



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: 1235750	SO Doc Code: CEOI
Procurement Type: Central Contract - Fixed Amt	SO Dept: 0310
Vendor ID: 000000173443	SO Doc ID: DNR2300000005
Legal Name: POTESTA & ASSOCIATES INC	Published Date: 6/7/23
Alias/DBA:	Close Date: 6/22/23
Total Bid: \$0.00	Close Time: 13:30
Response Date: 06/21/2023	Status: Closed
Response Time: 12:28	Solicitation Description: A&E - Pendleton Lake Dam Renovations
Responded By User ID: Potesta	Total of Header Attachments: 1
First Name: Dana	Total of All Attachments: 1
Last Name: Burns	
Email: clracer@potesta.com	
Phone: 3043421400	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Professional engineering services				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments:

Extended Description:

Design and contract administration services of new dam renovations at Pendleton Lake Dam, Blackwater Falls Resort State Park.



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
 Architect/Engr

Proc Folder: 1235750			Reason for Modification:
Doc Description: A&E - Pendleton Lake Dam Renovations			
Proc Type: Central Contract - Fixed Amt			
Date Issued	Solicitation Closes	Solicitation No	Version
2023-06-07	2023-06-22 13:30	CEOI 0310 DNR2300000005	1

BID RECEIVING LOCATION

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

VENDOR

Vendor Customer Code: 000000173443
Vendor Name : Potesta & Associates, Inc.
Address : 7012
Street : MacCorkle Avenue, SE
City : Charleston
State : West Virginia **Country :** US **Zip :** 25304
Principal Contact : Dana L. Burns, PE, PS, Vice President
Vendor Contact Phone: 304-342-1400 **Extension:**

FOR INFORMATION CONTACT THE BUYER
 James H Adkins
 (304) 558-3397
 jamie.h.adkins@wv.gov

Vendor Signature X  **FEIN#** 31-1509066 **DATE** 06/19/2023

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

ADDITIONAL INFORMATION

The Acquisitions and Contract Administration Section of the Purchasing Division ("Purchasing Division") is soliciting Expression(s) of Interest ("EOI") for The Division of Natural Resources ("Agency"), from qualified firms to provide architectural/engineering services ("Vendors") as defined herein.

2.PROJECT: The mission or purpose of the project for which request for qualifications are being solicited is to provide necessary engineering, and other related professional services to design, specify, and provide construction contract administration services for the significant renovations and upgrades to bring the existing Pendleton Lake Dam located at Blackwater Falls State Park, in Tucker County, West Virginia ("Project") into compliance with current Dam Safety requirements per the attached specifications and terms and conditions.

INVOICE TO	SHIP TO
DIVISION OF NATURAL RESOURCES PARKS & RECREATION-PEM SECTION 324 4TH AVE SOUTH CHARLESTON WV 25305 US	DIVISION OF NATURAL RESOURCES BLACKWATER FALLS STATE PARK 1584 BLACKWATER LODGE RD DAVIS WV 26260-0490 US

Line	Comm Ln Desc	Qty	Unit Issue
1	Professional engineering services		

Comm Code	Manufacturer	Specification	Model #
81100000			

Extended Description:
Design and contract administration services of new dam renovations at Pendleton Lake Dam, Blackwater Falls Resort State Park.

SCHEDULE OF EVENTS

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
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	Document Phase	Document Description	Page
DNR2300000005	Final	A&E - Pendleton Lake Dam Renovations	3

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

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) _____

(Address) _____

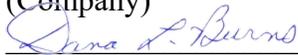
(Phone Number) / (Fax Number) _____

(Email address) _____

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.

(Company)



(Signature of Authorized Representative)

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

(Phone Number) (Fax Number)

(Email Address)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:

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

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

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|---|--|
| <input 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.

Company



Authorized Signature

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.

STATEMENT OF QUALIFICATIONS



PREPARED
FOR:



WVDNR
Parks and Recreation– PEM Section
324 4th Avenue
South Charleston, WV 25305

PROJECT:

PENDLETON LAKE DAM RENOVATIONS
SOLICITATION NO.: CEOI 0310 DNR2300000005



**OFFICES
IN:**

CHARLESTON

7012 MacCorkle Avenue, SE
Charleston, WV 25304
(304) 342-1400

MORGANTOWN

125 Lakeview Drive
Morgantown, WV 26508
(304) 225-2245

WINCHESTER

15 South Braddock Street
Winchester, VA 22601
(540) 450-0180

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Resumes of Key Personnel Appendix A



STATEMENT OF QUALIFICATIONS

EXECUTIVE SUMMARY



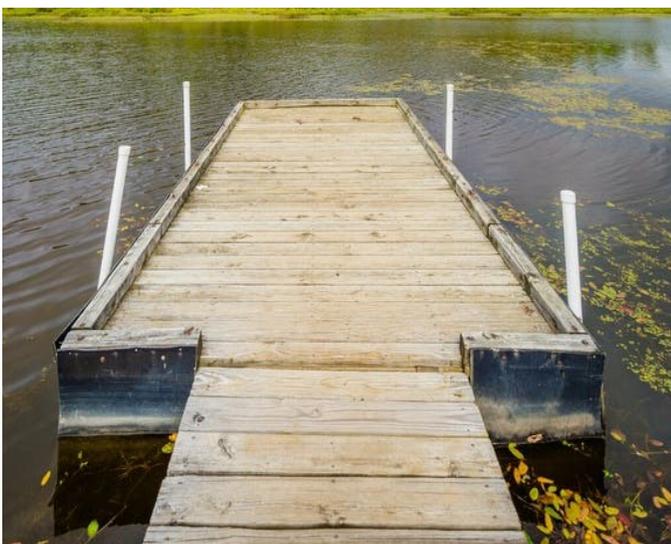
Potesta & Associates, Inc. (POTESTA) is pleased to present this Statement of Qualifications to the West Virginia Division of Natural Resources (WVDNR) to provide engineering services to design, specify, and provide construction contract administration services for significant renovations and upgrades to the Pendleton Lake Dam located at Blackwater Falls State Park in Tucker County, West Virginia. The dam repairs are necessary to bring the Pendleton Lake Dam into compliance with current Dam Safety requirements. POTESTA is experienced in providing civil, geotechnical, and environmental engineering services including surveying, cost estimates, plans, designs, analyses, site drawings, inspections, specifications, monitoring, reporting, construction management, and related services necessary for construction, modification, and rehabilitation of dams. POTESTA is poised to address the following issues erosion, sedimentation, water quality, groundwater, floodplain management, wetlands and streams, riparian areas, fish/wildlife habitat, water supply, public health and safety, and recreation.

Pendleton Lake is approximately 10 acres and is located at the Nature Center in Blackwater Falls State Park. The primary purpose of the dam is for recreational use to fish for largemouth bass, blue gill, and channel catfish and to paddle with kayak, canoe, and stand-up boards.



Over time portions of a dam, including impact basins, spillways, and outlet work deteriorate. Rehabilitation is necessary to maintain the present level of flood control benefits and comply with current safety criteria.

POTESTA is experienced with the West Virginia Department of Environmental Protection Dam Safety design and safety standards and can perform all the anticipated tasks required for the projects in-house. POTESTA has been or is currently the Engineer-of-Record for the West Virginia Conservation Agency including Western, Eastern Panhandle, Northern Panhandle, Potomac Valley, Elk, and Little Kanawha Conservation Districts, and have completed various dam impoundment projects in throughout West Virginia.



We believe our technical experience, project management, project approach, and cost structure make POTESTA the clear choice for this work. Our team has the necessary experience and qualified personnel to efficiently implement an optimal design and construction plan in a timely, cost effective manner.

POTESTA would welcome the opportunity to meet with WVDNR and other stakeholders to discuss our capabilities to complete the rehabilitation of Pendleton Lake Dam.

STATEMENT OF QUALIFICATIONS

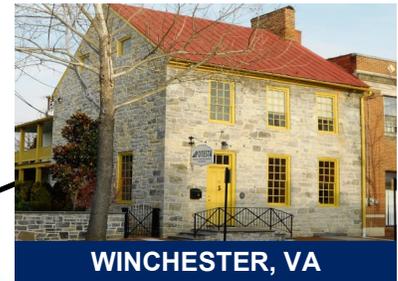
CORPORATE PROFILE



POTESTA was founded in 1997 in Charleston, West Virginia by Mr. Ronald Potesta. Since the inception of the firm, POTESTA has been providing quality engineering and environmental consulting services throughout the Mid-Atlantic region and maintains a diverse staff of experienced engineers, scientists, and support personnel with branch offices in Winchester, Virginia and Morgantown, West Virginia. Our clients include local, state and federal governments, mining, manufacturing and chemical companies, utility companies, waste management companies, land developers, attorneys, financial institutions, insurance companies, K-12 schools/colleges/universities, construction companies, and architects.



MORGANTOWN, WV



WINCHESTER, VA



CHARLESTON, WV

VARIED RANGE OF PROFESSIONAL SERVICES

- Air
- Biological and Toxicological
- Civil Engineering and Design
- CADD
- Construction Monitoring
- Endangered Species Consultation
- Environmental Site Assessment
- Environmental-Reclamation Liability Assessments
- Geographic Information Systems
- Geotechnical Engineering
- Groundwater
- Hydrology and Hydraulics Design
- Landfills and Solid Waste Management
- Litigation Support
- Mining
- Mixing Zone Analysis and Diffuser Design
- Occupational Safety and Health
- Oil and Natural Gas
- Permitting
- Risk-Based Remediation
- Roadway Engineering and Design
- Sampling
- Site Design
- Solar Development
- Stormwater
- Stream Restoration
- Surveying and Mapping
- Water and Wastewater Engineering
- Water Quality Study
- Wetlands

STATEMENT OF QUALIFICATIONS

CORPORATE PROFILE



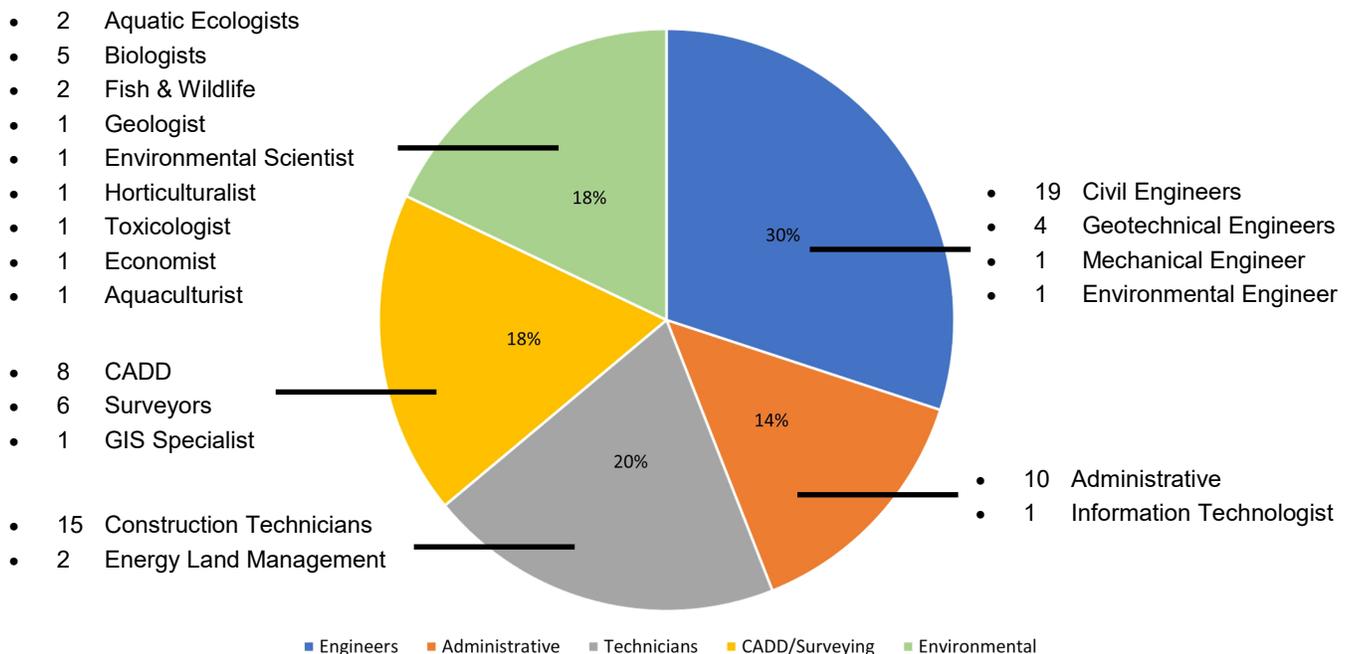
LEADERSHIP

Ronald R. Potesta, President, has served as the Director and Deputy Director of West Virginia's Department of Natural Resources (WVDNR) which, during his tenure, housed all of the environmental regulatory programs, wildlife management, and law enforcement. Mr. Potesta's principal area of specialization is federal and environmental regulatory, statutory schemes, and environmental guidance, including agency interaction and review of regulatory requirements and recommendations.

Dana L. Burns, PE, PS, Vice President, has more than 44 years' experience with the management of civil, geotechnical, mining, and environmental engineering projects, including preliminary feasibility evaluations, detailed design, and preparation of construction drawings, specifications, and bid documents. He has been the Principal-in-Charge on numerous projects completed for local and state governments, municipalities, public service districts, utility providers, residential and commercial developers, universities/colleges, and manufacturing facilities.

David K. Paylor, Vice President of Environmental, has over 45 years of public service protecting natural resources in the Commonwealth of Virginia. His most recent role for the past 16 years was Director of the Virginia DEQ appointed by Governor Tim Kaine, Governor Bob McDonnell, Governor Terry McAuliffe, and Governor Ralph Northam. Mr. Paylor's expertise includes waste management, water quality and quantity measurement, air quality management and climate control, pollution prevention, and environmental justice.

STAFF PROFILE: 83 TOTAL



STATEMENT OF QUALIFICATIONS

TECHNICAL EXPERTISE



HYDROLOGY AND HYDRAULICS DESIGN

POTESTA has extensive experience in the application of hydrology and hydraulic principles to design real-world systems. Our engineers, scientists, and surveyors work jointly to develop an effective and economical solution to your unique situation. POTESTA's staff analyses use widely accepted computer models.

PRELIMINARY ENGINEERING

- Drainage Structure Sizing
- Floodplain Management Permits/ Approvals
- Floodway Studies
- Dam Break Analysis
- Hydrology Surveys
- Stream Gauging
- Rainfall and Flow Data Collection

DESIGN SERVICES

- Pond and Dam Design
- Detention and Retention Systems
- Stormwater Management System Design
- Stormwater Drainage System Design
- Pressure Pipe Systems
- Stream Restoration Plans
- Natural Stream Channel Design/ Restoration



STATEMENT OF QUALIFICATIONS

TECHNICAL EXPERTISE



CIVIL ENGINEERING/SITE PLANNING

POTESTA has a significant body of work in site design for municipalities, residential, commercial, and industrial clients. We have designed and been part of design teams for the creation of business industrial parks, elementary, secondary and collegiate projects, retail and commercial developments, and residential subdivisions throughout West Virginia. Our diverse staff of engineers, geologists, and scientists are routinely involved in site development projects and work to achieve a completed project that meets and exceeds the client's expectations.

Once a project has been determined feasible through the preliminary planning stages, POTESTA's design professionals work to complete preliminary and final design plans. Frequent communication is made with the client and other design professionals to review the completed activities and obtain input for the design process.

PRELIMINARY ENGINEERING

- Site Feasibility Assessments
- Floodplain Determination
- Geotechnical Explorations
- Foundation Recommendations
- Surveying
- GIS Mapping
- Utility Planning
- Earthwork Evaluations
- Opinion of Probable Costs/Engineer's Construction Cost Estimate
- Permitting

DESIGN SERVICES

- Geometric Site Layout
- Vehicular and Pedestrian Circulation
- Grading and Drainage Plans, Including Excavation and Fill Optimization
- Access Road Design
- Hydraulic Structure Design
- Water and Sewer Design
- Earth Retaining Structures Design
- Slope Stability Analysis
- Subsurface Drainage System Design
- Construction Drawings, Specifications, and Contract Document Preparation



STATEMENT OF QUALIFICATIONS

TECHNICAL EXPERTISE



GEOTECHNICAL ENGINEERING

POTESTA's staff is very familiar with terrain ranging from plateaus to mountains. Our vast experience in our region has resulted in innovative approaches to the various challenges that the topography and geology present. POTESTA can provide field engineers and geologists who are knowledgeable using the latest technologies subsurface explorations, monitoring well and piezometer installations, foundation design recommendations, slope stability analysis, retaining walls, and remedial designs as they relate to construction, mining, waste disposal, environmental remediation, and other projects.



SUBSURFACE EXPLORATIONS

- Attend an initial meeting with the client
- Conduct preliminary site reconnaissance
- Develop a recommended exploration program

SLOPE STABILITY ANALYSIS AND REMEDIAL DESIGN

- Utilize various methods to predict slope stability
- Analysis of existing or proposed soil embankments, rock fills, dam analysis and design, landfill design and operation, assessing the causation of slope failure, and designing remedial measures
- Analyses—circular or sliding block methods, interface friction angles, and estimate of the strength parameters of the soil or rock
- Develop preventive measures during initial project design or recommendations for to repair slope failures
- Consider various remedial measure—regarding the site to obtain more suitable conditions, management of groundwater, and design of retaining structures
- Familiar with wide variety of retaining structures—gabion baskets, soldier beam and lagging walls, sheet piles, reinforced concrete and reinforced earth slopes

FOUNDATION DESIGN RECOMMENDATIONS

- Experience with various types of foundations and will recommend the appropriate type of foundation given the anticipated application and site conditions
- Foundations—spread and strip footings, steel piles, auger-cast concrete piles, drilled piers, and reinforced mats
- Preliminary foundation design recommendations and cost analyses
- Preliminary alternatives for final recommendation
- Construction documents

STATEMENT OF QUALIFICATIONS

TECHNICAL EXPERTISE



SURVEYING

POTESTA proposes to utilize our own survey crews for work on this project. Our surveyors have worked on numerous site development, geotechnical, roadway and bridge construction, utility construction, and landfill development projects. Surveys and mapping are completed to the standards as outlined by the National Map Standards as well as other applicable quality standards. Small topographic mapping projects can be completed in-house, however, larger projects are better suited for mapping using aerial photography.

POTESTA is equipped with modern surveying instruments allowing efficient data processing and accurate gathering of field information. The latest versions of software are then used to process survey data and create drawings or required end products.

- Total Station Instruments
- Trimble R-8 Glonass
- RTK GPS Systems
- AutoCAD
- Autodesk Land Desktop
- Autodesk Civil 3D design software



CADD

The CADD department utilizes the latest drafting/design software and computer hardware to maintain productivity at the high levels that clients demand and expect. POTESTA utilizes Autodesk Civil 3D design software to prepare, revise, and manipulate drawings and engineering data efficiently.

POTESTA's experienced and trained professionals allow clients' projects and assignments to be completed rapidly and at a reasonable cost performing:

- Surveying Data Manipulation
- Site Design
- Roadway Design
- Water, Sanitary Sewer, Electric, Natural Gas, and Telecommunications Design
- Permit Drawings, Maps, and Exhibits
- Earthwork and Planimetric Quantity Development
- Two and Three Dimensional Graphics

STATEMENT OF QUALIFICATIONS

TECHNICAL EXPERTISE



WATER QUALITY

Water quality studies are being used more frequently to provide site-specific information used to establish attainable discharge limitations in National Pollutant Discharge Elimination System (NPDES) permits. In many cases, site-specific water studies can be used to demonstrate that discharges are not harming the aquatic environment.

- Baseline Water Quality Sampling and Analysis
- Background Water Quality Sampling and Analysis
- Metals Translator Sampling and Analysis
- Water Chemistry Studies
- Mixing Zone Verification Sampling and Analysis

POTESTA employs scientists with backgrounds in aquatic ecology, fisheries, botany, wildlife science, and hydrology. This group of individuals has extensive experience conducting in-stream studies and is dedicated to appropriate data collection and analysis to meet the needs of our client in a correct, affordable and timely manner. Our senior staff members have long-term working relationships with regulatory agency personnel and are familiar with the particular requirements of the various types of studies conducted.



STATEMENT OF QUALIFICATIONS

TECHNICAL EXPERTISE



NEPA-RELATED SERVICES

POTESTA has thorough understanding and experience with performing National Environmental Policy Act (NEPA) analysis and evaluating the affects construction may have on the environment. POTESTA's environmental group can perform the natural, social, and environmental assessment to determine and document social and economic impacts, farmland impacts, air quality impacts, noise impacts, water quality impacts, wetland impacts, vegetation and wildlife impacts, threatened and endangered species impacts, potential hazardous waste sites, visual (viewshed) impacts, energy, and an assessment of secondary and cumulative impacts. We have extensive experience and relationships with state and federal agencies.

- Programmatic Categorical Exclusions
- Categorical Exclusions
- Environmental Assessments
- Environmental Impact Statements
- Reevaluations of NEPA documents
- Section 4F Analysis
- Section 6F Analysis
- Section 106 of the Natural Historic Preservations Act
- Section 7 of the Endangered Species Act
- Noise and Air Quality Analysis
- Related Surveys and Documents



STATEMENT OF QUALIFICATIONS

TECHNICAL EXPERTISE



STREAM SERVICES

POTESTA's professional staff of aquatic ecologists, aquatic biologists, and engineers who work collectively to complete various stream assessment and restoration projects for a variety of private and public sector clients. Our scientists and staff have worked with clients to provide very detailed stream restoration/rehabilitation plans that include in-stream structure/habitat improvements, channel realignment and/or bank stabilization, as well as less labor-intensive plans that may only require minor bank stabilization and buffer zone establishment.



- Stream Delineation and Habitat Assessment
- Channel Stability Evaluation
- Biological Studies/Monitoring
- Rosgen Classification
- Riparian Corridor/Watershed Assessment
- Preliminary/Conceptual Restoration Plans
- Detailed Restoration Plans
- Construction Plans
- Reference Reach Assessments
- Mitigation Feasibility Analysis
- Construction Monitoring
- Post Construction Monitoring and Reporting

WETLAND SERVICES

Wetlands play a significant role in commercial and industrial development. These unique aquatic resources are considered special aquatic sites and afford protection under the Clean Water Act. POTESTA has a qualified staff of scientists and engineers who are trained and experienced in the identification, verification, and permitting of wetlands, the mitigation of displaced wetlands and the design of constructed wetlands.



- Wetland investigations and delineations are conducted by POTESTA's scientists as part of pre-development site investigation and, in some instances, part of post-construction enforcement actions. During a wetland investigation the site is examined for the presence of wetland indicators, including specific hydrology, soils and vegetation.
- Once wetlands have been identified and delineated, POTESTA can prepare the applicable permits for further development.
- Wetland mitigation and design come into play when wetlands being displaced or filled are large enough to require mitigation under state and federal standards. In some cases, wetland mitigation can be achieved solely through the payment of a fee to a mitigation bank or fund, established for the creation, protection or enhancement of other wetland areas.

STATEMENT OF QUALIFICATIONS

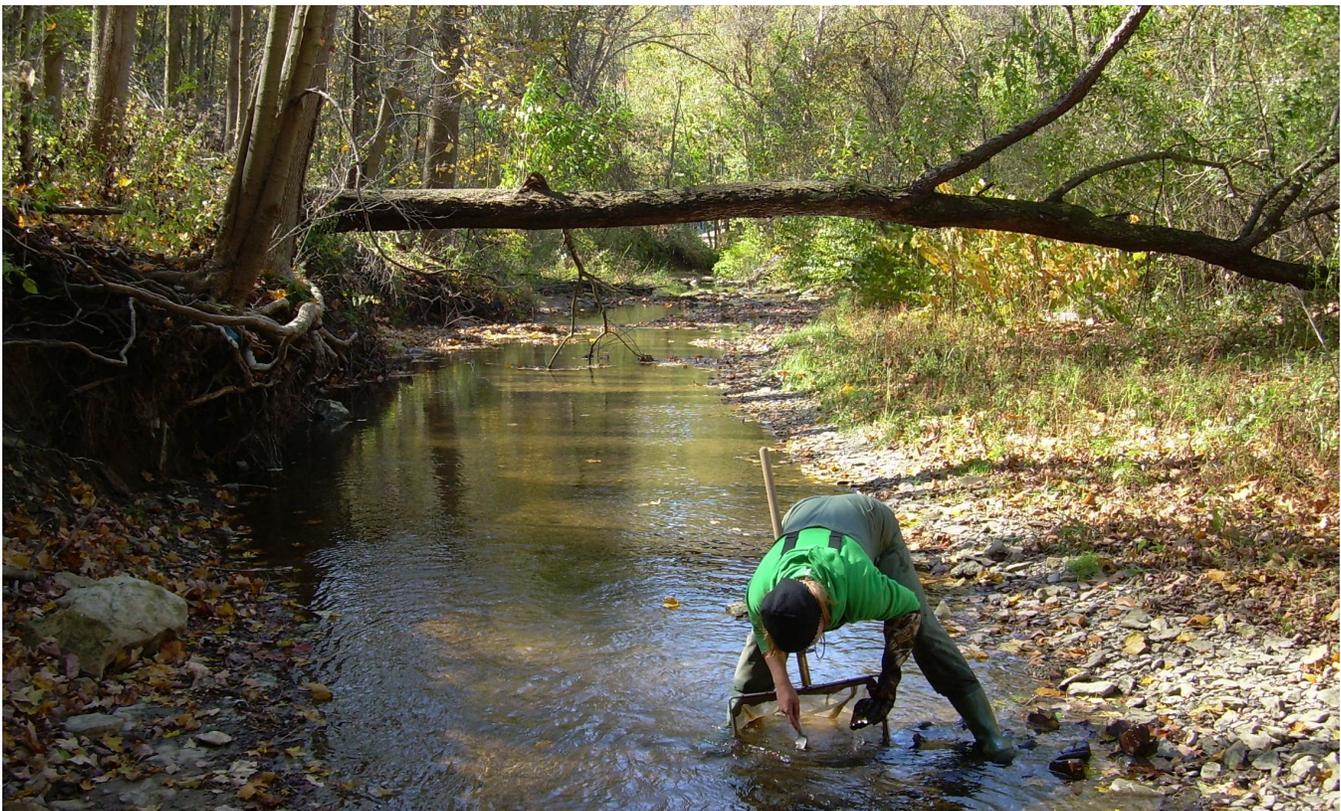
TECHNICAL EXPERTISE



BIOLOGICAL AND TOXICOLOGICAL SERVICES

Biological monitoring is increasingly being used in both terrestrial and aquatic systems to develop regulations, monitor compliance, and indicate the effectiveness of environmental programs. Toxicological testing and biological monitoring are often included as permit requirements, including baseline assessments, or used during negotiations. In many cases, biological surveys can be used to negotiate alternatives to permitting requirements or to satisfy regulatory agencies that no environmental impacts are occurring as a result of a specific authorized or unauthorized activity. Biological and toxicological studies may be used to demonstrate the success of endpoints in remediation, recovery, and restoration projects.

- Instream Biological Monitoring and Rapid Bioassessments using multiple species
- Variance Negotiations
- Site Specific Criteria Determinations
- Larval Fish Studies
- Industrial Site Remediation
- Toxicity Identification Evaluations
- Toxicity Reduction Evaluations
- Environmental Risk Assessments
- Human Risk Assessments
- Natural Resource Damage Assessments
- Statistical Analysis and Database Management
- Pilot-Scale Testing and Treatability Studies
- Exotic Species Control/Management



STATEMENT OF QUALIFICATIONS

TECHNICAL EXPERTISE



ENDANGERED SPECIES CONSULTATION

POTESTA has extensive experience in informal consultation, formal consultations, and biological assessments related to the Federal Endangered Species Act. We utilize a combination of in-house professionals and recognized experts to complete projects for our clients. This arrangement allows us to provide a work product which is acceptable to the United States Fish & Wildlife Service (USFWS), as well as the West Virginia Division of Natural Resources, which is the state agency responsible for species conservation.

For the last several years, our office has worked with natural gas transmission companies preparing environmental reports which include assessments and remediation of impacts to rare, threatened, and endangered species. POTESTA's biologists have worked within the core summer roosting and maternity range of the Indiana bat, the northern long eared bad, and the tri-colored bat. This work provided the firm's biologists with considerable experience in identifying suitable bat habitat in Ohio, Kentucky, Virginia, and West Virginia. Other biologists within our office also have experience in bat surveys, echo location, bat identification and mussel surveys. POTESTA also developed some of the first Protection and Enhancement Plans or PEPs for the mining industry in West Virginia

We have established professional relationships with local and regional experts on projects which POTESTA utilizes on an as-needed basis. The advantage to the client is that this approach allows us to select the best individual for the task at hand. POTESTA supplements these individuals with our experienced field staff, who are intimately familiar with the project, to constitute an effective team to respond quickly to threatened and endangered species issues. This team approach allows for a complete evaluation of the potential impact a project may have on a species of concern.



STATEMENT OF QUALIFICATIONS

TECHNICAL EXPERTISE



GEOGRAPHIC INFORMATION SYSTEMS APPLICATIONS

POTESTA provides comprehensive Geographic Information Systems (GIS) applications to generate reports and databases for projects that require a high level of visual interpretation and analysis. This technology manages information on soil, groundwater, utilities, property ownership, mining conditions, environmental contamination, topography, land use, and many other types of information, thus allowing the client to gather information about a parcel of land and make an informed decision.

- Spatial Analysis
- Land Use Mapping
- Distance Analysis
- Geodatabase Management
- Site Design Analysis
- After the Fact Stream/Wetland Analysis
- Hydraulic Modeling and Floodplain Mapping
- Groundwater Investigations
- Cartography and Map Production
- Geographic Positioning System (GPS) Field Data Collection
- Environmental Impact Statements and Risk Assessments
- Site Remediation
- Noise Studies
- Permitting
- Natural Resource Assessment Mapping
- Linear Projects (Highways, Water/Sewer Lines, Etc.)
- National Environmental Policy Act (NEPA)
- Rendering
- Viewshed Analysis
- Urban Planning

ARCGIS

POTESTA uses GIS software, which includes the use of 3D Analyst and Spatial Analysis in ArcGIS to create and manage our datasets for a wide array of applications. Using ArcGIS Spatial Analyst, POTESTA can build and analyze complex surfaces to identify patterns or features within datasets. Additionally, data can be derived to provide shaded relief, contours, angle of slope, aspect, hillshade, viewshed, curvature, and cut/fill data. Geostatistical interpolation methods are used to calculate the values of the fields. Spatial Analyst can also provide estimates of elevation, rainfall, temperature, groundwater, or noise. The ArcGIS 3D Analyst allows the user to examine information from a 3-D perspective, making it possible to derive contours, slope and viewshed of a surface.



STATEMENT OF QUALIFICATIONS

STAFFING CAPABILITIES



WEST VIRGINIA DNR



DANA L. BURNS, PE, PS
Principal-in-Charge—44 Yrs.

Directs engineering day-to-day operations and management of technical and support staff



RONALD R. POTE STA
Technical Advisor—42 Yrs.

Environmental compliance, regulatory liaison, and agency interaction, former Director of WVDNR



CHRISTOPHER A. GROSE, LRS
Project Manager—32 Yrs.

Geological/Geotechnical engineering including hydrology and hydraulic design, primary contact with WVDNR

CIVIL/SITE DESIGN

Mark Kiser, PE, LRS – 40 Yrs.
Jarrett Smith, PE – 21 Yrs.
Paul Maggard, PE—24 Yrs.
K. Joe Knechtel, PE – 33 Yrs.
Tim Rice, EIT – 41 Yrs.
Alex Keenan, EIT – 4 Yrs.
Kyle Stollings, PE, PS – 43 Yrs.
Daniel Boyles, EIT – 4 Yrs.
Claire McDonald, EIT – 1 Yr.
Kimbra Taylor, EIT – 6 Yrs.

WATER ENGINEERING

Bob L. Bragg, PE – 26 Yrs.
Mark Sankoff, PE, PS – 40 Yrs.
Terry Moran, PE – 36 Yrs.
Robert Ammirato, PE – 20 Yrs.
Everett Mulkeen, PE – 11 Yrs.
Bill Cox – 25 Yrs.
Derek Rader – 3 Yrs.

WATER RESOURCES

Jessica Yeager—28 Yrs.
Timothy Ferguson—16 Yrs.
Lisa Burgess—33 Yrs.
Christina Parsons—24 Yrs.
Douglas Bowe—35 Yrs.
Beth Burdette—21 Yrs.
Dan Miller, PhD—45 Yrs.
Leah Creathers—17 Yrs.
Cole Davis—2 Yrs.
Allyson Kincaid—3 Yrs.

MAPPING/CADD

Chip Haden (GIS) – 13 Yrs.
Scott Bolyard – 32 Yrs.
Michael Sankoff – 33 Yrs.
Brian Leedy – 22 Yrs.
Russ Lester – 33 Yrs.
Joe Martin – 29 Yrs.
Charles Mosholder – 43 Yrs.
Austin Davis – 2 Yrs.

SURVEYING

Victor Dawson, PS – 40 Yrs.
Rusty Hunter – 41 Yrs.
Ryan Bennett, PS – 9 Yrs.
Tyler Aboytes – 8 Yrs.
Ryan Pettry – 1 Yr.
Daniel Henline – 2 Yrs.

GEOTECHNICAL

David B. Sharp, PE – 28 Yrs.
Peter Potesta – 11 Yrs.
Jeremi Stawovy, EIT – 12 Yrs.

CONSTRUCTION MONITORING

Robert Lamm – 22 Yrs.
Paul Kinzer – 25 Yrs.
Charles Shaffer – 21 Yrs.
Russ Harper – 15 Yrs.
Carl Hickman – 44 Yrs.
Chuck Bird – 30 Yrs.
Matt Kinzer – 3 Yrs.
Jarrod Smith – 6 Yrs.

STATEMENT OF QUALIFICATIONS

STAFFING CAPABILITIES



KEY PERSONNEL

POTESTA's experienced and capable staff of 83 allows us to respond quickly and complete projects in a timely manner. POTESTA's current workload is such that we can immediately provide the committed staff to work on assignments under this project.

PRINCIPAL-IN-CHARGE—DANA L. BURNS, PE, PS, VICE PRESIDENT

Management of design and permitting for various civil, geotechnical, and environmental engineering projects including site assessments, preliminary feasibility evaluation, stormwater management, site plans for commercial, residential, and industrial facilities, design of utility infrastructure, and permitting. Mr. Burns directs the engineering division on day-to-day operations concerning staffing, coordination, training, business development and overall management of technical and support staff.

TECHNICAL ADVISOR—RONALD R. POTESTA, PRESIDENT

Experienced in the management of air and water permitting projects and serves as a technical liaison for complex environmental compliance issues. Mr. Potesta was the Director and Deputy Director of West Virginia Department of Natural Resources which, during his tenure, included the supervision of Water Resource and Waste Management Division, Land and Real Estate Office, Office of Regulatory Affairs, Conservation Education and Litter Control, and Public Information Office.

PROJECT MANAGER—CHRISTOPHER A. GROSE, LRS, SR ENGINEERING ASSOCIATE

Geotechnical/geological experience with areas of expertise including water management systems, geological/geotechnical explorations, surface/subsurface hydrology, hydrogeology, landslide causation analysis/stability modeling/failed slope restoration. Mr. Grose's experience includes the design and evaluation of geotechnical explorations related to bridges, culverts, earth retention structures, slope stability and engineered fill construction, and foundation recommendations.

PAUL MAGGARD, PE, SENIOR ENGINEER

Experienced in various types of civil engineering projects including water resources, land development, water distribution, wastewater collection systems, stormwater management, coal mining, and recreational trails. Design work includes site layout, erosion and sediment control, cut and fill, hydraulic calculations, and cost estimates. Permitting and compliance activities include site inspections, meeting with regulatory officials, compliance training, environmental preparedness documents, and stormwater, air quality, and mining permits.

D. MARK KISER, PE, LRS, CHIEF ENGINEER

Extensive civil engineering experience ranging from site development, utility extensions, street and roadway construction, stormwater management, regulatory compliance, and environmental permitting. He has been involved in the evaluation, design, and construction of dozens of ponds and impoundments for surface mining operations, abandoned mine land (AML) reclamation projects, and industrial and municipal solid waste landfills.

STATEMENT OF QUALIFICATIONS

STAFFING CAPABILITIES



KEY PERSONNEL

JARRETT M. SMITH, PE, SENIOR ENGINEER

Vast experience in stormwater management, hydrology/hydraulics, geotechnical, and dam inspection, design, and modifications. His project experience includes construction and environmental compliance, residential, commercial, and industrial site development, stormwater management facilities, oil and gas pipeline, and solid waste landfills. Project responsibilities involve civil/site design, grading plans, roadway layout, utility design, and stormwater management plans. He is the Project Manager for a current project performing inspection, permit modifications, WVDEP Dam Safety reporting, engineering plans, surveying, and construction monitoring of three surface impoundments.

DAVID B. SHARP, PE, SENIOR ENGINEER

Civil engineering with a special interest in the geotechnical and environmental considerations. Responsibilities have included projects involving civil site design, geotechnical design, solid waste management facility design including geosynthetic applications, hydrologic and hydraulic design, transportation/highway projects, including geotechnical and right-of-way plans, and municipal water and wastewater projects. Mr. Sharp is the Project Manager for current contracts with the West Virginia Conservation Agency.

JESSICA L. YEAGER, SENIOR SCIENTIST

Aquatic Biologist and Toxicologist experienced in evaluating the effects of anthropogenic activities on aquatic communities. She routinely reviews and prepares environmental assessments, biological assessments, and other environmental impact studies and environmental permits. Various projects include developing impact assessments, recovery plans for streams and rivers, design of benthic macroinvertebrate and fish studies, and advising clients on issues pertaining to NEPA Environmental Policy Act and related policies.

TIMOTHY R. FERGUSON, SENIOR SCIENTIST

Experienced in environmental compliance and permitting and has served as Project Manager for numerous environmental projects. He specializes in stream and wetland identification and delineation, mitigation development and planning, and permitting with the following agencies: USACE, WVDEP, WVDNR, West Virginia State Historical Preservation Office, United States Fish and Wildlife Service, and United States Environmental Protection Agency.

Appendix A includes resumes of key personnel and applicable certifications.

STATEMENT OF QUALIFICATIONS

PROJECT AND GOALS



GOAL/OBJECTIVE 1: REVIEW EXISTING PLANS AND CONDITIONS

Once the contract is awarded, POTEITA will review documents provided by WVDNR and other stakeholders, perform a site visit to gather additional information, and have dialogue with onsite personnel. From this effort, we anticipate preparing our detailed scope of services. POTEITA will work with WVDNR to develop a successful team approach to the project.

GOAL/OBJECTIVE 2: NECESSARY SERVICES TO DESIGN

POTEITA will take information gathered from Goal/Objective 1 and develop preliminary plans for the WVDNR to review and make comments. Following WVDNR's approval of the preliminary site design, POTEITA will proceed with preparing the required permit applications for this project. POTEITA will proceed with the final design and preparation of project specifications for the dam repairs once WVDNR has reviewed the preliminary design, received comments, and the necessary funding has been obtained. The design can be flexible, thus POTEITA will adjust the design accordingly as the situation and/or funding may dictate.

GOAL/OBJECTIVE 3: CONSTRUCTION CONTRACT ADMINISTRATION SERVICES

After bid evaluation and contractor selection by WVDNR, POTEITA proposes to complete the following construction administration and observation tasks during construction. The scope of services described below is based in part on terms and requirements of the Standard General Conditions of the Construction Contract, prepared by the Engineers Joint Contract Documents Committee, which has been used for other projects and is assumed to be used as the basis of the contract between the Agency and the contractor.

- Attend pre-construction conference.
- Review underground facilities not shown on contract documents to determine potential changes to contract documents.
- Review substitutes and "or equal" items, and issue written acceptance/denials.
- Review and approve shop drawings and samples (if required), including review of revised shop drawings if necessary.
- Review contractor work plan, if required by specification special conditions.
- Attend progress meetings and as needed meetings.
- Issue written clarifications or interpretations of the requirements of the contract documents, including issuance of additional specifications and drawings.
- Provide a nearly full-time representative to observe construction for compliance with the contract documents and observe testing by the contractor and record results on appropriate forms.
- Prepare weekly reports summarizing construction activities.
- Prepare change orders for the work, including issuance of additional specifications and drawings, if necessary.
- Review contractor invoices (i.e., Applications for Payment) and issue written recommendations for payment or denial.
- Issue Certificate of Substantial Completion to the Agency, as typically required by the contract documents.
- Provide record drawings showing "as-built" features.

STATEMENT OF QUALIFICATIONS

PROJECT MANAGEMENT



MANAGEMENT ROLES

PRINCIPAL-IN-CHARGE

- Responsible for contract management (administration) and shall coordinate and direct all aspects of the project.
- Review the proposed project and assist the Project Manager to assemble a project team and the necessary resources.
- The Principal-in-Charge and Project Manager will visit the site with client to review site conditions and the proposed services to be completed and guide the preparation of a detailed proposal and cost estimate.
- Review the project budget and schedule during performance of the project.
- Provide a final QA/QC review of the documents prior to submittal to client.

PROJECT MANAGER

- Prepare a written proposal including a detailed scope of work and an associated manhour and cost estimate submitted to client for review.
- Review the proposal with client including a task-by-task discussion of work items and the related costs. Upon client's approval of the proposal, the Project Manager will arrange for the start of project activities.
- Develop a detailed step by step project work plan so that the project activities are completed in a correct manner, within budget, and on time.
- Supervise and direct day-to-day project activities for this project.
- Review work products at intermediate points and prior to project completion and submittal to client.
- Conduct project status reports which may include weekly meetings, memos, or telephone calls with the client project manager, as required.

PROJECT TEAM

- Utilize the appropriate classification of staff to conduct activities required for the project.
- Our large, experienced staff allows us to respond quickly, provides flexibility, and will provide for the opportunity of high-level input from in house experts on complex multi-disciplinary projects.
- Our normal method of staffing projects is to assign a small project team with total responsibility for completion of the work to the client's satisfaction and budget.
- Where necessary, the team can draw on the expertise available within POTESTA's large staff.



STATEMENT OF QUALIFICATIONS

PROJECT MANAGEMENT



PROJECT SCHEDULE CONTROL

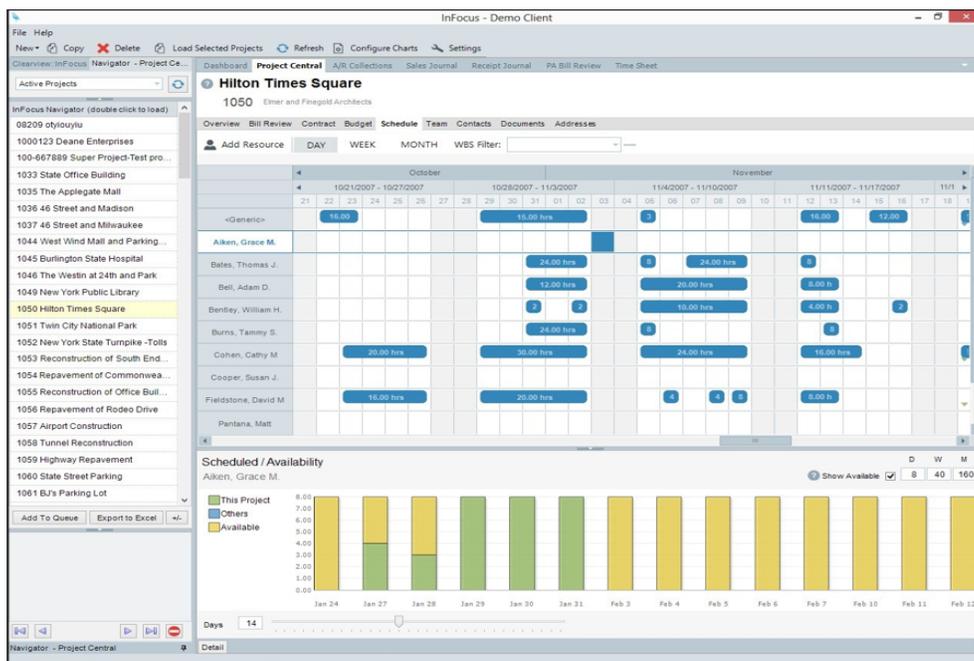
POTESTA has successfully performed numerous water and wastewater projects within project timelines and proposed budgets and looks forward to continuing to do so under this contract. Direct responsibility for schedule control lies with the Project Manager:

- Initially, the Project Manager reviews schedule requirements to see how they can be achieved given the anticipated scope of work.
- The Project Manager monitors the progress and compares it with the established schedule on a weekly basis, while keeping the Principal-in-Charge aware of the schedule's status.
- The Principal-in-Charge can make staff adjustments to allow the Project Manager to maintain the project schedule.
- If circumstances develop that make it impossible to maintain the project schedule, the Project Manager contacts the Client to develop a mutually acceptable adjustment to the schedule and/or work plan.

PROJECT COST CONTROL

INVOICING AND BILLING

POTESTA uses InFocus software, a cloud-based accounting system that makes it easy to keep track of all invoicing and billing transactions. The software also features project management, customer relationship management, and reporting. InFocus software includes real-time tracking of projects automatically, including time and expense, milestones, and vendors/subcontractors. This software easily allows information to be readily available for project updates to our clients, communication by team members and subcontractors.



STATEMENT OF QUALIFICATIONS

PROJECT MANAGEMENT



PROJECT COST CONTROL

CONCEPTUAL ESTIMATING

Each project is site-specific influenced by a variety of conditions; therefore, each cost estimate is site specific.

- Track projects that come through the Contractor's Association of West Virginia bulletin, specifically utility and development projects.
- Compare actual bids for similar projects POTESTA has completed.
- Remain up-to-date on current material prices from suppliers/vendors.
- POTESTA remains flexible in the design and will examine alternatives to reduce the time and cost of construction.
- Cost estimates are based on actual bid unit costs.

QUALITY CONTROL/ASSURANCE

DELIVERABLES

The Project Manager will work with the Principal-in-Charge, as well as each team lead, to understand the level of detail and expectations for this project. POTESTA has a written quality assurance program encompassing drafting, engineer design, and written documents that utilizes standardized Quality Assurance/Quality Control (QA/QC) practices such as consistency checks, color coding of checked copies/calculations, and review of method of measurements versus quantity tallies to meet QA/QC expectations. Included are training for new staff members on company procedures, and color-coded checking systems for drafting and calculations, consistency checks (e.g. specifications versus drawings).

We utilize peer review of deliverable documents, secretarial review, constructability reviews of drawings, and review of method of measurements versus quantity tallies, all to make sure QA/QC expectations are met. As a standard quality assurance practice, the Project Manager and the Principal-in-Charge will review and comment on materials prior to submission to the client. Furthermore, POTESTA is a member of ASFE, an organization that emphasizes professional practices to reduce loss liability.

CONSTRUCTABILITY REVIEW

- Avoid obstructions/interferences underground
- Review plan so that design can be built
- Make sure plans and specifications inclusive and consistent with each other
- Specifications particular to the project requirements
- Site review of plans
- Reduce change orders and cost overruns by contractor

PRIOR EXPERIENCE



DEBRIS CONTROL PROJECT

Little Kanawha Conservation District/West Virginia Conservation Agency Ritchie County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the Little Kanawha Conservation District (LKCD) and West Virginia Conservation Agency (WVCA) to provide design recommendations for the proposed debris control structure near the North Fork of Hughes River Watershed Multiple Purpose Dam at North Bend Lake in Ritchie County, West Virginia. Since the construction of the dam in 2002, areas of timber and other wood debris were allowed to remain and had begun to deteriorate and break away from the lake floor. The debris flows downstream and accumulates around the riser structure of the principal spillway outlet at the southeastern end of the dam. It was periodically removed to maintain the safety and function of the outlet structure. However, the debris removal was performed using boats, which was very costly.



POTESTA designed a debris control structure to capture the debris and collect it along the northwestern end of the dam near the auxiliary spillway, which was more accessible for large machines to remove the debris. POTESTA reviewed documents by the WVCA and Natural Resources Conservation Service and conducted a site visit to observe the debris issue as part of the evaluation. POTESTA recommended the installation and use of a 24-inch flange bolted multifunction boom with a 4-foot rubber skirt. The multifunction boom would have articulating sections at the anchor ends and where the topography changes quickly to provide adequate protection at varying water levels. The two ends of the boom would be anchored using a beam and slider near the corner of the dam and auxiliary spillway and with a concrete anchor block and rock anchors at the other end of the boom on the east bank of the lake.

POTESTA provided a Design Report to LKCD and WVCA with an overview of the proposed design, including flow calculations, estimated forces, geotechnical exploration, and a summary of conditions observed.

PRIOR EXPERIENCE



ANALYSIS AND UPGRADE OF SCOTT LAKE

*Scott Lake Corporation
Beverly, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Scott Lake Corporation to perform analyses on Scott Lake's dam embankment and spillway to design and construct improvements to meet the Certificate of Approval requirements administered by the West Virginia Department of Environmental Protection – Dam Safety (WVDEP). The Scott Lake Dam is an earth fill embankment that impounds Stalnaker Run, a tributary of the Tygart Valley River. Scott Lake was constructed in 1973 before many of the present federal or state regulatory requirements were enacted in Beverly, West Virginia.



POTESTA prepared design drawings (plans) and specifications for the design, alteration, and repair of the Scott Lake dam embankment and spillways in accordance with WVDEP including the following scope of services:

- Dam break analysis
- Dam embankment evaluation including geotechnical exploration and sample collection/testing, internal seepage conditions, foundation stability, and upstream/downstream slope stability
- Topographic survey and mapping of the dam embankment and upstream and downstream areas
- Design of the emergency spillway and exit channel storm including a hydrologic study, flood routings and hydraulic analysis, and hazard classification
- Evaluation of existing principal spillway (concrete box rise pipe, concrete box culvert, and corrugated metal pipe)

In subsequent years, POTESTA has performed a Stability and Internal Seepage Evaluation Report, Dam Inspection Report, and Monitoring and Emergency Action Plan.

PRIOR EXPERIENCE



WHEELING CREEK #7 DAM LANDSLIDE REPAIR

*West Virginia Conservation Agency,
Northern Panhandle Conservation District
Triadelphia, Ohio County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was hired by the West Virginia Conservation Agency (WVCA) and the Northern Panhandle Conservation District (NPCD) to evaluate a landslide that has developed on within the Wheeling Creek Dam #7 Impoundment. The landslide is currently impacting a handicap access and public fishing area and is encroaching into the normal pool elevation of the impoundment. POTESTA completed a subsurface evaluation which included drilling six borings and completing a laboratory testing program. Field surveys were completed, and a topographic map developed that served as a baseline map for the design of repair options. A slope stability analysis was performed, and recommendations made for final repair options.



PRIOR EXPERIENCE



UPPER GRAVE CREEK #1 DAM LANDSLIDE REPAIR

*West Virginia Conservation Agency,
Northern Panhandle Conservation District
Marshall County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was hired by the West Virginia Conservation Agency (WVCA) and the Northern Panhandle Conservation District (NPCD) to evaluate a landslide that developed on the slope of the auxiliary spillway at the Upper Grave Creek Impoundment in Marshall County, West Virginia. The slide occurred near the toe of the slope and has dislodged a volume of soil that caused undue pressures on the uphill side of a water treatment clarifier operated by the Town of Cameron for public water supply. POTESTA completed a subsurface evaluation which included drilling four borings, equipping two of the borings with piezometers to measure groundwater levels, and completing a laboratory testing program. Field surveys were completed, and a topographic map developed that served as a baseline map for the design of repair options. A slope stability analysis was performed, and recommendations made for final repair options.



STATEMENT OF QUALIFICATIONS

PRIOR EXPERIENCE



DYE TESTING AT WARM SPRINGS DAM #7

*Eastern Panhandle Conservation District
Berkeley County, West Virginia*



The Eastern Panhandle Conservation District (District) contracted Potesta & Associates, Inc. (POTESTA) to assist in determining the potential source of a downstream seep that had been noticed below an earthen dam in the eastern panhandle of West Virginia. POTESTA recommended and implemented the use of dyes to determine the origin of the water emanating from the seep. The dye testing occurred at Warm Springs Dam #7 which receives drainage from a 120-acre watershed near Berkeley Springs, West Virginia. The pond was originally built by the National Resource

Conservation Service (NRCS) in 1958 to reduce the impact of heavy rains and flooding in the area. The seep included water that was discharging beneath the principal spillway barrel pipe on the downstream portion of the earthen embankment.

Two separate dyes were selected to determine if and where the leak may be originating from. One dye was administered using a surface water craft to distribute the dye throughout the pond. Another dye was placed in the principal spillway structure, a concrete riser. Packets of activated carbon were placed within the seep to detect if the injected dyes were detected in the seep. The activated carbon packets and water samples were collected at various intervals including days 1, 2, 4 and 7 after the application of the dyes.



Public notice was completed by placing an ad in the local paper explaining the possibility that the unnamed tributary downstream from the impoundment may turn a red or green color as a result of this project. Communication with the District was maintained to assure the project goals would be met in a timely manner.

A summary report explaining the findings of the dye trace study was provided to the District along with POTESTA's recommendations on possible ways to reduce and monitor the amount of seepage occurring at the dam.

PRIOR EXPERIENCE



PINEY CREEK DAM

*Raleigh County Recreation Authority
Raleigh County, West Virginia*



Potesta & Associates, Inc. (POTESTA) was retained by the Raleigh County Recreation Authority to design and oversee construction for a new dam on Piney Creek adjacent to Lake Fitzpatrick Park in Raleigh County, West Virginia. A previously existing dam on the creek had been washed out by flooding. The purpose of the dam on the creek was to impound water to an elevation which would allow flow from the creek to pass through an inlet pipe which fed nearby Lake Fitzpatrick. Lake Fitzpatrick has a very small water shed and, therefore, has difficulty maintaining normal pool elevation. When the

original dam on Piney Creek washed out, the pool level subsequently dropped in Lake Fitzpatrick. The following is a list of services provided:

- Development of a preliminary evaluation report which provided several alternatives for methods of providing inflow to Lake Fitzpatrick.
- Design of a rock fill dam with a crest length of approximately 40 feet and an average height of 10 feet. The design included generating construction drawings and specifications.
- Preparation of permits including a Corps of Engineers 404 Nationwide Permit and a Public Lands Corporation Stream Activity Permit.
- Preparation of bidding documents, including bid quantity list, conducted pre-bid meeting, and assisted the Raleigh County Development Authority with award of the successful bid.
- Contract administration and construction monitoring services.
- Quarterly inspections and reports required by the West Virginia Department of Environmental Protection (also for both facilities).



PRIOR EXPERIENCE



RESERVOIR FEASIBILITY REPORT

Kingwood Water Works Preston County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by Kingwood Water Works (KWW) to provide a feasibility study and contingency planning to evaluate the technical, economic, and environmental implications of constructing a new dam and reservoir on Ashpole Run to provide an alternate raw water source for the KWW Water Treatment Plant (WTP) in Preston County, West Virginia. The new dam and reservoir were proposed downstream of an inactive reservoir that is in disrepair and beyond rehabilitation. The KWW WTP is currently supplied by raw water via three intakes on the Cheat River and is the system's sole source of supply. The study was funded by a grant from the Source Water Protection Program of the West Virginia Department of Health and Human Resources.

The Ashpole Reservoir has a catchment area of over 400 acres and sits on a 586-acre tract owned and managed by KWW. It is fed by pristine mountain springs and unnamed streams that form Ashpole Run. The Ashpole Reservoir was retired in the 1980s following the construction of the current WTP and Cheat Lake intakes. The dam and reservoir have fallen into disrepair since then and the reservoir outlet is left to drain so that water is not impounded behind the unused dam.



The proposed reservoir would have a total volume of approximately 6.8 million gallons, with unused reserve volume of 650,000 gallons, and a net usable volume of 6.15 million gallons. At the current usage rate of 700,000 gallons per day, the reservoir could provide approximately 8.75 days of storage. It could also provide a supplemental flow for blending purposes. The available supplemental flow from the reservoir would vary seasonally and, in most cases, would be less than half of the total system demand to prevent depletion of the reservoir.

POTESTA completed the following scope of services:

- Established a manual stream flow monitoring station on Ashpole Run and KWW collected real time flow depths.
- Performed separate verification measurements and flow calculation for accuracy of corresponding flows.
- Reviewed water quality data on Cheat Lake and sampled Ashpole Run to assist with the application for the Source Water Protection grant.
- Designed two conceptual-level options for construction of a new Ashpole Dam, reservoir, and associated raw water line.
- Projected flows and reservoir storage at 7Q10 and D50 flow conditions.
- Estimated the total project cost with a breakdown.

PRIOR EXPERIENCE



POND #3 IRRIGATION IMPOUNDMENT

*Pikewood National Golf Course
Reedsville, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the Pikewood National Golf Course to review the conditions of their irrigation impoundment as it pertained to the West Virginia Dam Safety Regulations. The impoundment was originally intended by its Owner to not meet the minimum requirements of a dam; however, after construction had been completed, it was determined that the height of the embankment plus the volume of storage did in fact qualify as a regulated dam according to the West Virginia Department of Environmental Protection (WVDEP). Pikewood asked POTESTA to provide the documentation and information necessary to meet the minimum standards and to obtain the necessary Dam Safety Permit from the agency.

POTESTA performed the following services to obtain approval from the WVDEP:

- POTESTA completed a subsurface exploration of the embankment. Soil samples were collected, and piezometers installed to allow measurement of the phreatic surface within the earthen dam. Laboratory testing was performed to determine the strength characteristics of the soil.
- A stability analysis was completed to determine that the minimum factors of safety were obtained for global stability.
- It was necessary to modify the emergency spillway to accommodate the necessary design storm; therefore, POTESTA performed hydraulic calculations to design a box culvert and associated spillway channel. The box culvert was necessary to allow for a road to cross the top of the embankment. Permanent synthetic lining was necessary in the channel due to the large velocities and shear strengths resulting from steep grades.
- POTESTA performed a dam break analysis of the structure to determine if downstream properties would be adversely impacted if a catastrophic failure were to occur.
- POTESTA developed a maintenance plan and inspection schedule for the impoundment.

After POTESTA completed their services, a dam safety permit application was assembled and submitted to the WVDEP, who reviewed and approved the impoundment as a certified Class 3 Dam.



PRIOR EXPERIENCE



HOLZ IMPOUNDMENT UPPER WARD IMPOUNDMENT LOWER WARD IMPOUNDMENT

*The Dow Chemical Company
South Charleston, West Virginia*

Potesta & Associates, Inc. (POTESTA) has been retained by The Dow Chemical Company (DOW) since 2005 to provide a variety of services on three DOW surface impoundments located in South Charleston, West Virginia. Lower Ward is reclaimed with a portion of the site currently used as a paved parking lot for the Kanawha Valley Community & Technical College. The Upper Ward Impoundment is a freshwater impoundment and the Holz Impoundment is utilized for fly ash disposal.

The following is a list of services provided by POTESTA:

- Annual/biannual inspections and professional engineer certification required by the West Virginia Department of Environmental Protection (WVDEP), Dam Safety Section.
- Preparation of permit modifications that are required as a result of changes required for the facility.
- Regular updates to the Monitoring and Emergency Warning Plan.
- Letter reports to the WVDEP, Dam Safety Section.
- Preparation of engineering plans for various projects, such as trash rack replacement, security systems, pipeline replacement and pipeline re-routing.
- Piezometer readings.
- Surveying services.
- Construction monitoring.



POTESTA has also provided DOW with other engineering, remediation, and environmental services. These include water and well sampling, soil/rubble risk assessment, geotechnical services, containment certifications, and pipeline permitting and design.

PRIOR EXPERIENCE



DAM INSPECTIONS FOR SLEEPY HOLLOW SUBDIVISION DAM

*Sleepy Hollow Lot Owner Association, Inc.
Berkeley County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Sleepy Hollow Lot Owner Association, Inc. to perform several dam inspection intervals for the Sleepy Hollow Dam located in the Sleepy Hollow Subdivision in Berkeley County, West Virginia. Sleepy Hollow Subdivision is a 73-unit family housing development. The Sleepy Hollow Subdivision Dam is an earth fill embankment that impounds Cherry Creek, a tributary of the Potomac River.



The dam is 42 feet tall, has a surface area at normal pool elevation of approximately 7.3 acres, and impounds a maximum water volume of 93.2 acre-feet.

POTESTA's services included:

- Submitted Freedom of Information Act (FOIA) request to the West Virginia Department of Environmental Protection Dam Safety Section (Dam Safety), and performed file reviews to obtain copies of past inspection reports, drawings and other pertinent information available in order to obtain a better understanding of the dam.
- Met with Sleepy Hollow Lot Owner Association, Inc. representatives familiar with the dam, to obtain additional information pertaining to the operation, maintenance, and history of the dam.
- Visited the site to conduct visual observation of the Dam's crest, upstream/downstream embankment slopes, abutment areas, and principal and emergency spillway structures to identify deficiencies and potential hazards.

POTESTA then prepared and submitted dam inspection reports in accordance with the Dam Safety Regulations that included visual observations made during the site visit, photographs, our opinions and conclusions relative to the condition of the dam, and an engineer's verification statement certification.

PRIOR EXPERIENCE



FITZPATRICK LAKE WATER SOURCE

*Raleigh County Recreation Authority
Raleigh County, West Virginia*



The water source for maintaining a small impoundment at a Raleigh County Recreation Authority park facility was destroyed in July 2001 when flooding ravaged southern West Virginia. The water source was a dam on Piney Creek that diverted water into Fitzpatrick Lake. These two dam structures were remnants of a large lumber mill complex that operated at the site of the park in the early 20th century.

Potesta & Associates, Inc. (POTESTA) evaluated several options for reestablishing the water source, as well as contacting the federal and state environmental regulatory agencies regarding replacement of the dam on Piney Creek. With a favorable response from the U.S. Army Corps of Engineers and West Virginia Division of Natural Resources, POTESTA recommended the dam replacement, providing a preliminary design and cost opinion.

Subsequently, the Recreation Authority approved the study's recommendation and authorized POTESTA to develop construction documents and oversee construction.



STATEMENT OF QUALIFICATIONS

REFERENCES



MARSHALL UNIVERSITY

Mr. Jeff Pratt
Director of Facilities Planning
and Management
400 Hal Greer Boulevard
Huntington, WV 25775
(304) 636-6479
pratt65@marshall.edu

HUNTINGTON SANITARY BOARD

Mr. Pat Taylor, PE
Engineer
PO Box 7098
Huntington, WV 25775
(304) 993-7999
ptaylor@huntingtonsb.com

WEST VIRGINIA AMERICAN WATER

Mr. Brett Morgan
Engineering Manager
1600 Pennsylvania Avenue
Charleston, WV 25302
(304) 340-2011
brett.morgan@amwater.com



APPENDIX A



EDUCATION

- M.S. Civil Engineering, 1979
West Virginia University
- B.S. Civil Engineering, 1978
West Virginia University

EMPLOYMENT HISTORY

- 1997-Present Potesta & Associates, Inc.
1994-1997 Terradon
1979-1994 GAI Consultants, Inc.
1978-1979 West Virginia University
1976-1977 West Virginia Department of Highways
(summers)

PROFESSIONAL REGISTRATIONS

- Professional Engineer – West Virginia, Illinois
- Professional Surveyor – West Virginia

PROFESSIONAL CERTIFICATIONS

40-Hour Health and Safety Training

SERVICE ON BOARDS AND COMMISSIONS

- Environmental/Technical Committee member – West Virginia Coal Association
- Environmental Committee member – Kentucky Coal Association

- Past Board of Directors member and current Waste Team Chairman on the Environmental Safety and Health Committee – West Virginia Manufacturers Association
- Environmental and Safety Committee member – Independent Oil and Gas Association of West Virginia
- Environmental Committee member – West Virginia Oil and Natural Gas Association
- Past President – West Virginia Society of Professional Engineers, Professional Engineers in Private Practice
- Past President and past Board of Directors member – American Council of Engineering Companies West Virginia Chapter
- Past Chairman of Transportation Committee – American Council of Engineering Companies West Virginia Chapter
- Past Board of Directors member – Society of American Military Engineers Huntington Post
- Member Committee D-18 on Soil and Rock – American Society for Testing and Materials (ASTM)

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers
- National Society of Professional Engineers
- WV Society of Professional Surveyors

AREAS OF SPECIALIZATION

Management of design and permitting of civil, environmental, geotechnical, and mining engineering projects. Siting, design, and permitting of industrial and municipal waste disposal sites; reclamation of abandoned mine lands; and development of stormwater management plans and groundwater sampling programs. Environmental/reclamation liability assessments. Development of site plans for commercial and industrial facilities including hydrologic and hydraulic analyses. Expert witness testimony. Directs engineering division including day-to-day operation of headquarters and three branch offices concerning staffing, coordination, training, business development, and overall management of technical and support staff.

PROFESSIONAL EXPERIENCE

Civil/Site Design

Utility extension, site grading plans, stormwater management, roadway design, and permitting for site development:

- Residential subdivisions
- Commercial developments

University of Charleston – Principal-in-Charge for the following projects:

- Development of topographic mapping of campus
- Evaluation of storm sewer system
- Civil site services – UC Pharmacy School, New Hall, Middle Hall, and Brotherton Hall
- Design of new campus entrance roadway

Marshall University – Principal-in-Charge for the following projects:

- 400 bed housing project
- Biotechnology Center
- Fifth Avenue parking and 6th Avenue parking facility
- Jomic Jazz Center
- Childcare Center
- Mid-Ohio Valley Center
- Campus landscape master use plan
- Campus improvements project
- MU Graduate College South Charleston campus
- Student Center and Henderson Center
- Bookstore addition
- University Heights

Glenville State University – Principal-in-Charge for the following projects:

- Student Residence Hall
- Athletic Convocation Center and Forestry/Survey Class Center

West Virginia University – Principal-in-Charge for a sidewalk repair project located near Allen Hall on the Evansdale Campus in Morgantown, West Virginia.

The Villages at Coolfont – Principal-in-Charge to provide environmental and engineering consulting services for the redevelopment of the Coolfont Recreation property in

Morgan County, West Virginia to create a second home community with high-end amenities:

- Phase I Environmental Site Assessment
- American Land Title Association (ALTA) boundary and property survey of 997 acres
- Completed an assessment of the facility's sanitary sewer wastewater treatment plant to facilitate acquisition of the property.
- Participated in weeklong planning charrette with client, land planners, and other design consultants to assess characteristics of property, identify opportunities and constraints, obtain input from local residents and businesses, and develop design guidelines.
- Land use plan includes 1,300 homes, a village center, spa, expansion of an existing lake, a proposed second lake, walking/hiking/biking trails, and the necessary infrastructure.
- Civil engineering design for potable water and wastewater treatment facilities.
- Selected source well locations, drilled 3 source test wells, and completed field testing and permitting.
- Designed 300 gallon per minute potable water treatment plant.
- Designed 2- 316,000-gallon water storage tanks and 75,000 LF of distribution system.
- Completed the design and permitting for a 448,000-gallon per day membrane bioreactor wastewater treatment plant, including the design of a 70,000 LF collection system.
- Assisted with permitting required for the development of the new lake and upgrades/expansion of the existing lake (included were Section 404 individual permit and Section 401 water quality certification).
- Prepared roadway and stormwater management plans, including typical pavement sections, road profiles, geometric layout plan, culvert and drop inlet sizing, drainage conveyance pipe and channel profiles, and miscellaneous stormwater management details.

City of Charleston – Inspection and preparation of rehabilitation design for Parking Garage No. 1.

Tucker County Industrial Park – Principal-in-Charge for the design which included water and sewer lines, stormwater management design, roadway design, pavement design, site grading plan, master plan, and geotechnical exploration/foundation recommendations.

Principal-in-Charge for site grading plans, stormwater management system, site surveying, roadway/parking lot design, wetland delineation/mitigation, and construction monitoring for the 400,000-square foot Coldwater Creek distribution center in Parkersburg, West Virginia.

Principal-in-Charge for the civil/site design for the new Sissonville Middle School in Kanawha County, West Virginia. Project included site grading plan with more than 230,000 cubic yards of earthwork to obtain 20 acres of level ground for a 74,000-square foot school, football field, soccer field, baseball field, access roadways, and parking areas. Project included utility designs for water service and sanitary and sewer. Stormwater collection systems and erosion and sediment control plan/permit completed.

Principal-in-Charge for civil/site design for new Riverview High School and Bradshaw Elementary School in McDowell County, West Virginia. Project included 2,500 linear feet of relocated WV Route 80, relocation of 1,200 feet of Oozley Branch, and site work (grading, stormwater drainage, geotechnical recommendations, sanitary sewer, water, and electrical services) to serve the two schools. Project design included site survey, geotechnical exploration, foundation recommendations, design of excavation slopes, layout of schools, parking areas and athletic fields, utility design, roadway relocation plans, and stream relocations plans. Responsible for the design and preparation of contract bid documents (specifications and drawings) for civil/site work. POTESTA served as a subconsultant to ZMM on this project.

Principal-in-Charge for civil/site design and permitting associated with the construction of three synthetic fuel pellet plants in McDowell County, Nicholas County, and Kanawha County, West Virginia. Project included developing synthetic fuel manufacturing facilities on inactive surface mining sites. Services included subsurface exploration, foundation recommendations, grading plans, stormwater management plans, preparation of permit applications, and construction monitoring for site grading and foundation construction. The McDowell County site included a water source study to identify and select water sources for the manufacturing process. The three plants had a construction cost of \$25 million. Project was a design/build arrangement with POTESTA working directly for the owner.

Carmeuse Lime & Stone – Principal-in-Charge of engineering and environmental services for the expansion of current quarry operations at Winchester quarry in Winchester, Virginia. The expansion includes the addition of two new vertical lime kilns and associated equipment, increasing their current aggregate crushing operation, and expanding their rail system to allow for increased shipping of products.

- Design included grading, stormwater management, and an access road crossing for a rail loop encircling the lime kilns and aggregate crushing areas with rail spurs for loading and unloading of product to connect to two mainline rail carriers.
- The total project track length consists of approximately 29,000 linear feet of rail.
- The design of the rail expansion includes trackside ditches, culverts, stormwater management systems, gas line relocations and crossings, rail crossings, and internal plant roadways, as well as grading for the expanded aggregate plant and lime kilns.
- Additional designs included civil/site services for a new office building and design of the sanitary water treatment system for this building.
- Acquired the necessary approvals to construct this project, such as approvals from local planning and zoning, inspections, health departments, and state governments such as Virginia Department of Transportation, Department of Environmental Quality (DEQ) and Department of Mining and Mineral Extraction (DMME).
- Conducted wetland delineations, developed reports, and completed applications to the Norfolk District (Northern Virginia field office) of the United States Army Corps of Engineers (USACE).

Development of specifications for a sand mound treatment system in the U.S. Air Training Center near Pittsburgh, Pennsylvania.

Water Lines, Water Storage Tanks, and Water Treatment Plants

New extensions and replacement of existing lines:

- Cassity Fork Water Supply Extension Project – Randolph County, WV (Project Manager)
- Godby Branch Water Supply Extension Project – Logan County, WV (Project Manager)
- Beaver Creek Water Supply Extension – Upshur County, WV (Project Manager)

- Buff Creek/Trace Fork – Putnam County, WV (Principal-in-Charge)
- Route 60 – Putnam County, WV (Principal-in-Charge)
- Boone County PSD numerous extensions – Boone County, WV (Principal-in-Charge)

West Virginia American Water Company – Principal-in-Charge for construction administration/monitoring for Poca River Water Line Extension Project, Cabell County Water Line Extension Project, Contract No. 7, Spite Road Water Line Extension Project, and Fisher Ridge Water Line Extension Project. Work included construction monitoring, preparation of weekly reports, review of contractor submittals, review of contractor invoices, and preparation of records drawings for 100,000+ linear feet of water line extensions.

City of Philippi – Principal-in-Charge for municipal water system upgrade project. Work included design of two replacement booster stations, two new water storage tanks, new pumps for an existing booster station, a 1,500-foot water line extension, and telemetry systems. Drawings, specifications, and a cost estimate were prepared.

West Virginia American Water Company – Principal-in-Charge for Residuals Handling Facility project at the 32 MGD Kanawha Valley Water Treatment Plant, including coordination design consultant. Design included sludge pumping station, 950,000-gallon reinforced concrete gravity thickener, two belt filter presses, chemical feed systems, plate settler, and associated control and piping. Work included preparing design concept, surveying, subsurface exploration, preparation of drawings, specifications, cost estimate and permit applications, conductance of pre-bid public relations meeting, evaluation of bids, construction observation, review of contractor submittals, review of change order requests, and review of contractor invoices.

West Virginia American Water Company – Principal-in-Charge for evaluation of Town of Pineville water treatment plant and water distribution system, including observation of system during site visit, records review, discussions with regulatory officials, and issuance of findings in a report.

Tucker County Development Authority – Principal-in-Charge for design of approximately 10,000 feet of water line and sewer line to serve an industrial park, including a lift station. Drawings, specifications, and a cost estimate

were prepared. Also performed construction administration services.

West Virginia Bureau for Public Health – Principal-in-Charge for services associated with Source Water Assessment Protection Plans (SWAPP) for 38 public water systems throughout West Virginia. Services provided included windshield surveys to identify and locate (via GPS) potential contaminant sources (PCS's), review of regulatory databases, entering data into Access database, and preparation of summary reports.

City of Philippi – Principal-in-Charge for relocation of water lines due to proposed roadway. Relocation included approximately 4,000 feet of 1-inch to 12-inch diameter pipe, fire hydrants, meters, and valves. Prepared construction drawings, specifications, and quantities.

West Virginia American Water Company – Principal-in-Charge for hydraulic analysis for water supply extensions (total of 23 miles) in Cabell County, West Virginia, including line sizing and design of booster station and PRVs.

Management of design, permitting, and construction monitoring of more than 40 miles of new waterline serving rural communities in southern West Virginia.

West Virginia Department of Abandoned Mine Lands – Detailed design and preparation of construction drawings, specifications, contractor's bid sheet, and engineer's cost estimate for six-mile water line extension including fire protection. Project included 90,000-gallon water tank, booster station, and pressure relief valves. Extension tied into Norton Harding Jimtown PSD System and served town of Cassity in Randolph County.

West Virginia Department of Abandoned Mine Lands – Detailed design and preparation of construction drawings, specifications, contractor's bid sheet, and engineer's cost estimate for a half-mile water line extension to serve Beaver Creek near Junior in Randolph County.

West Virginia Department of Abandoned Mine Lands– Management of four Phase II water studies and five Phase I water studies to determine if water supplies had been affected by coal mining. Work included resident interviews, mine map searches, area reconnaissance, obtaining water samples, reviewing water analysis data, preparing conceptual designs and associated costs and preparation of summary report.

Sewer Lines and WWTPs

Washington County Industrial Development Agency – Design of a holding tank and ventilation system vault near Houston, Pennsylvania.

West Virginia American Water Company – Principal-in-Charge for evaluation of wastewater collections systems and treatment plants for two municipalities (Oak Hill and White Sulphur Springs) in West Virginia. Included were site visits to observe the system, discussions with system operators and regulatory officials, records review, compilation of DMR data and issuance of findings in reports.

Geotechnical

Subsurface exploration, evaluation, and design of remedial measure for landslides:

- Soldier beam and lagging retaining walls
- Gabion walls
- Grade/drain/compact in-place
- Geo-grid reinforcement with grade/drain/compact in-place

Plasma Processing Corporation – Management of subsurface exploration and preparation of soils report near Ravenswood, West Virginia.

West Virginia University – Principal-in-Charge for the following projects:

- WVU Intermodal Parking Garage on the Medical Center Campus – geotechnical and civil engineering
- WVU Engineering Building – geotechnical evaluation

Principal-in-Charge for Williamson Landslide Project involving an abandoned mine land site. Geotechnical exploration and design of 480-foot-long soldier beam and lagging retaining wall with tiebacks to support loose mine spoil backfill along the edge of a previously mined area with steep terrain. Project was required to protect an existing 125-bed nursing home facility.

NPDES Industrial/Municipal Permitting

Completed National Pollutant Discharge Elimination System (NPDES) renewal permitting and associated agency negotiations for several facilities.

Plasma Processing Corporation – Management of numerous projects in Ravenswood, West Virginia including:

- Subsurface exploration and preparation of soils report
- NPDES Permit
- Development of sampling program for Plasma to follow in obtaining samples for NPDES Stormwater Analyses
- Development of hazardous waste operations manual
- Acquisition of WV Air Pollution Commission permits
- Environmental audit of facility operations

Hydrology and Hydraulics

City of Charleston – Hydrologic and hydraulic analyses of South Ruffner Watershed. Project analyzed various storm events and presented conceptual recommendations to reduce effects of these storms.

U.S. Army Corps of Engineers, Jacksonville District – Determination of watershed areas along the Suwannee River Basin.

Groundwater

Dilley’s Mill – Principal-in-Charge for review of regional groundwater information for a summer Boy Scout camp facility to locate and construct a replacement drinking water well for the facility. Responsibilities included the development and review of existing facility usage, determination of the location and depth of the proposed water well and design of the well to meet with the requirements of the State of West Virginia Department of Health standards. Design of sewage collection system and synthetic lined sewage treatment lagoon including permitting.

Groundwater sampling programs:

- Herr’s Island – Urban Redevelopment Authority of Pittsburgh
- Robertshaw Controls in New Stanton, PA
- New Castle Power Station
- Pennsylvania Power Company
- Portsmouth Power Station
- Virginia Electric and Power Company
- Rhone Poulenc Ag Company – Institute, WV

Management of pump tests:

- Peabody Coal Company – Bim, WV
- Southern Ohio Coal Company – Meigs County, OH
- Rhone-Poulenc Ag Company – Institute, WV

Rhone Poulenc Ag Company – Development of specification manual for conducting soil and groundwater sampling programs. Manual detailed decontamination methods and proper handling/disposal methods in Institute, West Virginia.



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

Dana L. Burns

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 9859

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



Given under the hand and the Seal of the Board at the Capitol in the City of Charleston, this 17th day of Sept. in the year of our Lord One Thousand Nine Hundred and Eighty-Five and of the State the One Hundred Twenty-Second

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

[Signature]

Secretary

By

Robert S. Scott President

Frank Gaddy

Wm. P. Fickens

Kenneth H. Means



EDUCATION

- M.S. Economics – Mineral Economics, Econometrics, and Microeconomics
West Virginia University
- B.S. Business Administration
West Virginia University

EMPLOYMENT HISTORY

- 1997-present Potesta & Associates, Inc.
- 1989-1997 Environmental and Engineering Consulting Company
- 1984-1988 West Virginia Department of Natural Resources
- 1981-1984 West Virginia Coal Development Authority

SERVICE ON BOARDS AND COMMISSIONS

- Past Chairman and current Commissioner, Ohio River Valley Water Sanitation Commission
- Past Chairman and current Member, Board of Trustees, The West Virginia Nature Conservancy
- Member of the West Virginia Land & Mineral Owners Board of Directors
- Past Chairman, The Greater Kanawha Valley Foundation

AREAS OF SPECIALIZATION

Federal and environmental regulations, statutory schemes, and environmental guidance. Directs environmental compliance and environmental remediation departments including day-to-day operation of three branch offices concerning staffing, coordination, training, business development, and overall management of technical and support staff.

PROFESSIONAL EXPERIENCE

Prior to Forming Potesta & Associates, Inc.

President of an Environmental and Engineering Consulting Company – Formed in 1989 and under his guidance, the company grew into a full-service environmental consulting, design, and construction company with a staff of over 50 professional and support personnel.

Director of the West Virginia Department of Natural Resources – Supervision of Water Resource and Waste Management Division, Land and Real Estate Office, Office of Regulatory Affairs, Conservation, Education, and Litter Control, Public Information Office, and Wonderful West Virginia Magazine. He also served as Chairman on the State Emergency Response Commission and the Title III organization mandated by the federal Superfund Amendments and Reauthorization Act.

Deputy Director of the West Virginia Department of Natural Resources – Responsible for overseeing environmental regulatory programs described under Director's position and for the supervision of programs associated with the West Virginia Surface Coal Mining and Reclamation Act.

Marketing Director of the West Virginia Coal Development Authority – Responsible for promotion of West Virginia coal in both domestic and export markets requiring expertise in coal reserves, coal quality, transportation networks, and market demands.

Environmental Remediation

Principal-in-Charge and technical advisor for various types of environmental remediation projects:

- Asbestos inspections
- Environmental emergency response

- Environmental site assessment and remediation
- Groundwater

Environmental Compliance

Principal-in-Charge and technical advisor for various types of environmental compliance projects:

- Permitting
- Wetland delineation and remediation
- Biological surveys
- Risk assessments
- Habitat assessments
- Surface water modeling
- Water quality
- Endangered species consultation
- Oil and natural gas consulting
- Solar development consulting
- Stream restoration

CHRISTOPHER A. GROSE, L.R.S.

Senior Engineering Associate



EDUCATION

M.S. Geological Engineering, 1990
University of Missouri-Rolla

B.S. Civil Engineering, 1988
West Virginia Institute of Technology

EMPLOYMENT HISTORY

1997-Present Potesta & Associates, Inc.
1994-1997 Terradon Corporation
1990-1994 GAI Consultants, Inc.
1989-1990 University of Missouri-Rolla
1989 Triad Engineering Consultants
(summer)
1988 West Virginia Institute of Technology
1983-1988 Clint Bryan & Associates Architects
(summers)

PROFESSIONAL REGISTRATIONS

Licensed Remediation Specialist – West Virginia

PROFESSIONAL CERTIFICATIONS

- Hazardous Waste Site Operations and Superfund Worker Protection Training
- American Red Cross Standard First Aid and CPR
- Troxler Moisture-Density Gauge

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers
- Association of Engineering Geologists
- Society of America Military Engineers

AREAS OF SPECIALIZATION

Geological/Geotechnical engineering related to subsurface exploration studies, soil and rock slope design, landslide causation studies, foundation system design, surface/subsurface hydrogeology, ground subsidence, contaminant transport and groundwater flow modeling. Planning, design, and permitting of natural gas production well pads and access roads. Geological study of hazardous waste remediation sites, CERCLA/SARA, RI, and FS report compilation, geological and geotechnical aspects of siting and design of municipal and industrial waste landfills.

PROFESSIONAL EXPERIENCE

Geotechnical

Completion of numerous subsurface exploration studies for active soil slope landslide failures associated with the development of natural gas production well pads and access roads. Work included the layout, surveying, and logging of subsurface borings to determine the depth and extent of the slope failures. Following collection of soil/rock samples, materials were tested for characteristic and strength properties. Following testing efforts, the failed slopes were modeled using computer-based slope stability design models to determine a stable configuration including the addition of rock buttresses, toe keys, underdrains, mid-slope keys, etc. Final stabilization plans were then prepared for the client allowing bidding and selection of a repair and stabilization contractor to perform the work.

- Stone Energy Corporation
 - Mills-Wetzel No. 2 well pad landslide repair
 - Potoczny well pad landslide repair
 - Mills-Wetzel access road landslide repair
 - Pribble Tank landslide repair
 - Haines Branch pipeline landslide repair
- Columbia Pipeline Group (TransCanada Pipeline)
 - SM8 pipeline landslide repair
 - SM80 Loop pipeline landslide repair
- Chesapeake Energy Corporation – R. Baker well pad landslide causation study

- TransEnergy Corporation – Dewhurst well pad landslide repair
- Reserve Oil & Gas – Reed No. 1 well pad access road landslide repair

West Virginia Division of Highways – Geotechnical engineer on geotechnical/landslide master services agreement for on-call services for a three-year period.

Forensic study, expert testimony, and legal support related to the failure of numerous soil/rock slopes throughout West Virginia. This work included extensive review of relevant project case documents, site reconnaissance visits, interviews with project personnel, and deposition testimony.

Lynn Elementary School – Technical insight and recommendations to attorneys representing an adjacent property owner related to the contributing factors related to the formation and continued failure of an excavated soil slope. The toe of the slope was excavated during the site development of the proposed elementary school site in Lynn, West Virginia.

Crichton & Crichton – Landslide formed along a wooded hillside below a residential driveway on Pleasant Lane in Wood County, West Virginia. The slope failure was noted during a substantial leak in an existing water main. The work included a review of case documents, interviews with various residents (plaintiffs in the case) and the development of supporting causation theory for the formation of the landslide. The work also includes the development of repair alternatives and associated construction estimates to be considered during the dispute hearing between the plaintiff and defendants.

Chesapeake Appalachia/Law Office of Jeffrey Mahal (R. Baker Natural Gas Production) – Provided technical study and file review of case documents related to the grading contractor's construction work efforts to prepare a well pad for the installation of a series of horizontal gas production wells in Marshall County, West Virginia. The work included the removal of soil and rock from an existing hilltop. The resulting material was placed or wasted in series of three side hill fills along the edges of the resulting well pad. All three of these fills experienced progressive and ongoing failures following the construction effort. Reviewed design documents, construction records, and details related to several repair attempts to result in the development of a professional opinion related to the various factors contributing to the multiple slope failures.

Nationwide Trial Division/Khan & Wheeler (Ross v. WVAW Landslide Case) – Provided professional opinion related to the formation of a slope failure along the Elk River immediately behind several commercial and residential homes near the Town of Elkview, West Virginia. The initial landslide occurred immediately following a main waterline break along the front of the structures. The regressive and prolonged failure continued over several weeks and ultimately damaged a gravity sanitary line as well as several of the structures. Work included an extensive review of several years of case records provided for the case including a review of existing utility maintenance records, historic climatologic data, river stage information and depositional testimony from many of the affected parties. A summary of profession opinion report was prepared describing a number of factors including lack of maintenance storm culverts in the area as well as an increase of saturation along the slope from the failed water main as the cause of the slide. It was determined that several of the structures were supported on previously placed fill material which was placed along the river bank in the early 1900's in conjunction with the initial roadway construction. This coupled with the lack of maintenance and presence of deteriorated drainage culverts likely contributed to the slope failure. The initial installation of this fill material was determined through an extensive study of the historic topographic mapping of the area.

Responsible for development of geotechnical and geological recommendations as well as development of stabilization designs for many failed soil/rock slopes in West Virginia. This work included initial site reconnaissance visits, development of a subsurface exploration study and materials testing program, evaluation of stabilization alternatives, and construction plan preparation.

Travelers Insurance/City of Charleston – Project included a subsurface exploration study, engineering design, and global stability evaluation of a failed soil slope in a residential neighborhood on Bona Vista Drive for the City of Charleston, West Virginia. The slide was caused by a water main break along an existing residential neighborhood paved roadway. The recommended slope stabilization method was to install a soldier beam and lagging retaining wall along an existing paved roadway (supporting the buried utilities) with the remainder of the failed slope below being removed and replaced with compacted soil backfill.

Stone Energy Pribble Tank – Work included the exploration and study of a failed soil/weathered rock slope which was loaded through the placement of fill near the top of the slope to provide adequate area for the construction of 2- 2,400,000-gallon water storage tanks in New Martinsville, West Virginia. Shortly following the installation of the tanks, a large section of the hillside failed leaving one of the tank foundation partially unsupported. Following the subsurface exploration and drilling work, a stabilization plan was developed which included the removal of the failed soil mass (>50,000 CY) followed by the replacement of compacted soil material behind a large toe key and buttress. The repair also included surface diversion drainage ditches and numerous bond benches along the underlying rock line which were fitted with under drains to collect subsurface seepage.

NiSource/Columbia Gas Pipeline Group SM-80 Loop Gas Transmission Line – Development of a subsurface exploration and drilling plan to determine the extent and depth of a soil and weathered rock slope failure which threatened the performance and stability of a 30-inch high pressure natural gas transmission line in Kanawha County, West Virginia. The slide location was remote and situated along a steep hillside. The stabilization plan recommended the use of soil nail technology due to the remote location and rather inaccessible nature of the location. This repair and stabilization technique allowed for the in-situ repair of the failed slope without extensive excavation and backfill which was deemed difficult and would have required more land disturbance resulting in additional slope stability concerns.

EQT Rockport #7244 Natural Gas Storage Well Pad – Project involved the assessment and repair recommendations for a section of failed fill slope immediately below existing and active natural gas storage well near the community of Rockport in Jackson County, West Virginia. The failed slope was caused by improper surface drainage control along the pad and access road. The stabilization plan included the excavation and removal of the failed slope following “shut-in” of the storage well. The upper failure scarp was situated immediately adjacent the well head which was protected during the stabilization work. Following installation of a rock toe buttress and key way, the failed soil material was amended using lime to reduce the moisture content which was required to achieve the recommended in place density during placement and compaction. Following the regrading effort, the slope was trimmed and seeded followed by the grading a several diversion and collection

ditched to control runoff from the upper portion of the hillside below the well pad.

City of Charleston – Geotechnical assessment and development of regrading construction plans for the repair of a failed soil slope below Grandview Drive for the City of Charleston, West Virginia. The slope failure occurred between two adjacent residential structures and encompassed a sanitary sewer main as well as a storm drainage pipe receiving storm drainage from Grandview Drive. The stabilization plan involved the removal of the failed mass beginning at the toe of the slope and then working progressively upslope to result in a stabilized and regraded slope surface. The work required the removal of all failed material to the underlying rock surface and included the installation of a shot rock toe buttress which was installed along a natural topographic bench near the toe. Following completion of the work the affected utilities were installed either below the fill material or outside the regraded slide area.

Greer Industries Cheat River Quarry Haulroad – Project included the development of stabilization and repair recommendations for a failed soil slope which impacted a critical haulroad utilized by the quarry operator to move raw shot rock material from the quarry to the crusher at the aggregate plant in Rowlesburg, West Virginia. The landslide occurred because of the failure of a cross drainage culvert in the haulroad. The failed soil mass was removed to the underlying bedrock and following installation of a stone toe buttress and toe key, the material was blended with aggregate material from the plant and placed in compacted lifts. The underlying rock surface was excavated to result in a series of “bond benches” allowing for the installation of underdrains below the compacted fill to collect groundwater and seepage from the underlying rock. This prevented saturation of the fill material.

Responsible for the design, management, and inspection of a geotechnical investigation of a proposed five-mile rail extension located in Nicholas County, West Virginia. Investigation included study and design of planned rock cuts, and track foundation materials.

General Services Administration – Site evaluation, including continuous HNU scanning of collected soil samples and installation of piezometers for two proposed sites near Charleston, West Virginia.

West Virginia Department of Environmental Protection – Foundation design for a proposed 1,000,000-gallon potable water storage tank and valve pit near Cassidy, West Virginia.

Rhone Poulenc Ag Company – Subsurface sample collection, resistivity measurements, explosivity measurements, and decontamination procedures for an organic contamination study at Institute, West Virginia.

Preparation of foundation investigations for several large structures including a parking garage and student housing complex at Marshall University in Huntington, West Virginia. Tasks included development of subsurface exploration program, soils/rock sampling, testing program, and preparation of a final geotechnical report.

Groundwater

Operation and maintenance of several groundwater remediation systems including pump and treat and sparge systems for a large chemical manufacturer in Nitro, West Virginia. The pump and treat technology is designed to recover kerosene in one instance and TCE in another. Both systems are safety oriented and are fully automatic. The sparge system is a study/field test to determine the impact that oxygen injection will have on the degradation of phenolic compounds existing in the groundwater.

Columbia Gas Transmission Corporation – Evaluation of numerous groundwater monitoring wells to determine the direction of migration and the feasibility of utilizing them in a planned pump and treat recovery system. The site was an active compressor facility located in Eastern Kentucky.

Design and completion of several geological and hydrologic investigations to determine nature and direction of groundwater flow associated with proposed limestone quarry sites in Nitro, West Virginia. The sites were all associated with Karst terrain and dual permeability systems and primarily fractured flow regimes. Studies included the deployment of drilling equipment to install groundwater monitoring wells.

Measurement of stratified in-site permeability of rock strata in NX boreholes in Hurricane, West Virginia. The permeability measurements were reviewed and evaluated to develop groundwater monitoring systems associated with both existing and proposed municipal landfill disposal facilities.

Rhone Poulenc Ag Company – Analysis and study of elevated levels of organic constituents and elevated pH values in existing monitoring wells. Study to determine if well construction techniques or development procedures contributed to the presence of these constituents.

Dilley’s Mill – Review of regional groundwater information for a summer Boy Scout camp facility to locate and construct a replacement drinking water well for the facility. Responsibilities included the development and review of existing facility usage, determination of the location and depth of the proposed water well and design of the well to meet with the requirements of the State of West Virginia Department of Health standards.

Union Carbide Corporation – Design and completion of several monitoring wells to monitor an abandoned fly ash disposal area. Included hydrologic analysis of site geology to determine major aquifers present in the area.

Completion of several groundwater contamination studies in West Virginia. Contaminants included diesel fuel, gasoline, chlorobenzene, and benzene. Studies included field exploration utilizing various methods including air and mud rotary drilling. Responsible for the setup, calibration, and analysis of groundwater computer models to lend insight into the flow regimes and dispersion characteristics of the potentially affected areas.

Preparation of Phase I, II, and III water studies throughout the state of West Virginia for the West Virginia Division of Environmental Protection, AML section. Work items included interview of area residents to determine major quality and quantity problems, field and records research to determine the location of known pre-law mining activity, which could potentially affect groundwater quality, collection of groundwater samples, and design of water distribution facilities.

EDUCATION

B.S. Civil Engineering, 1994
Virginia Polytechnic Institute & State University

EMPLOYMENT HISTORY

2022-Present Potesta & Associates, Inc.
2019-2022 Gress Engineering, PC
2018-2019 King General Contractors
2017-2018 Appalachian Technical Services
2016 Rogers Group, Inc.
2001-2016 Gress Engineering, PC
1999-2001 Appalachian Technical Services

PROFESSIONAL REGISTRATIONS

Professional Engineer – West Virginia, Virginia,
Kentucky, Tennessee

TRAINING/RELEVANT COURSE WORK

- 2011 – River Restoration and Natural Channel Design (Rosgen)
- 2010 – Level III River Assessment and Monitoring (Rosgen)
- 2009 – Level I Applied Fluvial Geomorphology (Rosgen)
- 2009 – Level II River Morphology and Applications
- 2008 – Stream Morphology Assessment (North Carolina State University)
- 2008 – Natural Channel Design Principals (North Carolina State University)
- 2008 – HEC-RAS for Stream Restoration (North Carolina State University)

AREAS OF SPECIALIZATION

Civil engineering projects include land development, water distribution, wastewater collection systems, stormwater management, coal mining, and recreational trails. Design work includes site layout, erosion and sediment control, cut and fill, hydraulic calculations, and cost estimates. Permitting and compliance activities include site inspections, meetings with regulatory officials, compliance training, environmental preparedness documents, and stormwater, air quality, and mining permits.

PROFESSIONAL EXPERIENCE

Civil Engineering

Project Manager for design projects up to \$2,400,000 in size in Virginia and Tennessee including waterline installations, stormwater retrofits, mass grading, and transportation – trails, boardwalks, and bridges.

New Beginning Learning Academy – Construction of the New Beginning Learning Academy in Charleston, West Virginia. Work included surveying, site design, and stormwater management.

Logan County Commission – Engineering services related to the transfer of the Mining Certificate of Approval to an EE Non-Coal Certificate of Approval at the Rockhouse Creek Dam near Mifflin in Logan County, West Virginia. Work included the update of the Monitoring and Emergency Action Plan, inspection of the upstream and downstream sides of the embankment and primary and secondary spillways and documentation of existing conditions, and development of Maintenance Plan.

Civil/site design services for water distribution and wastewater collection system throughout Virginia.

King's Material, Inc. – Environmental permitting for Redi-Rock system concrete facilities.

Redevelopment of commercial property and areas adjacent to Bristol Raceway in Bristol, Tennessee.

West Gate Housing – Redevelopment of 13 acres of a former Walmart shopping center for approximately 70 single-family home sites. Work included design of public water, sanitary sewer, storm sewer, and roads.

Mining

Design, permitting, and environmental compliance services related to aggregate mining and asphalt production in Virginia, Tennessee, North Carolina, and South Carolina.

Abandoned Mine Lands

Virginia Department of Mines, Minerals and Energy – Reclamation design for Klondyke Portals Project including a retaining wall between the stream and the

portals in Russell County, Virginia. Work included site surveying, geotechnical investigations, preparation of plans and specifications, and assistance with bidding.

Virginia Department of Mines, Minerals and Energy – Design of open limestone channels and improvements to an existing wetland for treatment of acid mine drainage at the Baker Abandoned Mine Drainage site in Lee County, Virginia. Work included site surveying, wetland delineation, preparation of plans and specifications, and assistance with bidding.

Sewer Lines and WWTPs

Huntington Sanitary Board – Project Engineer for sanitary sewage collection, transmission, and treatment infrastructure improvements at WWTP in Huntington, West Virginia.



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

Paul Maggard

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 19665

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 23rd day of April
in the year of our Lord 2012
and of the State
the One Hundred Forty-Eighth

Members of the Board

Loren D. Thomas, Jr.

Richard E. Dlynas

Bhajan S. Saha

William E. Verson



EDUCATION

B.S. Civil Engineering, 1984
West Virginia University

EMPLOYMENT HISTORY

1997-Present Potesta & Associates, Inc.
1995-1997 Terradon Corporation
1984-1995 GAI Consultants

PROFESSIONAL REGISTRATION

- Professional Engineer – West Virginia
- Licensed Remediation Specialist – West Virginia

PROFESSIONAL CERTIFICATION

- Hazardous Waste Site Operations and Superfund
- Worker Protection Training, 40-Hour Training
- Supervisory Training and Annual Refreshers
- Troxler Nuclear Densometer Certification

SERVICE ON BOARDS AND COMMISSIONS

Commissioner – Sissonville Public Service District

AREAS OF SPECIALIZATION

Environmental assessments, environmental sampling and remedial programs, conceptual and final designs for chemical, utility, and municipal solid waste disposal sites, including liner systems, leachate management systems,

stormwater management systems, operational plans, and capping/closure systems, abandoned mine land reclamation projects, sludge stabilization and basin/pond closure projects, environmental permitting, hydrologic and hydraulic analyses, quality assurance/quality control monitoring.

PROFESSIONAL EXPERIENCE

Civil/Site Design

Ridgeline, Inc./Cabela's – Retained by developer and Cabela's to provide civil engineering design services for a new Cabela's store in Charleston, West Virginia:

- ALTA survey
- Subsurface exploration
- Grading plan including balanced cut and fill for the building pad, parking fields, and access roads.
- Stormwater collection system design including curb inlets, catch basins, and culverts.
- Pavement design.
- Utility extension designs including sanitary sewer, potable water, fire service, natural gas, underground electric, underground telephone, and underground cable television.
- Permitting services
- Support for local approvals including approval from Charleston Municipal Planning Commission as a Development of Significant Impact and building permit to allow construction to begin.
- MM-109 permit to allow for connection of the store's new roadway with the existing public roadway.

Fieldcrest Subdivision – Project manager/engineer for development of a nine-lot subdivision in Charleston, West Virginia. Design and permitting/regulatory approvals for infrastructure, including new street, sanitary sewer main, water main, stormwater, electric, telephone, cable, and natural gas. Preparation of drawings/specifications for necessary governmental agency approvals and for solicitation of bids. Inspection and certification of completed sanitary sewer system.

Connell Pointe Subdivision – Project manager/engineer for development of an eleven-lot subdivision in Charleston, West Virginia. Design and permitting and regulatory approvals for infrastructure, including new

street, sanitary sewer main, water main, natural gas service, stormwater, electric, telephone, and cable. Preparation of drawings/specifications for governmental agency approvals and for solicitation of bids. Inspection and certification for completed sanitary sewer systems.

Conner Drive Townhouses – Project manager/engineer for development of 13 townhouse lots just outside of Charleston, West Virginia. Planning, surveying, design, and regulatory approvals for infrastructure, including new street, stormwater management system, sanitary sewer main, water main, electric, natural gas, telephone, and cable.

Gettysburg Subdivision – Project manager/engineer for an 18-lot subdivision located in Kanawha County, West Virginia. Design, surveying, and regulatory approvals for infrastructure, including new street, sanitary sewer main, water main, stormwater management system, electric, natural gas, telephone, and cable. Preparation of drawings/specifications for solicitation of bids. Inspection and certification of the sanitary sewer collection system and pump station.

Yorktowne Subdivision – Project engineer for development and construction phase services for a 50-lot subdivision in Charleston, West Virginia. Design of streets, lots, stormwater management systems, sanitary sewer mains and pump stations, water mains, underground electric, natural gas, telephone, and cable.

City of Charleston – Feasibility study for the replacement of the CSX Ramp in Charleston, West Virginia.

Villages at Coolfont – Project manager for project in Morgan County, West Virginia, which included planning, engineering, and permitting associated with developing a second home community on 1,000 acres near Berkeley Springs, West Virginia. Project included:

- Potable water supply source (wells), treatment plant, storage, and distribution system
- 0.44 MGD MBR wastewater treatment plant and sanitary sewer collection system
- Community roadways and storm sewer systems
- Detailed plans for the water and wastewater treatment plants and the distribution allocation system serving the first 124 homes
- Permits were obtained for the water and wastewater plants

Suncrest Subdivision – Project engineer for development of subdivision in Charleston, West Virginia. Project included engineering and permitting for a new residential subdivision including roadway, underground electric, telephone, cable, water, sanitary sewer, and storm water. Sanitary sewer system was designed, constructed, and monitored under the terms of an alternate mainline extension agreement with the Charleston Sanitary Board.

Business and Industrial Development Corporation – Preparation of Utility Extension and Roadway Paving Plans for Southridge Centre - Phase 2 area. Project included preparation of bidding/construction drawings to provide natural gas, water, sanitary sewer, telephone, and cable television serving four commercial lots and a 50-lot proposed subdivision. All utilities were underground. The length of the project was approximately ½ mile. The project also included roadway paving and stormwater drainage.

Mixed-Use Industrial Park – Development of a conceptual development plan for a mixed-use industrial park. The evaluation included developing preliminary alignments for two access roadways including earthwork requirements, drainage, subbase, and paving with preliminary cost estimates. Total length of road was over 5 miles. The evaluation also included preliminary layout of water and sewer service for a proposed 400-acre development.

Plasma Processing Corporation – Preparation of permit to construct and site development plan for a secondary aluminum processing facility startup in Jackson County, West Virginia.

Utility Relocation Plans – Required for site development, waterline, and sewer construction projects. Projects included determination of utility locations by records review, utility contacts, and surveying. Designs were prepared including locations, details, and pavement replacement. Design also included obtaining approvals from West Virginia Division of Highways and the owners of the utilities.

Landfills

DuPont Washington Works – Project Manager responsible for design, preparation of construction documents, and construction documents, and construction quality assurance monitoring for a 6.2-acre expansion of a

piggyback of a leachate collection system at an industrial waste landfill.

Cytec Industries – Quality assurance/quality control monitoring for closure of a 10-acre SWMU containing biological treatment sludge. The contents of the basin were stabilized by mechanical mixing. Activities included supervision of testing, data evaluation, and a revised interim grading and drainage plan. Report and certification provided for WVDEP-OWM.

Northfork Landfill – Responsible for detailed hydrogeologic investigation and preparation of a major portion of the WVDEP Part A Solid Waste Disposal Permit Application for the Northfork Landfill near Wheeling, West Virginia. Project included field reconnaissance and mapping of existing site conditions, rock corings, test pits, laboratory analysis of soils for potential construction materials, installation of four monitoring wells, and the corresponding analysis and evaluation of data for completing the Part A Application.

Wetzel County Landfill – Project Manager responsible for construction quality assurance monitoring for 0.8-acre composite liner expansion.

Pocahontas County Landfill – Project Manager/Project Engineer for design of composite liner system expansion, design and construction quality assurance for a 2-acre final landfill cap, and design of a new access road.

WVDEP Landfill Closure Assistance Program – Project manager/engineer from 1997 through 2002. Responsible for conceptual design, field investigation, construction drawings, specifications, permit applications, etc., for the following projects:

- Wyoming County Landfill
- Jackson County Landfill
- Kanawha Western Landfill
- Monongalia County Sanitary Landfill
- Fayette County Landfill
- Fleming Sanitary Landfill

Stabilization and Closure – Design, preparation of drawings, technical specifications, and contract/bid documents, construction monitoring, air monitoring, sludge sampling and analysis, review and approval of a detailed health and safety plan, permitting, and other miscellaneous engineering services for the stabilization

and closure of a 3-acre sludge basin and a 1-acre sludge pond. The project included management of a pilot-scale demonstration, procurement of stabilization reagents from multiple providers, and development of an adjacent soil borrow area.

Capping and Closure – Design, preparation of drawings, technical specifications, contractor's bid sheet, engineer's cost estimate, contract, and cap acceptability evaluation, evaluation of contractor bids, and construction monitoring associated with the capping and closure of a 2.5-acre cell of an industrial waste landfill facility. Cap included a multi-layer geocomposite system to minimize infiltration and the production and leachate to improve the areas groundwater quality.

Construction of Pond and Landfill Liner – Final design and preparation of construction drawings, detailed technical specifications, and engineer's construction cost estimate for the construction of a 1.9-million-gallon double-lined pond and 5 acres of a landfill liner system. This project included development of an ultimate facility layout plan, a two-year detailed development plan, and construction monitoring. Project also included negotiations with regulatory agency to obtain approval of the permit.

Response to regulatory agency review comments and redesign of a pond liner system and piggyback landfill liner system for a 20-acre landfill in West Virginia.

American Cyanamid Company – Project manager and engineer for independent quality assurance/quality control monitoring associated with closure of a three-acre SWMU consisting of a waste impoundment. Project included construction of an earthen buttress to improve slope stability, in-place waste stabilization using fly ash and kiln dust, and construction of a RCRA cap. Responsible for field design revisions to overcome problems, conformance testing, and preparation of certifications and a summary report. Project included sampling and analysis of raw and stabilized sludge.

American Cyanamid Company – Coordination of field activities associated with construction monitoring and laboratory testing for RCRA hazardous waste impoundment (the first permitted and constructed in EPA Region III) in Willow Island, West Virginia, including earth moving, construction of a soil-bentonite liner, monitoring of three, sealed double-ring infiltrometers, and construction of an HDPE double-lined impoundment.

Virginia Power Company – Consultant for site development and construction of a fly ash disposal facility including a review of site operations, developing a maintenance program, compaction testing and review, and problem shooting.

Rhone-Poulenc Ag Company – Design and permitting for a proposed industrial solid waste landfill. Project included complete hydrogeologic evaluation including several borings and installation of seven monitoring wells; documentation of soils, geology, water quality and hydrogeology; detailed site design of leachate ponds, liner system, storm water collection system, access road, and capping/closure system. Multi-volume permit application prepared including Operations Manual, Quality Assurance/Quality Control Plan, Technical Specifications, Permit Application, and Design Drawings.

Rhone-Poulenc Ag Company – Leachate Minimization Study for a RCRA Hazardous Waste Landfill. Project included assessment of existing landfill operation and recommendations to reduce quantity of contaminated runoff from over 8 million gallons per year (MGY) to between 2 and 3 MGY. Detailed staging and operating plan, storm water management plan, and cost estimates prepared.

American Cyanamid Company – Closure plan and permit application for closure of a three-acre surface impoundment containing sludge and tar. Stability concerns for an existing embankment containing the waste lead to the development of a lightweight cap. Subsurface investigation and field surveying completed. Closure application as required by the West Virginia Division of Environmental Protection provided.

Sludge Sampling – Soundings and sampling of three basins containing sludge. Two basins contained sludge from secondary biological treatment of industrial wastewater. One basin contained petroleum product sludges. Sludge quantities determined from soundings and cross sections prepared.

Rhone-Poulenc AG Company – Evaluation of an emergency fly ash pond for a chemical plant in Institute, West Virginia. Recommendations, including conceptual design drawings and an engineer's cost estimate, to increase the settling efficiency of the pond. Special design elements, including a polymer feed system,

submerged manifold pipe, splitter dike, and an overflow weir.

Stormwater

Expert Witness – Retained for the plaintiff damaged as a result of flooding caused by lack of maintenance at a culvert system in Westmoreland, Wayne County, West Virginia.

Stormwater Drainage Plans – Site development projects including pre- and post- development discharges, design of sediment control devices, preparation of stormwater general permit application, and consulting for numerous construction projects in West Virginia.

Stormwater Evaluation – Evaluation of stormwater drainage system (culverts and channels) to alleviate flooding problems for a church in Kanawha County, West Virginia. Project included computer modeling to identify culvert capacities and to identify repair options.

Expert Witness – Retained to support a property owner damaged as a result of flooding caused by downstream obstructions. Reviewed regulatory agency files, conducted site inspections, evaluated possible remedial measures, and provided support in anticipation of litigation.

Expert witness – Retained for plaintiff damaged as a result of flooding from upstream construction. Visited site to observe problem areas, reviewed construction practices/procedures, reviewed regulatory permits, and provided testimony as to the cause of flooding.

Developed stormwater management plans, including calculation of peak runoff rates, storm volumes, and design of stormwater management devices including culverts, ditches, sumps, ponds, principal pipe spillways, and emergency spillways for the following projects:

- Site development projects including commercial, retail, and industrial sites ranging from ¼ acre to more than 100 acres.
- Abandoned mine lands reclamation projects, including landslides, refuse piles, slurry ponds, and subsidence control projects.
- Commercial and industrial waste landfill projects.

- Roadway design projects.
- Other projects involve the disturbance of the ground surface.

Water Lines, Water Storage Tanks, and Water Treatment Plants

WVDEP-AML – Detailed design and preparation of construction drawings, specifications, contractor’s bid sheet, and engineer’s cost estimate for six-mile water line extension including fire protection. Included in the project were 90,000-gallon water tank, booster station, and pressure relief valves. Extension tied into Norton Harding Jimtown PSD System and served town of Cassity in Randolph County.

Design for waterline extension projects including preparation of construction drawings, specifications, and engineer’s cost estimates for WVDEP- AML.

- Cassity Fork Waterline
- Beaver Creek Waterline Extension
- Godby Branch Waterline Extension

Design, preparation of construction drawings, preparation of permit applications, and other related activities for the construction of waterline projects. Line sizes ranged from 16 inches to 2 inches. Materials of construction included polyvinyl chloride and ductile iron pipe. Drawings included planimetric maps, topographic maps, and aerial photograph formats to depict proposed construction. Permit applications included Bureau of Public Health, Public lands Corporation Stream Activity Permits, Division of Highways Occupancy Permits, and General Storm Water NPDES Construction.

- West Virginia American Water (WVAW) – Cabell County 2000 Project consisting of 23 miles of new waterline construction
- WVAW – Poca River Road Waterline Extension consisting of 13 miles of new waterline construction
- WVAW – Route 60 Contract 3 Waterline Extension consisting of 3 miles of new waterline construction
- WVAW – Buff Creek/Trace Fork Waterline Extension consisting of 6 miles of new waterline construction
- WVAW – Route 60 Contract 4 Waterline Extension, consisting of 2 miles of new waterline construction
- Yorktowne Subdivision – Waterline extension serving a 50-lot subdivision consisting of 3,000 linear feet

Sewer Lines and WWTPs

Fleming Landfill – Project manager/project engineer for the Fleming Landfill Sanitary Sewer Extension project in Kanawha County, West Virginia. Project included design, permitting, construction monitoring, and certification of 9,900 linear feet of gravity and force main sanitary sewer, a new duplex pump station, and rehabilitation/upgrade of an existing pump station. The construction contract was over \$1 million. The completed sewer extension was turned over from the West Virginia Department of Environmental Protection to the Sissonville Public Service District for ownership and operations.

Timberwolf Development Corporation – Project engineer for sanitary sewer system including 8- inch gravity sewer, pump station, and force main sewer serving the Gettysburg Subdivision in Charleston, West Virginia. Project included an alternate mainline extension agreement with Charleston Sanitary Board, construction monitoring, surveying, road design and subdivision plans.

Project manager/engineer for an industrial wastewater sewer extension. Project included design engineering, permitting, and construction monitoring associated with a 5-million-gallon, double-lined storage impoundment, duplex pump station with 70 horsepower pumps, and 5,200 linear feet of force main sewer in Monongalia County, West Virginia.

West Virginia Department of Environmental Protection – Design, permitting, and construction monitoring associated with a 138,000-gallon double containment storage tank, duplex pump station, and force main piping associated with closure of the Jackson County Sanitary Landfill near Ripley, West Virginia.



STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

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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

David M. Kiser

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 10779

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



Given under the hand and the Seal of the Board at the Capitol in the City of Charleston, this 15th day of March in the year of our Lord One Thousand Nine Hundred and Ninety and of the State the One Hundred Twenty-sixth.

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

Handwritten signature of Kenneth H. Means

Secretary
Kenneth H. Means

By

Frank Gaddy President
Robert Scott



EDUCATION

B.S. Civil Engineering, 2002
West Virginia University Institute of Technology

A.S. General Science, 2000
West Virginia University

EMPLOYMENT HISTORY

2003-Present Potesta & Associates, Inc.
2001-2002 WV Dept of Transportation District 3-
Design/Field Inspector

PROFESSIONAL REGISTRATIONS

Professional Engineer – West Virginia

SERVICE ON BOARDS AND COMMISSIONS

WV Society of Professional Engineers Board Member

AREAS OF SPECIALIZATION

Management and oversight of civil engineering projects with services related to the surveying, geotechnical exploration, planning, design, permitting, and construction monitoring. Projects categories include oil and gas pipeline permitting, oil and gas well pads, residential, commercial, and industrial development, stormwater management facilities, and solid waste landfills.

Project responsibilities include civil site design, hydrologic and hydraulic design, grading plans, water line plans, sewer line plans, roadway layout, utility design, and development of technical specifications, preliminary cost estimates, schedule, and budget tracking.

PROFESSIONAL EXPERIENCE

Oil and Gas

Project manager over numerous production and gathering line projects amongst various clients that include development of well pad layout and design, alignment sheets, hydrologic and hydrology analysis, floodplain analysis and permitting, stormwater design, geotechnical exploration and recommendations, and cost estimates. Each completed project includes understanding of local, county, and state regulations, and coordination with the various agencies. Also, at the request of client have been asked to perform secondary and tertiary reviews of other consultants work for quality assurance and regulatory compliance.

- Columbia Pipeline Group
- Columbia Gas Transmission, LLC
- EQT Production Company
- EQT Gathering, LLC
- EQT Midstream Partner, LP
- Mountain Valley Pipeline, LLC
- NiSource, Inc.
- Stone Energy Corporation
- TransCanada Corporation

Civil/Site Design

Development of grading plans, cut/fill analysis, utility design/layout, engineer's cost estimates, preparation of permit applications, consulting with clients, architects, regulatory agencies, and municipalities. Detailed design, preparation of construction drawings, technical specifications, cost estimate, contractor's bid documents, review and recommendation of contractor's bids, and review of shop drawings.

- West Virginia Water Development Authority Office
- Pison Development – 10 apartment complex projects
- Double C Enterprise – Kenna Ridge Business Park
- Tricor Development – Hurricane Market Place
Parcels A and B

- Green Eagle Development – four residential site development projects
- Ervin Development – Woodstock commercial site development project
- MDG Development – Oakland subdivision
- Tucker County Industrial Park – water and sewer line expansion
- ZMM – Bradshaw High School project
- Dunlap Builders – West Run Student Housing
- Allegheny Energy Supply’s Fort Martin Power Station – fly ash landfill expansion project

Flood Studies/Stormwater Management

Floodplain Management – Tasks included development of hydraulic modeling of watersheds for existing and proposed conditions using HEC-RAS and HEC-HMS to determine flood levels and the impact on the properties of residents, oversight of surveying and mapping development. Project’s scope included fill within the Special Flood Hazard Areas (SFHA), residential and commercial development within SFHA, obtaining the original computer model of floodplain data from the United States Army Corps of Engineers (USACE), and coordination with local floodplain manager, FEMA, and USACE. Preparation of permit application packages for FEMA’s LOMA, CLOMR-F, and LOMR application submittals.

- Pison Development – Mineral Manor, Knollview Village Apartments, Willow Tree Apartments, Crestview Apartments
- Copper Beech – townhouse development project
- Jo’s Globe Distribution – expansion project
- Blue Ridge Builders – Cheat Landing Development
- Hamlin United Methodist Church – Revised Floodway project
- Columbia Pipeline Group – Clendenin Low Water Crossing

Stormwater Management Design – Tasks include hydrological analysis, hydraulic evaluations of open and closed channel flow systems, storm sewer design, velocity dissipation analysis and design, stormwater retention/detention design, water quality analysis and design, and sediment control structure design. Programs utilized during projects included Haestad Method Programs and SedCad Software.

- Echo, Inc. – Tupper’s Creek site development
- Pison Development – six projects

- Kenna Ridge Business Park
- Hurricane Market Place
- Woodstock – commercial site development
- Green Eagle – three projects
- O-N Mineral – process pond
- RJ Recycling, LLC – Riverside Yard sediment/oil control ponds
- Dunlap Builders, Inc. – West Run Student Housing project

Sewer Lines/WWTPs

Sewer/water distribution and collection system design and upgrades – Tasks included hydraulic calculations, storage tank sizing, pump station design, layout and selection of water/sewer line extensions, preparation of design drawings, specifications, and engineer’s cost estimates.

- Tucker County Industrial Park
- City of Philippi, Barbour County
- ZMM – Bradshaw High School project
- Boone County PSD – Tic Toc Tire Sewer

Landfills/Solid Waste/Waste Disposal

Responsible for detailed hydrogeologic investigation and preparation of a major portion of the WVDEP Part A Solid Waste Disposal Permit Application for the Northfork Landfill near Wheeling, West Virginia. Project included field reconnaissance and mapping of existing site conditions, rock corings, test pits, laboratory analysis of soils for potential construction materials, installation of four monitoring wells, and the corresponding analysis and evaluation of data for completing the Part A Application.

Responsible for hydrogeologic investigation and preparation of the WVDEP Part A Solid Waste Disposal Permit Application for the Sycamore Scenic Landfill in Putnam County, West Virginia. Work included coring, test pit, and laboratory analysis of soils; review of existing groundwater data; and analysis and evaluation of data for completing the Part A Application.

West Virginia Division of Environmental Protection’s Landfill Closure Assistance Program (WVDEP LCAP) (2010-current) –Responsible for project oversight, budget monitoring, conceptual design, field investigation, construction drawings, specifications, permit applications, etc.

Tasks for the projects include design; preparation of drawings, technical specifications, and contract/bid

documents; construction monitoring; air monitoring; sludge sampling and analysis; review and approval of a detailed health and safety plan; permitting; development of waste and borrow sites, and other miscellaneous engineering services related to the stabilization and closure of these landfills.

- Fleming Landfill
- Kingwood Landfill
- South Charleston Landfill

WVDEP LCAP – Project Manager of a Feasibility Study for Leachate Treatment/Discharge for existing landfills for the WVDEP LCAP program. This project was to understand if existing closed landfills have the potential to have on-site treatment and discharge into local water sources.

NPDES Industrial/Municipal Permitting

Armstrong, Mineral Wool Plant – Project Manager for project in Millwood, West Virginia. Project required obtainment of NPDES Construction Stormwater Permit, NPDES Industrial Permit, Evaluation of POTW discharge, Pretreatment Permit, 401/404 permitting, bi-monthly stormwater management verification, SPCC Plan, Direct Discharge NPDES requiring background water sampling. Also included bi-weekly scheduling and budget updates to the Armstrong Team.

Development of NPDES Construction Stormwater Permits for any site larger than one acre in size including preparations of permit application, Stormwater Pollution Prevention Plans, and Erosion and Sediment Control Plans.

Spill Prevention, Control & Countermeasure Plans

WV Paving Company – Project for the development of SPCC Plans for 19 existing facilities. Tasks included organization and oversight of field crews, review of field data. Review of draft plans. Certification of final SPCC Plans, along with budget and schedule tracking and updates.

ESAs (Phase I and II)

Environmental site assessments, including record searches and field investigations for numerous sites in West Virginia. Specialization in large acreage tracts, including coal properties. Typical acreages have ranged from 1,000 to 65,000 acres and include assessment of acid mine drainage and properties including mine portals, mine shops, and coal preparation plants.

- 17,500-Acre mining property in Fayette County, WV
- 43,000-Acre mining property in Kanawha/Clay Counties, WV

Hazardous Waste/RCRA/Corrective Action

Typical scope of work of projects included the development of detailed site-specific quality assurance/quality control plans, health and safety plans, and review of analytical data.

Created digital mapping with Arcview GIS 3.2a™ software and created contour/concentration maps using Surfer 8.0™ software for use in evaluation and remediation purposes for a RCRA Corrective Action site located along the Kanawha River.

Supervisor and operator of Earthsoft's EQUIS database projects. Managed substantial amounts of analytical data related to a RCRA Corrective Action Facility, utilizing Earthsoft's Environmental Quality Information Systems (EquIS). Tasks included coordination amount various laboratories on the format and quality of the electronic data deliverables (EDDs) received. Importing and merging of received EDDs for use in warehousing and qualifying analytical data within EquIS Chemistry™ for site assessments, risk assessments, site characterization, and remediation projects. Performed data review and validation in accordance to quantifiable sections of the EPA Functional Guidelines and CLP programs using EarthSoft's Data Qualification Module™ (DQM). Managed environmental geology data and created geologic cross-sections, contours, solid modeling, boring logs, and reports using EquIS Geology™ RockWorks99™, and logPlot98™, and Surfer 8.0™. Presented multi-data crosstab reports using EquIS CrossTab Report Writer interface. Built multiple layer maps, contaminant maps, and query-specific analytical data presentation through EquIS Arcview Interface.



STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

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of the State of West Virginia, reposing special confidence in
the Intelligence, Integrity and Discretion of

Jarrett M. Smith

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 17537

"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 20th day of December
in the year of our Lord 2007
and of the State
the One Hundred Forty-Fourth

Members of the Board

Lemuel D. Thomas, Jr.

Richard E. Dlyna

Bhajan S. Saha

William E. Viersa

DAVID B. SHARP, P.E.

Branch Manager/Senior Engineer



and right-of-way plans; and municipal water and wastewater projects.

PROFESSIONAL EXPERIENCE

Geotechnical

Engineer responsible for performing subsurface investigations, preparation of geotechnical reports, coordinating laboratory analysis programs, providing recommendations for lateral earth pressures, bearing capacities, modulus of subgrade reactions, settlements, and construction specifications for multi-story structures. Foundations considered have included steel H-piles, auger-cast piles, drilled piers, spread footings, and mat foundations:

EDUCATION

- M.S. Civil Engineering, 1995
West Virginia University
- B.S. Civil Engineering, 1993
West Virginia University

EMPLOYMENT HISTORY

- 2003-Present Potesta & Associates, Inc.
2000-2003 CTL Engineering, Inc.
1997-2000 Potesta & Associates, Inc.
1994-1997 Terradon Corporation

PROFESSIONAL REGISTRATIONS

Professional Engineer – West Virginia, Pennsylvania, Maryland, Ohio, and Kentucky

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers

AREAS OF SPECIALIZATION

Involved with many aspects of civil engineering with a special interest in the geotechnical/environmental aspects. Responsibilities have included projects involving Civil/Site Design; Geotechnical Design, Solid Waste Management Facility Design, including geosynthetic applications; hydrologic and hydraulic design; transportation/highway projects, including geotechnical

- Snowshoe Resort Activity Center – Snowshoe, WV
- Stockert Youth Center – Buckhannon, WV
- D&E College Dormitory – Elkins, WV
- Suncrest UMC Parsonage – Morgantown, WV
- Elkins-Randolph Public Library – Elkins, WV
- Historic Tygart Hotel Elevator – Elkins, WV
- Mon County BOE Tech Center Feasibility – Morgantown, WV
- MedExpress Admin Office – Morgantown, WV
- Firefly Commons Housing Dev – Elkins, WV
- Solvay Expansion – Marietta, OH
- Superior Fibers Add. – Reedsville, WV
- Citizens Bank Add. – Buckhannon, WV
- Chemours Fire Station – Washington, WV
- Camp Dawson 2 New Buildings – Kingwood, WV
- Dental Spa – Morgantown, WV
- Marshall Baseball Stadium – Huntington, WV
- Citizen's Bank – Buckhannon, WV
- Miners & Merchants Bank – Davis, WV
- D&E College Myles Center Add. – Elkins, WV
- Buzz Foods Add. – Charleston, WV
- Solvay WWTP Clarifier – Marietta, OH
- Black Oak Office Building – Morgantown, WV
- D&E College Harper McNeeley Waterproofing – Elkins, WV
- Family Dollar Store – Berkeley Springs, WV
- Rubbermaid Distribution Ctr Add. – Winchester, VA
- WVU Transportation Ctr/ Garage – Morgantown, WV
- 4 West WTP – Greene County, PA
- CA Ventures Student Housing – Morgantown, WV
- Copper Beech Student Housing – Morgantown, WV
- Sunnyside Commons Student Housing – Morgantown, WV

- WVU Eng. Building East Add. – Morgantown, WV
- PSC Admissions Bldg. Add. – Mineral County, WV
- GSC Health & Sciences Bldg. – Gilmer County, WV
- GSC Residence Hall – Gilmer County, WV
- Christy Street Office Building – Morgantown, WV
- Harry Green Nissan Dealership Building Add. – Harrison County, WV
- Elkins Dodge Dealership – Randolph County, WV
- Sam’s Club Fueling Station – Clarksburg, WV
- Wal-Mart Fueling Station – Connellsville, PA
- Cheat Lake Elementary School Bldg. Add. – Monongalia County, WV
- Churchill Village Housing Project – Monongalia County, WV
- R.E. Michel HVAC Commercial Bldg. – Monongalia County, WV
- ICM Islamic Center – Morgantown, WV
- Catlettsburg Refining Company Alkylation and Wastewater Control Room – Catlettsburg, KY
- WVARNG Camp Dawson Fueling System – Kingwood, WV
- MEPCO Dock Expansion Project – Morgantown, WV
- West Run Student Housing – Morgantown, WV
- Fairmont Federal Credit Union – Bridgeport, WV
- Morgantown Waterfront Marina – Morgantown, WV
- Residence Inn – Morgantown, WV
- Suncrest Executive Office Plaza and Parking Garage – Morgantown, WV
- WVU Research Park – Morgantown, WV
- View at the Park Apt Complex – Morgantown, WV
- Marriott Hotel – Morgantown, WV
- Bucks Tavern – Morgantown, WV
- Stouts Run United Methodist Church Add. – Parkersburg, WV
- Fairfield Inn Hotel – Fairmont, WV
- Wendy’s Restaurant – Morgantown, WV
- Sunoco Service Station – Robinson Township, PA
- St. Stephen Baptist Church – Morgantown, WV
- Islamic Center – South Charleston, WV
- Oak Hill Public Library – Oak Hill, OH
- Westside High School – Oceana, WV
- WVARNG Readiness Center – Summersville, WV
- Marshall Student Housing Facility – Huntington, WV
- Marshall Parking Garage – Huntington, WV
- Marshall Library – Huntington, WV
- Marshall Student Center Add. – Huntington, WV
- Marshall Jomie Jazz Center – Huntington, WV
- Marshall Child Care Center – Huntington, WV
- U.S. Equipment Distributors – Huntington, WV
- Pace Carbon Fuels WV #2 and #3 – Summersville and Eckman, WV
- WVU Luxury Box – Morgantown, WV
- Marshall Mid-Ohio Valley Ctr – Point Pleasant, WV
- Arbor Terrace Assisted Living – Charleston, WV
- Arbor Terrace Assisted Living – Huntington, WV
- Pocahontas County PSD WTP – Snowshoe, WV
- Pt. Marion Water Tank Replacement – Pt. Marion, PA
- Mon Gen Hospital/Access Road – Morgantown, WV
- Kasson Elem/Middle School Repair – Kasson, WV
- North Marion Vocational/Technical Center School Repair – Marion County, WV
- Mon County Public Office Bldg. – Morgantown, WV
- Cell Phone Towers in WV, PA, and MD
- EQT – Natural gas compressor stations pads and additions in Wetzel and Marion Counties, WV, and Monroe County, OH
 - EQT – Logansport Compressor Station Add.
 - EQT – Plasma Compressor Station Pad
 - EQT – Corona Compressor Station Pad
 - EQT – Gemini Compressor Station – Geotechnical Feasibility
 - EQT – Gemini Interconnect Pad
- Basic Systems, Inc. – Natural gas compressor stations pads and additions in Greene, Franklin, and Adams Counties, PA and Wetzel and Randolph Counties, WV
 - Basic Systems, Inc. – Waynesburg Compressor Station Add.
 - Basic Systems, Inc. – Gettysburg Compressor Station Add.
 - Basic Systems, Inc. – Greencastle Compressor Station Add.
 - Basic Systems, Inc. – Files Creek Compressor Station Add.
 - Basic Systems, Inc. – Smithfield Compressor Station Add.
- Dominion Transmission – Crayne Compressor Station Add. in Greene County, PA
- Stone Energy –Marcellus Well Pad Sites in Wetzel County, WV:
 - Stone Energy – Mills Wetzel #3 Well Pad – Wetzel County, WV
 - Stone Energy – Conley Well Pad – Wetzel County, WV
 - Stone Energy – Langmyer Pad – Wetzel County, WV
- Mountaineer Keystone – Mackey-Wolfe Well Pad in Barbour County, WV
- Chesapeake Energy – Rayle Coal Co. Well Pad in Ohio County, WV
- Residential geotechnical projects in Charleston and Morgantown, WV
- EQT Midstream – Geotechnical recommendations for natural gas transmission lines including horizontal directional drilling projects:
 - H-310 Coal Refuse Area – Monroe County, OH
 - Harrison County HDD – Harrison County, WV

- Ohio River HDD – Wetzel County, WV and Monroe County, OH

Responsible for the coordination of subsurface investigation, laboratory testing program, slope stability analysis, and preparation design documents associated with the repair of landslide at various site throughout West Virginia. Representative designs have included soldier beam and lagging retaining walls, gabion basket retaining walls, segmental block retaining walls, rock toe keys and buttresses, and drainage improvements. The following provides a list of representative projects:

- Polan Properties Landslide Repair – Huntington, WV
- WVDEP AML Sardis Landslide Repair – Harrison County, WV
- Upper Grave Creek Dam – Cameron, WV
- WVU University Ave Rockfall – Morgantown, WV
- Kinetic Park Landslide Repair – Huntington, WV
- Morgantown Parking Authority Armory Lot Retaining Wall – Morgantown, WV
- Town of Granville Bowser Street Landslide Repair – Monongalia County, WV
- Marshall Portal Access Road Landslide Repair – Greene County, PA
- Weekley Well Pad Landslide Repair – Wetzel County, WV
- Shupbach Ridge Road Landslide Repair – Wetzel County, WV
- Mills Wetzel #2 Well Pad Landslide Repair – Wetzel County, WV
- Mills Wetzel #2 Road Landslide Repair – Wetzel County, WV
- Potts Well Pad Landslide Repair (2 separate landslides) – Wetzel County, WV
- Haynes Branch Gas Line Landslide Repair – Wetzel County, WV
- Decker’s Creek Mine Stockpile Area Landslide Repair – Preston County, WV
- Wentz Freshwater Impoundment Embankment Stability Repair – Barbour County, WV
- Columbia Gas Transmission Well #7331 Slide Repair – Elkview, WV
- Cline Tower Landslide – Winfield, WV
- Wellford Tower Landslide – Clendenin, WV
- Massie Ridge Tower Landslide – Camp Creek, WV
- Fisher Landslide – Elkview, WV
- Kennawa Landslide – Charleston, WV
- Burlew Landslide – Charleston, WV
- Lee Landslide – South Charleston, WV
- Fairmont North Tower Landslide – Fairmont, WV
- 6th Street Tower Landslide – Huntington, WV

- Joyce Landslide – Chesapeake, OH
- WVAML Emergency Landslide – Tappers Creek, WV
- Schmidt Landslide – Gallipolis, OH
- Disposal Service, Inc. Landslide – Hurricane, WV
- Wellston HS Landslide Repair – Wellston, OH
- Pribble Tank Landslide Repair – New Martinsville, WV
- Potokczny Well Pad Landslide Repair – Marion County, WV
- Ridgepoint Landslide Repair – Morgantown, WV

Involved with the layout of the boring plan, staking borings in the field, preparation of the boring contract documents, soliciting bids, awarding drilling contracts, monitoring of drilling operations, coordination of laboratory testing programs, preparation of boring diagrams, and preparation of subsurface exploration report foundation recommendations and slope reviews for various West Virginia Department of Transportation Projects:

- Platinum Drive Urban Connector – Bridgeport, WV
- Segment of WV State Route 2 – Moundsville, WV
- Segment of National Road – Wheeling, WV
- Segment of North Bridgeport Bypass – Bridgeport, WV
- Corridor H, Section IV – Davis, WV
- Sulphur Springs Bridge – Hundred, WV
- Dry Run Interchange – Martinsburg, WV
- Interstate 81 Hainsville, Bessemer and Tuscorora Creek Bridges – Martinsburg, WV
- CR 24 Bridge Replacement – Jackson County, WV
- CR 3 Temporary Bridge – Jackson County, WV
- CR 56 Temporary Bridge – Wetzel County, WV
- CR 28 Bridge Replacement – Ritchie County, WV
- CR 3 Temporary Bridge – Roane County, WV

Expert Witness

Served as Expert Witness in cases involving geotechnical, earthwork construction, and/or drainage issues. Many of these cases involved a review of available information, development of professional opinions, issuance of an expert report, depositions, and expert testimony.

- West Virginia Division of Highways v. GoMart, Inc. et al. – Jackson Kelly – Circuit Court, Wood County, Civil Action No. 17-C-205 – Civil Site Design/Traffic Turning Movements (Defense)
- First Baptist Church of Burnsville v. Hall Dozer Company, Inc. – Jenkins Fenstermaker, PLLC –

- Circuit Court, Braxton County, Civil Action No. 20-C-46 – Construction/Geotechnical (Defense)
- LMR Property, LLC v. City of Bridgeport – Pullin, Fowler, Flanagan, Brown & Poe, PLLC – Circuit Court, Harrison County, Civil Action 21-C-262-2 – Geotechnical/Utility (Defense)
- Corotoman v. Yeager Airport – Milberg Coleman Bryson Phillips Grossman – Geotechnical (Plaintiff)
- Critchfield v. State Farm et. Al. – Bowles Rice – Circuit Court Taylor County – Civil Action 19-C-48 – Vehicular Damage resulting in Building Damage (Defense)
- Caloccia v. Enervest – Jackson Kelly & Smith Law – Harrison County – Civil Action 20-C-9 Geotechnical (Defense)
- First Baptist Church of Burnsville v. Hall Dozer – Braxton County – Civil Action 20-C-46 – Geotechnical (Defense)
- Solem v. Highlands of the Potomac, LLC – Shuman McCuskey Slice, PLLC – Circuit Court Berkley Co. – Civil Action 18-C-408 – Flooding (Defense)
- Liston v. Frontier West Virginia, Inc. – Bowles Rice – Circuit Court Monongalia Co. – Civil Action 16-C-279 – Flooding (Defense)
- Pauley v. Schumacher Homes of WV, Inc. – Bowles Rice – AAA – Case 01-18-0000-0240 – Foundation Construction (Defense)
- Logan County Board of Education – Bowles Rice – Circuit Court Logan County – Civil Action 17-C-11-B – Geotechnical (Plaintiff)
- JKLM Energy, LLC et. al. vs. Big Level Wind, LLC, John Hancock Life Insurance et. al. Court of Common Places of Potter County, Pennsylvania No. 86 CD 2017 – Construction, geotechnical and civil/site design associated with gas well pads (Defense)
- Wilkins, Scott v. R&R Holdings – Civil Action 15-c-295 – Flooding and drainage (Defense)
- Larry Rine, et. al. vs. Chesapeake Appalachia, LLC. Robinson & McElwee – Civil Action No. 5:11-CV-4 – Landslide on Natural Gas Well Pad (Defense)
- Bisacca v. Pennsylvania Department of Transportation, Thomas J. Dempsey, Attorney at Law – Earthwork Construction Practices (Plaintiff)
- Sven Verlinden and Lisa Verlinden v. Morgantown Utility Board, et. al. Shuman, McCuskey & Slicer, PLLC – Civil Action No. 11-C-573 – Combined Sewer Flooding (Defense)
- Russell D. Kitchen and Suzanne G. Kitchen v. Morgantown Utility Board – Shuman, McCuskey & Slicer, PLLC – Civil Action No. 11-C-745 – Combined Sewer Flooding (Defense)
- Darin O. Arnold and Sarif J. Arnold v. Morgantown Utility Board – Shuman, McCuskey & Slicer, PLLC – Civil Action No. 11-C-749 – Combined Sewer Flooding (Defense)
- Rider v. Fairmont Homes, LLC. – Flaherty, Sensabaugh & Bonasso, PLLC – Claim No. 1012802 – Landslide and Residential Construction Issues (Defense)
- Thomas A. Logston and Joanne C. Logston v. Charles E. Kolb d/b/a Kolb Excavating – A.D. Baker Homes, Inc. and Alan D. Baker, Bowles, Rice, McDavid, Graff & Love – Civil Action No. 10-C-116 – Landslide Resulting in Property Damage (Plaintiff)
- LJH, Inc. v. Quadruple S. Farms, LLC and Four-S-Development, Bowles Rice LLP – Civil Action No. 09-C-438 – Rockfall and Commercial Construction Practices (Plaintiff)
- Mingo County Airport Authority Claim Against Appalachian Paving & Aggregate, Inc. – Robinson & McElwee, PLLC – Earthwork and Construction Related Issues (Defense)
- Children’s Home of Wheeling v. Cast & Baker, et. al. Civil Action No. 06-CV-374W – Geotechnical (Plaintiff)
- Colaianni Construction, Inc. Claim for Cost Recovery Against Koker Drilling at Wetzel County Hospital, Wellness Center Add. – Spilman, Thomas & Battle – Retaining Wall Failure Resulting in Building Damage
- Hilling Enterprises, LLC et. al. v. Midtown Motors, Inc. et. al. – Civil Action No. 13-C-308 – Landslide Causing Property Damage (Defense)
- Stan-Corp v. Scott Properties, LLC. et. al – Bowles Rice LLC – Landslide Impacting Roadway and Property (Defense)
- Stephen C. Fish et. al. v. McCloy Construction et. al. – Bowles Rice, LLP – Civil Action 03-C-3050 – Structure Foundation Settlement (Plaintiff)
- Industrial Machine v. American Geotech – Bowles Rice, LLP – Civil Case 02-C-115 – Subsurface Exploration and Geotechnical Design (Defense)
- Pell, Robert K., et. al. v. SAMOA, LLC, et. al. – Claim No. 010510386236 – Drainage Related Claim (Defense)
- Timothy J. and Victoria Calissie v. AB Resources, LLC, et al. – Steptoe & Johnson, PLLC – Civil Action No: 13-C-43K – Circuit Court of Marshall County, WV
- Counts v. City of Charleston, et al. – Shuman, McCuskey & Slicer, PLLC – Civil Action No. 15-C-2169

- Huggins v. AAA Mobile Homes of New Martinsville et. al. – Pullin, Fowler, Flanagan, Brown & Poe, PLLC – Civil Action No. 14-C-60 – New Martinsville, Wetzel County, West Virginia
- The Board of Education of the County of Logan, West Virginia a/k/a Logan County Board of Education v. Triad Engineering, Inc. – Bowles Rice McDavid Graff & Love – Civil Action No. 17-C-11

Civil/Site Design

Project Manager/Engineer on projects involving most aspects of site development. Involvement has included civil/site design, geotechnical aspects, hydrology/hydraulics, permitting, erosion/sediment control/permitting, etc.:

- D&E College Student Dormitory – Elkins, WV
- Stockert Youth Center – Buckhannon, WV
- Appalachian Hotel – Kingwood, WV
- D&E College Myles Plaza Improvement – Elkins, WV
- Citizen’s Bank – Buckhannon, WV
- Citizen’s Bank – Elkins, WV
- Miners & Merchants Bank – Davis, WV
- Dental Spa – Morgantown, WV
- University Place Parking Garage – Morgantown, WV
- Sunnyside Commons Student Housing – Morgantown, WV
- Coombs Farm Residential Development – Morgantown, WV
- Morgan Point Residential Subdivision – Morgantown, WV
- Town of Granville Boat Ramp – Granville, WV
- West Run Student Housing – Morgantown, WV
- Copper Beech Student Housing – Morgantown, WV
- Summit at Cheat Lake Residential Development – Morgantown, WV
- Summit at Greystone Residential Development – Morgantown, WV
- Sleepy Hollow Residential Development – Morgantown, WV
- Shiloh Residential Development – Morgantown, WV
- Summerfield Residential Development – Morgantown, WV
- Mayfield Estates Residential Development – Morgantown, WV
- Cheat Landing Residential Development – Morgantown, WV
- Churchill Village Complex – Morgantown, WV
- Trinity Christian School Football Field – Morgantown, WV
- Morgantown Technical Services Industrial Expansion – Mt. Morris, PA
- WVU Beechhurst Parking Lot – Morgantown, WV
- Marcellus Well Pad Sites for Various Clients – Northern WV

Construction Monitoring

Project Manager/Engineer involved with and/or responsible for construction observation/testing on construction projects. These projects routinely involved earthwork testing utilizing a nuclear density gauge and other test methods during earthwork placement and compaction. Many projects also included concrete testing including slump, comprehensive strength, air entrainment and/or floor flatness testing. The following is a summary of projects involving construction observation and testing:

- Sunnyside Commons Student Housing – Morgantown, WV
- Family Dollar Store – Smithfield, PA
- University Place Parking Garage – Morgantown, WV
- Church Hill Village Housing – Morgantown, WV
- Mills Wetzel #3 Well Pad – Wetzel County, WV
- Shupbach Ridge Road Landslide Repair – Wetzel County, WV
- Potts Landslide Repairs – Wetzel County, WV
- Pribble Tank Landslide Repair – Wetzel County, WV
- Potokczny Landslide Repair – Marion County, WV
- Tucker County Industrial Park – Tucker County, WV
- Pocahontas County Landfill Cell 3 Expansion – Pocahontas County, WV
- Disposal Services Landfill Expansion Area – Hurricane, WV
- Platinum Drive Urban Connector Landslide Repair – Bridgeport, WV
- Trinity Christian School Football Field – Morgantown, WV
- Kasson Elem/Middle School Pyrite Remediation – Barbour County, WV
- City of Philippi Water Improvement – Barbour County, WV
- Mackey Wolfe Well Pad – Barbour County, WV
- Morgantown Technical Services Expansion – Mt. Morris, WV
- Lakin Correctional Center – Wood County, WV
- Western Regional Jail – Cabell County, WV
- Merrick Creek Farm Commercial Development – Cabell County, WV

Served as the Manager responsible for equipping and staffing a fully operational soils and concrete material testing laboratory used in support of construction observation projects. The laboratory became validated by the U.S. Army Corps of Engineers to perform approximately 45 ASTM test methods will under Mr. Sharp's direct supervision. Representative test methods included standard and modified proctors, Atterburg limits, grain size determination, aggregate sieve analysis, specific gravity, organic matter, lightweight particles, soil classification, compressive strength, and moisture content determinations. Establishment of the laboratory also included the preparation of a site-specific quality systems manual in accordance with ASTM guidelines.

Water Lines, Water Storage Tanks, and Water Treatment Plants

Morgantown Utility Board – Provide expert witness services on a routine basis.

Project Manager/Engineer on public utility projects involving potable water supply. In most of the projects, it not only included the technical design, but also included assistance with funding applications, preparation of technical specifications and construction documents, assistance with bidding documents, and construction observation/administration.

- City of Wellsburg Water Improvement (plant upgrade and line extension) – Wellsburg, WV
- City of Glenville Water Improvement – Glenville, WV
- Preston County PSD #2 Howesville Water Improvement – Preston County, WV
- City of Philippi Water Improvement – Philippi, WV
- City of Philippi Water Tank Upgrade – Philippi, WV
- Town of Mill Creek Water Improvement – Mill Creek, WV
- Town of Marlinton Water Plant Assessment – Marlinton, WV
- Town of Huttonsville Water System Assessment – Huttonsville, WV
- Preston County PSD #2 Water Improvement – Preston County, WV

Sewer Lines and WWTPs

Project Manager/Engineer on public utility projects, such as sanitary sewer collection/treatment, as well as combined sewer/storm water improvements:

- Town of Marlinton CSO Project
- City of Buckhannon Sanitary Sewer Extension
- City of Glenville Infiltration/Inflow Study for the Sanitary Sewer
- Pocahontas County PSD Geotechnical and Environmental Permitting Services for Wastewater Improvement



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

David B. Sharp

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 14187

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



Given under the hand and the Seal of the Board at the Capitol in the City of Charleston this 28th day of July in the year of our Lord One Thousand Nine Hundred and Ninety-nine and of the State the One Hundred Thirty-sixth.

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

Handwritten signatures: Earl Beckley, Frank Haddy, and others.



EDUCATION

- M.S. Biology (Emphasis in Aquatic Ecology and Toxicology)
Virginia Polytechnic Institute and State University
- B.S. Biology/Chemistry
Fairmont State College

EMPLOYMENT HISTORY

- 2000-Present Potesta & Associates, Inc.
1998-2000 Biological Monitoring, Inc.
1995-1998 Virginia Tech
1994-1995 Center for Environmental and Hazardous Materials Studies

PROFESSIONAL CERTIFICATIONS

- Certified Hydric Soil Investigator
- Certified Wetland Botanist
- Certified Wetland Delineator
- Certified Wetland Hydrologist
- State of West Virginia Office of Miners' Health, Safety & Training Class 32 Safety Sensitive Personnel

TRAINING/RELEVANT COURSE WORK

- River Morphology and Applications, Wildland Hydrology
- Applied Fluvial Geomorphology, Wildland Hydrology
- Methods for Stream Assessment and Analysis, WVU
- Introduction to Natural Stream Channel Design, WVU
- Advanced Stream Design, WVU
- Fluvial Geomorphology, WVU
- Developing Wetland Water Budgets, Swamp School

PROFESSIONAL AFFILIATIONS

- Society of Freshwater Scientist
- Society of Environmental Toxicology and Chemistry
- National Association of Wetland Managers

AREAS OF SPECIALIZATION

Clean Water Act (CWA) permitting, compliance, and enforcement including water pollution control permitting and regulatory compliance, stream and wetland delineation, United States Army Corp of Engineering permitting (including mitigation), state water quality standards reporting, underground injection permits, and State water quality certification for coal and non-coal projects, threatened and endangered species compliance, cultural and historic resource coordination, development of large scale environmental risk assessments, environmental assessments, biological assessments, environmental impact studies and other National Environmental Policy Act (NEPA) documents (noise, cumulative impacts, aesthetics), development of biological studies, toxicity evaluations, and preparation of environmental documents for non-environmental regulatory agencies, including the Public Service Commission.

PROFESSIONAL EXPERIENCE

Stream/Wetland Delineation, Permitting, and Mitigation

Responsible for managing large scale Clean Water Act Projects associated with Marcellus Shale Production (well sites, well lines, and gathering lines) including field crew scheduling and coordination, stream/wetland delineation reporting, agency consultation, coordination of archaeological and bat/mussel surveys, and USACE 404

permitting. Responsible for managing pipeline projects where the role was environmental review or providing environmental permitting. Play role in agency interactions and litigation support.

Served as project manager and senior scientist for multiple CWA permitting tasks covering Section 401, 402, and 404 compliances as well as Office of Land and Streams authorizations, floodplain coordination and permitting with modeling, and hydrostatic testing.

Prepared permit packages for stream and wetland impacts for United States Army Corps of Engineers individual and general Department of the Army authorizations, State (401) Water Quality Certification, and Public Lands Corporations.

Supervised and assisted in the preparation of mitigation plans and associated restoration plans, as well as environmental information documents for large scale surface disturbances.

Prepared large adaptive management plans that are compliant with Department of the Interior (DOI) recommendations.

Supervised and prepared projects that determine stream status (perennial, intermittent, or ephemeral) utilizing benthic and stream channel indicators (wetland and stream delineations) in West Virginia, Kentucky, Virginia, and Maryland. Projects have included the determination of jurisdictional streams and wetlands in atypical field conditions, as well as after-the-fact stream/wetland impacts utilizing site specific data as well as interpretation of historical data using ArcGIS.

Acted as an agent for applicants during negotiations with agency personnel. Typically, issues addressed are associated with impact determination and NEPA compliance (cultural resources, threatened and endangered species, land use, cumulative impacts, and aesthetics.)

Familiar with most Federal protocols utilized for the assessment of impacts to “waters of the U.S.” Prepared the banking documents (prospectus, banking instrument, etc.) for the first mitigation banking program for stream and wetland credits in West Virginia.

Supervise, evaluate, and report mitigation success using applicable performance standards for CWA Section 404 permitting.

NPDES Industrial/Municipal Permitting

Worked as part of a permitting team that prepared new, modified, and renewed (reissued) National Permit Discharge Elimination System (NPDES) permits for various clients in the energy and commercial sectors. Specific areas include water monitoring and narrative criteria applications, toxicity (standard bioassays, as well as toxic identification studies), aquatic ecosystem protection, biological studies, watershed hydrology, water quality, groundwater and surface water inventories, long-term flow studies, site specific water quality criteria and or variances, mixing zones, database management and adaptive management plans.

Responsible for managing and/or preparing State and Federal Regulatory Permits/Renewals/Modifications, including Section 7 Threatened and Endangered Species USFWS and WVDNR Consultation, Section 106 State Historic Preservation Office Consultation, United States Army Corps of Engineers 404 Permits, West Virginia Division of Natural Resources - Office of Land and Streams Stream Activity Permits, and Individual State 401 Water Quality Certification. Work includes permitting and supporting documentation for wasteload allocation, Industrial NPDES Permit Applications/Permit Renewals, General WV/NPDES Storm Water Permit Applications/Permit Renewals, sampling plans, Groundwater Protection Plans (GPP), Storm Water Pollution Prevention Plans (SW3P), and Municipal Separate Storm Sewer System (MS4) General Permits.

Surface Water Sampling

Supervised multiple water quality monitoring programs. Projects have included oversight and management of sampling teams for pre-construction baseline, routine and special study water quality monitoring projects including non-traditional monitoring techniques such as sediment respiration. Many of the projects have included a database management and compliance component.

Mining

Worked as part of a permitting team (for various clients) that prepares new mining permits, as well as modification and renewals. Specific areas include land use, parks and

historic lands information, fish and wildlife information including threatened/endangered species, water quality data, drainage information, NPDES permits, and narrative criteria applications.

Completed studies to address notice of violation (NOV) orders for accidental discharges into waters by mining companies including assessments of fish kills and the extent of black-water discharges as well as routine non-compliance issues. Act as representative for company in board hearings to address violations.

Risk Assessment

Completed large scale risk assessment in watersheds in Kentucky, West Virginia, and Virginia for associated with impacts to waters. Assessments included the use of biological monitoring (fish and benthic macroinvertebrates (including mussels)), acute and chronic toxicity testing, sediment toxicity testing, juvenile mussel toxicity testing, entrainment studies, water quality monitoring, water quality modeling, and specialized sediment sampling which included both physical and chemical characterizations. These projects have required large-scale data integration, database management with an ArcGIS component.

Threatened/Endangered Species

Completed biological assessments for mussel species in the Kanawha and Gauley Rivers, as well as a document similar to a biological assessment for the Big Sandy River watershed. Completed biological assessments for bat species in West Virginia for various clients. Prepared appropriate documentation for Section 7 consultations with the United States Fish and Wildlife Service for various regulated entities.

Environmental Assessments/Impact Statements

Preparation and submittal of environmental information documents submitted to regulatory agencies for the development of the agency's environmental assessments. Topics addressed included: fish and wildlife resources; surface and groundwater, endangered species, noise, viewshed and aesthetics, traffic, floodplains, conservation, flooding, navigation, recreation, safety, environmental justice, socioeconomics, and other general environmental concerns. Development of alternative analyses including: a federal highways project which required a supplemental EIS; several large-scale mining operations whose alternatives included various mining

methodologies (underground mining, highwall mining, etc.) as well as post mining land uses. Prepared and submitted environmental assessments for federal regulatory agencies as third-party contractor. Prepared, reviewed, and commented on Draft Environmental Impact Statements and for various federal agencies as third-party contractor. Completed assessments for federal agencies to determine the need for supplemental environmental documents.

Regulatory and Litigation Support

Provided testimony as both a factual witness and expert witness in federal court and before the West Virginia Environmental Quality Board. Testimony included site conditions, evaluation of reasonable potential, water quality issues, mitigation, stream structure, and function. Negotiated with state and federal agencies regarding fines for non-compliance. This includes completing large scale after-the-fact delineations and associated reporting for Section 308 and 309 Orders, negotiating mitigation, and evaluating and assessing NPDES compliance issues. Compliance issues include discharge monitoring reports, non-compliance notices, toxicity, and narrative guidance concerns.

Additional litigation work has included work performed for meeting specialized permitting requirements, like those for the Public Service Commission. This work has included testimony regarding studies for wind energy development and its impact on birds and threatened and endangered species.

Work for energy development has included applications for the Public Service Commission, completed for clients with the assistance of an attorney. Studies and documents have included: noise studies, landscape scale land use analysis, viewshed analysis, surface and groundwater studies, species consultations, delineations, coordination of contractors for consultations, and packaging of the applications.

Biological Studies and Sampling

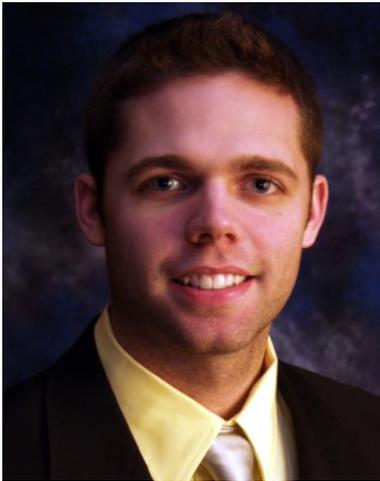
Responsible for managing and reporting biological surveys using State and federal protocols for permitting and compliance. Responsible for the development, managing, and reporting of special studies including functional assessment studies, algal studies, vegetative studies, wetland macroinvertebrate studies, avian studies, bat studies, benthic macroinvertebrate studies, mussel surveys, fish surveys and specialized trout surveys. Responsible for managing and reporting biological

toxicity evaluations using standard testing species, as well as specialized studies like those completed using juvenile mussels and larval fish for selenium deformities.

Completed an evaluation of the physical, chemical, and biological effects of acid mine drainage from abandoned mine lands in Virginia. Work included bioassays, biological monitoring, chemical monitoring, physical habitat evaluations, and functional assessments of the biological communities including algal community structure. Prepared documents for the use of acid mine drainage remediation for mitigation purposes.

Benthics

Completed benthic sampling for 28+ years. Capable of identifying most benthic macroinvertebrates at the genus level. Completed aquatic entomology coursework under Dr. R. Voschell at Virginia Tech.



EDUCATION

- M.S. Environmental Science, 2010
Marshall University
- B.S. Environmental Biology, 2006
Marshall University

EMPLOYMENT HISTORY

- 2006-Present Potesta & Associates, Inc.
2013 In-House Consultant EQT
2014 In-House Consultant Columbia Gas

PROFESSIONAL CERTIFICATIONS

- 3.3 Continuing Education Units for Wetland Delineation – Olentangy Wetland Research Park at Ohio State University
- April 2012 – Applied Fluvial Geomorphology NCTC (Rosgen)
- April 2012 – River Morphology and Applications NCTC (Rosgen)

AREAS OF SPECIALIZATION

Clean Water Act permitting, compliance, collection, identification, and analysis of biological data for research via habitat, electrofishing surveys, water sampling, and chemistry analysis. Environmental reporting and permitting. Wetland and stream identification and delineation. National Environmental Protection Act (NEPA) reporting for federal agency approval.

Regulatory support and expert testimony for West Virginia Public Service Commission.

PROFESSIONAL EXPERIENCE

Stream/Wetland Delineation, Permitting, and Mitigation

Served as project manager for environmental permitting for large scale oil and gas projects including roadway improvements, pipeline maintenance and construction, well pad development and other associated projects for the industry. Leads and trains staffing in field work and preparing environmental applications.

Supervised and conducted numerous wetland identifications and delineations for private companies throughout West Virginia, Virginia, Ohio, and Pennsylvania. Work included identification, delineations, and verification process with the United States Army Corps of Engineers (USACE), wetland reporting, permitting, and mitigation.

Met on-site with USACE, West Virginia Department of Environmental Protection for wetland verifications with governmental agencies.

Completed stream and wetland delineations for the construction of Highline Transmission Projects in Pennsylvania, West Virginia, Maryland, and Virginia. Worked with contractors to limit stream and wetland impacts as much as possible.

Supervised and completed stream and wetland delineations for oil and gas companies, including pipeline right-of-way and well layout locations.

Supervised and prepared and submitted numerous USACE Section 404 Applications and WVDEP 401 Applications. Obtained numerous 401 and 404 Permits for various types of projects.

Prepared numerous stream and wetland reports pertaining to oil and gas industry.

Prepared and analyzed field data for state and federal permit applications.

Responsible for Section 7 Consultation of Endangered Species Act, Section 106 Consultation of the National Historic Preservation Act and Section 404 of the Federal

Clean Water Act for numerous projects throughout West Virginia. Work includes field reconnaissance and assessment and report writing.

Experienced in consulting with USACE on Nationwide Permits and Individual Permits.

Experienced in completing the West Virginia Stream and Wetland Valuation Metric calculator for mitigation projects.

Conducted after-the-fact delineations with the U.S. Environmental Protection Agency.

NEPA Documentation

Preparation and submittal of environmental information documents submitted to numerous federal regulatory agencies. Preparation of Environmental Report level to the Programmatic Environmental Assessment level for agency review and approval. Topic included:

- Fish and wildlife resources
- Surface and groundwater
- Endangered species
- Noise
- Viewshed
- Aesthetics
- Cultural resources
- Traffic
- Floodplains
- Navigation
- Recreation
- Safety
- Environmental justice
- Socioeconomics
- Climate change
- General environmental concerns

Mining

Authored sections of mining permit applications and environmental information documents.

Surface Water Sampling

Conducted surface and groundwater sampling.

GIS

Analyzed longitudinal and cross-sectional data associated with stream profiles.

Acquired skills in operation of GPS equipment.

Oil and Gas

Managed environmental permitting for large scale roadway improvement project across 10 counties throughout West Virginia.

Permitted hundreds of natural gas well pads, pipelines, and access road upgrades.

Managed field crews performing environmental inspections pertaining to aquatic resources and erosion and sedimentation control devices:

- Directed field crews and scheduling
- Reviewed daily reports and presented to contractor and client
- Performed field visits and meetings

Biological and Sampling

Conducted electrofishing surveys with species identification.

Collected water samples and performed chemical analysis with various instruments.

Conducted benthic macroinvertebrate surveys utilizing procedures described in the USEPA's Rapid Bioassessment Protocol (RBP).

Performed habitat and stream assessments utilizing the standard EPA RBP in freshwater ecosystems.

Regulatory Support

Provided expert witness testimony before the West Virginia Public Service Commission for renewable development. Completed the necessary studies and prepared documents energy generation projects.