic macroinvertebrate collection, and the preparation of 404, OH 401, and WV 401 permit applications.

West Virginia Route 2 Project, Hancock and Marshall Counties, West Virginia – Mr. Sustich is serving as environmental specialist for natural resource and socioeconomic studies involved in separate roadway upgrades to WV-2. His duties included stream and wetland identification and delineation, Categorical Exclusion updates, and socioeconomic mapping.

Tygart Valley Pipeline Project, Randolph and Barbour Counties, West Virginia – Mr. Sustich provided permit preparation for the construction of a 32-mile natural gas transmission line. He assisted in site reconnaissance and wetland and stream delineation to secure Stream Activity Permits.

White Oaks Phase II Development, Harrison County, West Virginia – Mr. Sustich assisted in permitting for the development of a business park. He assisted in wetland and stream delineation and macroinvertebrate sampling.

City of Pittsburgh Building Inspections, Allegheny County, Pennsylvania – Mr. Sustich served as an Environmental Scientist assisting in the inspections of dozens of buildings in the North Side, West End, Homewood, and Hill District sections of Pittsburgh. Suspected asbestos-containing materials were sampled and sent to a lab for analysis. He developed final reports that detailed asbestos quantities to be used for abatement.

Veterans Administration (VA) Pittsburgh Healthcare System, Highland Drive Campus, Allegheny County, Pennsylvania – Mr. Sustich was involved in the pre-demolition hazardous materials investigation of all of the buildings on the campus of the Highland Drive Hospital.



Mill Creek at I-83 Exit 18 Stream Mitigation Plan, York County, Pennsylvania -Designed the stream mitigation plan for the I-83 Exit 18 project to mitigate for impacts to Mill Creek (a listed wild trout stream within the urbanized area of York, Pennsylvania) and its tributaries and to relocate segments of Mill Creek for the new and widened bridge structures. In-stream habitat and stream stabilization features within the 1,800-LF project reach include mud sills, cross rock vanes, boulder bank revetments, a boulder-lined plunge pool for box culvert energy dissipation, coir-wrapped soil lifts, habitat logs, and an extensive riparian revegetation plan. Excess bedload sediment was factored into the improvements.

Nixon Park Stream Restoration and Wetland Mitigation, Jacobus Borough, York County, Pennsylvania - Designed 1,190 linear feet (LF) of stream restoration to complement the creation of 2.1 acres of wetland (for which he also provided engineering construction oversight and support) within Richard M. Nixon County Park to satisfy permit requirements due to watercourse impacts incurred by the Loganville Bypass project. The wetland mitigation portion of the project offsets wetland impacts resulting from the I-83 Exit 18 project.

Neill Drive Pumping Station Stream Restoration and Infrastructure Protection, PWD Work No. 50224, Philadelphia, Pennsylvania - Serves as the engineer of record for this stream restoration and sewer/water protection project along 2,000+ feet of a severely impacted and eroded Schuylkill River tributary. Stream gradients range from a moderate 3% to a severe 11%, requiring specialized step-pool channel architecture. Fluvial geomorphic survey and measurements, hydrologic (HEC-HMS) and hydraulic (HEC-RAS) analyses, geotechnical investigations, wetland delineations, landowner/stakeholder (PPR) meetings, concept and final design, and permitting are within the scope.

Cresheim Valley Intercepting Sewer Repair Project, PWD Work No. 40961, Philadelphia, Pennsylvania – Mr. Lower was the supervising engineer for the design of this combined stream restoration and sanitary sewer reconstruction project in the Chestnut Hill neighborhood of the city. An exposed 2'-6" x 1'-8" egg-shaped brick intercepting sewer was designed to be rebuilt at an improved crossing angle beneath Cresheim Creek. Following the reconstruction of the sewer, the stream was restored to the appropriate bankfull channel dimensions using natural stream channel design principles. Stormwater outfall stabilization and riparian restoration were also key components of this dual stream/infrastructure restoration.

[D/B] Paxtang Parkway Watershed Restoration - Phase 1, Dauphin County, Pennsylvania – Served as the engineer of record for this multi-faceted watershed restoration project situated within three contiguous municipalities (City of Harrisburg, Paxtang Borough, and Susquehanna Township). The project provides approximately 500feet of full-scale stream reconstruction within accumulated (legacy) sediments, removal of a derelict roadway culvert crossing, stabilization and energy dissipation for an uncontrolled stormwater outfall feature, dual streambank stabilizations to protect the Paxtang Parkway (part of the Capital Area Greenbelt Trail), and riparian restoration.

Paxtang Parkway Watershed Plan, Dauphin County, Pennsylvania – Mr. Lower is overseeing the design and permitting of this comprehensive stream restoration and trail corridor improvement project along nearly 6,500 feet of an unnamed tributary to Spring Creek (informally titled Parkway Creek). This tributary lies closely parallel to the Paxtang Parkway trail, a former city parkway street through a wooded stretch of land that is now heavily used by pedestrians and bikers for recreational benefit. A short distance below the project limits, Parkway Creek joins with Spring Creek, a rare wild trout stream within the Harrisburg urban region.

Mehoopany Creek, Windy Valley Section Stream Restoration, Wyoming County, Pennsylvania - This project is located within the glaciated terrain region of the Northeast United States in the Upper Susquehanna River Basin. Project reach length is approximately 5,000 linear feet, and incorporated natural stream channel design techniques such as cross-rock vanes, flood plain sills, rock barbs, boulder bank revetment, channel plugs and historical stream channel reconstruction to restore stability to the project stream reach. Mr. Lower served as project engineer for this design and construction inspector during the construction phase of this project.

Dan W. Johnson

Department Manager I - Environmental

PROFESSIONAL EXPERIENCE

Dan brings experience in site operations, consistently demonstrating a strong attention to detail and quality of work. As the Department Manager at Terracon's Albany, NY office in Environmental Services, Dan has a proven track record of maintaining high standards of health and safety on projects. His ability to interface directly with clients provides a seamless communication flow, providing clients with a clear understanding of project scope and progress while strictly adhering to financial constraints and time schedules. His expertise spans a range of specialized areas:

- In-Situ Soil Stabilization: Implementing advanced techniques to enhance soil properties on-site, ensuring environmental compliance and structural integrity.
 - Bioremediation: Utilizing biological methods to treat and clean contaminated sites, promoting ecological balance and sustainability.
 - Plant Decommission/Demolition: Managing the safe and efficient shutdown and dismantling of industrial plants, minimizing environmental impact and maximizing resource recovery.
 - Wastewater Treatment: Overseeing the treatment of industrial wastewater to meet regulatory standards, ensuring the protection of water resources.
 - Filter Pressing: Employing filtration techniques to separate solids from liquids, optimizing waste management and resource recovery processes.
- Hydro-Blasting: Using high-pressure water jets for cleaning and maintaining industrial equipment, enhancing operational efficiency and safety.

PROJECT EXPERIENCE

Dewey Loeffel Landfill Superfund Site - Nassau, NY

Project Manager responsible for site investigation activities at the GE Rt 203 Loeffel landfill site. Property had been a suspected dumping area for waste, several test pits were excavated, and drums and two underground storage tanks (USTs) were discovered. The drums were excavated and disposed of USTs were sampled, and pumpable liquid was removed; solids in tanks were left for future disposal. Monitoring wells were installed on site, and site work continues as funding is released. EPA OSC: David Rosoff rosoff.david@epa.gov

Petri Paint Superfund Site - Newark, NJ

Response Manager assigned to the USEPA emergency response to abandoned paint manufacturing facility. The building was a former paint manufacturer that had closed operations and left hundreds of drums of hazardous waste inside an increasingly dilapidated building. All waste material was categorized by waste class and repackaged into Department of Transportation shippable containers. On-site storage tanks and process equipment were cleaned and removed. A structural analysis of the building was performed, and engineers' recommendations were implemented to prevent further structural decline of the building.

EPA OSC: Terry Kish kish.terry@epa.gov

W&G Electroplating Superfund Site – Boothville, WV

Response Manager assigned to USEPA response to an abandoned chrome plating shop. The facility had confirmed hexavalent chromium contamination in soil & groundwater. Response to include delineation of contamination by conducting soil sampling. Installation of permeable reactive barrier (PRB) with zero valent iron (ZVI) to prevent hexavalent chrome from entering property adjacent Booths Creek. EPA OSC: Raj Sharma sharma.raj@epa.gov

EDUCATION

Geological Engineering, Hudson Valley Community College, 2009

CERTIFICATIONS

Coast Guard Person in Charge Incident Command System (ICS)

100, 200, 300, 400, 700, 800 MSHA Part 46

OSHA 40-Hour Hazardous

Waste Operations and Emergency Response (HAZWOPER)

OSHA 8-Hour HAZWOPER Refresher

OSHA 8-Hour Supervisor

USACE Construction Quality

Management USACE EM385

Health & Safety

WORK HISTORY

Terracon Consultants; 2024 - present

Brent Sapen

Project Manager, Department Manager - Civil Engineering

With over 37 years of experience, Mr. Sapen serves as a Department Manager of the Civil Engineering Services Group of Skelly and Loy, Inc. He has direct project-related experience in the fields of civil engineering and design, mining, and environmental engineering. Mr. Sapen has been involved in the preparation of site development plans for many commercial, residential, and industrial construction projects. His experience in land development has included the preparation of site development plans, contract documents, highway occupancy permits, and local and State permit applications. The work associated with these projects includes site grading, bituminous and cement concrete pavements, sidewalks, curbing, retaining walls, erosion and sedimentation control planning, and stormwater management. Mr. Sapen also performs map development and prepares the required design and permit drawings. He has prepared numerous acid mine drainage passive treatment system designs for sites throughout Pennsylvania and West Virginia. The systems included anoxic limestone drains, limestone ponds, sulfate bacteria reducing beds, and vertical flow wetlands. He also prepared zoning applications for Marcellus Shale projects and conducted core drilling and sampling, erosion and sedimentation control planning, foundation and retaining wall designs, bituminous and cement concrete pavement designs, and the design of wetland habitat replacement and stream relocations. Mr. Sapen has also provided inspection services for the concrete pavements, and structural steel building systems.

EDUCATION

Bachelor of Science, Structural Design and Construction Engineering Technology, 1987, The Pennsylvania State University

YEARS OF EXPERIENCE

37 Years

Professional Experience

Susquehanna River Basin Commission, Pennsylvania – Mr. Sapen prepared design plans and permitting for the Bilger 4.0 Discharge AMD Treatment System Project in Clearfield County, PA. The project included surveying, base map and design plans preparation, and erosion and sedimentation control planning for the construction of a 2,000 ton oxalic limestone drain, dosing siphon, collection piping, and drain and flush piping.

Susquehanna River Basin Commission, Pennsylvania – Mr. Sapen performed investigative and design phase services for the Rausch Creek AMD Collection and Conveyance System in Schuylkill County, PA. This project entailed preparation and design of a collection system for three separate AMD discharges and convey said discharges to an existing Treatment Plant. Susquehanna River Basin Commission, Pennsylvania – Mr. Sapen performed investigative and design phase services for the Billmeyer Quarry Consumptive Use Mitigation project in Lancaster County, PA. This project entailed preparation of design and permit plans for pumping water from two separate existing quarry pits into the Susquehanna River. A GP-4 permit was required from the Lancaster County Conservation District for the two intakes and two outfall structures.

Broad Top Township, Pennsylvania – Mr. Sapen has served as the Civil Design Specialist for the design, permitting, and construction of more than a dozen passive AMD treatment systems in Broad Top Township. Mr. Sapen assisted in the design and permitting associated with the passive treatment systems. Some of the projects required the use of mine seals, mine pool manipulation, and treatment technologies capable of treating high flow and/or high-level acidity discharges. Treatment systems included flushable limestone beds, settling ponds, aerobic wetlands, etc.

PennDOT I-99 Sections A-12 and C-12, State College, Pennsylvania – Mr. Sapen served as Civil Design Specialist and assisted in preparing design drawings and permitting the active chemical treatment systems at the site. Mr. Sapen assisted in the design of the grading, contouring, and covering of two of the pyritic fill areas to prevent runoff infiltration and helped design the associated stormwater runoff handling system for the impervious areas.

Northumberland County Conservation District, Anthracite Outdoor Adventure Area, Pennsylvania – Mr. Sapen prepared the design drawings for submissions to the local agencies for approval as well as the construction plans. The plans included design of an AMD Treatment system which included treatment cells consisting of limestone beds and wetlands, repair of an existing system including enhanced spillways for aeration and baffle curtains to drop out suspended metals and dissolved solids prior to entering Carbon Run.



Michael E. Lower, P.E.
Principal, Department Manager of Engineering

PROFESSIONAL EXPERIENCE

As a Principal and Department Manager for the Engineering Division in the Harrisburg office of Skelly and Loy, Inc., *A Terracon Company*, Mr. Lower is directly responsible for a staff of over 30 professionals. In his position as the Department Manager, Mr. Lower holds the ultimate responsibility for project budgets, job performance, and client satisfaction.

EDUCATION

Bachelor of Science, Chemical Engineering,
The Pennsylvania State University, 1996

REGISTRATIONS

Professional Engineer:
PA, MD, TX, VA
Rosgen Levels I-IV

YEARS OF EXPERIENCE

28 Years

Susquehanna River Basin Commission On-Call Contract for Professional Engineering Services, Multiple Counties, Pennsylvania – Mr. Lower served as the Contract Representative for Skelly and Loy's open-end contract with SRBC to provide professional engineering services for Mine Reclamation Design and Stormwater Design. Skelly and Loy was issued eleven (11) Task Orders for services that included: topographical site survey; feasibility analyses for gravity conveyance of mine drainage; passive acid mine drainage (AMD) treatment design; geotechnical investigation services for AMD treatment design; design and construction of preparatory support site improvements for consumptive use mitigation systems; environmental permitting; abandoned mine land (AML) reclamation; and active treatment plant (ATP) third party design review.

[D/B] Nesquehoning Creek Levee Stabilization and Stream Improvement, Carbon County, Pennsylvania - Mr. Lower served as the engineer of record for this nearly 1,000LF project along Nesquehoning Creek. Past land use practices relocated the main channel of Nesquehoning Creek behind an earthen levee along the side of the valley. Ongoing erosion of this levee was exacerbating downstream flooding problems due to excessive bedload deposition in the channel. Implementation of this project rebuilt the earthen levee in a more stable configuration further landward to stabilize the streambanks and rebalance sediment transport functions.

First Hollow Run, Carbon County, Pennsylvania - Consolidation of the two original stream channels into one steepened channel, coupled with the relocation of the channel alignment to accommodate historical mining activities resulted in a 100-foot wide and 25 foot deep actively eroding ravine. To design the restoration and stabilization of this very high-gradient Exceptional Value stream channel with a wild trout population, Mr. Lower and the design team used an innovative step-pool approach that incorporates keystone step structures. This project design led to Mr. Lower being a co-author of a paper entitled Natural Channel Design of Step-Pool Watercourses Using the "Keystone" Concept.

Oley Creek Sediment Abatement Project, Luzerne County, Pennsylvania -For this sediment removal project, Mr. Lower oversaw the design of the sediment removal basin and associated stream restoration features. Hydrologic and hydraulic calculations were prepared to verify the stability of the proposed project. The implementation of this project will reduce the volume of silt and sand bedload that reaches Oley Creek and Beech Mountain Lake from previously mined areas in the upper watershed.

West Virginia Department of Highways – For this state transportation agency, Mr. Lower performed the engineering design for three stream restoration projects. In completing the required design calculations, he used field data to determine the physical properties for the restored stream reaches including meander wavelength, bankfull width, and pool slope. One of the projects involved the design of three high gradient step-pool stream reaches using keystone step structures.

[D/B] Valley Green Run Restoration and Pedestrian Bridge Project, Philadelphia, Pennsylvania - This long-awaited stream restoration and trail improvement for Friends of the Wissahickon (FOW) within Wissahickon Valley Park reestablishes a vital pedestrian connection between Forbidden Drive on the west side of Wissahickon Creek and heavily used parking to the east. Erosion and degradation of the stream had forced park users to walk within traffic lanes to access the Valley Green Inn area. Skelly and Loy was the general contractor for the project, designing the step pool stream restoration and providing permitting services and overall management on the \$3.5-million project. Partners on this design-build project constructed the channel improvements, performed project earthwork and designed and managed construction



Justin T. Matincheck, PE

Senior Engineer – Environmental Engineering

Mr. Matincheck's experience in environmental, civil, and construction related projects has been gained through involvement in the planning, process design, preliminary design, and detailed design for numerous engineering projects. Mr. Matincheck has provided technical input on acid rock drainage (ARD), potable water, domestic and industrial wastewater, surface water quality, stormwater management, rainwater harvesting and reuse, Spill Prevention, Control, and Countermeasures (SPCC), and stream restoration projects.

PROFESSIONAL EXPERIENCE

ARD Remediation Projects - Mr. Matincheck has provided ARD remediation engineering services for both ground water and storm water. Remediation services included design, preparation of operation and maintenance plans, estimating costs, pump and pump station design, capacity (source, treatment, distribution, and storage) evaluations, and preparation of design drawings for the collection, treatment, and storage facilities for acid rock drainage from road cuts. Mr. Matincheck has also completed the National Pollutant Discharge Elimination System (NPDES) and Water Quality Monitor (WQM) permit applications required for these projects.

Potable Water Systems Engineering - Mr. Matincheck has provided potable water system engineering consulting for existing municipal and privately owned public water systems. Services performed include operations consulting, capacity expansion (source, treatment, distribution, and storage) evaluations, Pennsylvania Department of Environmental Protection (PA DEP) permit modifications, evaluation of impacts due to new regulatory requirements, and design of new facilities or modifications to system infrastructure. Mr. Matincheck has also developed new sources and designed new systems for existing areas and new developments not currently served by a public water system. These services include identification of potential sources, evaluation of the source options, testing of the selected source, PA DEP Public Water Supply permit application preparation, and preparation of design drawings for the construction of source, treatment, distribution, and storage facilities.

Mr. Matincheck has also provided construction oversight for potable water systems. Services include construction inspections, water sampling oversight and review, and construction certification.

Domestic Wastewater Systems Engineering - Mr. Matincheck has provided wastewater system engineering consulting for existing municipal and privately owned permitted wastewater systems. Services performed include infrastructure management, evaluation of collection system infiltration and inflow, capacity expansion (both collection and treatment) evaluations, PA DEP NPDES permit renewals, evaluation of impacts due to new regulatory requirements, the design of new facilities or modification to the system infrastructure, and PA DEP WQM permit applications.

Mr. Matincheck has also evaluated options and designed wastewater systems to serve new developments or existing neighborhoods that exist outside of a central wastewater service area. Services include option evaluation, equipment selection and system design and implementation. System design included but is not limited to estimating costs, pump and pump station design, capacity (source and treatment) evaluations, and preparation of design drawings, specifications, erosion and sedimentation plans, and detailed quantities for contractor bid.

EDUCATION:

B.S., Environmental Engineering, 2009, The Pennsylvania State University

PROFESSIONAL REGISTRATIONS AND CERTIFICATIONS:

Professional Engineer, PA, MD, WV

YEARS OF EXPERIENCE: 13 Years

Mr. Matincheck has prepared PADEP applications such as sewage planning modules and WQM, NPDES, and General permits. Mr. Matincheck has also completed PADEP Chapter 94 reports and has reviewed and provided assistance with completion of discharge monitoring reports.

Industrial Wastewater and Waste Management

- Mr. Matincheck has provided industrial wastewater services to industries including the identification and quantification of contaminants of concern and wastewater volumes. Services included pretreatment evaluation and design. Mr. Matincheck has also been involved in the preparation or modification of required permits.

Surface Water Quality

- Mr. Matincheck has provided technical input on the presentation of stormwater and wastewater discharge (NPDES) permit applications. Application preparation included review and compilation of historical discharge sampling results, sampling of existing outfalls, projection of future outfall parameter concentration, and completion of application forms.

Stormwater Management

- Mr. Matincheck has provided municipal stormwater management services. Services include design calculations, implementation of best management practices, and field evaluation of water body obstructions and points of concern. Services also include the design of collection systems to separate wash water from washpads and building trenches from stormwater.

Rain Water Harvesting and Reuse

- Mr. Matincheck has performed conceptual and detailed design of rainwater harvest systems with treatment and storage and with ultimate reuse as wash or irrigation water at over 15 sites. The work included evaluating the feasibility of rainwater collection and storage, and providing a cost estimate for construction. Design of the rainwater harvesting systems included preparation of detailed construction drawings and specifications including quantities tables for contractor bidding. Applications for zoning, plumbing, and land development permits were also prepared. Services for contractor bid assistance and construction monitoring were also included.

Spill Prevention Control and Countermeasures (SPCC) plans

- Mr. Matincheck has developed numerous spill response plans for various industrial, commercial, and institutional (schools and universities) clients. The plans included spill prevention and response planning and provided detailed instructions on location and types of oil collection devices required to contain spills and protect wildlife sensitive areas as well as instruction on the required downstream notifications.

Stream Restoration Projects

- Mr. Matincheck has provided stream restoration services to numerous clients. Services include the assessment and design of streams using natural stream channel techniques. Mr. Matincheck has also been involved in field evaluation and surveying of the stream channel and problem areas.

Melissa L. McCloskey, PG

Senior Geologist

PROFESSIONAL EXPERIENCE

Melissa has over 28 years of experience working as an Environmental Geologist, specializing in Site Characterization, Remediation and Phase I/II Environmental Site Assessments. Her experience includes effectively managed investigations and remediation efforts for leaking underground storage tank sites in several states.

Ms. McCloskey is knowledgeable in the use of various well installation, soil sampling, and geotechnical data acquisition techniques using hollow-stem augers, air/mud rotary, and direct-push technology. She is accomplished in the acquisition of hydrogeologic data, its interpretation and analysis using tools such as slug, pump, and drawdown tests. She has extensive experience creating subsurface maps and cross-sections to better interpret the stratigraphic and structural geology of a site which is often necessary to gain better understanding of contaminant migration and remedial options. Geologic data management for computer software modeling programs.

PROJECT EXPERIENCE

PADEP Act 2 Closure Former Gasoline Service Station, PA - Served on team responsible for substantial site characterization activities leading to the successful closure of a leaking underground storage tank site under the PA Department of Environmental Protection's Land Recycling Program Act 2 process by means of institutional and engineering controls as well as activity use limitations recorded in an environmental covenant which resulted in a Release of Liability for the property owner.

PADEP Act 2 Closure, Specialized Industrial Area, former Industrial Plating Facility, PA - Project Manager responsible for finalizing Act 2 SIA submittal for closure. Tasks include design and implementation of approved sampling plan for soil and ground water, report preparation, and serving as liaison between Pennsylvania Department of Environmental Protection and Client.

Hydrogeologic Characterization Hazardous Waste TSD Facility, OH - Member of site characterization team responsible for delineating chlorinated solvent plume. Responsible for delineation efforts, ground water and soil sampling, slug testing, and subsequent reporting and recommendations to client. Member of team responsible for continued on-going remedial efforts and liaison between the client and regulatory agencies.

Phase I Environmental Site Assessments, Multiple Sites, Nationwide - Completion of over 100 Phase I ESAs. The ESAs have been completed in accordance with applicable current ASTM Standards on various commercial properties such as dry cleaners, gasoline stations, former gasoline stations, automotive repair shops, industrial sites, foundries and restaurants. ESAs have also been completed on residential properties (single and multi-family dwellings) and vacant lots. Preliminary asbestos inspections were often completed in conjunction with the Phase I ESAs.

Phase II Environmental Site Assessments, Tri-State Area - Served as Project Manager and field coordinator for the subsurface investigations to determine if former operations had adversely impacted soil or ground water at a given site. Has employed the use of ground penetrating radar, electro-magnetic imaging, and direct push sampling to characterize former UST basins and hazardous materials releases.

UST Site Characterization and Remediation, Retail Petroleum Clients, NC, SC, OH, PA - Project Manager for numerous sites impacted with petroleum hydrocarbons operated by retail petroleum marketers. Responsible for planning, coordination and field implementation of site characterization activities, application of the Risk-Based Corrective Action process (including fate/transport modeling), and technical reporting to regulatory agencies. Achieved permanent closure, implemented natural attenuation monitoring, developed ground water monitoring programs, or developed remediation approach for the majority of the sites.

EDUCATION

Bachelor of Arts, Geology (Hydrogeology/Environmental Geology), Slippery Rock University, 1993

REGISTRATIONS

Professional Geologist:
Pennsylvania, No. PG003956

CERTIFICATIONS

Advanced Aquifer Testing Techniques,
Midwest Geosciences Group, Training
Certificate, February 2008

Connecting Science to Managing LNAPL Sites,
Interstate Technology and Regulatory Council,
Training Certificate, January 2019

Pennsylvania Land Recycling Program Client
Workshop, Pennsylvania Department of
Environmental Protection, Training Certificate,
September 2006

Phase I – Phase II ESA for Commercial Real
Estate, ASTM International, Training
Certificate, March 2007

Vapor Intrusion Guidance, Pennsylvania
Department of Environmental Protection,
Training Certificate, December 2016

Morna Pollock, PMP

Senior Staff Scientist

PROFESSIONAL EXPERIENCE

Morna is a Senior Staff Scientist in the Natural Resources team in Terracon's Pittsburgh office. During her 18-year consulting career, she has completed natural resource studies for various clients and project types. She has experience in project management, project scoping, wetland identification and delineation, and threatened and endangered species investigations including bats, reptiles, amphibians, and bird species.

PROJECT EXPERIENCE

Threatened/Endangered Species – Bats – Morna has 13 years of experience conducting bat surveys in U.K. and held a surveyor permit for listed bat species for 5 years. Morna has experience conducting emergence surveys for both structures and trees, conducting habitat assessments and conducting potential roost tree surveys. Morna has experience of survey design for static acoustic surveying in addition to analyzing bat calls using both Kaleidoscope and SonoBat, and recordings from infrared/night-vision camera technologies. Morna was also a volunteer for a UK federal agency attending to bat calls in business and residential properties to assist in the safe removal of wayward bats from properties and advising/educating on measures to prevent bats from accessing living/working spaces and on the permitting procedure should the occupant wish to exclude bats from the premises.

Threatened/Endangered Species – Migratory Birds and Raptors– Morna has undertaken many raptor and eagle surveys to inform collision risk modeling for approximately 40 wind farms, consisting of both static vantage point watches and transect surveys. Additionally, Morna has experience conducting nest surveys for migratory bird species and creating Bird Hazard Management Plans for airports (UK only).

Wetland Identification/Delineation – Morna has experience assisting in wetland identification/delineation and permitting projects for transportation projects in Pennsylvania and West Virginia in the Eastern Mountains and Piedmont Region.

Categorical Exclusion/Environmental Impact Statements – Morna has experience informing environmental impact statements in the U.K., including the biological resource sections. Morna also has experience contributing to Scoping Reports along with cultural resources and socioeconomic assessments for a variety of projects with an emphasis on renewable energy. Her duties included project scoping, consultations with agencies, collation, and analysis of data, permitting and mitigation design. Morna has assisted in the preparation of categorical exclusion documentation for a number of projects in West Virginia.

Macroinvertebrate Research – Morna has participated in extensive macroinvertebrate sampling for a research project focusing on damselfly and dragonfly nymph predator/prey interaction to inform a published research paper. Morna is lead author on the research paper.

WVDOH Corridor H - WV

Morna assisted in wetland delineation, wetland reevaluation and completion of WVRAM assessments for the Corridor H project from Parsons to Davis, West Virginia.

PennDOT Bridge Replacement Projects (Multiple) - PA

Morna has assisted in wetland delineation, PNDI and IPaC coordination and the preparation of categorical exclusion documentation for a number of infrastructure projects in Pennsylvania, including bridge replacement projects.

EDUCATION

Master of Science, Global Environmental and Sustainability, University of London, 2025
Bachelor of Science, Aquatic Bioscience, University of Glasgow, 2004

REGISTRATIONS

Project Management Professional, No. 2989868, Exp. 03/2027

CERTIFICATIONS

Endangered Species Act Consultation Training, 2024

Leed AP Building Design + Construction, Exp. 12/2024

USACE Wetland Delineation with Regional Supplements, 2024

Stephen (Steve) G. Toki, Jr.

Senior Staff Scientist - Natural Resources

PROFESSIONAL EXPERIENCE

Steve has 29 years of natural resources-related experience including three years as a fisheries biologist with the Pennsylvania Fish and Boat Commission. His responsibilities primarily include natural resources/ecological evaluations, National Environmental Policy Act (NEPA) documentation and state/federal water obstruction and encroachment permitting. In his role, Steve serves as a lead investigator, field coordinator, and overall project coordinator.

Steve directs and leads a variety of primary research studies and facilitates agency coordination for our clients. He has a broad experience base in conducting routine wildlife and habitat surveys for a variety of birds, mammals, fishes, reptiles, amphibians, and plants including those designated as species of special concern. He has extensive experience in aquatic resources assessments/characterizations as well as wetland and stream mitigation site selection, site design, construction inspection, and post-construction monitoring. Additionally, Steve has practical experience as a senior field delineator and is skilled in the use and application of the federal delineation manuals and various individual state wetland finding procedures and regional delineation supplements as well as multiple functional habitat assessment methodologies. His stream experience includes stream ecology and habitat assessment (including United States Environmental Protection Agency [U.S. EPA] Rapid Bio-Assessment and WWSWVM), macroinvertebrate and fish sampling (including electro-shocking), impact assessment, mitigation site suitability and design (natural stream channel design, and fluvial geomorphic techniques), and construction inspection of mitigated resources. Steve is also experienced in evaluating terrestrial ecosystems including application of various wildlife habitat assessment models, development of habitat conservation/protection and enhancement plans, and implementation of breeding bird and raptor survey.

Ultimately, he is responsible for securing state and federal environmental permits for our clients. Steve has applied his expertise and has helped to facilitate and successfully manage natural resource related issues on hundreds of federal/state and private projects throughout West Virginia, Pennsylvania, Virginia, New York, New Jersey, and Maryland.

PROJECT EXPERIENCE

White Oaks Business Park Phase II Site Development - Harrison County, Bridgeport, West Virginia
Provided technical guidance/oversight and served as senior field liaison to the prime consultant relative to stream inventories, classification, and assessment (WWSWVM evaluations). In addition, he is currently assisting the prime consultant in the development and implementation of a resource mitigation monitoring plan and evaluation of performance standards per stipulations within the issued Section 404 permit for the project.

Corridor H Project - Randolph, Tucker, Grant, Hardy and Hampshire Counties, West Virginia
Project Manager and Senior Resource Technical Lead for this project. In addition to his management role, he is responsible for a variety of ecological evaluations (i.e., wetland delineations, stream habitat assessments, threatened and endangered species surveys, etc.) and reporting in support and preparation of required NEPA Reevaluations as well as federal and state permit applications for Sections 01- 03 (approximately 30 miles of "new" roadway) of the proposed highway system. He identified, evaluated, and documented several mitigation actions relative to brook trout habitat enhancement/restoration within the Monongahela National Forest for the U.S. Forest Service including elimination of aquatic passage impediments. Additionally, he developed an ecological-based restoration project which incorporated stream, wetland, and riparian restoration and creation along a previously undocumented naturally reproducing trout stream within the project area. He also conducted various species habitat and presence/absence species surveys (timber rattlesnake, green salamander, woodrat, goshawk, etc.) for the project as required by the U.S. Forest Service. Mr. Toki supervised the basin inventory and assessment findings per USACE 404 permit stipulations along the Davis to Bismarck section of Corridor H. Most recently, he oversaw, directed and assisted with RT&E species surveys on both the Parsons to Davis and Wardensville projects. As part of this effort, Steve facilitated teaming arrangements with three different subconsultants to meet WVDOT project schedules as well as the individual species survey windows.

EDUCATION

Bachelor of Science, Environmental Health/
Biology Minor, Indiana University of
Pennsylvania, 1995

TRAINING

Technical and Regulatory Guidance for
Characterization, Design, Construction and
Monitoring of Mitigation Wetlands – Interstate
Technology Regulatory Council May 2005

Bog Turtles and the Environmental Review
Process Parts I & II– United States Fish and
Wildlife Service and the Pennsylvania Fish and
Boat Commissions, October 2003 and June
2004

Endangered Species Act – Pennsylvania
Department of Transportation October 2002
NEPA and Transportation Decision Making –
Commonwealth of Pennsylvania Department
of Transportation May 2005

Road Crossing Structure Improvements to
Accommodate Wildlife Passage - American
Society of Civil Engineers July 2006

Threatened and Endangered Species Training
(PennDOT Publication 546) - Including
module on INDIANA BATS – PennDOT
Engineering District 9-0, Hollidaysburg, PA,
March 2009

Species of Special Concern – Pennsylvania
Department of Transportation September
2003

WV Department of Transportation, New Cumberland Route 2 Environmental Assessment – New Cumberland, WV
Senior Field Crew leader responsible for the inventory, classification, and characterization of aquatic resources within the project study area. As part of this effort, he conducted, documented, and oversaw Waters of the United States determinations and WV SWVM analyses supporting NEPA reporting requirements.

Wildlife Specialists, LLC, Mist Net Surveys for Federally Endangered Indiana Bat – Various Marcellus Shale Natural Gas Pipeline Projects - North Central and Northeastern Pennsylvania
Assisted with mist net surveys for the federally endangered Indiana bat on multiple natural gas pipeline projects located in Tioga, Potter, Sullivan and Montgomery Counties, Pennsylvania. Surveys were conducted for a 3-month period during the summer of 2010. Surveys were conducted in accordance with Pennsylvania game Commission and United States Fish and Wildlife Service established protocols. Survey efforts included site and net set selection (GPS survey), species identification and specimen data collection, transmitter and radio-telemetry, documentation of summer range/site habitat features, data compilation and adherence to specific disinfectant protocols.

Wellsburg Bridge over the Ohio River Design Build Public/Private Partnership - Brooke County, West Virginia
Project Owner, Wellsburg Bridge PIT – Wellsburg, WV
Senior Field Crew leader responsible for the inventory, classification, and characterization of aquatic resources within the project study area (both Ohio and WV). As part of this effort, he conducted, documented, and oversaw Waters of the United States determinations and completion of respective state resource analyses supporting the United States Army Corps of Engineers (USACE) Section 404 and two Individual Section 401 State Water Quality permitting requirements. Also prepared the Waters of the U.S. Jurisdictional Delineation Report and facilitated a successful agency field view to obtain state and federal concurrence on delineated features and functional parameters. He successfully coordinated and obtained Waters of the United States related permitting approvals, including facilitation of proactive compensatory resource mitigation.



White Brothers Consulting, LLC

Patrick D. Gill, P.S.

Professional Surveyor

Mr. Gill's primary responsibilities include survey design and project support. Gill's typical project tasks include: survey crew management, boundary solution, courthouse research, survey data reduction, and construction stakeout data preparation. Mr. Gill has extensive experience with WVDOH surveying, as he has retired from the State.

Education

- A.S. Degree in Civil Engineering Technology
Hartford State Technical College

Work Experience

- 2019-present
White Brothers Consulting, LLC
- 2013-2019
WVDOH District 7
- 2010-2013
WVDOH District 1
- 2007-2010
Frito Lay
- 1992-2007
Industrial Maintenance Tech
- 1984-1992
Land Surveyor, Various Firms

Registration

- Professional Surveyor in West Virginia, P.S. 2209

Project Experience Highlights

Survey Coordinator, WVDOH District 7, Weston, WV

- Liaison with engineers within the DOH as well as consultants and contractors. Planning and scheduling jobs, supervision and training of survey personnel. Assisted with drone surveys and tripod mounted LiDAR surveys.

Survey Party Chief. WVDOH, District One, Charleston, WV

- Bridge and highway surveying, topographic surveying, right of way, and construction layout using GPS, robotic total station and data collector. Trimble Software used in the field and office. CADD using both Microstation and InRoads. Supervision and training of survey crew in District 1.

Survey Manager

- Leading White Brothers surveying department, Patrick leads field crews in work ranging from simple boundary surveys to bridge layout for contractors.

Survey Manager AML Construction

- Patrick has been involved and managed our survey crews for AML construction layout, as well as performing as-built surveys and associated drawings for final quantities and approval from the WVDEP-AML office.



White Brothers Consulting, LLC

Timothy T. White, P.E.

Roadway and Site Design Engineer

Mr. White has more than thirty three years experience in both roadway design and construction. He also has experience in well pad and access road design. He has a strong background in geometric design, drainage, and all other facets to complete a set of plans for construction. He possesses the ability to see a project from beginning to end, and has experience ranging from a design engineer, to a project manager, to his last engagement as a Principal Engineer. He is the sole member of the firm.

Education

- B.S. Civil Engineering, 1992
West Virginia University

Work Experience

- 2012-present
White Brothers Consulting, LLC
- 2003-2011
TERRADON Corporation
- 2000-2003
The Louis Berger Group
- 1998-2000
Wilbur Smith Associates
- 1993-1997
Battle Ridge Companies/Ryder & Company
- 1992-1993
West Virginia Department of Transportation

Registration

- Professional Engineer in West Virginia, Ohio, Kentucky, Arkansas, Texas, Maryland, Pennsylvania, Virginia, Tennessee, and District of Columbia.

Project Experience Highlights

Multiple Well Pads & Access Roads, Ritchie/Doddridge Counties, West Virginia

- Mr. White was the Engineer of Record in the design of well pads and associated access roads. Projects involved all facets of design, from preliminary site to final designs, and included all drainage and E&S design. Strict adherence to WVDEP permit requirements were obtained at all times.

Central Station Design/Build Bridge, Doddridge County, West Virginia

- Mr. White was the Roadway Design Engineer for the approaches for the replacement of a 80'-0" bridge. This project was a design build project with Bilco Construction for Antero Resources.
- Project included roadway design, drainage, and maintenance of traffic, as well as construction management and coordination.

Flood Projects, Kanawha/Roane Counties, West Virginia

- Mr. White was the Roadway Design Engineer for work associated with the flooding of June 2016
- Project included roadway design, drainage, and maintenance of traffic and acquiring all permits needed.

Wolfe Valley Girder Bridge, Mason County, West Virginia

- Mr. White was the Roadway Design Engineer for the approaches and detour for the replacement of a 75'-0" bridge.
- Project included roadway design, drainage, and maintenance of traffic and right of way plans.

White Oak Bridge Design Study, Boone County, West Virginia

- Project consisted of a design study for the replacement of a bridge on WV 3.
- Geometric design, drainage, maintenance of traffic, and a full study was completed for the WVDOH.



White Brothers Consulting, LLC

Timothy T. White, P.E.

Roadway and Site Design Engineer

Project Experience Highlights

Robinson Fork Bridge, Clay County, West Virginia

- Mr. White was the Roadway Design Engineer for the approaches for the replacement of a 80'-0" bridge.
- Project replaced bridge washed away during the floods of June 2016.

Rattlesnake Bridge, Fayette County, West Virginia

- Mr. White was the Roadway Design Engineer for the approaches for the replacement of a 80'-0" bridge.
- Project replaced bridge and was a design build with Bilco Construction for Alpha Natural Resources.

City Beer Overpass Bridge, Wood County, West Virginia

- Mr. White was the Roadway Design Engineer for the approaches for the replacement of a 153'-0" bridge on I-77.
- Project included roadway design, drainage, and maintenance of traffic. Project required a cross-over for MOT.

Groves Creek Box Culvert, Clay County, West Virginia

- Mr. White was the Roadway Design Engineer for the approaches for the replacement of a concrete box culvert.
- Project replaced bridge washed away during the floods of June 2016.

Laurel Fork Campground Bridge, Randolph County, West Virginia

- Mr. White was the Roadway Design Engineer for the approaches for the replacement of a 55'-0" bridge. This project was a design build project with Bilco Construction.
- Project included roadway design, drainage, and maintenance of traffic.

Sleeths Run Bridge, Lewis County, West Virginia

- Mr. White was the Roadway Design Engineer for the approaches for the replacement of a 200'-0" bridge.
- Project included roadway design, drainage, and maintenance of traffic and right of way plans.

Sedalia Arch Bridge, Doddridge County, West Virginia

- Mr. White was the Roadway Design Engineer for the approaches and detour for the replacement of a 72'-0" bridge.
- Project included roadway design, drainage, and maintenance of traffic and right of way plans.

US 19 Widening, Summersville, Nicholas County, West Virginia

- Project consists of widening a four-lane corridor to six lanes, along with two frontage roads.
- Geometric design, drainage, maintenance of traffic, and signing and marking plans are all a part of this project.

St. Mary's Bypass, Pleasants County, West Virginia

- Mr. White did a roadway design study for the WVDOT that consisted of evaluating alternates for the bypass and connection of WV 16 to the Ohio River bridge crossing.
- Project consisted of plans and a design study report that was delivered to the WVDOT



White Brothers Consulting, LLC

Timothy T. White, P.E.

Roadway and Site Design Engineer

Project Experience Highlights

Martinsburg Drainage Study, Berkeley County, West Virginia

- Mr. White was the Design Engineer and Project Manager for the drainage study of a large urban area in Martinsburg. Study consisted of studying drainage conditions from five different date ranges, from 1964 to 2004. Overall results and recommendations for improving drainage was submitted to the WVDOH in a report format.

CR 18/1, Raleigh County, West Virginia

- Mr. White was the Roadway Design Engineer for the design of a new bypass for CR 18/1 around an existing railroad crossing. This project was for International Coal Group, and consisted of a new roadway alignment, associated drainage, pavement design, maintenance of traffic, and railroad coordination.

US 35 Value Engineering, Putnam County, West Virginia

- Mr. White was the Roadway Design Engineer for a Value Engineering project with Kanawha Stone Company on US 35 at the WV 34 Interchange. Design was for Ramp 1 relocation to eliminate additional cut. Project included roadway design, drainage design and coordination with the WVDOH.

Fairmont Connector Value Engineering, Marion County, West Virginia

- Mr. White was the Roadway Design Engineer for a Value Engineering project with Kanawha Stone Company on the Fairmont Connector. Design eliminated MSE walls and included the redesign of approximately 3,000 LF of mainline and the design of relocated side roads and bike path. Design incorporated new alignments, drainage design, water and sewer relocations and coordination with WVDOH.

KY 15 Value Engineering, Breathitt County, Kentucky

- Mr. White was the Roadway Design Engineer for a Value Engineering project with Kanawha Stone Company that eliminated additional excavation and relocated an access road. Project included roadway and drainage redesign.

Virginia Hybrid Energy Center, Virginia City, VA

- Mr. White was the Roadway Design Engineer for the approaches for two new bridges at a new Dominion Energy Plant. This project was a design build project with Vecellio & Grogan. Project consisted of bridge lengths of 72'-0" and 100'-0".

WV 73 Turning Lanes, Logan County, West Virginia

- Mr. White produced a set of plans for the turning lanes for the Fountain Place Development near Logan. Project included roadway design, drainage design and maintenance of traffic plans.

Monongahela River Bridge and Approaches, Marion County, WV

- Mr. White was the Senior Roadway Design Engineer responsible for all roadway design for a 1500' bridge and approaches near Rivesville, WV. All drainage, maintenance of traffic, signing, pavement markings and geometric layout was done by Mr. White. Project also consisted of a design study where three alternate alignments were studied and a design study report was completed for the WVDOH.



White Brothers Consulting, LLC

Timothy T. White, P.E.

Roadway and Site Design Engineer

Project Experience Highlights

Milton Crossing Turning Lanes, Cabell County, West Virginia

- Mr. White was the Design Engineer and Project Manager for the design of new turning lanes for the Milton Crossing Center. Design included roadway design, drainage design, maintenance of traffic and coordination with the WVDOH.

US 50 Turning Lane, Doddridge County, West Virginia

- Mr. White was the Roadway Design Engineer for the design of a new turning lane of US 50 for the new Doddridge County High School. Project included coordination with the WVDOH.

US 50 Corridor D, Wood County, West Virginia

- Mr. White was the Roadway Design Engineer for the design of 2.5 miles of a new, four-lane divided highway. Project included two new interchanges. Design responsibilities included all geometric design, drainage design and maintenance of traffic.

Sam Houston Tollway, Houston, Texas

- Mr. White was the Roadway Design Engineer for two bridge widening projects on the Sam Houston Tollway. Design included geometric layout and design.

Carson City Bypass, Carson City, Nevada

- Mr. White provided a design layout for a new interchange for the Carson City Bypass in Nevada.

US 35 Design Build Project, Putnam County, West Virginia

- Mr. White was the Roadway Design Engineer for a design build team on the US 35 project. Although the team was unsuccessful in the final bid, Mr. White was responsible for all geometric design for 6 miles of a new four-lane divided highway. He incorporated the geotechnical design parameters and completed the design in the span of 2 months.

I-40 Widening, North Little Rock, Arkansas

- Mr. White was the Lead Roadway Design Engineer for the design of 6.5 miles of widening of I-40 from four lanes to six lanes. He was responsible for all geometric design, superelevation design, and maintenance of traffic. The MOT required that two lanes were to be open in each direction at all times. When bid, this project was the largest contract in AHTD history. Mr. White was engineer of record for this project.

Morgan Run PA#2 and Roaring Creek #4, Preston County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for two Abandoned Mine Land (AML) projects. Projects consisted of mine portal closings and a major refuse pile regrade. Mr. White wrote all specifications and construction cost estimates.

Drews Creek Highwall, Raleigh County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for an Abandoned Mine Land (AML) project. Project consisted of three mine portal closings and a major landslide. Mr. White wrote all specifications and construction cost estimates.



White Brothers Consulting, LLC

Timothy T. White, P.E.

Roadway and Site Design Engineer

Project Experience Highlights

Venus (Hamilton) Drainage, McDowell County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for an Abandoned Mine Land (AML) project. Project consisted of one draining portal and associated drainage. Mr. White wrote all specifications and construction cost estimates.

Kingwood Rt. 7 Highwall, Preston County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for an Abandoned Mine Land (AML) project. Project consisted of multiple portal closings, approximately 750 LF of highwall regarding, and a refuse pile regrade. Mr. White wrote all specifications and construction cost estimates.

Shabbyroom Hollow Complex, McDowell County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for an Abandoned Mine Land (AML) project. Project consisted of three separate sites, and work varied from portal closings, to drainage, and refuse pile regrading. Mr. White wrote all specifications and construction cost estimates.

Harris Branch Refuse Pile, McDowell County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for an Abandoned Mine Land (AML) project. Project consisted of a refuse pile regrade. Mr. White wrote all specifications and construction cost estimates.

Gains Highwall, Harrison County, West Virginia

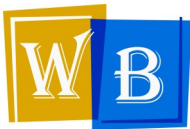
- Mr. White was the Project Manager and Lead Engineer for an Abandoned Mine Land (AML) project. Project consisted of three sites and varied from a landslide, to portal closings and a highwall regrade. Mr. White wrote all specifications and construction cost estimates.

Sarah Ann (Vance), Logan County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for an Abandoned Mine Land (AML) project. Project consisted of multiple mine portal closings, drainage, and a major landslide. Mr. White wrote all specifications and construction cost estimates.

Garden Ground Highwalls, Phase I and II, Fayette County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for an Abandoned Mine Land (AML) project. Project consisted of over fourteen miles of highwall regrade for the proposed Bechtel Summit Boy Scout Camp. Project also included over 100 portal closings and associated drainage. Mr. White wrote all specifications and construction cost estimates.



White Brothers Consulting, LLC

Timothy T. White, P.E.

Roadway and Site Design Engineer

Project Experience Highlights

Mill Branch Bridge, Hampshire County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for the design of a 65'-0" single span design build bridge project.

Brushy Run Bridge, Pendleton County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for the design of a 75'-0" single span design build bridge project.

Dye Bridge, Ritchie County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for the design of a 90'-0" single span design build bridge project.

Cicerone Bridge, Roane County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for the design of a 120'-0" single span design build bridge project.

Harvey Chapel Bridge, Mason County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for the design of a 46'-0" single span bridge project.

White Oak Drive Bridge, Kanawha County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for the design of a 100'-0" single span bridge project.

Thorofare Road Bridge, Kanawha County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for the design of a 50'-0" single span bridge project.

Evitts Creek Bridge, Jefferson County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for the design of a 65'-0" single span bridge project.

Maysville Spring Bridge, Grant County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for the design of a deck slab replacement bridge project.

Stony River Bridge, Grant County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for the design of a 148'-0" single span bridge project.

Bloomery Pike MP 2.31 & Bloomery Pike MP 3.10 Bridges, Hampshire County, West Virginia

- Mr. White was the Project Manager and Lead Engineer for the design of two 50'-0" single span bridge projects.

Steven D. Winters

Construction Manager – TRET V

Mr. Winters leads our CEI department and had incurred over 30 years working on WVDOH projects. His experience includes numerous highway bridge and roadway projects serving on consultant and contracting side making him very diverse with working with contractors.

Project CEI Experience Highlights-WVDOH

Earl Vickers Bridge, Fayette County, WV

- Mr. Winters worked as lead inspector on the Earl Vickers Bridge located in Montgomery, Fayette County, WV. Project consisted of staged construction replacement of Rt 60 overpass Bridge. Project also consisted of LMC Deck Overlay, Concrete patching repairs, steel repairs, Handrailing replacement, Concrete Protective Coatings, Expansion Dam Replacement, ETC.

Save A Lot Bridge, McDowell County, WV

- Mr. Winters served as Project Supervisor on the Save A Lot Bridge located in Welch, McDowell County, WV. Project consisted of replacement of existing bridge structure with Concrete Beams and poured deck.

US RT 35 Design Build, Mason/Putnam Counties, WV

- Mr. Winters served as QAM Inspector and QC Inspector Manager on the final section of US Route 35 Design – Build located in Mason/Putnam Counties, WV This project consisted of new construction of Bridge and Roadway (Grade and Drainage) for 14.92 Miles.

Blennerhassett Bridge RT 50 over Ohio River, WVDOT

- Mr. Winters served as Inspector\Materials QA on the Blennerhassett Bridge located in Wood County, WV. Performed daily inspection responsibilities as well as performed QA materials sampling for the project.

Other WVDOT Experience

- Mr. Winters served as Project manager\Estimator for Highways Contractor installing materials on a vast number of WVDOT projects in all Districts.
- Mr. Winters served as Field Layout Engineer\Materials Technician for Highways Contractor on a vast number of WVDOT projects in all Districts.

Kevin Warner

Senior Party Chief



Certifications

FAA, Remote Pilot, Small Unmanned Aircraft System, 5/21/2019

Experience

Mr. Warner is a Senior Party Chief at RETTEW with close to 30 years of surveying experience, with a focus on topographic surveying. He has performed countless acres of topographic surveys, including open fields, wooded areas, streams, ponds, ditches, roadways, and drainage control features.

Mr. Warner has conducted numerous existing-condition topographic surveys for industrial plant sites, power plants, coal and gas processing plants, as well as residential and commercial ALTA surveys. He has also surveyed stockpiles for dirt, coal, stone, and other materials and excavated areas for volume calculations, and completed hydrographic surveys for small and large ponds, along with streams and river edges in boats using a remote-controlled HyDrone to collect depths and bottom elevations.

Related experience includes the following projects:

Abandoned Mine Reclamation, Ohio Department of Natural Resources (ODNR), Multiple Counties, OH. As Survey Party Chief established control and performed a topographic survey of various sites for mapping and design.

Egypt Valley Wildlife Area Survey, ODNR Division of Wildlife, Belmont and Guernsey Counties, OH. Surveyor Crew Chief and crew member responsible for reconnaissance of property, hunting property corners and ties, cutting traverse lines, setting control and traversed lines, setting monuments, and setting reference points on 14,300 acres of unreclaimed strip mining.

Utica East Ohio Gathering, LLC Harrison Hub, ES Wagner, Harrison County, OH. As Project Surveyor, established control, calculated points for layout, and staked points for construction on 160 acres with multiple buildings and structures.

Gas Drill Pad, Confidential Client, Jefferson County, OH. Party Chief responsible for setting control and performing a topographic survey of the site for the design, staking site for construction, and completing an as-built survey for mapping.

Dam Monitoring, Confidential Client, Washington County, PA. Surveyor responsible for setting control and multiple monitoring points along the crest of dam and spillway, using direct leveling to obtain elevations at points for quarterly comparison.

ODNR Orphan Well Abandonment - Phase II, ODNR, Multiple Counties, OH. As Party Chief and Pilot-in-Charge, performed aerial magnetic drone flights over subject areas, developed flight plans to ensure flight missions allowed for safe flight after field reconnaissance, and performed field topographic survey to locate abandoned gas wells and anomaly locations.

Open-End Surveying Services 2021-2025, Confidential Client, Jefferson County, OH. As Pilot-in-Charge and Survey Party Chief, set aerial targets and conducted a drone flight to collect aerial imagery for existing conditions mapping at this industrial site. Also completed pre- and post-construction imaging.

Robert Griffin, PLS, PS

Senior Surveyor



Registrations

WV, PLS, 2400

OH, PS, 7204

Training

The State of Ohio, Department of Industrial Relations, Division of Mines, Mine Foreman Gaseous Mine, Underground Mine

Experience

Robert Griffin, PS, is a Senior Project Manager on RETTEW's Survey/GIS team with close to 45 years of extensive experience in surveying, mine permitting, and oil and gas operations. He has supported surface mining projects by collecting field data for permit applications, locating property boundaries and highwalls, and performing construction stakeout for haul roads and ponds. His work has included gathering water samples for hydraulic studies and supporting environmental compliance efforts. Mr. Griffin has also contributed to underground mining operations by preparing permit documentation, monitoring pond facilities, and coordinating field efforts to locate existing oil and gas wells for mine planning. In addition, he has managed coalbed methane recovery operations, where he planned well surface locations, prepared oil and gas permits, and developed pipeline gathering systems. His background includes boundary surveys, construction layout, and regulatory permitting for both mining and energy projects.

Related experience includes the following projects:

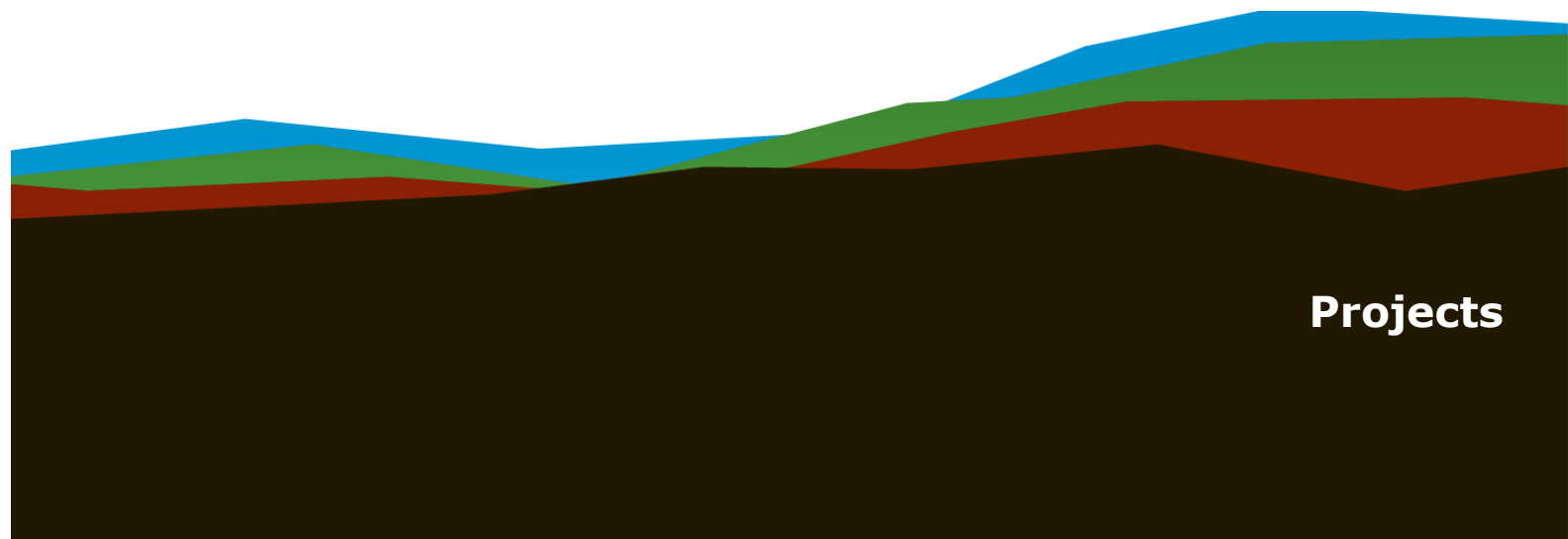
Surface Mine Aerial Mapping, Cravat Coal Company, Belmont County, OH. As Field Crew Chief and Surveyor, established horizontal and vertical control points for aerial mapping for surface mining permits.

Sofidel Survey, Baker Engineering, Pickaway County, OH. As Surveyor oversaw as-built locations of building and utilities. Staked building corners and offset corners, staked proposed utility lines, and established state plane horizontal and vertical control for the site.

County Control Monuments Survey, Harrison County Engineer, Harrison County, OH. As Field Crew Chief and Surveyor, set monuments across the county to establish horizontal and vertical control countywide in Ohio state plane coordinates, North Zone.

Hopedale Plant Boundary Survey, MPLX Marathon, Harrison County, OH. As Field Crew Chief and Surveyor, established the boundary for the exterior boundary and exceptions for the MPLX Hopedale plant location. Prepared a plat map showing the results of the survey and prepared descriptions for the boundary.

Gas Plant Construction - Phases 2, 3, and 5, MPLX Marathon, Harrison County, OH. As Surveyor, performed construction staking for gas plant site, and as-built locations of underground utilities and pipe racks.



Previous Experience



Past Performance in Similar Projects with WVDEP

Terracon has enjoyed a productive working relationship with the state and federal agencies that permit and manage wetlands, ponds, lakes, and streams. These projects include design and mitigation planning related to USACE Section 404 and PA DEP Chapter 105 permits. In addition to the permitting agencies, these projects often include critical coordination with the PA Game Commission (PGC), U.S. Fish & Wildlife Service (USFWS), PA Fish and Boat Commission (PFBC), and County Conservation Districts. On average, Terracon completes 25 General Permits, 10 Individual Permits (Joint Permit Applications), and five PA DEP Dam authorizations per year.

Terracon applies customized approaches to develop cost-effective solutions for WVDEP project challenges. Our innovative tools and resources enable us to mitigate risks efficiently. Through our national network of offices, accredited laboratories, and exploration fleets, Terracon can act quickly to develop a tailored approach to provide you with optimized project services. With over 55 years in business, we simplify complex issues and give fiscally sound solutions, regardless of the project's size or scope.

Terracon recently announced the acquisition of geospatial location intelligence and technology firm Pivvot. This strategic acquisition complements our proprietary technology offerings, including Stage1 and TARGETID. These innovations are the result of a culture that values curiosity and excellence. Over the years, Terracon has invested dollars, time, and sweat equity in developing and deploying these tech differentiators.

Environmentally Sensitive Areas

The environmental analysis associated with the planning, design, and permitting of dam and wetland projects often center around impacts (both positive and negative) to wetlands and other waters. But regulatory framework of the NEPA, the Endangered Species Act, and the National Historic Preservation Act mandate the need to also evaluate impacts to other resources. Terracon's environmental scientists routinely prepare NEPA clearance documents for state and Federal agencies and the recipients of Federal funding and permits. Terracon also has a diverse staff of accredited T+E Biologists and Botanists capable of evaluating listed bats, bog turtles, spadefooted toads, and T+E plant species, among other state and Federal Listed species. Our botanist and landscape architects evaluate and map invasive plant species and develop management plans for a variety of sites, including SGLs. Terracon also has a full-service staff of cultural resource professionals including historians, archaeologists, and soil geomorphologists.

Geotechnical Site Exploration Services

Terracon's geotechnical engineering professionals perform thousands of geotechnical investigations annually. This experience has taught us the critical importance of proper geotechnical site characterization.

Our exploration services originated in 1965; since then, we have expanded our capabilities to become the most prominent national geotechnical drilling firm. With a fleet of more than 150 drill rigs, Terracon's exploration services can mobilize from many locations in the US. Drill rigs mounted on trucks, tracks, buggies, and all-terrain vehicles are available for subsurface exploration. We offer many methods of sampling and data acquisition to meet client needs. Our services include specialized field testing, such as downhole vane shear, barge work, pressuremeter testing, borehole shear, and packer testing. All our Exploration Team members are trained in Terracon safe drilling operating procedures and basic First Aid/ CPR. Baseline and annual medical surveillance examinations are also required for such personnel.

Geotechnical Engineering and Consulting Services

Designing and constructing reliable foundations and infrastructure requires thoroughly understanding soil, rock, and groundwater conditions. Our innovative technologies and our network of accredited and validated laboratories facilitate practical design recommendations to address various site issues.

Terracon's geophysical capabilities include various non-intrusive methods that complement our traditional subsurface exploration. Our geophysical surveys provide valuable data that cannot be gathered through invasive methods, especially in remote or inaccessible areas.

Terracon owns, operates, and maintains the largest network of accredited and validated laboratories of any geotechnical engineering firm in the US. You can be confident that our geopractitioners can consistently produce reliable and accurate test data on projects anywhere in the country. From routine index testing, advanced soil testing, corrosivity testing, and petrographic analysis, our teams process large volumes of test specimens quickly, reducing the risk of delays to your critical project schedule.

Whether a project needs excavation support to allow underground development, retaining walls to facilitate sloping site development, ground improvement systems to provide foundation support over soft soils, or micropiles to support heavy loads in confined areas, Terracon engineers can design a solution to fit your needs appropriately. These professionals have extensive experience preparing geostructural instrumentation monitoring plans, installing instrumentation, and providing monitoring and web-hosting services for remote, real-time project instrumentation monitoring.

Environmental Services

Our complete field service capability and our diverse staff of professionals enhance our ability to provide the full range of assessment and investigation services. Our expertise has been demonstrated by our extensive project experience, which has included the completion of multiple Phase I Environmental Site Assessments (ESAs), Site Investigations, Remedial Investigations, Remediation, Asbestos/Lead, Mold, and Environmental Assessment projects for various public and private entities.

Terracon has conducted due diligence services before construction activities on various public and private lands. We routinely complete a variety of environmental consulting services, including Asbestos and Lead Paint Inspections, Permitting and Compliance, Preliminary Assessments, and Site Investigations and Remediation.

We are proud to have multiple Licensed Site Remediation Professionals (LSRP) on staff to perform environmental investigations and remediation. LSRP is required for sites needing remediation services, including designing and planning.

Industrial Hygiene Services

Terracon offers clients one of the largest occupational health and safety groups in the US, which includes certified industrial hygienists and certified safety professionals. Our health and safety team has extensive experience identifying hazards, monitoring exposures, evaluating risks, and formulating measures to correct problem areas.

Asbestos Consulting

Our nationwide network of asbestos professionals includes more than 150 AHERA-certified asbestos staff in 32 states working out of 59 offices, making it easy for us to send qualified individuals to your project to provide you with the highest quality services quickly and efficiently. We work closely with your project team to establish and maintain schedules and budgets; monitor contractor compliance with abatement specifications; perform daily and final air clearances to protect property, health, and the environment; and reduce risk and liabilities.

Regulatory Compliance

Terracon's regulatory compliance specialists understand the dynamics behind complex regulations and how they affect AML project sites. Our team of experienced engineers and regulatory compliance specialists have the skills and knowledge to evaluate your facilities, assess the applicability of federal and state regulations, and provide you with content knowledge experts to save you time in maintaining compliance with your facilities. Furthermore, we support and develop relationships with regulatory agencies, including the EPA and state agencies, to act as advisors and managers to ensure communications are maintained in the best manner possible.



Friends of the Cheat Acid Mine Drainage Treatment Projects

PRESTON COUNTY, WV

In 2011, Skelly and Loy, a Terracon Company, was awarded the engineering design services contract for the Pase Active AMD Treatment System Remediation Project located just north of Tunnelton along WV Route 26. The Pase AMD discharges are characterized with a combined average flow rate = 86 gpm, pH = 2.9, hot acidity = 218.5 mg/L, total iron = 12.6 mg/L, total aluminum = 21 mg/L, and total manganese = 2.2 mg/L.

Skelly and Loy was tasked with designing a retrofit treatment system using a semi-active treatment technology involving a tipping bucket and silo unit that is hydraulically driven by a water source to dispense an alkaline material such as lime into the acidic mine drainage. The retrofit component of the design related to an existing passive treatment system at the site that was not providing much remediation of the portal-fed AMD sources along the highwall.

Within the constraints of the site, Skelly and Loy designed a treatment system using the lime storage and dispensing unit that included the reuse and modification of three existing ponds and the construction of a new rock-lined mixing, final polishing settling pond/wetland, a sludge dewatering pond with a sludge pump system, and an AMD seepage capture system along the shoulder of WV Route 26 that conveys the water into the treatment system.

In addition to the system design drawings, Skelly and Loy provided the Bid Documents package, coordinated permitting tasks through the WV Division of Highways for work within the right-of-way, and assisted FOC personnel with acquiring additional funds to construct the project and conduct the contractor bidding process and selection. Final completion of the project construction, which started in the Fall of 2012, occurred in the Spring of 2013 and provided an anticipated outcome to reduce the acidity load by 39 tons (95%), 2.2 tons of iron (90%), and 3.8 tons of aluminum (95%) into Pringle Run.

CLIENT:

Friends of the Cheat

POINT OF CONTACT:

Ms. Amanda Pitzer
Mr. Kevin Ryan (POC)
119 South Price Street, Suite 206
Kingwood, WV 26537
304-329-3621

DURATION:

2012-2013

FEES:

\$50,000

SERVICES:

- Wetland Delineation
- Aquatic Resource Investigation
- Water Quality Sampling
- Site Topograph Survey
- Engineering Design
- Plan Preparation
- Bid Package Preparation
- State and Federal Agency Coordination

Key Staff:

- Brent Sapen

Friends of the Cheat Acid Mine Drainage Treatment Projects (cont.)

In 2012, Skelly and Loy was awarded the engineering design services contract for the Upper Muddy Creek Schwab Phase II AMD Remediation Project located in the Pleasant District along County Route 3. An existing passive treatment system (Phase I) was constructed at the site to remediate several AMD seeps throughout the upper portion of the site in 2005. More recently, a seep referred to as the Gutta Seep was identified following the Phase I system construction and was determined to need remediation.

In 2012, the combined outfalls from the Phase I system were approximately 130 gpm and water quality of pH = 3.8, hot acidity = 78 mg/L, total iron = 1.0 mg/L, total aluminum = 10.5 mg/L, and total manganese = 4.0 mg/L. The Gutta Seep is characterized with a flow rate in 2012 of 16 gpm and water quality of pH = 3.3, hot acidity = 110 mg/L, total iron = 3.2 mg/L, total aluminum = 10.2 mg/L, and total manganese = 8.1 mg/L. Skelly and Loy performed the engineering design for a new passive treatment system capable of remediating the Gutta Seep as well as the outfalls from the existing treatment ponds. Three existing limestone leach beds (LLB) from the Phase I system were not functioning as intended so Skelly and Loy designed and recommended improvements to the three LLBs and routed the outfall from each one into a new large LLB located at the low point of the site and adjacent to the Gutta Seep.

Following the new LLB, a large settling pond was designed to oxidize and precipitate the dissolved metals from the limestone treated AMD. The engineering design drawings and bid documents were finalized and provided to FOC in the Fall of 2012. FOC was in the process of acquiring the necessary funding to construct the Phase II passive treatment system and recommended improvements to the Phase I treatment system as provided by Skelly and Loy and was hoping to begin construction in 2013. The anticipated outcome of the Phase II project will be to reduce the acidity load by 91 tons (95%), 3.4 tons of iron (90%), and 7.7 tons of aluminum (95%) into the high quality trout fishery headwaters of Muddy Creek.





Friends of Deckers Creek Acid Mine Drainage Treatment Projects

PRESTON COUNTY, WV

Skelly and Loy, a Terracon Company, was contracted by the Friends of Deckers Creek (FODC) to perform engineering design services for remediation of two different abandoned mine drainage (AMD) projects within the Deckers Creek watershed.

In 2011, Skelly and Loy was awarded the engineering design services contract for the Sandy Run AMD Treatment System Improvements Project located just east of Reedsville off WV Route 7 (Morgan Mine Road). The Sandy Run site involved an existing passive treatment system for an AMD discharge captured within a constructed Blanket Drain (BD1) including two Successive Alkalinity Producing (SAP) ponds and three settling ponds, which were providing minimal remediation.

For the Pase Project, Skelly and Loy was tasked with designing a retrofit treatment system using passive treatment technology involving automatic flushing technologies to manage the high loading of iron and aluminum precipitates anticipated within the limestone-containing treatment ponds. Within the constraints of the site and landowner requirements, Skelly and Loy designed a treatment system using and modifying the five existing ponds and the construction of a new limestone leach bed (LLB) to pretreat the Satcher Portal AMD.

CLIENT:

Friends of Deckers Creek

POINT OF CONTACT:

Martin Christ
Nick Revatta
1451 Earl Core Road, Suite 4
Morgantown, WV 26537
304-292-3970

DURATION:

2011-2013

FEES:

\$85,000

SERVICES:

- AMD Treatment System
- Engineering Design
- Plan Preparation
- E&S Plan Preparation
- Permitting
- Bid Package Preparation
- Construction Inspection
- State and Federal Agency Coordination

Key Staff:

- Brent Sapen

The three existing settling ponds were reused with some minor modifications, while the two SAP ponds were modified. The first SAP pond involved removal of the compost layer, stirring the

Abandoned Mine Drainage Remediation Project Valley Point #12 (cont.)

limestone, adding limestone from the second SAP pond, and installing a manual flush system. The second SAP pond was converted into a vertical flow wetland (VFW) using new limestone and compost materials and installing both an automatic and manual flushing system. High flow restriction structures were designed; however, some of these features were not installed due to budgetary restrictions.

Other components of the system design included over a manhole capture structure and 1,400 feet of pipe conveying the Satcher Portal AMD into the new LLB pre-treatment pond, diversion channel for acidic seeps along the upslope face of the treatment ponds, and spillway and principal outlet structures. In addition to the system design drawings, Skelly and Loy provided the Bid Documents package and erosion and sediment control plans and assisted FODC personnel with permitting tasks, construction inspection, acquiring additional funds to construct the project, and conduct the contractor bidding and selection process.

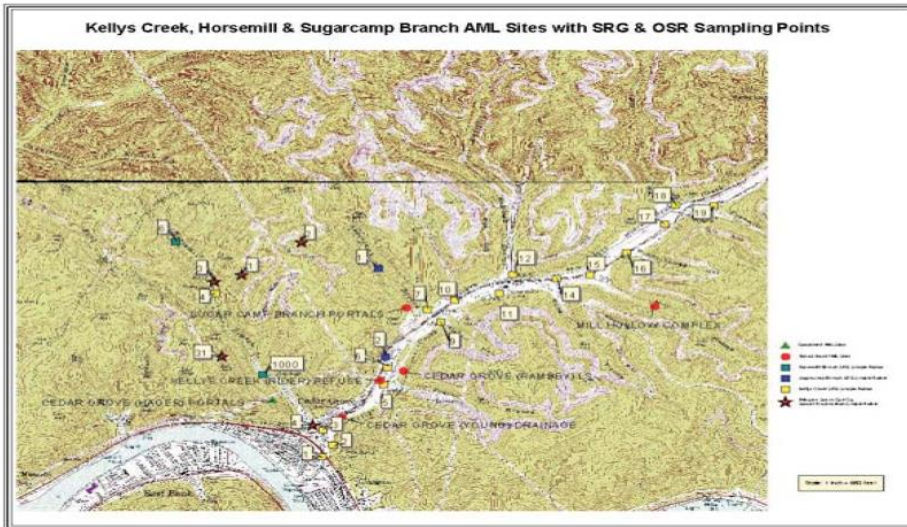
Final completion of the project construction that started in the Fall of 2011 was completed in the Summer of 2012 and will reduce a major contaminant load within the Sandy Run (tributary to Kanes Creek) watershed.

In 2012, Skelly and Loy was awarded the engineering design services contract for the Kanes Creek Reed Mine AMD Remediation Projects involving six different portal AMD discharges located just east of Reedsville off WV Route 7 (Morgan Mine Road). The entire site was recently reclaimed by WV DEP AML with regrading of the highwall and the installation of mine seals and drainage ditches to manage the portal AMD discharges that flow into Dills Run. Two passive treatment systems were conceptually designed to remediate the six AMD discharges.

The first system included four AMD discharges, known as KCSS#3-1, 2, 3, and 4, and included a flushable LLB, a VFW, two settling ponds, and a polishing wetland, which were completed to full engineering construction is estimated for completion in 2015.

The second system included two AMD discharges (KCSS#3-6 and 7) that included a flushable LLB and two small settling ponds. The mass balance characterization of the combined KCSS#3-6 and 7 AMD discharges is as follows: average flow rate = 39 gpm, pH = 3.1, acidity = 103 mg/L, total iron = 5.5 mg/L, and total aluminum = 6.2 mg/L.

The engineering design for the second system was completed in 2012 along with the Bid Documents package. Construction for the KCSS#3-6 and 7 treatment system was completed in 2013, and Skelly and Loy assisted FODC with the contractor bidding and selection process and construction inspection.



Kelly's Creek Water Quality Assessment/ AMD Remediation Project

KANAWHA COUNTY, WV

Skelly and Loy, a Terracon Company, completed two projects for Kelly's Creek Communities Association (KCCA) involving the assessment of abandoned mine drainage (AMD) and the conceptual and final design of AMD remediation projects within the Sugarcamp Branch and Horsemill Branch tributaries of Kelly's Creek.

Kelly's Creek watershed is located southeast of Charleston along the Kanawha River north of Route 60 near the town of Glasgow, West Virginia. Skelly and Loy was initially hired by KCCA to provide environmental services to assess the water quality impacts caused by AMD within two sub-basins of the watershed. These services included reviewing water quality and macroinvertebrate data provided by the West Virginia Department of Environmental Protection, field investigations to collect site-specific data, water quality sampling and testing, and state and federal agency coordination. Skelly and Loy provided KCCA with an assessment report that discussed the associated AMD impacts and conceptual AMD remediation options for the associated discharges.

Subsequent to the water quality assessment, KCCA hired Skelly and Loy to complete engineering and environmental services to remediate the AMD throughout the Sugarcamp Branch and Horsemill Branch sub-basins. These services included site investigations and measurements, aquatic resource investigations (wetland and stream), water quality sampling and testing, engineering design (including plans, cost estimation, and bid package preparation), state and federal agency coordination, and assistance in preparing the state and federal permits. Construction of several projects was completed in 2007.

CLIENT:

Kelly's Creek Community Association

POINT OF CONTACT:

Terry Martin
601 57th Street
Charleston, WV 25304
304-826-0485

DURATION:

2006

FEES:

\$60,000

SERVICES:

- Wetland Delineation
- Aquatic Resource Investigation
- Water Quality Sampling
- Site Topography Survey
- Engineering Design
- Plan Preparation
- Bid Package Preparation
- State and Federal Agency Coordination

Key Staff:

- Brent Sapen



Abandoned Mine Drainage Remediation Project Valley Point #12

PRESTON COUNTY, WV

The Valley Point #12 Abandoned Mine Drainage (AMD) Remediation Project is located outside of Kingwood, West Virginia on a headwater tributary to Kanawha Creek, which is a named tributary to Deckers Creek. Skelly and Loy, Inc. was hired by Friends of Deckers Creek to provide engineering and environmental services to remediate the AMD from two discharges located at this site. These services included site topographic survey, aquatic resource investigations (wetland and stream), water quality sampling and testing, engineering design (including plans, cost estimation, and bid package preparation), state and federal agency coordination, and assistance in preparing the state and federal permits.

At this site, the two mine portals are discharging low flows that have a low pH, and high concentrations of acidity, iron, and aluminum. These discharges have eliminated aquatic life from portions of Kanawha Creek.

The engineering design for this project calls for the collection of the discharges in a limestone leach bed for pre-treatment. This effluent is then moved down slope via a channel to a retention pond, prior to treatment in one or two sulfate-reducing bioreactors depending on the flow. From there, the effluent receives tertiary or polishing treatment in a second retention pond and aerobic wetland. Construction of this project was completed in spring 2008.

CLIENT:

Friends of Deckers Creek

POINT OF CONTACT:

Martin Christ
P.O. Box 877
Dellslow, WV 26531
304-292-3970

DURATION:

2008

FEES:

\$34,000

SERVICES:

- Wetland Delineation
- Aquatic Resource Investigation
- Water Quality Sampling
- Site Topographic Survey
- Engineering Design
- Plan Preparation
- Bid Package Preparation
- State and Federal Agency Coordination

Key Staff:

- Brent Sappen



AA Shaw Mitigation Bank

EFFINGHAM COUNTY, GA

AA Shaw Mitigation Bank is a wetland mitigation bank located in Effingham County, GA that serves the Savannah River Basin. AA Shaw seeks to offset wetland impacts incurred to Jurisdictional wetland impacts through the sale of bank credits. Terracon was contracted to perform the initial site investigations in 2010, inclusive of the wetland mitigation restoration design. Terracon has overseen site prep and construction, site clearing, planting and installation of bare root upland and wetland species over +/- 600-acres.

Terracon conducted the annual success monitoring including data associated with shallow groundwater, wetland and upland vegetation, amphibian species richness/diversity, and annual report submittals to regulatory agencies. Terracon coordinates with the Interagency Review Team, on an annual basis to facilitate the release of both State and Federal agency credits. Terracon has been involved with management activities at AA Shaw since 2010. Kristen Deason is the Project Manager and works closely with the bank owner and the State and Federal agencies to ensure the bank is meeting success criteria and the requirements are being met.

The goal of the mitigation bank was to convert previously existing high density silviculture land / agricultural land into its historic wetland land type. This is done by a combination of forestry and habitat improvements, as well as hydrologic improvements and restoration through a combination of preliminary habitat and wetland analysis. Aspects of this include hydrologic improvements to wetlands via a series of low water crossings and ditch plugs. All enhancement and restoration efforts were successful and the bank was closed out in 2022.

CLIENT:

AA Shaw, LLC

DURATION:

2010 - 2022

SERVICES:

- Wetland Delineation
- Listed Species Assessment
- USACE MBI
- Mitigation Bank Permitting and Establishment
- Coordination (USACE, USFWS, GA DNR, SHPO, etc.)

Key Staff:

- Kristen Deason
- Mike DeMell
- Chandler Pharr
- Aaron Valenti
- Tarah Vick



Causton Bluff HOA

CHATHAM COUNTY, GA

Terracon obtained the appropriate permits through the U.S. Army Corps of Engineers (USACE) and the Georgia Coastal Resource Division (CRD) for a dike re-construction and maintenance project within the Causton Bluff subdivision. The construction was completed in Fall 2016. Following construction, Terracon designed and implemented a marsh re-vegetation plan, as approved by the resource agencies (USACE and CRD).

As part of the permit conditions, the 0.3 acres of salt marsh used for temporary construction access had to be restored following commencement of construction activities. Terracon organized the restoration design and planted the vegetation within a 0.3-acre area, which included 1,250 four-inch plugs of sand cordgrass, 150 four-inch plugs of pink muhly, and 150 four-inch plugs of salt marsh grass, in addition to coordinating 16 pounds of site specific native seed mixes with local nurseries for spreading.

Terracon utilized their Adaptive Management Plan to identify and fix damages inflicted by Hurricane Matthew which came through the Savannah area within weeks of when the planting/restoration effort was complete. Part of the Adaptive Management included re-planting certain areas most affected by the storm surge and coordinating those revisions with the resource agencies (USACE and DNR).

Terracon also created the monitoring plan, which was approved by the resource agencies, to include belt transects and 1-meter squared quad, monitored on a quarterly basis. To date, Terracon has monitored these areas since 2016, and all plantings and restoration areas have been deemed successful.

CLIENT:

Causton Bluff HOA

DURATION:

2013 - present

SERVICES:

- Wetland Delineation
- USACE / CRD Permitting
- Mitigation / Restoration Plan Design & Agency Approval
- Coordination (USACE, GA CRD, etc.)

Key Staff:

- Kristen Deason
- Mike DeMell
- Tarah Vick



CSX Marsh Restoration

CHATHAM COUNTY, GA

Terracon obtained the appropriate permits through the U.S. Army Corps of Engineers (USACE) and the Georgia Coastal Resource Division (CRD) so that CSX Transportation was allowed to permanently impact 0.63-acres of salt marsh for construction of a permanent access road, and to temporarily impact 0.85-acres of salt marsh for the construction access. As part of the permit conditions, the 0.85 acres of salt marsh used for temporary construction access had to be restored following commencement of construction activities.

Terracon designed a site-specific salt marsh restoration plan, working with the resource agencies (USACE and CRD) to gain approval. Once approved by the agencies, Terracon organized research and ordered of nursery stock vegetation, and planted 17,300 two-inch plugs of black needle rush and 3,050 two-inch plugs of big cordgrass, for a total of 20,350 plugs, planted on 1-2' centers.

Terracon utilized their Adaptive Management Plan to identify a potential issue where cattails were the dominate species beginning to colonize in the first few months following construction. To prevent this opportunistic species from outcompeting the more desirable marsh species, Terracon coordinated with the client to devise an herbicide treatment to discourage its continued growth, in order to give the more desired marsh species a chance to re-establish.

Terracon also created the monitoring plan, which was approved by the resource agencies, to include four 100' x 10' belt transects and four 1-meter squared quad, monitored on a quarterly basis. To date, Terracon has monitored these transects for 3 years (12 monitoring sessions) and all plantings and restoration areas have been deemed successful. The cattail herbicide treatment was also deemed a success.

CLIENT:

CSX

DURATION:

2019 - present

SERVICES:

- Wetland Delineation
- USACE Permitting
- Mitigation / Restoration Plan Design & Agency Approval
- Coordination (USACE, GA CRD, etc.)

Key Staff:

- Kristen Deason
- Mike DeMell
- Chandler Pharr
- Aaron Valenti
- Tarah Vick



Yam Grandy Mitigation Bank

EMANUEL COUNTY, GA

Yam Grandy Mitigation Bank (YGMB) is a wetland and stream mitigation bank located in Emanuel County, GA that serves the Ogeechee River Basin. YGMB seeks to offset wetland impacts incurred to Jurisdictional wetland impacts through the sale of bank credits. Terracon was contracted to perform the initial site investigations in 2009, inclusive of the wetland mitigation restoration design. Terracon has overseen site prep and construction, site clearing, planting and installation of bare root upland and wetland species over +/- 1,361.7-acres.

Terracon conducted the annual success monitoring including data associated with shallow groundwater, vegetation, macro-invertebrate species richness/diversity, and annual report submittals to regulatory agencies. Terracon coordinates with the Interagency Review Team, on an annual basis to facilitate the release of both State and Federal agency credits. Terracon has been involved with management activities at YGMB since 2009. Kristen Deason is the Project Manager and works closely with the bank owner and the State and Federal agencies to ensure the bank is meeting success criteria and the requirements are being met.

The goal of the mitigation bank is to re-establish historic hydrologic flows along Yam Grandy and Crooked Creeks and restore floodplain hydrologic activity to the adjacent floodplain wetlands. All wetland enhancement and restoration efforts have been deemed successful so far.

CLIENT:

Georgia L Flanders, LLC

DURATION:

2009-present

SERVICES:

- Wetland Delineation
- Listed Species Assessment
- USACE MBI
- Mitigation Bank Permitting and Establishment
- Coordination (USACE, USFWS, GA DNR, SHPO, etc.)

Key Staff:

- Kristen Deason
- Mike DeMell
- Chandler Pharr
- Aaron Valenti
- Tarah Vick



Seaside Landings Mangrove Restoration and Monitoring

FLAGLER COUNTY, FL

The project is located along County Road 201 south of Highway 100 in Flagler County, Florida. The restoration efforts were conducted in response to a St. Johns River Water Management District (SJRWMD) letter in August 2016 that detailed unauthorized clearing of existing black mangrove trees within the project boundary. Approximately 109 black mangrove trees were impacted during the clearing activities. In response, a restoration plan was submitted in September 2016 that detailed the proposed restoration activities, which included the replanting of black mangroves in the areas most impacted by the accidental clearing. In June 2017, approximately 327 black mangroves were planted.

ESI continues to detail the survivorship and percent coverage of black mangroves with annual monitoring to ensure that the fringe areas that were impacted are successfully restored. As of the 2019 monitoring report there is a total 93% survivorship of the replanted black mangrove.

CLIENT:
 Seaside Landings Home Owners Association
 1 Hammock Beach Parkway, Suite 102, Palm Coast, FL 32137
 Phone
 Email

DATE:
 June 2017 – Ongoing

PROJECT VALUE:
 \$15,500.00

HIGHLIGHTS:
 Mangrove Restoration planting and monitoring



St. Johns Mitigation Bank

ST. JOHNS COUNTY, FL

The St Johns Mitigation Bank is a wetland mitigation bank established in 2017 in St. Johns County, FL. Weyerhaeuser NR Company, a large international corporation that has a large worldwide portfolio, including timber and silviculture lands, other wetland mitigation banks and some development projects, is the owner. The bank was permitted with the both US Army Corps of engineers and St. Johns River Water Management District. Permitting services including initial habitat and community assessment, compilation of a forestry stewardship plan, assessment of existing and proposed community types and the associated UMAM scores, wildlife habitat assessment and mapping as well as archaeological surveys. Terracon has assisted Reinhold Corporation on all of these endeavors, providing a range of services including wetland delineation and Regulatory Agency permitting, Gopher tortoise surveys and relocation, Archaeological surveys and long-term monitoring and maintenance for invasive/exotic species. Terracon coordinated all permitting for the bank with the Interagency Review Team, a team of both Federal and State level regulatory agencies that process mitigation bank permits.

The goal of the mitigation bank is to convert existing, high density silviculture land into more native, flatwood habitats. This is done by a combination of forestry and habitat improvements, as well as hydrologic improvements and restoration through a combination of preliminary habitat and wetland analysis, UMAM score analysis and overall credit determination, establishment of a habitat management and forestry stewardship plan, as well as implementation of the long-term monitoring and maintenance plan, the bank has been successful thus far. Terracon continues to assist in the long-term monitoring and maintenance to ensure the bank continues to meet the intended permit success criteria.

CLIENT:

Weyerhaeuser NR Company

POINT OF CONTACT:

Greg Galpin
Weyerhaeuser NR Company
13005 SW 1st Road
Newberry, FL 32669

DURATION:

2008-present

FEES:

\$500,000

SERVICES:

- Wetland Delineation
- Listed Species Assessment
- USACE MBI
- SJRWMD Mitigation Bank Permit
- UMAM/Mitigation Assessment
- Mitigation Bank Permitting and Establishment
- CRAS
- Coordination (FWC, USACE, SHPO, FDEP)

Key Staff:

- Gary Howalt
- Ryan Taylor
- Brent Handley, RPA



Crane Island

NASSAU COUNTY, FL

The Crane Island development is a single-family housing development located in Amelia Island, FL. The development includes a residential development, with approximately 125 home sites, situated on approximately 75 acres, along with the associated internal roadways and stormwater infrastructure. Terracon assisted in multiple aspects of this project, including the preliminary wetland delineation, wildlife surveys, permitting submittal/coordination/issuance (USACE IP and SJRWMD ERP) and long-term monitoring and maintenance of the wetland mitigation areas. To compensate for ± 1.5 acres of direct tidal salt marsh wetland impacts, Terracon designed and oversaw the construction of approximately 1.0 acre of tidal salt marsh creation located adjacent to the main impact associated with the new entrance road. Terracon is still conducting the long-term monitoring and maintenance of the creation area to ensure it meets the intended permit success criteria. Long-term management includes invasive species control, hydrologic monitoring and monitoring of planted and naturally recruited native species. All efforts have so far been successful, and the wetland mitigation areas continue to meet the intended Regulatory agency permit success criteria.

Terracon also coordinated with US Fish and Wildlife Service to address the presence of a documented bald eagle nest. In addition to assisting with the permitting and coordination with USFWS, Terracon then conducted the long-term monitoring of the nest to ensure that the recent construction activity did not adversely affect the mating pair of eagles located within the nest site. This monitoring included monthly monitoring of the nest, along with any eagle activity, during nesting season, documenting all observations and compiling an annual report that is submitted to USFWS for their review and approval to ensure continued protection of the eagles and their nest.

CLIENT:

The Commercial Range at Amelia, LLC
c/o Sovereign Corp.

POINT OF CONTACT:

Laura Palmisano
The Commercial Range at Amelia, LLC
4001 Centurion Way
Fernandina Beach, FL 32034
(904) 321-3444

DURATION:

2015-present

FEES:

\$75,000

SERVICES:

- Wetland Delineation
- Listed Species Assessment
- USACE Permit
- FDEP ERP
- Wetland Mitigation
- UMAM/Mitigation Assessment
- Bald eagle nest permitting and monitoring for USFWS
- Monitoring
- CRAS
- Coordination (FWC, USACE, SHPO, FDEP)

Key Staff:

- Gary Howalt
- Ryan Taylor
- Brent Handley, RPA



Longleaf Mitigation Bank

NASSAU COUNTY, FL

Longleaf Mitigation Bank (LLMB) is a wetland mitigation bank located in Nassau County, FL that serves the northeast Florida area. LLMB seeks to offset wetland impacts incurred to Jurisdictional wetland impacts through the sale of bank credits. Terracon was contracted to perform overall management activities at Longleaf Mitigation Bank including management and oversight of a 25-man planting crew responsible for the installation of approximately 150,000 bare root upland and wetland species over +/-3,400 acres. Terracon also coordinated all land management activities, including prescribed burns and other on-going land management as required by the Forestry Stewardship Plan. Terracon conducted the annual vegetation monitoring and report submittal, as well as coordinates with the Interagency Review Team to facilitate the release of both State and Federal agency credits. Terracon has been involved with management activities at LLMB since 2007. Ryan Taylor is the Project Manager and works closely with the bank owner and the State and Federal agencies to ensure the bank is meeting success criteria and the requirements of the Forestry Stewardship Plan are being met.

The goal of the mitigation bank is to re-establish native longleaf savannah habitat throughout the upland portions of the bank. This is achieved by a combination of prescribed fire and planting of longleaf seedlings. An additional goal is to hydrologically improve the wetlands via a series of low water crossings and ditch plugs. All enhancement and restoration efforts were successful.

CLIENT:

Longleaf Mitigation Development Company, LLC

POINT OF CONTACT:

Denise Howard
Longleaf Mitigation Development Company, LLC
PO Box 238
Lake Butler, FL 32054

DURATION:

2007-present

FEES:

\$700,000

SERVICES:

- Wetland Delineation
- Listed Species Assessment
- USACE MBI
- SJRWMD Mitigation Bank Permit
- UMAM/Mitigation Assessment
- Mitigation Bank Permitting and Establishment
- CRAS
- Coordination (FWC, USACE, SHPO, FDEP)

Key Staff:

- Gary Howalt
- Ryan Taylor
- Brent Handley, RPA



Reinhold Corporation

CLAY COUNTY, FL

The Reinhold Corporation is a family owned corporation established in 1968 in Clay County, FL. Reinhold Corporation has a principal land holdings of approximately 28,000 acres, surrounding the Town of Penney Farms. The Corporation has a range of business activities and revenue streams including silviculture, agriculture, mining, commercial and residential development, in addition to infrastructure improvements associated with large-scale Florida Department of Transportation (FDOT) projects. Terracon has assisted Reinhold Corporation on all of these endeavors, providing a range of services including wetland delineation and Regulatory Agency permitting, Gopher tortoise surveys and relocation, Archaeological surveys and long-term monitoring and maintenance for invasive/exotic species.

One of the main projects Terracon assisted with was the establishment and permitting of Greens Creek Mitigation Bank, a 3,500-acre wetland mitigation bank, located in the southwest corner of the Reinhold Corporation's land. This project included preliminary habitat and wetland analysis, UMAM score analysis and overall credit determination, establishment of a habitat management and forestry stewardship plan, as well as implementation of the long-term monitoring and maintenance plan. Terracon continues to assist in the long-term monitoring and maintenance to ensure the bank continues to meet the intended permit success criteria. Terracon conducts the annual bank monitoring event and submits the report to the Interagency Review Team, a conglomeration of both State and Federal Regulatory agencies established to review and manage mitigation bank permits. All efforts of establishing the mitigation bank have been successful and Terracon continues to help monitor and maintain the bank to ensure permit success criteria.

CLIENT:

Reinhold Corporation

POINT OF CONTACT:

George Egan
CEO/President
Reinhold Corporation
1845 Town Center Blvd.-Suite 105
Fleming Island, FL 32003
904-269-5857

DURATION:

2005-present

FEES:

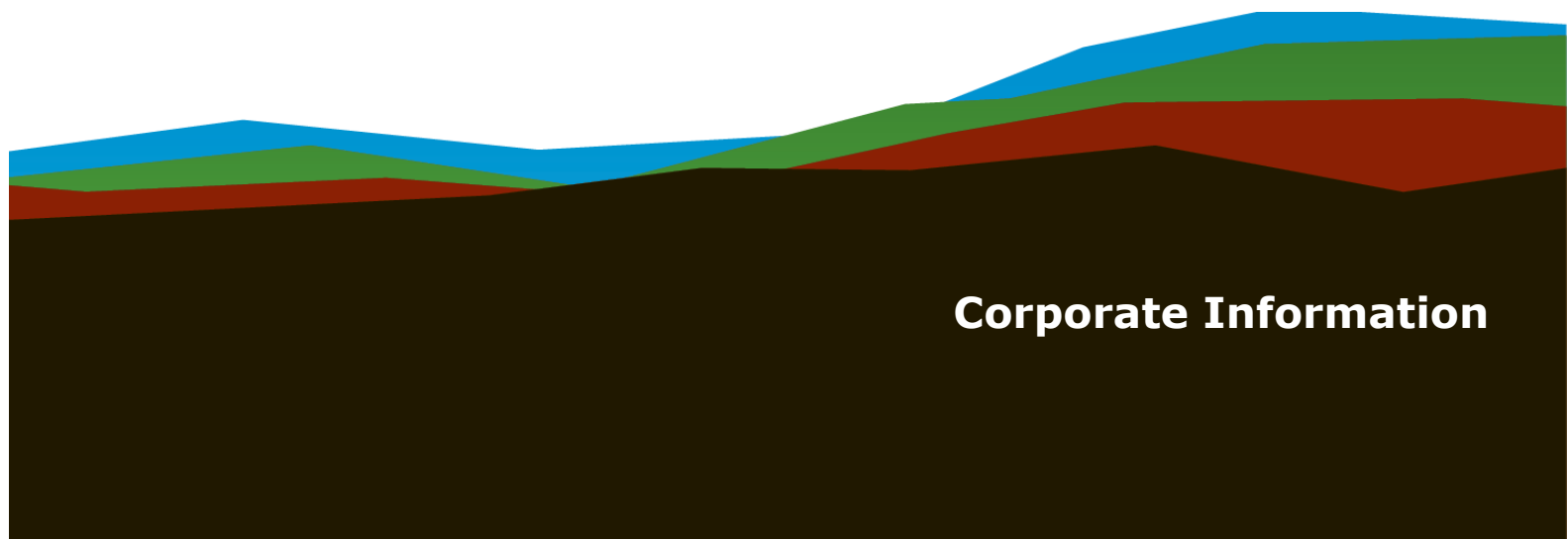
\$500,000

SERVICES:

- Wetland Delineation
- Listed Species Assessment
- USACE Permit
- SJRWMD ERP
- Wetland Mitigation
- UMAM/Mitigation Assessment
- Gopher Tortoise Relocation
- Mitigation Bank Permitting and Establishment
- CRAS
- Coordination (FWC, USACE, SHPO, FDEP)

Key Staff:

- Gary Howalt
- Ryan Taylor
- Brent Handley, RPA



Corporate Information

CERTIFICATE OF *Authorization*

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

*The West Virginia State Board of Registration for Professional Engineers
having verified the person in responsible charge is registered in
West Virginia as a professional engineer for the noted firm, hereby certifies*

TERRACON CONSULTANTS, INC.

C02160-00

Engineer in Responsible Charge: YOGESH S. REGE - WV PE 016606

*has complied with section §30-13-17 of the West Virginia Code governing
the issuance of a Certificate of Authorization. The Board hereby notifies you of its
certification with issuance of this Certification of Authorization for the period of:*

January 1, 2024 - December 31, 2025

providing for the practice of engineering services in the State of West Virginia.

IF YOU ARE REQUIRED TO REGISTER WITH THE SECRETARY OF STATE'S OFFICE,
PLEASE SUBMIT THIS CERTIFICATE WITH YOUR APPLICATION.



IN TESTIMONY WHEREOF, THE WEST VIRGINIA STATE BOARD OF
REGISTRATION FOR PROFESSIONAL ENGINEERS HAS ISSUED THIS COA
UNDER ITS SEAL, AND SIGNED BY THE PRESIDENT OF SAID BOARD.

Scott E. Thomas Jr.

BOARD PRESIDENT

State of West Virginia



Certificate

I, Kris Warner, Secretary of State of the State of West Virginia, hereby certify that

TERRACON CONSULTANTS, INC.

a corporation formed under the laws of Delaware filed an application to be registered as a foreign corporation authorizing it to transact business in West Virginia. The application was found to conform to law and a "Certificate of Authority" was issued by the West Virginia Secretary of State on February 13, 2004.

I further certify that the corporation has not been revoked by the State of West Virginia nor has a Certificate of Withdrawal been issued to the corporation by the West Virginia Secretary of State.

Accordingly, I hereby issue this Certificate of Authorization

CERTIFICATE OF AUTHORIZATION

Validation ID:5WV8C_3C6FB



*Given under my hand and the
Great Seal of the State of
West Virginia on this day of*

August 20, 2025

Secretary of State

West Virginia Secretary of State — Online Data Services

Business and Licensing

Online Data Services Help

Business Organization Detail

NOTICE: The West Virginia Secretary of State's Office makes every reasonable effort to ensure the accuracy of information. However, we make no representation or warranty as to the correctness or completeness of the information. If information is missing from this page, it is not in the The West Virginia Secretary of State's database.

TERRACON CONSULTANTS, INC.

Organization Information								
Org Type	Effective Date	Established Date	Filing Date	Charter	Class	Sec Type	Termination Date	Termination Reason
C Corporation	2/13/2004		2/13/2004	Foreign	Profit			

Organization Information			
Business Purpose	5413 - Professional, Scientific and Techincal Servies - Professional, Scientific and Techincal Servies - Architectural, Engineering and Related Services (landscape architects, drafting, geophysical mapping, testing labs)		Capital Stock
Charter County	Kanawha	Control Number	63690
Charter State	DE	Excess Acres	
At Will Term		Member Managed	
At Will Term Years		Par Value	
Authorized Shares	0	Young Entrepreneur	Not Specified

Addresses	
Type	Address

Local Office Address	912 MORRIS STREET CHARLESTON, WV, 25301
Mailing Address	10841 S RIDGEVIEW ROAD OLATHE, KS, 66061 USA
Notice of Process Address	CORPORATION SERVICE COMPANY 808 GREENBRIER STREET CHARLESTON, WV, 25311
Principal Office Address	10841 S RIDGEVIEW ROAD OLATHE, KS, 66061 USA
Type	Address

Officers	
Type	Name/Address
Director	JASON A. SANDER 10841 S RIDGEVIEW ROAD OLATHE, KS, 66061
Director	JEFFREY C. ROBERTS 10841 S RIDGEVIEW ROAD OLATHE, KS, 66061
President	M. GAYLE PACKER 10841 S RIDGEVIEW ROAD OLATHE, KS, 66061
Secretary	PATRICK L. COURTNEY 10841 S RIDGEVIEW ROAD OLATHE, KS, 66061
Treasurer	DONALD J. VRANA 10841 S RIDGEVIEW ROAD OLATHE, KS, 66061
Type	Name/Address

Mergers				
Merger Date	Merged	Merged State	Survived	Survived State
3/23/2004	TERRACON, INC.	IA	TERRACON CONSULTANTS, INC.	DE
Merger Date	Merged	Merged State	Survived	Survived State

Date	Amendment
3/23/2004	MERGER: MERGING TERRACON, INC., A QUALIFIED IA CORPORATION WITH AND INTO TERRACON CONSULTANTS, INC., A QUALIFIED DE CORPORATION, THE SURVIVOR
Date	Amendment



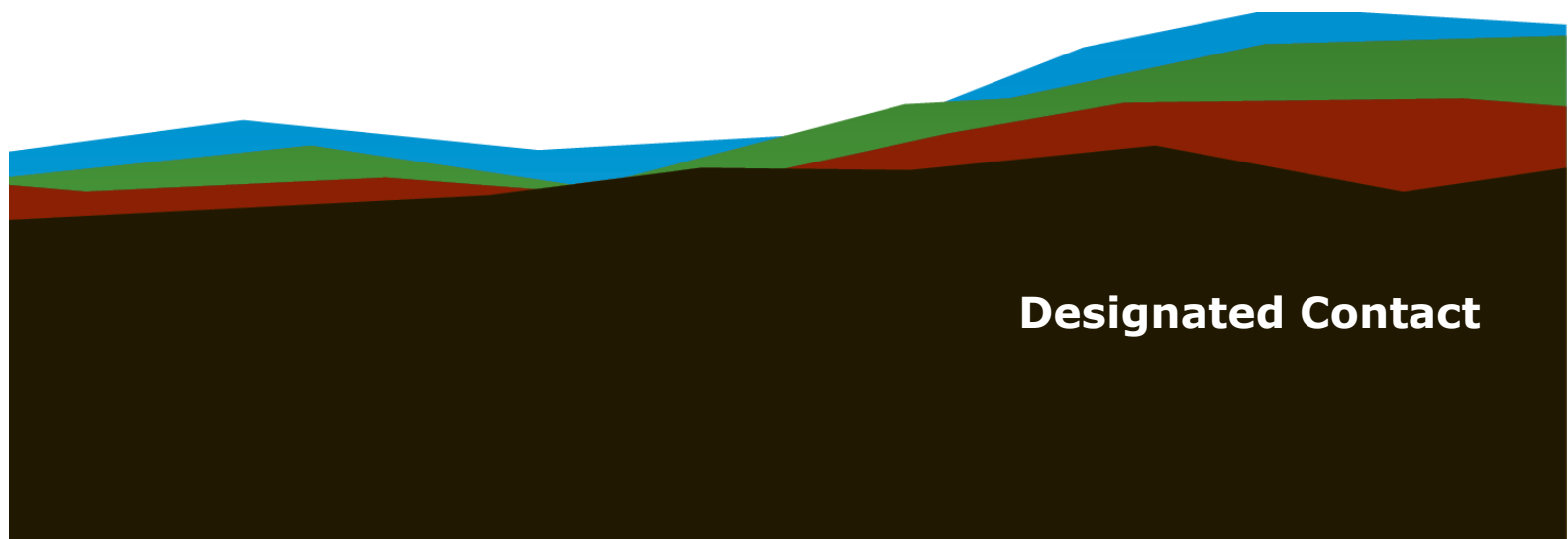
Annual Reports
Filed For
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Date filed

For more information, please contact the Secretary of State's Office at 304-558-8000.

Tuesday, August 12, 2025 — 7:35 AM

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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.

(Printed Name and Title) Bob Barclay / Operations Manager

(Address) 912 Morris Street, Charleston, WV 25301

(Phone Number) / (Fax Number) (304) 344-0821 / (304) 342-4711

(email address) bob.barclay@terracon.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract 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/Contract 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 this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; 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.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

Terracon Consultants, inc.

(Company)

(Signature of Authorized Representative)

Bob Barclay / Operations Manager / August 20, 2025

(Printed Name and Title of Authorized Representative) (Date)

(304) 344-0821 / (304) 342-4711

(Phone Number) (Fax Number)

bob.barclay@terracon.com

(Email Address)



Addendum Acknowledgement

SOLICITATION NUMBER: CEOI 0313 DEP2600000001

Addendum Number:

No.01

The purpose of this addendum is to modify the solicitation identified as (“Solicitation”) to reflect the change(s) identified and described below.

Applicable Addendum Category:

- ☐ Modify bid opening date and time
- ☐ Modify specifications of product or service being sought
- ☒ Attachment of vendor questions and responses
- ☐ Attachment of pre-bid sign-in sheet
- ☐ Correction of error
- ☐ Other

Description of Modification to Solicitation:

Addendum issued to publish and distribute the attached documentation to the vendor community.

1. To publish agency responses to all vendor submitted questions

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ATTACHMENT A

RFI: Questions from vendors for CEOI DEP 26*01 AML Pre-qualification

Q.1.) Our company specializes in AML project development, design, permitting, and inspection. Another unit we have specializes in construction of large-scale reclamation and remediation projects for the mining and other associated industries. Our company owns and operates all the construction equipment necessary to complete the construction of these projects. For this EOI for prequalification of firms, can the two companies' operating units' partner to provide a single entity which can complete all phases and aspects of the AML reclamation projects start to finish?

A. Your company can partner but the construction for these designs will be bid out separately.

Q.2. Please confirm only attachments A and B are required to submit in order to obtain prequalification.

A. You must submit your qualification per section 4

Q.3. Please confirm firms do not need to provide full-page resumes for personnel listed

A. You must submit your qualification per section 4

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CEOI DEP26*01

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)

<input checked="" type="checkbox"/> Addendum No. 1	<input type="checkbox"/> Addendum No. 6
<input type="checkbox"/> Addendum No. 2	<input type="checkbox"/> Addendum No. 7
<input type="checkbox"/> Addendum No. 3	<input type="checkbox"/> Addendum No. 8
<input type="checkbox"/> Addendum No. 4	<input type="checkbox"/> Addendum No. 9
<input type="checkbox"/> Addendum No. 5	<input type="checkbox"/> Addendum No. 10

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.

Terracon Consultants, Inc.

Company



Authorized Signature

August 20, 2025

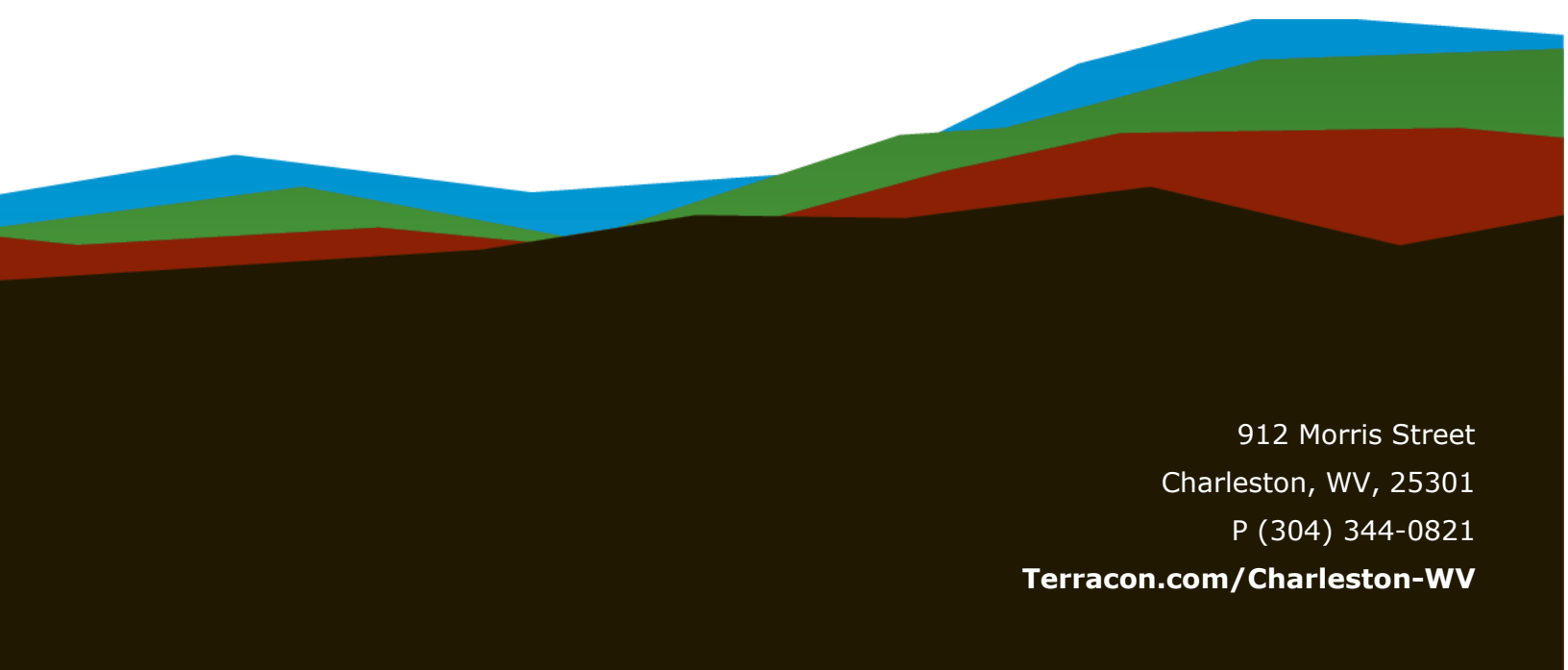
Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.
Revised 6/8/2012



Nationwide
Terracon.com

- Facilities
- Environmental
- Geotechnical
- Materials



912 Morris Street
Charleston, WV, 25301
P (304) 344-0821

Terracon.com/Charleston-WV