



EXPRESSION OF INTEREST



A/E Services for Bowden State Fish Hatchery Rehabilitation
Elkins, West Virginia

DNR1800000006

December 13, 2017



ORIGINAL

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

MORGANTOWN

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

WINCHESTER

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Project Number: 0101-17-0437

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Expression of Interest

EXECUTIVE SUMMARY

The Bowden State Fish Hatchery (BOWDEN) located in Elkins, West Virginia along the Shavers Fork River is in need of complete rehabilitation and/or repairs, including water supply, treatment, all rearing and growing facilities, buildings, and infrastructure. BOWDEN has experienced a lack of water, closed visitor center, no quiescent area for settling solids, old and/or failing piping with internal erosion/subsidence, parasites and bacterial issues, and no primary wastewater treatment.

Improvements are needed to increase trout production for angling opportunities in the streams, lakes, and rivers through North Central West Virginia stocked by BOWDEN. Additionally, a solid waste removal system will greatly reduce the pollution being discharged from the hatchery into Shavers Fork.



Potesta & Associates, Inc. (POTESTA) team of engineers and scientists have extensive experience in aquaculture and civil and environmental engineering projects. POTESTA's staff aquatic biologist has over 30 years of operational and project management experience pertinent to hatchery production. Our engineers have decades of experience designing successful wastewater treatment facilities that allow for reduced maintenance and improved outcomes. POTESTA has the necessary experience and qualified personnel to efficiently implement an optimal repair plan in a timely, cost-effective manner.

Dr. Daniel Miller, Ph.D., Senior Scientist, made a site visit to BOWDEN and met with Mr. Frank Williams, BOWDEN manager, to further understand the goals/objectives of the West Virginia Division of Natural Resources (WVDNR). The primary issues to be addressed include, but are not limited to:

- Loss of water from old and failing piping
- Improvement of biosecurity from water sources
- Design primary wastewater treatment facility
- Design biological filter for recirculation of water
- Use of head oxygenators for increased production
- Explore site well water
- Visitor Center rehabilitation
- Design of additional raceways with circulation



POTESTA is currently working on a similar project at the Buller Hatchery (BULLER) and Aquatic Wildlife Conservation Center (AWCC) in Marion, Virginia for the Department of Game and Inland Fisheries. POTESTA is developing a preliminary engineering report for the future production goals of BULLER and AWCC. Additional information on this project can be found with other similar projects on page 8.

Fishing opportunities in West Virginia add millions of dollars per year into our economy. BOWDEN is in need of improvements to increase the production of trout to stock Shaver Fork, Gandy Creek, and Glady, as well as other waters around West Virginia.

POTESTA has the necessary experience in-house to complete all the services anticipated under this contract. Our professional staff has the training, expertise, and experience required to successfully complete this project. We look forward to continuing our relationship with the WVDNR on this exciting project and are available to meet to answer any questions you may have or to discuss your needs in more detail.

Expression of Interest

CORPORATE SUMMARY



HISTORY

POTESTA was founded in 1997 as a full service engineering and environmental consulting firm headquartered in Charleston, West Virginia. We have now expanded to a diverse staff of 86 experienced engineers, scientists, and support personnel with branch offices in Morgantown, West Virginia, and Winchester, Virginia. Our clients include mining, manufacturing and chemical companies; utility companies; waste management companies; K-12 schools/colleges/universities; land developers; attorneys; financial institutions; insurance companies; local, state and federal agencies; construction companies and architects.



SERVICES

- Air Permitting
- Biological and Toxicological
- CADD/GIS
- Civil Engineering and Design
- Construction Monitoring
- Environmental Site Assessment
- Fish Hatchery Rehabilitation
- Geotechnical Engineering
- Groundwater
- Hydrology and Hydraulics
- Landfills and Solid Waste
- Litigation Support
- Occupational Safety and Health
- Oil and Natural Gas Consulting
- Permitting
- Remediation
- Roadway Engineering
- Sampling
- Site Design
- Storage Tanks
- Surveying and Mapping
- Water and Wastewater
- Water Quality
- Wetlands

STAFF PROFILE

POTESTA's staff is committed to delivering innovative, cost-effective solutions to meet our client's complex requirements.

Total Staff: 81

10	Admin/Accounting	4	Geotechnical Engineers
1	Aqua Culturist	1	GIS Specialist
2	Aquatic Ecologists	1	Horticulturalist
6	Biologists	1	Information Technologist
7	CADD	1	Mechanical Engineers
16	Civil Engineers	2	Mining Engineers
1	Economist	7	Surveyors
5	Environmental Scientists	11	Technicians
2	Fish & Wildlife Specialists	1	Toxicologist
1	Geologists	1	Health and Safety



Expression of Interest

CORPORATE SUMMARY



MANAGEMENT AND PERSONNEL EXPERTISE

Our firm is managed by two principals driving POTESTA forward with their experience and emphasis on exceeding expectations. Ronald R. Potesta, President, is a former Director of the West Virginia Division of Natural Resources during a period when the agency had over 700 full-time employees and supervised several offices, including Regulatory Affairs. Dana L. Burns, P.E., Vice President, has more than 38 years experience with civil, geotechnical, mining, and environmental engineering projects.



Ronald R. Potesta

POTESTA has a team of qualified engineers, scientists, and support personnel and will work under Project Manager, Mr. Terry Moran, P.E., Senior Scientist. Mr. Moran has over 25 years of experience successfully completing water and wastewater engineering projects in a timely manner within budget. Mr. Moran will work closely with POTESTA's aquatic biologist, Dr. Daniel Miller, Ph.D., Senior Scientist, for this contract. Dr. Miller has over 30 years of successful operational and managerial experience that includes commercial, research, and educational priorities. Dr. Miller has designed, assessed, modified, managed, and trained personnel for a variety of production scenarios: from flow through to 98% recirculating facilities. His knowledge of biosecurity options and appropriate components for recirculation make him a critical component of our team.



Dana L. Burns, P.E., P.S.

Staff certifications and/or degrees applicable to this project are included in **Appendix A**.

Certification	Number of Employees	Breakdown by Employee
Professional Engineers (PE)	14	Robert Ammirato (WV) Dana Burns (WV, IL) Chad Griffith (WV) Mark Kiser (WV, SC) Joe Knechtel (VA, WV) Sam Ludlow (WV) Terry Moran (WV, VA) Everett Mulkeen (WV) Mark Sankoff (WV) Angela Pugh (WV) Dave Sharp (WV, OH, PA, KY, MD) Jarrett Smith (WV) Pat Taylor (WV) Patrick Ward (WV)
Engineering Interns (EIT)	2	Tim Rice Jeremi Stawovy
Professional Surveyors (PS)	3	Dana Burns (WV) Victor Dawson (WV, NC, SC) Mark Sankoff (WV)
Surveyor-in-Training (SIT)	2	Ryan Bennett Brad Starkey
WV Licensed Remediation Specialists (LRS)	5	Mindy Armstead Dave Corsaro Chris Grose Mark Kiser Dennis Litwinowicz

Expression of Interest

QUALIFICATIONS



POTESTA's extensive experience with projects like this one has taught us that the avenue to success begins with the interview process to determine the future needs of production (species, size, quantities) and to provide insight into disease issues, water and space limitations, or water quality challenges. POTESTA can provide the required expertise to complete this project in a timely, economical, and efficient manner. Services anticipated to be required for a project of this nature include, but are not limited:

- Water Management
- Wastewater Management
- Civil Engineering and Design
- CADD
- Construction Monitoring
- Stormwater Management
- Geotechnical Engineering
- Groundwater/Springs
- Hydrology and Hydraulics Design
- Permitting
- Roadway Design
- Site Design
- Surveying and Mapping
- Fish Production
- Biosecurity



Additional information on the primary service areas for this project is included in **Appendix B**.

Our qualifications are an exceptional fit for BOWDEN's proposed fish hatchery rehabilitation project. We believe we are the only firm who has extensive hatchery experience, completion of numerous water, wastewater and liner system projects, and a unique combination of engineers and environmental scientists to meet the challenges of this project.

Discipline	Staff Member	Experience
Fish Production/Biosecurity/ Recirculation Technology and Hatchery Design/Educational	Daniel Miller, Ph.D. 39 Years	Designed/operated tilapia, shrimp, trout and bass hatcheries/ grow-out facilities 11 years with WVU Extension Service for public education
Water Management	Mark Sankoff, PE, PS 34 Years	20 years engineering/operations manager for large water utility (300 tanks, 1,700 miles line, numerous pumps, etc.)
Wastewater Management	Terence Moran, PE 27 Years	Masters in Sanitary Engineering, 100+ wastewater projects (collection/pump stations/treatment options)
Roadways/Stormwater/ Resources Evaluations	Joe Knechtel, PE 24 Years	Extensive civil/site, stormwater/roadway design expertise
Soils/Stabilization/Foundations	Chris Grose 26 Years	Masters in Geological Engineering, soil/geotechnical studies
Liner Systems	Mark Kiser, PE, LRS 33 Years	Hundreds of acres of liner system design and QA/QC
Water Quality	Lisa Burgess 29 Years	Ability to manage facility's compliance during major improvement projects Specializing in regulatory issues addressing water
Water Quality	Mindy Armstead, Ph.D. 28 Years	Aquatic toxicologist experienced in water quality issues Conducted toxicity assessments and developed programs to minimize or eliminate instances of aquatic toxicity

PROJECT APPROACH



GOAL/OBJECTIVE 1: REVIEW EXISTING PLANS– COMMUNICATE WITH OWNER

POTESTA personnel made a site visit to BOWDEN in November to meet with the hatchery personnel to understand the primary issue(s) to be addressed by this project. Once the contract is awarded, POTESTA will revisit BOWDEN to gather additional information and further the dialogue with onsite personnel. From this effort, we anticipate preparing our detailed scope of services. POTESTA will work with WVDNR to develop a successful team approach to the project.



Lack of water supply

GOAL/OBJECTIVE 2: DESIGN SERVICES

POTESTA will proceed with the final design and preparation of project specifications for the project once WVDNR has reviewed the preliminary design and we have received comments on the same, and the necessary funding has been obtained. The design can be flexible and POTESTA will adjust the design accordingly as the situation and/or funding may dictate.



Primary wastewater treatment is needed, and space is available.

However, some issues we intend to take into account in final design are summarized as follows:

- Biosecurity and sustainability are two issues that all hatchery rehabilitation plans are dealing with. Recirculating Aquaculture Systems (RAS) have been incorporated into numerous state hatchery rehabilitation plans (Cleghorn Springs, SD; Montebello hatchery, VA; Wild Rose Hatchery, WI) over the past decade. POTESTA is able to provide an evaluation of options available for incorporating partial recirculating capacity within the context of wastewater treatment systems and biofilter sizing.
- Improved engineering of fluidized bed biofilters has the potential to reduce electrical costs by 30%. Efficient and rapid removal of solid waste can reduce disease issues and improve overall production. Solids removal should occur prior to biofiltration to maintain a dominance of nitrifying bacteria in the biofilter. Water exiting the biofilter will be low in ammonia and easily treated for reuse where sensitive fry are held.
- Wastewater treatment devices prepare the water for regulated discharge limits. For BOWDEN, the chosen device that will remove solids and ammonia is the same device used in recirculating systems. With minimal additional treatment (a low maintenance ultraviolet bypass and oxygenation), a biosecure recirculating water stream can be used for young fry, improving biosecurity and reducing source water needs in one area of the hatchery. Our combination of expert engineers and our hatchery specialist, who has managed and designed recirculation hatcheries, will provide the Agency with an excellent team of consultants to meet and exceed the required tasks for the hatchery rehabilitation plan.
- It is also important to note, POTESTA personnel have the ability to offer an assessment of biological filters with options to improve the ammonia conversion capacity. In addition to this option, POTESTA can



Water leaks

PROJECT APPROACH



GOAL/OBJECTIVE 2: DESIGN SERVICES (CONT.)

provide a design for low head oxygenators, which may increase the available oxygen levels by 50%. This will allow for increased trout production without additional water and without major construction.

Construction drawings and specifications will be prepared for WVDNR and regulatory review and approval prior to advertisement and bidding. POTESTA will prepare a preliminary estimate of probable construction cost broken down by major work items. We routinely track bid tabulations available from entities such as the West Virginia Division of Highways and the Contractors Association of West Virginia so that we have ready "access" to up-to-date unit prices. Separate estimates will be made for each facility. The preliminary estimate will be submitted with a draft submittal of the drawings and specifications. A final estimate of probable construction cost will be prepared and submitted with the draft drawings. The final estimate will be used for evaluation of project costs and subsequent contractor bids.



Outdoor pond not utilized and could be used for water treatment

Several permits and/or permit modifications may be required for the proposed project. These may include a NPDES General Stormwater Permit, United States Army Corps of Engineers Permit, West Virginia Public Land Corporation Permit. Modifications to applicable facility NPDES permits will be required.

POTESTA will prepare a construction bid form and required bidding (i.e., contract) documents, and will assist the Agency in the appropriate procedures regarding advertisement and procurement of bids. POTESTA will also help present the project at public meetings, and assist with the pre-bid conference for contractors. Upon receipt of bids, POTESTA will aid the Agency in evaluation of the bids for cost, completeness and qualifications.



Evaluate indoor facilities

GOAL/OBJECTIVE 3: CONSTRUCTION CONTRACT ADMINISTRATION SERVICES

After bid evaluation and contractor selection by the Agency, POTESTA 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.

- Review contract documents, particularly items that were not prepared by POTESTA, such as the agreement, general conditions, supplementary conditions, specification special conditions, and engineering specifications.
- Review, meet, comment on and accept contractor's preliminary (and subsequent adjustments to) progress schedule, preliminary schedule of shop drawing and sample submittals, and preliminary schedule of values (for progress payments).

PROJECT APPROACH



GOAL/OBJECTIVE 3: CONSTRUCTION CONTRACT ADMINISTRATION SERVICES (CONT.)

- 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.



The site has space available for additional raceways.



North Spring water source



Drainage issues

Expression of Interest

SIMILAR EXPERIENCE



POTESTA's team of engineers and scientists have extensive experience in aquaculture, civil, and environmental engineering projects. POTESTA's engineers understand the biological consequences of design. This deep knowledge base uniquely qualifies POTESTA to effectively complete this project for WVDNR. Examples of similar past projects completed by POTESTA personnel include:

Client	Project Manager	Type of Project	Project Goals and Objectives
Virginia for the Department of Game and Inland Fisheries* <i>Marion, Virginia</i>	Terry Moran, PE tcmoran@potesta.com	Preliminary Engineering Report to modernize facilities (ongoing project)	<ul style="list-style-type: none"> Analyze current facilities and review water source, water distribution, supplemental oxygenation of water supplies, water treatment systems, buildings, fish rearing units, effluent management, general facility infrastructure and raceways. Develop series of conceptual improvements/options. Prepare construction documents and A/E cost estimates.
Mountaineer Trout Farm <i>Raleigh County, West Virginia</i>	Dan Miller, Ph.D. dmiller@potesta.com	Reduce solids from a series of parallel raceways for commercial production of rainbow trout in order to meet NPDES limits	<ul style="list-style-type: none"> Evaluated feed management and farm operations to allow for early solids removal to reduce TSS at the discharge. Settling pond and composting area were included in the recommendations.
High Tech Fisheries <i>Uniontown, Pennsylvania</i>	Dan Miller, Ph.D. dmiller@potesta.com	Continual disease problems causing low survival in 200 gallon tanks	<ul style="list-style-type: none"> Modified biosecurity protocols. Installed large UV units and a quarantine tank to control disease.
Trout Lodge and Anglers Resort <i>Monroe County, West Virginia</i>	Dan Miller, Ph.D. dmiller@potesta.com	Increase production and acquire more water flow in the raceways	<ul style="list-style-type: none"> Custom set of low head oxygenators for the upper levels of the raceway system, which allowed an increase in stocking densities and improved production. Demand feeders over the raceways reduced the labor needed for feeding the trout.
West Virginia University - Dogwood Lake Aquaculture Site <i>Monongalia County, West Virginia</i>	Dan Miller, Ph.D. dmiller@potesta.com	Development of aquaculture research and demonstration facility	<ul style="list-style-type: none"> Responsible for production, research, and maintenance of the facility. Training undergraduate and graduate students for data collection and daily maintenance. The site has become a private trout production facility supplying high quality trout for live stockings.
Center for Great lake Studies Recirculating Hatchery <i>Milwaukee, Wisconsin</i>	Dan Miller, Ph.D. dmiller@potesta.com	Design, assembly and testing of a 10,000 gallon recirculating tank for research	<ul style="list-style-type: none"> Biofilter design was a sand based fluidized bed reactor and was sized for intense feeding. Options for ozone and UV were included. Personnel training for operation included biosecurity measures and feed management evaluation.

*Additional information on page

SIMILAR EXPERIENCE



CURRENT WORK AT BULLER AND AWCC

BULLER was constructed from 1950 to 1957 and has been used to produce warmwater fish and selected coldwater fish. The facility utilized gravity fed river water from a dammed section of the South Holston River and a small artesian spring source. The site contains 30 earthen ponds (25.21 surface acres in total) of varying sizes from 0.2 to 4.8 acres. Only 11 ponds totaling 13.79 acres are being used for rearing purposes at this time. The AWCC was established in 1998 at the Buller Facility for the propagation of mussels to help increase the number of endangered species for restoration back into the streams and rivers of southwest Virginia.



POTESTA was retained to develop a preliminary engineering report (PER) for the future production goals of the BULLER and AWCC which included the following topics:

- AWCC indoor work space
- Sustainability: Use of Recirculating Aquaculture Systems (RAS) at various locations on site
- Facilities: evaluation of buildings, labs, roads, and bridges
- Predation control for trout raceways, AWCC, and ponds
- Geotechnical and soil evaluation for sub-grade support of liners/sourcing of materials and liner
- Visitors Center: education and control of visitors (biosecurity)
- Water management
- Inlet screen
- Utility systems
- Regulatory compliance
- Evaluation and recommendations for operational efficiencies
- Wastewater treatment options (include examination of a clarifier versus ponds)
- Additional wastewater treatment efforts for trout production include:
 - ⇒ Sizing treatment units based on hydraulic loading, solids flux, etc.
 - ⇒ Preparing schematics of two wastewater treatment plant options.
 - ⇒ Preparing preliminary opinions of probably construction costs for the two options
 - ⇒ Preparing estimates of incremental operation and maintenance costs for the two options.



Raceways



Dam



Endangered Mussels

Expression of Interest

SIMILAR EXPERIENCE



RECENT WASTEWATER PROJECTS

Client/Project	Client/Project
Huntington Sanitary Board/Long-Term Improvement Plan for Sanitary Board	Boone County PSD/Evaluation of Sewer Service Extension
Town of Handley/Design and Construction of Sewer System	Boone County PSD/Design of WWTP Upgrades
West Virginia Division of Highways/Mineral Wells Rest Area Wastewater Treatment Plant Evaluation	Boone County PSD/Rehabilitation of Sanitary Collection System Sewer Line
North America River Runners/Rehabilitation of WWTP	American Electric Power/Design and Permitting of WWTP for London Locks Hydroelectric Plant
Charles Town Racing and Slots/Design and Permitting of WWTP	ECOLAB/Evaluation of Pre-Treatment WWTP
Berkeley Springs Development/Design and Permitting of WWTP	West Virginia American Water/City of Oak Hill Rehabilitation of WWTP
CNX RCPC/Evaluation of Hunting Hills Residential Development Sanitary Sewer System	Salt Rock Sewer Public Service District/Engineering for On-Site Sewage System for Holiday Park
West Virginia American Water/Evaluation of White Sulphur Springs WWTP	Old Standard Development/Design and Permitting of WWTP
Tucker County Development Authority/New Sewer Line	Pocahontas County PSD/Wastewater Management/Evaluation of Hawthorn Loop Sanitary Sewer System
Salt Rock Sewer PSD/Odor Control Study	Tackley Mill Development/Design and Permitting of WWTP for Residential Development
Thorn Hill Development/Design and Permitting of WWTP for Residential Development	Crosiers Sanitary Service/Design of New WWTP Package
Steptoe & Johnson/Berkeley County PSD/Disinfection System Improvements at Marlowe Town Center Package Wastewater Treatment Plant	Town of Ceredo/Asset Management Plan
Carmeuse Lime & Stone/Wastewater and Water Treatment Plant	ZMM, Inc./Collection System and Upgrade to the Existing Vacuum Collection System
Boy Scouts of America/Replacement of Sanitary Sewer Collection System/WWTP	Private Individual/Replacement Study for Treatment Plant
Cloverleaf Environmental Consulting/Repair of failed AOSS System	Summit at Cheat Lake/Design of Sanitary Sewer Collection System
US Custom & Borders/Design of WWTP	Union Carbide/Sewer Line
Cloverleaf Environmental Consulting/Repair of AOSS System	Timberwolfe Development/Design and Construction of Sanitary Sewer Systems
Town of Ceredo/Upgrade to Sanitary Sewer System	

*Not Constructed

Expression of Interest

SIMILAR EXPERIENCE



RECENT PUBLIC UTILITY WATER SUPPLY PROJECTS

2011-2017	2005-2010
Client/Project	Client/Project
City of Glenville/Water Distribution System Upgrade	US Custom Border Patrol/Irrigation Water Supply
Boone County PSD/Mud River Road and Cox's Fork Road Water Line Extension	City of Wellsburg/Water Distribution Upgrade
Cowen PSD-- Erbacon Water Line Extension	Boone County PSD/Prenter Road Water Line Extension Phase I
Boone County PSD/Easter Hollow Water Line Extension	Boone County PSD/Turtle Creek/Corridor G Water Line Extension
Boone County PSD/Lowe Gap Road to Big Ugly Creek Road Water Line Extension	Kanawha County Regional Development Authority/Standard/Paint Creek/Collinsdale Water Line Extension*
Boone County PSD/Buck Street Water Line Replacement	Boone County PSD/Joes Creek Water Line Extension Phase III
Boone County PSD/Dartmont Park Water Line Extension	Boone County PSD/PER for Prenter Road Water Line Extension Phase II
Town of Ceredo/Coal Branch Water Line Extension	Boone County PSD/Morrisvale/Cameo Water Line Extension*
Preston County PSD No. 2/Water Extension and Replacement Project*	City of Wellsburg/Reservoir Cover Replacement
Town of Kingwood/Study of Acquisition of Public Service District	Webster County Commission/Preliminary Engineering of Water Line Extensions
WV American Water/Master Service Agreement	City of Philippi/Municipal Water System Improvements Project
WV American Water/Drawdy Water Storage Tank	Carl M. Freeman/Coolfont Water Supply
City of Wellsburg/Water Line Replacement and Water Treatment Plant Upgrade	Town of Moorefield/Evaluation of Elevation of New Water Storage Tank
Sugar Creek PSD/Keeners Ridge Water Line Extension Projects*	Boone County PSD/Hatfield McCoy/Water Ways Water Line Extension
Gilmer County PSD/Waterline Extension Project*	Boone County PSD/Joes Creek Water Line Extension Phase II
Mt. Zion PSD/Water System Improvements Project*	Massey Coal Services/Wash Branch Water Line Extension
	Boone County PSD/Six Mile to Corridor G Water Line Extension
	Town of Ceredo/Crescent Drive/Cemetery Hill Road Water Line Replacement
	Town of Ceredo/Municipal Water System Upgrade
	WV American Water/Mifflin Sharples Water Line Extension
	Putnam County Commission/Fisher Ridge Water Line Extension Phase II
	Boone County PSD/Joes Creek Phase I
	Boone County PSD/County Inventory
	Boone County PSD/Trace Branch Water Line Extension

*Not Constructed



Additional information can be found on our corporate website: www.potesta.com



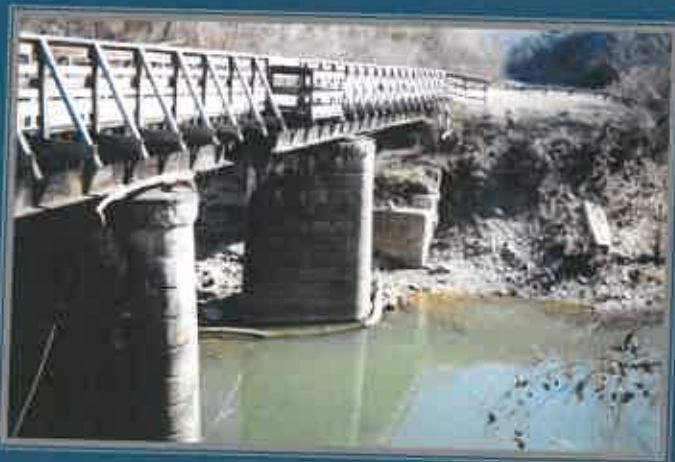
Expression of Interest

STATE CONTRACT EXPERIENCE



POTESTA has assembled a team that has historically served state agencies on numerous projects around the State of West Virginia. In fact, our staff has 150+ years' experience working on contracts with the State of West Virginia, including:

- **West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands and Reclamation:** Design and bidding phase services for reclamation for abandoned mine lands projects throughout West Virginia since 2002.
- **West Virginia Department of Environmental Protection, Office of Waste Management:** Design, bidding and construction phase services for 8 landfill repair and closure projects in both Northern and Southern West Virginia since 1997.
- **West Virginia Division of Highways (WVDOH), Engineering Division:** (a) Asbestos inspection sampling services and report preparation, and development of contract documents for asbestos removal and disposal projects throughout West Virginia since 2002, (b) open-end agreement with the WVDOH for two years to provide natural resource services for NEPA compliance, (c) master service agreements to provide engineering services related to highway, bridge, and miscellaneous projects, (d) two master service agreements to provide surveying services, (e) engineering services as part of design-build for 3 1/2 miles of the upgrade of Interstate 64 from 4 – 6 lanes, (f) geotechnical, surveying, and civil site design associated with widening Jefferson Road for 1 1/2 miles, and (g) maintenance of six year agreement to provide environmental assessment and remediation services.
- **West Virginia Division of Natural Resources:** Site grading, utilities, etc. for handicap accessible cabins and state parks, and restoration of 78 miles of North Bend Rail Trail.
- **West Virginia Department of Transportation, Materials Control, Soils and Testing Division:** Five-year agreement for geotechnical services throughout the State of West Virginia.
- **West Virginia Department of Health and Human Resources, Office of Environmental Health Services, Source Water Assessment and Protection Program:** Three contracts for Source Water Protection Plan services for 100+ communities throughout Southern, Northern, and Eastern West Virginia from 2002 to 2004 and 2009 to 2012.



North Bend Rail Trail



North Bridgeport Bypass

Expression of Interest

STAFF QUALIFICATIONS



Mr. Dana L. Burns, P.E., Vice President at POTESTA, will serve as principal-in-charge for this project. Mr. Burns has served as the principal-in-charge for all of POTESTA's contracts for engineering services with the State of West Virginia, including those with the West Virginia Department of Environmental Protection, West Virginia Department of Transportation, West Virginia Department of Health and Human Resources, and WVDNR. As such, he understands the resources it takes to complete a project for the State of West Virginia, as well as the requirements of not just the purchasing agency but also those of the West Virginia Department of Administration. Mr. Burns' experience includes over 38 years of civil and environmental engineering and related projects including completing 100+ water supply/wastewater projects, 50+ liner system projects, and numerous sampling/flow metering projects.

Mr. Terence Moran, P.E., Senior Engineer at POTESTA, will serve as the project manager for the project. Mr. Moran is proposed to be the project manager for this project because he brings extensive experience on water supply/wastewater projects, liner system projects, sampling/flow metering projects, and projects for the State of West Virginia. Mr. Moran received his Master of Science degree with an emphasis in wastewater treatment from West Virginia University. He has also had a perpetual workload in providing bidding and construction phase services for public works projects for the last 15 years. Accordingly, he is well versed in attending pre-bid meetings to present the project and answer questions, administering construction contracts, overseeing construction technicians, reviewing applications for payments, etc. Mr. Moran has over 25 years of experience, and has completed 100+ water supply/wastewater projects, liner system projects, and 15+ projects involving metering and sampling. He has served as project engineer/project manager for approximately 70 projects (contracts) with the State of West Virginia, including contracts with the West Virginia Department of Environmental Protection, West Virginia Department of Health and Human Resources, and West Virginia Department of Transportation; these projects for the State of West Virginia included projects involving liner systems, water supply systems, wastewater systems, flow metering, and sampling.

Mr. Daniel Miller, Ph.D., is an aquatic biologist with 30+ years of experience in fish and shrimp hatchery management and design. He has successfully completed the design and training of personnel for a research hatchery for the University of Wisconsin; the design, testing, startup and training of personnel for a commercial yellow perch recirculating hatchery for the Chippewa Tribe in Red Lake, Minnesota; and a hydrological and biological survey for a property owned by Milwaukee County. He evaluated the water source and made recommendations for an alternative source of water for a fish hatchery he designed, which supplied fish for the Milwaukee County Park System. This project included the design of indoor tanks and outdoor ponds and had cost considerations. The facility was built with minor field changes and is actively producing fish for stocking today. Dr. Miller is familiar with and has managed biological filters and solid removal filters to improve production at fish hatcheries. He has consulted for trout farms in South Africa, a tilapia farm in Honduras, shrimp farms in Ecuador and the Chinese Central government.

Mr. Lee A. Yost, scientist at POTESTA, will serve as support staff for this project. Mr. Yost has over five years of freshwater fisheries related experience. Mr. Yost has experience conducting the day-to-day operations related to the raceway system design proposed, as well as providing oversight on a variety of field based projects that focus on fish community structure, growth and reproduction, and overall ecosystem health. He has been involved with projects that identify stressors and limiting factors associated with overall fish community health. He currently conducts population estimates resulting from restoration practices, egg/ovary and tissue analysis for selenium concentrations to determine site-specific water quality criteria, and aids in the management of the fish lab located at POTESTA's corporate office. Mr. Yost has a Bachelor of Science degree in wildlife and fisheries resources from West Virginia University.

STAFF QUALIFICATIONS



Mr. Everett Mulkeen, P.E., staff engineer at POTESTA, will serve as design engineer for this project. Mr. Mulkeen has over five years of civil engineering experience, with a focus on water and wastewater infrastructure. Mr. Mulkeen's experience includes a variety of water resource engineering, geotechnical engineering, and construction field monitoring projects. He has been involved in structural rehabilitation projects that focused on the repair/rehabilitation of walls, foundations, roads, and buildings due to a variety of geotechnical and hydraulic impacts (such as erosive failure, soil settlement, mine subsidence, global stability, and expansive pyritic soil damage). He is currently preparing engineering plans and cost estimates for various improvements at the Buller Fish Hatchery in Virginia. He has completed projects that require both complex technical design and multi-faceted permit applications. Mr. Mulkeen has a Bachelor of Science degree in civil engineering from West Virginia University and a Master of Science degree civil/environmental engineering from Carnegie Mellon University. For this project, he will provide technical design on aspects such as trout raceway investigation/repair, water line testing/repair, and civil site design, as well as development of cost estimates and construction details.

Mr. Joe Knechtel, P.E., senior engineer at POTESTA has over 25 years of experience on civil and environmental engineering projects with experience on potable water treatment and wastewater treatment, as well as design of water and sanitary sewer mains, force mains, laterals and sizing of grinder pumps. Mr. Knechtel has experience in working with water and waste water permitting issues associated with development of these treatment systems. Mr. Knechtel has experience as a project manager on numerous civil and environmental projects ranging from erosion and sediment control, floodplain and floodway issues, wetland, environmental industrial permitting, dam inspections, storm water management, commercial and residential size developments, evaluations and inspections of waste water lagoons, and petroleum secondary spill containment devices. Mr. Knechtel has worked closely with clients and reviewing agencies, such as WVDEP, WVDOH and numerous local reviewing/approval departments (planning/zoning, engineering, public works, utilities, fire marshals, airport authorities, health and soil conservation districts, etc.) for successful approval of each project.

Mr. Chris Grose, LRS, senior engineering associate at POTESTA, has degrees in civil engineering and geological engineering and has over 24 years of experience. His areas of expertise include geological/geotechnical explorations, surface and subsurface hydrology and hydrogeology, and foundation design. Mr. Grose's experience includes the design and evaluation of geotechnical explorations related to earth retention structures, slope stability and engineered fill construction. Mr. Grose has participated in the geotechnical explorations/evaluations for many projects for POTESTA.

Mr. Mark Kiser, P.E., chief engineer at POTESTA, has over 34 years of experience on civil, geotechnical and environmental projects and will serve as senior engineer. His experience includes conceptual site development plans, engineering construction cost estimates, roadway design, site grading plans, pavement designs, stormwater management plan development, utility design (water, sewer, storm sewer), constructability reviews, preparation of contract documents, pre-bid meetings, bid evaluations, and construction management/administration. These projects included various residential and commercial site developments, roadway construction projects, and utility expansion projects for public and private clients.

Mr. Pat Taylor, P.E., senior engineer at POTESTA, has over 28 years of experience in water and wastewater including funding coordination, hydrologic and hydraulic analysis, chemical and municipal solid waste disposal and site development. Mr. Taylor has served as Huntington Sanitary Board's engineer since 2008. Mr. Taylor has a Bachelor of Science degree in civil engineering from the University of Florida and a Master of Science degree in engineering management from Marshall University.

STAFFING QUALIFICATIONS



Mr. Mark Sankoff, P.E., chief engineer at POTESTA, has over 31 years of engineering experience, including over 20 years at West Virginia American Water (WVAW) in the engineering and distribution department. This experience in operations provides clients with a unique blend of engineering and operational knowledge to apply to projects. Mr. Sankoff has experience with intakes and raw water lift stations similar to BOWDEN, has experience in flow measurement devices in water and wastewater treatment plants, both open channel and full pipe metering, along with SCADA controls and automated chemical flow pacing. Mr. Sankoff also has experience in wastewater treatment plants and understands the importance of meeting the discharge requirements in a cost-effective and an operational sustainable manner for the three rivers that are under increasingly difficult wasteload allocations. Mr. Sankoff brings nine years of distribution operational experience in distribution piping and valve repair and replacement for water lines from 2-inch to 48-inch in diameter.

Ms. Mindy Armstead, Ph.D., is an aquatic toxicologist with 20+ years of experience in water quality issues. She has identified and assessed golden algae outbreaks in the Dunkard Creek watershed in Northern West Virginia. She has conducted toxicity assessments and developed programs to minimize or eliminate instances of aquatic toxicity. Her understanding of the interactions of various chemicals in aqueous environments has resolved numerous toxicity issues for our clients. She is currently on the staff of Marshall University, Huntington, West Virginia, but remains an employee of POTESTA.

Ms. Lisa Burgess has 22 years of environmental consulting experience. While she is well versed in air, waste, and water issues, her preferred area of specialization is regulatory issues addressing water. She routinely completes NPDES permit applications for facilities that range from car washes with a few hundred gallons per day discharge to major chemical manufacturing facilities with millions of gallons per day discharge. She has worked throughout West Virginia and in surrounding states. Her understanding of environmental audits and permit compliance issues is likely unmatched in the state. She has an excellent working relationship with the permitting staff in the WVDEP, Division of Water and Waste Management (DWWM). Her background gives her the experience to manage a facility's compliance during major improvement projects.

POTESTA's project managers will be supported by a team of engineers, scientists, surveyors, hydrologists, geologist/hydrogeologists, biologists, CADD operators, and other support personnel from POTESTA's staff.

Resumes of the key personnel are presented in **Appendix C**.

MANAGEMENT PLAN



PROCEDURE FOR COMMUNICATION WITH OWNER

Mr. Dana Burns, P.E., as POTESTA's principal-in-charge he will be responsible for contract management (administration) and shall coordinate and direct all aspects of the project. Day-to-day project activities for this project will be performed under the direction of our project manager, Mr. Terence Moran, P.E. **Mr. Moran, P.E., will be the point of contact to allow clear communication with the WVDNR.** Mr. Daniel Miller, Ph.D., will serve as a "backup" project manager. A written proposal, including a detailed scope of services and an associated manhour and cost estimate, will then be prepared and submitted to WVDNR for review. The project manager will review the proposal with the WVDNR, including a task-by-task discussion of work items and the related costs. Upon the WVDNR's approval of the proposal, the project manager will arrange for the start of project activities. The principal-in-charge will provide the project manager the required staff necessary to complete the project activities, will review the project budget and schedule during performance of the project, and will provide a final QA/QC review of the documents prior to submittal to the WVDNR. The project manager will 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. POTESTA will be available to conduct weekly status reports which may include weekly meetings, memos, or telephone calls with the WVDNR's project manager as required.

STAFFING PLAN

POTESTA's proposed project organization chart, including key staff is contained in **Appendix D**. Services will be performed at POTESTA's Charleston, West Virginia office. We stand ready to commit the personnel and resources required to complete this project in a timely, technically sound, and cost-efficient manner. POTESTA's large staff size will allow us to work on this project on an accelerated schedule if necessary.

REQUIRED DOCUMENTS

Appendix E contains the executed Disclosure of Interested Parties to Contracts, DNR180000006 Solicitation Form, Certification and Signature Page, Subcontractor List Submission, Purchasing Affidavit, Addendum Acknowledgement Form.

PROJECT BUDGET CONTROL

The project manager will be responsible for monitoring the project budget and keeping the principal-in-charge informed of its status. The project manager will develop a work plan based on hourly rates and tasks to complete the project. POTESTA's staff enters time into POTESTA's InFocus accounting system on a daily and/or weekly basis. POTESTA's project manager can access InFocus at any time, thus allowing a real-time control of project costs.

PROJECT SCHEDULE CONTROL

Direct responsibility for schedule control lies with the project manager. Initially, the project manager will review schedule requirements to see how they can be achieved given the anticipated scope of work and develop a work plan. As the project progresses, the project manager will monitor progress and compare it with the established schedule on a weekly basis keeping the principal-in-charge aware of the schedule's status. In this manner, the principal-in-charge can make staff adjustments to allow the project manager to maintain the project schedule. If circumstances develop that could impact the project schedule, the project manager will contact the WVDNR's project manager to develop a mutually acceptable adjustment to the schedule and/or work plan.

Expression of Interest

INSURANCE REQUIREMENTS

We carry a full line of insurance coverage, including general liability, errors and omissions, and workers' compensation. We also have and follow a stringent internal quality control system designed to provide our clients with quality products. We believe the quality of our work is best exemplified by approximately 85 percent of our workload coming from repeat clients. We have won seven Gold Awards in the American Council of Engineering Companies - West Virginia Chapter's engineering excellence awards competition. In 2016, POTESTA was the recipient of the Safety Achievement Award from the Contractor's Association of West Virginia.



John Spencer, Safety Director

Client#: 1114469 POTESASS

ACORD™ CERTIFICATE OF LIABILITY INSURANCE DATE (MM/DD/YYYY): 3/03/2016

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

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

PRODUCER USI Ins Svcs C/L Charleston 1 Hillcrest Drive East Charleston, WV 25311 304 347-0611	CONTACT NAME: Brenda Samples PHONE (A/C No. Ext): 304-347-0666 FAX (A/C No.): 304-347-0605 E-MAIL ADDRESS: brenda.samples@usi.biz
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INSURED Potesta & Associates, Inc. 7012 MacCorkle Avenue SE Charleston, WV 25304	INSURER(S) AFFORDING COVERAGE INSURER A: Travelers Indemnity Co. of Amer NAIC # 25688 INSURER B: Travelers Property Cas. Co. of 25674 INSURER C: Farmington Casualty Company 41483 INSURER D: Lexington Insurance Company 19437 INSURER E: INSURER F:
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COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

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

IDENT. LTR.	TYPE OF INSURANCE	ADDITIONAL INSURER (NBR. DWR)	POLICY NUMBER	POLICY EFF. DATE (MM/DD/YYYY)	EXPIRES (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> BI/PP GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:		6308476376	03/07/2016	03/07/2017	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (EA occurrence) \$300,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$
B	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS		BA8G476339	03/07/2016	03/07/2017	COMBINED SINGLE LIMIT (EA accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> RETENTION \$		CUP8G476376	03/07/2016	03/07/2017	EACH OCCURRENCE \$9,000,000 AGGREGATE \$9,000,000 \$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE/OWNER/EMPLOYEE EXCLUDED? (Mandatory in NJ) YES describe under DESCRIPTION OF OPERATIONS below Y/N N/A		UB8G568511	03/07/2016	03/07/2017	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
D	Professional Pollution		028174922	03/07/2016	03/07/2017	\$5,000,000 \$5,000,000 \$25,000 Deductible

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 Evidence of Coverage for operations usual to Engineers and Environmental Consultants.

CERTIFICATE HOLDER Potesta & Associates, Inc. 7012 MacCorkle Ave., SE Charleston, WV 25304	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
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ACORD 25 (2014/01) 1 of 1
 #S17382670/M17382486

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KSBFG



Additional information can be found on our corporate website: www.potesta.com

REFERENCES



HUNTINGTON SANITARY BOARD

Mr. Wesley Leek
555 7th Avenue
Huntington, West Virginia 25701
Phone: (304) 781-1912
Fax: (304) 696-5596

WEST VIRGINIA AMERICAN WATER COMPANY

Mr. Brett Morgan, Engineering Manager
1600 Pennsylvania Avenue
Charleston, West Virginia 25302
Phone: (304) 340-2011
Fax: (304) 340-2061

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Mr. Nick Estes
601 57th Street, SE
Charleston, West Virginia 25304
Phone: (304) 926-0499
Fax: (304) 926-0458

BOONE COUNTY PUBLIC SERVICE DISTRICT

Mr. Toby Waller
109 Town Square
Danville, West Virginia 25053
Phone: (304) 369-2622
Fax: (304) 369-6276





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 11th 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

Frank Gaddy Secretary

By

Robert S. Scott President

Frank Gaddy

Walter P. Jackson

Kenneth H. Meena

WEST VIRGINIA UNIVERSITY



THE COLLEGE OF ENGINEERING

KNOW ALL PERSONS BY THESE PRESENTS
THAT THE WEST VIRGINIA BOARD OF REGENTS
UPON THE RECOMMENDATION OF THE FACULTY
HAS CONFERRED UPON

TERENCE CATO MORAN

THE DEGREE OF

BACHELOR OF SCIENCE IN CIVIL ENGINEERING
CUM LAUDE

WITH ALL THE RIGHTS, HONORS AND PRIVILEGES THEREUNTO
APPERTAINING. WITNESS THE SEAL OF THE UNIVERSITY
AND THE SIGNATURES OF ITS DULY AUTHORIZED OFFICERS
HEREUNTO AFFIXED THIS TWENTY-NINTH DAY OF
DECEMBER, NINETEEN HUNDRED EIGHTY SEVEN

Neil S. Bucklew
PRESIDENT OF THE UNIVERSITY

Louis J. Costanzo, III
PRESIDENT, WEST VIRGINIA BOARD OF REGENTS

Carroll J. Taylor
DEAN OF THE COLLEGE

Thomas H. Ch. J.
CHANCELLOR, WEST VIRGINIA BOARD OF REGENTS

WEST VIRGINIA UNIVERSITY



THE COLLEGE OF ENGINEERING

KNOW ALL PERSONS BY THESE PRESENTS
THAT THE UNIVERSITY OF WEST VIRGINIA BOARD OF TRUSTEES
UPON THE RECOMMENDATION OF THE FACULTY
HAS CONFERRED UPON

TERENCE CATO MORAN

THE DEGREE OF

MASTER OF SCIENCE IN CIVIL ENGINEERING

WITH ALL THE RIGHTS, HONORS AND PRIVILEGES THEREUNTO
APPERTAINING. WITNESS THE SEAL OF THE UNIVERSITY
AND THE SIGNATURES OF ITS DULY AUTHORIZED OFFICERS
HEREUNTO AFFIXED THIS TWENTY-SEVENTH DAY OF DECEMBER,
NINETEEN HUNDRED EIGHTY-NINE.

Neil S. Bucklew

PRESIDENT OF THE UNIVERSITY

David D. Haddock

CHIEF, UNIVERSITY OF WEST VIRGINIA
BOARD OF TRUSTEES

Curtis J. Tompkins

DEAN OF THE COLLEGE

James W. Lowrey

CHANCELLOR, UNIVERSITY OF WEST VIRGINIA
BOARD OF TRUSTEES



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

Terence C. Moran

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 12985

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 Feb in the year of our Lord One Thousand Nine Hundred and Ninety Six and of the State the One Hundred Thirty Second



STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

Wm. Faulstich Secretary

Patience R. Egan President

Kenneth H. Moore

Robert C. Scott Frank H. Hubby

WEST VIRGINIA UNIVERSITY



DAVIS COLLEGE OF AGRICULTURE, FORESTRY AND CONSUMER SCIENCES

*Know all persons by these presents
that the West Virginia University Board of Governors
upon the recommendation of the faculty
has conferred upon*

DANIEL JOSEPH MILLER

The Degree of


DOCTOR OF PHILOSOPHY

Agricultural and Extension Education

*With all the rights, honors, and privileges thereunto
appertaining. Witness the seal of the university and
the signatures of its duly authorized officers hereunto
affixed this eighteenth day of May,
two thousand eight.*



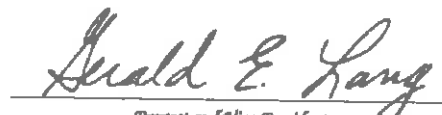
President of the University



*Chair, West Virginia University
Board of Governors*



Dean of the College



*Provost and Vice President
for Academic Affairs and Research*

WEST VIRGINIA UNIVERSITY



COLLEGE OF ENGINEERING AND MINERAL RESOURCES

*Know all persons by these presents
that the West Virginia University Board of Governors
upon the recommendation of the faculty
has conferred upon*

EVERETT EDWARD MULKEEN

The Degree of

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

DEGREE WITH HONOR

*With all the rights, honors, and privileges thereunto
appertaining. Witness the seal of the university and
the signatures of its duly authorized officers hereunto
affixed this sixteenth day of May,
two thousand ten.*


James L. Clontz
President of the University


Charles Long
Chair, West Virginia University
Board of Governors


Eugene V. Clontz
Dean of the College


Kathleen A. DeLoach
Provost and Vice President
for Academic Affairs



CARNEGIE MELLON UNIVERSITY

UPON THE RECOMMENDATION OF THE FACULTY
HEREBY CONFERS ON

EVERETT EDWARD MULKEEN

THE DEGREE OF

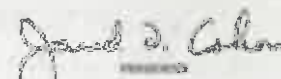
MASTER OF SCIENCE

IN RECOGNITION OF THE COMPLETION OF THE COURSE OF STUDY PRESCRIBED FOR THE FIELD(S) OF

CIVIL AND ENVIRONMENTAL ENGINEERING

GIVEN UNDER THE SEAL OF THE CORPORATION AT PITTSBURGH
IN THE COMMONWEALTH OF PENNSYLVANIA
ON THE 20TH DAY OF MAY, 2012


RAYMOND H. JONES
CHANCELLOR


JAMES D. COHEN
PRESIDENT



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

Patrick A. Taylor

Does, in Pursuance of Authority Vested in it

by law, hereby certify that he, having submitted satisfactory evidence of his ability and experience, is as

REGISTERED PROFESSIONAL ENGINEER

Registration Number 12363

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 2nd day of Aug. in the year of our Lord One Thousand Nine Hundred and Ninety Four and of the State the One Hundred Thirty-First

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

Secretary
Kenneth W. Means

President
Robert B. Scott



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

Mark A. Sankoff

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 10615

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 21st day of February in the year of our Lord One Thousand Nine Hundred and Eighty-Nine and of the State the One Hundred Twenty-Fifth.

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

Secretary
Moses A. Jackson

By
Kenneth H. Means

President
Frank Gaddy
Rohul S. Sath

State of West Virginia

West Virginia State College

To whom it may concern, Greeting: These presents certify that the degree of
Bachelor of Science
has been conferred upon Lisa Kay Burgess by the
West Virginia Board of Regents upon the recommendation of the Faculty
of West Virginia State College.

In Testimony thereof, the West Virginia Board of Regents and the Faculty of
the aforesaid West Virginia State College have herunto affixed their signatures, and
the West Virginia Board of Regents has caused to be attached the seal of its office.
Done at Institute, West Virginia, this 16th day of May 1987.

State Board of Regents

Will Elbert
Secretary
Thomas H. Cole, Jr.
President

Faculty

James A. Russell, Jr.
President
Harry V. Scott
Secretary
John L. Fath
Registrar

Marshall University

The University of West Virginia Board of Trustees
upon the recommendation of the faculty of the

Graduate School

has conferred upon

Lisa Kay Burgess


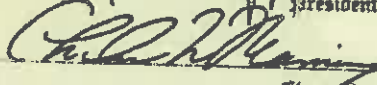
the degree of

Master of Science

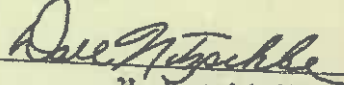

In Testimony Whereof, the signatures of the duly authorized officers of the University of West Virginia Board of Trustees and the Faculty of the University and the seal of the University have been affixed.

Given at Huntington, West Virginia, this thirteenth day of July, 1990.

The University of
West Virginia Board of Trustees


President

Chancellor




President of the University

Dean

POTESTA & ASSOCIATES, INC.

Civil Engineering and Design

Potesta & Associates, Inc. (POTESTA) helps clients evaluate and plan projects by completing the following types of preliminary evaluations and analyses.

- Phase I Environmental Site Assessments
- Floodplain Determination
- Geotechnical Explorations Including Soil, Bedrock, and Groundwater Characterization
- Foundation Recommendations
- Monitoring Well Systems and Site Characterization Plans
- Boundary, Topographical and Photogrammetric Surveys
- Utility Planning
- Earthwork Evaluations Including Volume Analysis
- Opinion of Probable Costs/Engineer's Construction Cost Estimates

Once the project has been determined feasible, POTESTA's design professionals complete preliminary and final designs. Frequent communication is made with the client and any other design professionals to review completed activities and obtain input for the design process. Our goal is to provide our services to achieve or exceed our clients' expectations.

Our design services include:

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

POTESTA offers experienced environmental engineers and scientists to prepare applications for various environmental permits that may be required. These services include:

- Stormwater Management Permit/Erosion and Sediment Control Plans
- Office of Air Quality Permit to Construct
- Wetland Delineation and Permits
- National Pollutant Discharge Elimination System (NPDES) Permits
- Floodplain Management Permits
- Groundwater Protection Plans
- Spill Prevention, Control and Countermeasure Plans
- Environmental Site Assessments
- Environmental Impact Statements

POTESTA routinely provides professional services throughout construction of our projects. These services include survey layout, construction management, construction monitoring, record drawing preparation, and bid evaluation assistance.



POTESTA & ASSOCIATES, INC.

7012 MacCorkle Avenue, SE, Charleston, West Virginia 25304
Phone: (304) 342-1400 • Fax: (304) 343-9031 • www.potesta.com
Regional Offices: Morgantown, WV and Winchester, VA

Potesta & Associates, Inc. (POTESTA) provides construction monitoring and construction management services to assist clients in achieving regulatory and contractual compliance, to document that contractor activities are in compliance with design requirements, and to serve as an extension of clients' staff. POTESTA can provide full-time or part-time field services utilizing one or more engineers or technicians.

Regulatory compliance is often best documented by providing full-time construction monitoring services for a construction project. POTESTA can assist clients in observation of construction activities and documenting compliance. Our typical involvement in such projects includes:

- Conducting a pre-construction review of design and contract documents to identify potential problem areas, and consultation with the owner or client to develop strategies or procedures to avoid anticipated problems.
- Assistance in contractor selection. POTESTA can recommend construction contractors who specialize in the type of work associated with the project and can assist in bid evaluation by reviewing proposed quantities, unit costs, lump sum costs, and any proposed exceptions or qualifiers for the project. POTESTA can conduct pre-bid conferences to help contractors understand project requirements. We can also conduct pre-construction conferences prior to the start of the project to help establish lines of communication, review detailed plans, discuss testing requirements and establish proper reporting procedures.
- POTESTA can provide surveying for construction layout, measurement for payment quantities, and documentation of as-built conditions. Survey results are downloaded to form computer-aided drafting (CAD) drawings allowing the efficient preparation of record drawings and any subsequent evaluations required.
- Construction monitoring can include field testing to document compliance such as field density tests, concrete testing, sampling of materials for laboratory analysis, and documentation of site conditions and work performed on a daily basis or as required.
- Preparation of summary of construction reports, including photographs, videotape documentation, test results, daily construction logs, industrial hygiene monitoring, and other documentation as may be required by the client.
- Preparation of certifications as may be required.



Potesta & Associates, Inc.'s (POTESTA) engineers and geologists have extensive experience related to the geotechnical engineering and geological disciplines. These areas include 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

POTESTA's diverse staff of engineers and geologists is experienced in the many different facets of subsurface explorations. Our usual procedure is to attend an initial meeting with the client to establish requirements and expectations, conduct a preliminary site reconnaissance, and develop a recommended exploration program for your review and approval. Supplemental information from the local area is then obtained from readily available sources to assist the engineer or geologist in making final recommendations.



POTESTA can provide field engineers and geologists who are knowledgeable using the latest technologies to assist in collecting and analyzing samples. Our knowledge of the proper procedures and familiarity with local conditions allows office

and field personnel to adjust the exploration plan if unanticipated field conditions are found.

Our staff is familiar with the following items which can be associated with subsurface exploration:

- Drilling and Rock Coring Techniques (augers, rotary bits, Geoprobe™, etc.)
- Sample Collection Methods (split spoons, shelly tubes, Geoprobe™ sleeves, etc.)
- Classification and Logging of Soil and Rock Samples
- Monitoring Well and Piezometer Installation

SLOPE STABILITY ANALYSIS AND REMEDIAL DESIGN

Slope stability is often a major concern during the design and construction phases of many projects, especially those located in the Appalachian terrain. POTESTA's engineers are familiar with the various methods utilized to predict slope stability and are capable of performing the related analyses. Slope stability is critical for many projects such as 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 can involve circular or sliding block methods, interface friction angles, and estimation of the strength parameters of the soil or rock. Slope stability analyses are performed on one of the most technologically advanced computer programs available and can be modified using site specific data.

POTESTA's engineers can also develop preventive measures during initial project design or recommendations to repair slope failures. Based upon the project circumstances, our engineers will consider various remedial measures such as regrading the site to obtain more suitable conditions, management of groundwater, and design of retaining structures. Our staff is familiar with a wide variety



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of retaining structures, including gabion baskets, soldier beam and lagging walls, sheet piles, reinforced concrete and reinforced earth slopes.



FOUNDATION DESIGN RECOMMENDATIONS

POTESTA's staff has experience with various types of foundations and will recommend the appropriate type of foundation given the anticipated application and site conditions. The different types of foundations with which our staff is familiar are spread and strip footings, steel piles, auger-cast concrete piles, drilled piers, and reinforced mats.

Preliminary foundation design recommendations and cost analyses are commonly performed during the initial phases of a project to assist in determining project feasibility. As project planning progresses, the preliminary alternatives will be revised into a final recommendation which can then be incorporated into the project's construction documents or developed as an independent package for presentation to the contractor.

The final recommendation can include construction drawings, technical specifications, recommendations for allowable bearing capacity, engineer's construction cost estimate, and contractor's bid sheet.



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POTESTA & ASSOCIATES, INC.

Hydrology and Hydraulics Design

Our engineers have extensive experience in the application of hydrology and hydraulic principles to the design of real world systems. These applications include:

- Drainage Structure Sizing
 - Stream Relocations
 - Culverts
 - Channels
- Pond and Dam Design
 - Sediment Ponds and Basins
 - Spillways
 - Design/Rehabilitation
 - Slurry Impoundments
 - Lagoons
 - Dams
- Detention and Retention Systems
 - Ponds
 - Pipes
 - Underground Bladders
- Stormwater Management System Design
- Floodplain Management Permits/Approval
- Floodway Studies
 - FEMA (Federal Emergency Management Agency)
 - NFIP (National Flood Insurance Program)
 - Flood Elevation Surveys/Certifications
 - Flood Routing
- Dam Break Analysis
- Hydrology Surveys
- Stream Gauging
- Rainfall and Flow Data Collection
- Stormwater Drainage System Design
- Pressure Pipe Systems
- Stream Restoration Plans
- Natural Stream Channel Design/Restoration
- Expert Witness Testimony

To complete these types of applications, our engineers, scientists, and surveyors work jointly to develop an effective and economical solution to your situation. Their analyses use widely accepted computer models.



Potesta & Associates, Inc. typically uses the following computer modeling programs:

- HEC-RAS
- HEC-HMS
- TR-20/TR-55
- StormCAD
- CulvertMaster
- FlowMaster
- PondPack
- CORMIX

We have provided these services to a wide variety of public and private sector clients. Our staff not only understands the technical details, but is very experienced in working with the various state, federal, and local regulatory agencies. We know the level of detail they require and can obtain the necessary approvals in a timely manner.



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POTESTA & ASSOCIATES, INC.

Landfills and Solid Waste Management

Public acceptance and available land for new landfills have decreased in recent years. This is evidenced by increased state and federal regulations requiring more public input and detailed technical investigations prior to regulatory approval for a new landfill or solid waste management facility.

Potesta & Associates, Inc. (POTESTA) is knowledgeable of these challenges and stands ready to assist you in overcoming them. We possess the technical expertise and the regulatory liaison ability to cost-effectively and expediently permit your facility.

Our capability to provide you with complete turnkey, investigative, engineering, environmental and regulatory services within one firm prevents important aspects of your project from being overlooked, while producing a thorough and well-organized product.

We have extensive experience with the design and permitting of a wide variety of solid waste management facilities. Members of our staff have experience with facilities in West Virginia and many surrounding states. These include municipal solid waste landfills and transfer stations; industrial waste landfills; hazardous waste landfills and other transfer, disposal and storage (TSD) facilities; coal combustion by-product (e.g., fly ash) landfills; coal refuse disposal areas; and construction demolition and debris landfills. We also have experience with bioremediation, resource recovery, composting, sludge handling and recycling facilities.

Our diverse and experienced staff includes professional civil, geotechnical, environmental, and mining engineers; geologists; hydrogeologists; biologists; economists; CADD designers; surveyors; and field technicians.

Each project is evaluated prior to commencing work to determine the disciplines and qualifications that will be required. A team is then developed from our

staff to meet your goals and needs. Our extensive solid waste management services are detailed below:



INVESTIGATIVE SERVICES

- Comprehensive Siting Studies
- Feasibility and Cost/Benefit Studies
- Geotechnical Explorations
- Hydrogeologic Evaluations
- Water Quality Evaluations
- Soil and Groundwater Contamination Evaluations
- Waste Material/Liner Compatibility Studies
- Remedial Investigations and Feasibility Studies (RI/FS)
- Waste Characterization Studies
- Wetlands Delineation and Mitigation
- Perennial Stream Determination
- Environmental Assessments
- Environmental Monitoring
- Groundwater Monitoring Well Installation, Sampling and Statistical Analyses
- Groundwater Usage Surveys
- Surface Water Monitoring
- Methane Monitoring



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DESIGN AND PERMITTING SERVICES

- Permitting
 - Solid Waste Facilities (Municipal and Industrial)
 - Hazardous Waste Facilities
 - Closures
 - Modifications
 - NPDES
- Regulatory Liaison Assistance
- Facility Design
 - Erosion and Sedimentation Control
 - Surface and Subsurface Drainage
 - Borrow Area Determination
 - Access Roads
 - Liner Systems (Clay and Synthetic)
 - Capping Systems
 - Leachate Management/Treatment
 - Gas Management
 - Closure and Post-Closure
- Remedial Design
- Construction Drawings and Specifications
- QA/QC Manuals

CONSTRUCTION SERVICES

- Health and Safety Plans
- Construction Monitoring
- Hazardous Waste Management
- Implementation of Remediation Plans

OPERATIONAL CONSULTING

- Site Management
- Recycling Programs
- By-Product Utilization/Marketing Studies
- Hazardous Waste Screening Programs
- Health and Safety Programs

POTESTA's diverse staff has wide-ranging experience with solid waste facilities that allows us to efficiently look at alternatives and assist you in selecting a cost-effective solution for your situation.

If you are contemplating construction of a new landfill, expansion of your existing landfill, closure of a cell, have a potential solid waste problem, or are turning your landfill into an integrated solid waste management facility, please allow us the opportunity to meet with you.



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Potesta & Associates, Inc. (POTESTA) offers its clients exceptional expertise and experience when it comes to the permitting process, including all phases of application preparation, negotiations, modifications, compliance and renewal at all levels of government. Our permit services cover air, mining (coal and quarries), water and waste disposal permits.

AIR

Our firm offers complete air permitting and consulting services to assist industry in complying with today's complex air quality regulations. Our staff has experience in identifying, characterizing and permitting air pollution sources for a variety of industries, including:

- Coating Operations
- Petroleum and Petrochemical Operations
- Chemical Manufacturing
- Manufacturing Facilities
- Mining
- Quarries
- Natural Gas Compressor Stations
- Electric Utilities

Our air quality experts have comprehensive knowledge of federal, state and local regulations, as well as experience in complex Title V applications. Our services include identification of potential air pollution sources, development of control strategies, preparation of permit applications, emissions inventories, compliance audits and regulatory liaison.

At both the state and federal levels, we help clients interpret and comply with air regulations, including the New Source Performance Standards (NSPS) and National Emissions Standards for Hazardous Air Pollutants (NESHAPS). We can suggest emissions control strategies to meet both current and anticipated regulations, including BACT, MACT and LAER.

MINING

In recent years, mining permits have become increasingly complex, requiring diverse expertise in mining techniques, engineering, environmental regulations, benthic studies, hydrogeology and hydrology. Our staff has broad experience in providing innovative solutions to various mining problems.



Although the objective of a permit application is to receive agency approval in a timely manner, the client does not benefit if the application does not allow for effective operations. We work with our clients to ensure that your operational needs are met while allowing for essential flexibility. Several members of our staff have mining industry experience, and they understand the requirements vital to an effective operation.

From the beginning of the permit process, POTESTA involves the reviewing agency to allow its concerns to be addressed prior to submittal of the application. Often, this reduces the amount of review comments and revisions which could slow the approval process. Our thorough knowledge of the various phases and requirements of the permitting process, coupled with our technical



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expertise, may facilitate the approval of permits that are operation based and thus more acceptable to you.

Our staff members have the knowledge and expertise to develop modification submittals that are timely and cost effective. We can also expedite permit renewal applications with minimal input from our busy clients.

WATER

The Clean Water Act regulates the discharge of pollutants into surface water through the National Pollutant Discharge Elimination System (NPDES). POTESTA has extensive experience in water permitting projects, including industrial and municipal wastewater and storm water discharges.

Perhaps the most important aspect of the permitting process is determining the approach most beneficial to the client. Our personnel are familiar with both state and federal permitting strategies and can provide capable guidance for appropriate and applicable permits for a project.

Our staff specializes in reviewing facility wastewater flows and recommending methods of minimizing or eliminating these discharges. Our knowledge of alternatives for wastewater management can save clients money and potential liability.

We can help the client decide which type of permit coverage is required for a given project. Also, with our thorough understanding of state and federal wastewater permitting, we have been able to renegotiate numerous draft permits to achieve more acceptable requirements.

POTESTA can prepare a draft NPDES permit for submission to the appropriate agency. This gives the client more input regarding the permit requirements. Our personnel are experienced in permit writing and will work closely with agency staff to ensure that the permit meets both regulatory requirements and the needs of our clients.

WASTE

POTESTA is highly knowledgeable of the challenges faced in receiving a permit to allow proper disposal and/or use of your waste products. Our staff has experience with municipal and industrial solid waste and construction demolition waste and hazardous waste. They have designed landfills, transfer stations, recycling facilities, closure plans and corrective action plans.

We have experience in:

- Bioremediation
- Resource Recovery
- Sludge Handling/Stabilization
- Utilization of Coal Combustion By-products
- Construction Monitoring/Management

Our staff of civil, geotechnical, environmental and mining engineers; geologists; hydrogeologists; biologists and surveyors strives to obtain the maximum flexibility for your facility, whether it is a new operation, the modification of an existing facility, or a permit renewal. Regulatory liaison assistance is a key component in our efforts.



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Potesta & Associates, Inc. has a significant body of work in site design for residential, commercial and industrial clients. Projects range from power plant siting to subdivision design. We have assisted numerous developers and development agencies with the creation of business industrial parks throughout West Virginia, and have been part of design teams for elementary, secondary and collegiate projects primarily associated with new building construction.

Our staff of civil, environmental, and geotechnical engineers; surveyors and environmental scientists can provide the following site planning and design services.

- Surveying – Topo and Boundary
- Base Mapping from Aerial Photography
- Geotechnical Engineering
- Land Planning
- Environmental Issues Evaluation and Mitigation
- Site Grading
- Vehicular and Pedestrian Circulation
- Utility Design
- Site Features
- Stormwater Management Plans

Some clients who have used our site design services include:

- West Virginia Development Office
- Development Authorities: Tucker, Wood, Roane and Hardy Counties
- Bright Enterprises
- Charleston Area Alliance
- University of Charleston
- Timberwolf Development Corporation
- West Virginia Department of Environmental Protection
- West Virginia Division of Natural Resources
- Marshall University
- Architects: Associated Architects; Bastian & Harris, Architects; SEM Partners; ZMM



POTESTA & ASSOCIATES, INC.

Surveying and Mapping

Our surveyors are experienced in many aspects of surveying such as topographic mapping, boundary surveys (rural/farms, city lots, and subdivisions), ALTA surveys, control surveys, flood certificate surveys, well location surveys, construction surveys for layout of work, record drawings, and quantity measurements. Related areas include courthouse research, preparation of right-of-way plans, and verification of property owners. Potesta & Associates, Inc. (POTESTA) has licensed professional surveyors registered in West Virginia, North Carolina, South Carolina, Ohio, Virginia, and Pennsylvania. Their total combined surveying experience comes to well over 50 years.

POTESTA's surveyors use state-of-the-art equipment such as Topcon total stations, Trimble R-8 GNSS, and SMI data collectors with SMI software. Autodesk Civil 3D reduction and design software is used.

POTESTA is equipped with modern surveying instruments, allowing efficient data processing and accurate gathering of field information. Total station instruments equipped with data collectors are utilized for complete field-to-office automation allowing for high levels of productivity in the field. The latest versions of software are then used to process survey data and create drawings or required end products. These products can be supplied to our clients in AutoCAD and/or Microstation format.

Small topographic mapping projects can be completed in-house using the aforementioned process. Larger projects are better suited for mapping using aerial photography.

POTESTA can provide the necessary surveying required for establishing ground control for aerial mapping. As a quality control measure, aerial mapping is field checked for accuracy by surveying cross sections or random points.



Surveys completed by POTESTA are performed by or under the direction of a professional licensed surveyor. Surveys and mapping are completed to the standards outlined by the National Map Standards, as well as other applicable quality standards.

Our staff is experienced in global positioning surveys (GPS). GPS equipment, Trimble R-8 GNSS, and existing base stations are among POTESTA's surveying tools. Based upon the site location and ultimate use of the survey information, a recommendation is made to the client as to whether or not traditional survey or GPS is most applicable to their project.



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POTESTA & ASSOCIATES, INC.

Water and Wastewater Engineering

Our professional staff is dedicated to providing quality engineering services for various types of water treatment and distribution systems, as well as wastewater management, collection and treatment systems. The following is a list of some of the services Potesta & Associates, Inc. is capable of providing:



WATER AND WASTEWATER DESIGN

- Feasibility Studies
- Conceptual Design
- Final Design
- Bidding and Construction
- Construction Monitoring
- Wastewater Audits
- Wastewater Minimization Studies
- Engineer's Cost Estimates
- Small Flows Design (Traditional and Innovative Treatment Systems for Low Volume Flows)
- Sewage Collection and Treatment
- Water Treatment and Distribution
- Industrial Wastewater Treatment
- Wastewater Treatment Plant Design
- Water Treatment Plant Design
- Water and Sewer Line Extensions

- Remediation Systems
- Landfill Leachate Treatment
- Storage Tank Design
- Flow Measurement
- Surveying/GPS and Mapping
- Permitting and Regulatory Liaison
- Combined Sewer Overflow (CSO)
- Management, Sampling and Modeling

STORMWATER MANAGEMENT

- Hydraulic Conveyance Structure Design (Culverts, Channels, Drop Inlets, Etc.)
- Stormwater Retention/Detention Pond Design
- Stormwater Pond Modeling
- Floodplain Identification and Management Strategies
- Hydrologic and Hydraulic Analysis and Evaluations and Modeling
- Construction Monitoring
- Surveying
- Permitting and Regulatory Liaison



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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.

Potesta & Associates, Inc. (POTESTA) offers a full range of water quality study services to meet our clients' needs.

- 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.



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DANA L. BURNS, P.E., P.S.
Vice President



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

Principal-in-Charge or management/design of the following project types:

Site Development: Utility extension, site grading plans, stormwater management, roadway design, and permitting.

- Residential Subdivisions
- Commercial Developments

Permitting:

- NPDES Stormwater Construction Permits
- Landfill (Municipal and Industrial)
- Mining (New Surface/Deep Mines and Modifications)
- Building Permits

Landfills: Design and permitting.

- 17 Municipal Landfills
- 16 Industrial Landfills (Fly Ash, Bottom Ash, Scrubber Sludge)

Oil and Natural Gas: Well pad design, access road layout, landslide remediation design, evaluation of water supply sources and distribution systems, design of water treatment systems, impoundment design, stormwater management plans, permitting, AST inspections, surveying and SPCC Plans for various major gas clients in the Marcellus and Utica formations.

Water Lines and Treatment Plant: New extensions and replacement of existing lines.

- Over 150 Miles
- Upgrade of Existing Water Treatment Plants

Sewer Lines and Sewage Treatment Plants: New extensions and replacement of existing lines.

- Over 50 Miles
- Upgrade of Existing Treatment Plants
- Design of Micro Bio-Reactor Plants

Abandoned Mine Lands Reclamation: Development of reclamation plans for landslides, mine fires, acid mine

drainage, mine subsidence, refuse piles, water supply systems and asbestos abatement.

- Over 100 Projects

Roadways:

- Design/Permitting New Four-Lane Highway – State Route 279
- Relocation of Highways – SR 80 and CR 102/35
- 5 Industrial Access Roads
- 2 School Access Roads
- Upgrade I-64 to Six Lanes

Educational Facilities: Civil/site, geotechnical, stormwater management, surveying and permitting.

- West Virginia University
- Marshall University
- University of Charleston
- Glenville State University

Landslides: Subsurface exploration, evaluation and design of remedial measures.

- Soldier Beam and Lagging Retaining Walls
- Gabion Walls
- Geo-grid Reinforcement with Grade/Drain/Compact In-Place
- Grade/Drain/Compact In-Place

Environmental/Reclamation Assessments for Property Transactions: Ranging in size from tens of acres to over 140,000 acres.



EDUCATION

- M.S. Civil Engineering, 1989
West Virginia University
- B.S. Civil Engineering, 1987
West Virginia University

EMPLOYMENT HISTORY

- 1999-Present Potesta & Associates, Inc.
1989-1999 GAI Consultants
1987-1989 West Virginia University
1985-1987 West Virginia Division of Highways
(summers)

PROFESSIONAL REGISTRATION

Professional Engineer – West Virginia, Virginia

PROFESSIONAL CERTIFICATION

Troxler Moisture-Density Gauge
American Red Cross Standard First Aid and CPR
OSHA 40-Hour Hazardous Waste Worker Training

AREAS OF SPECIALIZATION

Water and wastewater engineering and permitting; preparation of studies, design calculations, drawings, technical specifications, and cost estimates; bidding phase services; and construction phase services, including construction administration.

PROFESSIONAL EXPERIENCE

Water Lines, Water Storage Tanks, and Water Treatment Plants

Project Manager/Project Engineer for more than 70 water supply projects involving design and, permitting of water treatment facilities, water line extensions, water storage tanks, booster stations, chlorine boosters, pressure reducing valve stations, service connections and providing fire flow demands. Tasks include client/contract management; mapping development; hydraulic design; geotechnical investigations; preparation of drawings, specifications, and cost estimates; and preparation of Bureau of Public Health, Public Lands Corporation, United States Army Corps of Engineers, West Virginia Division of Highways, and NPDES permit applications.

- Projects funded by federal, state and private funding including small cities block grant, United States Department of Agriculture, Rural Economic Development Agency, Drinking Water Treatment Revolving Fund (DWTRF), West Virginia Infrastructure and Job Development Council, Congressional Supplemental Appropriations (SAP), Abandoned Mine lands, United States Army Corps of Engineers, Governor's office funding, county commissions and private funding.

West Virginia Bureau for Public Health (Region III and Region VI Planning and Redevelopment Councils) – Project Manager for 5 contracts for source water protection:

- Source water reports for 133 public water systems
- Preparation and presentation of state-wide source water awareness symposiums
- Source water assessment and protection plan reports for 68 public water systems
- Engineering study for contingency planning for public water systems

Town of Ceredo – Project Manager for 20,000 feet of water line replacement, water tanks, telemetry, and booster stations.

Boone County Public Service District – Project Manager for 15+ water supply extension projects in Boone County District from 2004 to present. Included were Preliminary

Engineering Reports (PER), and design bidding and construction phase tasks.

Project Manager for Mill Creek Regional Water Supply Extension Project. Design included 34 miles of waterline, booster stations, tanks, and a water treatment plant. Included design of storm water ditches and culverts, and crossings of a railroad. Approval was obtained from CSX Transportation, WVDOH, PLC, USCOE, and West Virginia Bureau for Public Health. Deliverables included drawings, specifications, and cost estimates.

- West Virginia Division of Environmental Protection
- Logan County Public Service District

West Virginia American Water – Project Manager for construction administration/monitoring for the Poca River Road Waterline Extension Project; Cabell County Waterline Extension Project, Contract No. 7; Spite Road Waterline Extension Project; and Fisher Ridge Waterline Extension Project. Work included construction monitoring, preparation of weekly reports, review of contractor submittals, review of contractor invoices, and preparation of record drawings for 100,000+ linear feet of waterline extensions.

City of Philippi – Project Manager 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 waterline extension, and telemetry systems. Drawings, specifications, and a cost estimate were prepared.

West Virginia American Water – Design of main line pressure reducing valve and vault for the Glenwood Avenue Extension of the Cabell County Waterline Extension Project, Contract No. 6. Work included hydraulic sizing and preparation of drawing.

West Virginia American Water – Design, permitting, bidding and contract documents, and construction phase services for residuals handling facility at largest water treatment plant in West Virginia, including 1,000,000 gallon gravity thickener, sludge pumping stations, two belt filter presses, and a plate settler.

West Virginia Department of Environmental Protection – Project Manager/Project Engineer for design of multiple waterline extension in West Virginia. Included was design of six water storage tanks, five booster stations,

pressure reducing valves, master meters, and telemetry systems. Work included surveying, subsurface explorations, hydraulic design, preparation of drawings, specifications, cost estimates, and permit applications, and assistance with bidding. Representative projects included:

- 10-Mile-South Putnam Water Supply Extension Project in Lincoln and Putnam Counties;
- 5-Mile-Cline Hollow, Younger Drive, Left Hand Fork of Lens Creek, and Emmons-Grippe Water Supply Extension project in Kanawha County;
- 2.5-Mile Godby Branch Water Supply Extension Project in Logan County;
- 20-Mile Cow Creek-Sarah Ann Water Supply Extension project in Logan County;
- 8-Mile Cassity Fork Water Supply Extension project in Randolph County; and
- 10-Mile Olive/Marshville/Catfish Hollow Water Supply Extension project in Harrison County

Tucker County Development Authority – Project Engineer 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 Division of Environmental Protection - Project Engineer for preparation of conceptual design and cost estimate for the Mill Creek – Isom Community (Logan County Public Service District) Water Supply Extension Project.

West Virginia American Water – Evaluation of 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 for the Town of Pineville.

West Virginia Division of Environmental Protection – Project Manager for technical review of the Gauley River Area Waterline Extension proposed by the Gauley River Public Service District and the Heizer/Manilla Creek Waterline Extension proposed by West Virginia American Water. Included hydraulic analysis, evaluation of line size, review of drawings and specifications, and reporting on the evaluation in letter format.

City of Philippi – Relocation of waterlines 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.

Short Line Public Service District/Harrison County Planning Commission – Project Manager for feasibility/rates analysis study for the proposed Reynoldsville, Wallace, and Clarksburg Water Supply Extension Project. Included evaluation of six options at multiple loan/grant funding scenarios.

West Virginia American Water – 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.

West Virginia Division of Environmental Protection – Project Manager/Project Engineer for numerous conceptual waterline designs for 20 unserved areas (between 1991 and 2007) in coal mining areas in West Virginia. Included hydraulic evaluation, booster station, and water storage tanks sizing, waterline sizing, and estimation of construction cost. Work completed in Barbour, Boone, Brooke, Fayette, Harrison, Lincoln, Logan, McDowell, Putnam, and Randolph Counties.

West Virginia Division of Environmental Protection – Project Manager for design of booster station upgrade for the Clinton Water Association's Ringgold pump station, including preparation of drawings, specifications, and cost estimate.

West Virginia Department of Energy – Groundwater contamination study for drinking water wells near Cassity, Randolph County, West Virginia, including water supply inventory of over 50 residents, collecting and analyzing well and surface water samples, and researching records to determine the percentage of homes whose water supply had been degraded by acid mine drainage.

Public Utility General – Project Manager for construction administration including preconstruction meetings, shop drawing review, coordination with construction technician team(s), contractor pay application review, public record drawings, and public interface for 15+ water and wastewater utility and/or infrastructure projects including utility line extension and upgrades, construction and modifications of treatment facilities. Clients include municipalities, public service districts, industry, county development authorities and private utilities.

Construction included water and sewer lines, booster stations, tanks, lift stations, vacuum sewer stations, treatment basins, dewatering equipment, clarifiers, chemical fee systems, buildings associated with treatment systems, outfall modifications, and diffusers.

Mingo Logan Coal Company – Project Manager for design, building, and permitting services for potable water system at the new Mountain Laurel Mine in Logan County, West Virginia. Project includes booster station, water storage tank, and 10,000 feet of HDPE pipe.

Storage Tanks

Marshall University – Project Engineer for closure, sampling, and remediation activities associated with an UST closure at a new football stadium.

Project Engineer for sampling associated with an underground storage tank removal at a site in Harrison County, West Virginia.

West Virginia Division of Environmental Protection – Project Engineer for sampling associated with two abandoned underground storage tanks at a former mine site in Harrison County, West Virginia.

Goldman Associates – Project Engineer for closure, sampling, and remediation activities associated with an UST closure at a commercial establishment.

Contamination assessment for a national coal company for leaking UST at a coal facility in southern West Virginia, including multiple aquifer well installations, preparation of corrective action plan, and subsequent installation of air sparging system and oil/water separator.

West Virginia Department of Natural Resources – Contamination assessment for leaking underground storage tanks at the Rite Way Packette site in Jesse, West Virginia.

Project Engineer for excavation and off-site disposal of contaminated soil associated with a UST gasoline leak at a coal preparation facility in Kentucky.

Plasma Processing Corporation – Preparation of an underground injection control (UIC) permit application for a secondary aluminum facility.

DANIEL J. MILLER, PH.D.

Senior Scientist



EDUCATION

- Ph.D. Resource Management, 2008
West Virginia University
- M.A. Aquaculture, 1987
Auburn University
- B.S. Zoology/Fisheries, 1981
University of Wisconsin

EMPLOYMENT HISTORY

- 2011-Present Potesta & Associates, Inc.
- 1999-2011 West Virginia University
- 1994-Present Miller Consulting Associates, Inc.
- 1987-1993 Shrimp Farm Manager, Ecuador
- 1986 Researcher, US Virgin Islands
- 1982 Israeli Oceanographic & Limnological
Research Company
- 1978-1981 Great Lakes Research Facility

LANGUAGES (FLUENT)

English, Spanish

PROFESSIONAL AFFILIATIONS

- Northeast Regional Aquaculture Center: Chair of the
Technical Advisory Committee
- Rotary International

ABSTRACTS, PRESENTATIONS, AND MANUSCRIPTS

Miller, D. and D'Souza, G. (2009) Plastic Tanks Compare Well to Concrete Tanks in Trout Trial. *Global Aquaculture Advocate*, Vol. 12, Issue 1: 53-54

Miller, D., and D'Souza, G. (2008) Economic Analysis of an Alternative Raceway System. Northeast Regional Aquaculture Center Website: <http://nrac.umd.edu/ProjectReports.cfm> Page 17

Miller, D. (2008) Using Aquaculture as a Post-Mining Land Use in West Virginia. *Journal of International Mine Water Association*. 27(2): 122-126

Borisova, T., G. D'Souza, D. Miller, & W. Labys. (2007) Remaining Competitive at the Regional level: Developing a Local Aquaculture Industry. *J. Aquaculture Econ & Mgmt* 11: 73-98.

2012: Sino-American Technology and Engineering Conference, Anhui Province, China

2010: Workshop Presenter on Recirculating Aquaculture Systems, Stellenbosch, South Africa

2009: Invited Speaker: China University of Mining and Technology - Post-mining Land Uses, Beijing Campus

2008: American Fisheries Society; World Aquaculture Society; U.S. Trout Farmers Association

2007: VA/WV Water Research Symposium; WV Aquaculture Forum

2006: World Aquaculture Society

PATENTS AND GRANTS

Patent awarded to WVU for Dissertation Research (D. Miller-Inventor) 2010

Provisional Patent (Inventor) Granted to WVU Followed by Non-Provisional Patent Application in 2008

Grants: U.S.D.A.: \$74,000 - Mine Site Aquaculture Development

U.S. Department of Commerce: Water Treatment Demonstration Project at Mine Discharge Site

McDowell County Economic Development Authority:
Mine Site Demonstration Project

Eastern Associated – Tygart River Mine: Recreational
Use of the Guyses Run Site\

Eastern Associated – Robin Hood #9: Flow Study and
Fish Demonstration Project

WV Division of Tourism: Fee Fishing Brochure
Development and Distribution (2003, 2004, 2006)

AREAS OF SPECIALIZATION

Business and project development; water resource management and evaluation; recirculating Aquaculture System (RAS) design, training, and management; aquatic biosecurity procedures; pond management and design; and project management.

Environmental services, including discharge monitoring reports; water quality analysis; stream bioassessment surveys and reports; stream characterization; system design and management; groundwater inventory; and NPDES permit compliance support for industry. Aquaponic research producing tilapia, tomatoes, and lettuce.

Development of alternative post-mining land uses utilizing aquaculture. Identification of fish production sites.

PROFESSIONAL EXPERIENCE

Mining

Development of alternative post-mining land uses utilizing aquaculture.

Conducted a ground water inventory for a 6,000 acre underground mine in southern PA.

Eastern Associated Coal Corp – Envisioned and supervised the transformation and development of acid mine treatment plant into Marion County's Guyses Run Fishing Park.

Design and development of a Boone County trout production facility, saving the mining company over \$450,000 in reclamation costs.

Peoples Republic of China: Sino-American Technology and Engineering Conference (SATEC) – Invited expert to advise the Central Government on post-mining land uses in Anhui Province. Speaker in Anhui Province presenting research on mine reclamation.

Biological Studies and Sampling

Identification of fish production sites.

Conducted monitoring and sampling for a 3,500 gpm reverse osmosis water treatment plant during a 72-hour quality performance test.

Set-up and oversight of recirculating fish/hydroponic system for class demonstrations.

US Agency for International Development – Consultant in South Africa for evaluating recirculating aquaculture potential in the Cape Region. Presented research and conducted training at recirculating aquaculture conference at Stellenbosch University.

Atlantic Sapphire – Researched 12 sites in three states for site selection for a recirculating Atlantic salmon production farm.

Red Lake Tribal Hatchery – Planning, design, set-up, and training of personnel for a yellow perch recirculating grow-out facility at the Red Lake Tribal Hatchery in Red Lake, Minnesota. Responsibilities included assembly, training of personnel and stocking the system with yellow perch.

As Shrimp Farm Manager at Deli Shrimp Company in Guayaquil, Ecuador:

- Managed a group of companies which employed 200 people that exported shrimp and redbfish to the U.S. and Europe.
- Directed operations for 1,500 acres of marine shrimp pond production and 500 cubic meters of larval production.
- Approved expenses and directed research studies on shrimp and redbfish at laboratory and farm levels.
- Research was continuous yet secondary to production goals.
- Disease diagnosis was implemented and used as an integral part of management as the quality of the water in the Guayas estuary deteriorated.
- Programmed stocking, transfer, harvest, and exportation of shrimp.

- Exceeded 2 million pounds of production in final year.

ICASUR S.A., *Aquacultura Fonseca S.A.*, and CODISUR S.A. Annual Visits – Providing technical assistance to three marine shrimp farms and a tilapia farm in Honduras.

Great Lakes Water Institute (University of WI) – Design, set-up and training of personnel for a 10,000-gallon recirculating research unit for the University of Wisconsin-Milwaukee.

University of Wisconsin – Provided a report on hatchery design and expansion at House of Correction in Franklin, Wisconsin. Included hydrological survey, water reuse options, and pond and tank design. Biological survey of existing pond with recommendations for improving water quality. The hatchery was constructed with minor changes from the initial report.

High Tech Fisheries:

- Directed the management and marketing of a 95 percent recirculating freshwater ornamental fish hatchery.
- Spawning research on the Neon Tetra (*Paracheirodo innesi*).
- Determined the reason for poor spawning results, allowing for domestic production to commence.

As Mariculture Laboratory Assistant for Israeli Oceanographic and Limnological Research Co. in Elat, Israel:

- Assisted in the construction of sea rafts, cages, and larval tanks.
- Bioassayed sea bream and mullet gonads for hormone/reproduction experiments.
- Feeding and harvesting of sea bream in sea cages and mullet in experimental ponds.
- Conducted a biological survey of an underwater reef area.

Research

Instructor of undergraduate and graduate level courses at West Virginia University.

Development of distance education course work.

Supervised research and trained West Virginia University students at the Dogwood Lake Aquaculture Research facility.

Conducting demonstration projects and research to improve sustainability for fish farmers and disseminating the information to producers.

GIS

Creating and managing GIS databases and maps for presenting and analyzing information.



EDUCATION

B.S. Wildlife & Fisheries Resources, 2012
West Virginia University

EMPLOYMENT HISTORY

2013-Present Potesta & Associates, Inc.
2013 West Virginia Bunrootis, LLC.
2012 West Virginia Department of
Environmental Protection
2009 - 2011 West Virginia University

TRAINING/RELEVANT COURSE WORK

May 2015 - River Assessment & Monitoring (Rosgen III)
National Conservation Training Center

April 2015 - River Morphology & Applications (Rosgen II)
National Conservation Training Center

April 2015 - Applied Fluvial Geomorphology (Rosgen I)
National Conservation Training Center

March 2015 & April 2014 - Eastern Kentucky
Macroinvertebrate Collection Training

November 2014 - Swamp School
Wetland Delineation & Regional Supplement Training

November 2013 - Fish Identification
National Conservation Training Center

AREAS OF SPECIALIZATION

Watershed approach to stream and wetland investigations/delineations throughout West Virginia. Utilizing protocols outlined in the WVDEP Watershed Assessment Branch (WAB), KYDOW Standard Operation Procedures (SOP) and USEPA Rapid Bioassessment Protocols (RBP) to complete benthic macroinvertebrate and freshwater fish surveys in West Virginia and Kentucky. Scientific collection permit holder in both WV and KY to date.

PROFESSIONAL EXPERIENCE

Biological Studies and Sampling

Collection of benthic macroinvertebrate utilizing Kicknet and D-Net methodologies in both West Virginia and Kentucky. Samples were collected to monitor stream health, assess narrative monitoring locations for NPDES permit renewals, classify stream type, assess post construction impacts, determine benthic community composition in lentic systems, used WVSCI along with RBP and HGM to establish proper stream restoration goals, and monitored benthic community composition (EPT taxa, Chironomidae, etc.) dominance to determine restoration success.

Performed fish surveys utilizing seine nets, and backpack electro-shocker (Smith Root LR-24) throughout West Virginia. Data was collected to determine population estimates (depletion and mark recapture methodologies), species composition/diversity, measure specimen fat content/ health (Bioelectrical Impedance Analysis), diet composition (Gastric Lavage), and/or selenium tissue analysis (modified protocol from both West Virginia and Kentucky). Identified to species level classification, and performed field length (Total, Fork, and Standard) and weight measurements.

Monitor growth and development of freshwater fishes in Aquaculture raceway system. Monitored feed responses under different temperature conditions, completed quarterly population estimates and yield calculations, harvested and processed fish to be sold at the Farmer's market and to be distributed to local restaurants in the Morgantown, West Virginia area.

Stream/Wetland Delineation, Permitting, and Mitigation

Conducted wetland and stream delineations for the use of 404 permitting utilizing protocols outlined by the USACE, NCDOW, WVDEP, and USEPA. Delineations included but are not limited to determining stream status (Ephemeral, Intermittent, and Perennial), classification of wetland/upland plants, completing forensic soil classification, determining stream and wetland boundaries, and assessing post construction impacts for clean water act violations to determine the appropriate mitigation ratios.

Proficient understanding of stream sampling techniques including longitudinal profiles, cross sections, bank erosion hazard index (BEHI), near bank stress (NBS), sieve analysis, pebble counts and protrusion measurements, and completion of Pfankuch documentation to determine stream classification and stability.

Proficient understanding of stream channel design processes including but not limited to channel configuration, stream geometry, bankfull and floodplain connectivity, sediment supply and transport, riparian planting plans, and credit generation for stream mitigation purposes.

Surface Water Sampling

Experience collecting surface and stormwater samples for chemical analysis, collecting field water chemistry, measuring discharge and calculating flow. Proficient understanding utilizing YSI 556 and Pro-Plus Multi-Meter, Quanta Hydrolab, Oakton pH/Con 10 Series, Oakton pH 300 series, LaMotte 2020 Turbidimeter, Marsh-McBirney flow meter, Hach depth-velocity meter, and Hach Kits.

GIS

Experience using ArcGIS 10.3. Utilization of national databases to complete baseline mapping, land use land cover analysis, digital elevation modeling, historic soil referencing, and implementing of Trimble GPS data for field mapping.

NPDES Industrial/Municipal Permitting

Implemented temperature and level logger to establish baseline conditions and monitored variations through all seasons for NPDES permitting.

ESAs (Phase I and II)

Experience with underground site sampling using Geoprobe. Assessments included classifying soil borings, and collecting soil and ground water samples for Laboratory analysis.

Environmental Compliance

Utilized the Casella CEL 63-X noise recorder to establish baseline conditions and establish noise limits during construction.

Regulatory and Litigation Support

Determining of client's adherence to WVDEP regulation and USEPA consent decree. Field inspected water discharge outlets, stockpiles, belts, and transfer stations to determine if currently matched permitted design.

EDUCATION

- M.S. Civil/Environmental Engineering, 2012
Carnegie Mellon University
- B.S. Civil Engineering, 2010
West Virginia University

EMPLOYMENT HISTORY

- 2013-Present Potesta & Associates, Inc.
2010-2011 WVU / U.S. DOE NETL

PROFESSIONAL REGISTRATIONS

Professional Engineer – West Virginia, Maryland, and Pennsylvania

PROFESSIONAL CERTIFICATIONS

Troxler Moisture – Density Gauge

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers

HONORS

Summa Cum Laude (M.S.)

Magna Cum Laude (B.S.)

AREAS OF SPECIALIZATION

Biological wastewater treatment design; water and wastewater treatment systems; drinking water system improvements; source water protection plans; geotechnical evaluations; and permitting.

PROFESSIONAL EXPERIENCE

Source Water Protection Plans

Region VI Planning & Development Council – Preparation of source water protection plans (SWPPs) for eight (8) drinking water utilities in Northern WV. Project included development of GIS-based mapping of the Source Water Protection Area (SWPA) and Potential Sources of Significant Contamination (PSSC); forming a

source water protection team comprised of local stakeholders; prioritizing PSSCs and developing managements strategies; leading source water protection meetings; preparation of final SWPP; presenting the SWPP at a public forum.

Sewer Lines and WWTPs

Performed plant troubleshooting, permitting, and system upgrade design for operational municipal wastewater plant to increase capacity from 1.8 MGD to 2.5 MGD peak flow.

Secondary clarifier sizing & design, RAS pump station improvements, Orbal Aeration unit improvements, headworks modification & improvements, UV disinfection unit sizing & design, pump sizing, hydro-pneumatic tank sizing & piping design, flow metering/monitoring system design, pipe & valve sizing/layout, incorporation of variable frequency drive pumps (VFD) into existing plant pump system, hydraulic analysis, and geotechnical analysis & recommendations for concrete clarifier basin

Responsible for permitting, hydraulic design & analysis, and geotechnical exploration & recommendations for multiple installations of wastewater effluent diffusers at chemical manufacturing facilities.

Storage Tanks

Columbia Gas Transmission, Swanson Industries, Morgantown Energy Associates, LP Minerals, LLC – Followed Senate Bills 373 and 423 along with corresponding Legislative Rules associated with the Aboveground Storage Tank (AST) Act.

- Completed over 100 AST Registrations and Inspections.
- Comprehensive electronic documentation comprising of completed inspection sheets, photographs, detailed deficiencies, recommendations and schedule for abatement and a certification page sealed by a Professional Engineer.
- Created site specific Spill Prevention Response Plans various facilities.
- Assisted clients prepare site specific reporting and recordkeeping documentation.

NPDES Industrial/Municipal Permitting

National Pollutant Discharge Elimination System (NPDES) mixing and modeling report, mussel survey, safety and health plan, permitting and approval submittals to WVDEP, USACE, WVSHPO, PLC, USDA, and CSX transportation.

Modifications to NPDES permit, composition and submittal of WVDEP Facility Plan, funding application & modifications through WV Clean Water State Revolving Fund (WVSRF), plant inventory & capacity calculations, and service district demographic analysis & flow projection.

Diffuser sizing & design, diffuser backwater & flood stage analysis, incorporation of new diffuser effluent line into existing continuous flow effluent line, connection vault design, conversion of existing effluent line into overflow line, design of degassing manholes, drop manholes, design of high density polyethylene (HDPE) pipe layout and valving, and in-river concrete anchor and diffuser design.

Geotechnical

CA Ventures, WVU Housing – Completion of eight (8) test borings, associated laboratory testing, and geotechnical recommendations for a combined shallow and deep foundation system for a proposed 13-story student housing project in downtown Morgantown, West Virginia.

EQT, Ohio River for Horizontal Directional Drilling (HDD) – Completion of 35 test borings, associated laboratory testing, and geotechnical recommendations at three sites in Ohio and West Virginia relating to a proposed pipeline and transmission pad projects.

American Campus Communities, Sunnyside Commons – Completion of 23 test borings, associated laboratory testing, geotechnical recommendations, civil site design, surveying, and construction phase geotechnical consulting/testing for a 5.4 Acre high-density student housing project in downtown Morgantown, West Virginia.

MSES Architects/Marion County Board of Education, Marion County Technical Center – Completion of 11 test borings (indoor), associated laboratory testing, geotechnical recommendations, and construction

monitoring/testing for a pyrite remediation project at the Technical Center due to heave damage to load bearing walls, footers, and slab floors.

Glenmark Holding, LLC, Greenbag Road Development – Completion of four (4) borings, laboratory testing, geotechnical recommendations, civil site design, surveying, stakeout, and construction consulting on a commercial development in Morgantown, West Virginia.

EQT, Gemini Compressor Station and Interconnect – Completion of 11 borings, laboratory testing, wetland delineation, mine mapping/research, and preliminary geotechnical recommendations for a proposed compressor station and interconnect in Harrison County, West Virginia.

MEPCO, Marshall Portal – Completion of nine (9) borings and installation of one inclinometer, associated laboratory testing, geotechnical recommendations, and slope stability monitoring/analysis at a deep mine shaft site to assist with stabilization of mine portal pad and access road near Mount Morris, Pennsylvania.

EQT, Harrison County HDD – Completion of four (4) borings, associated laboratory testing, and geotechnical recommendations for a proposed horizontal directional drill project underneath the West Fork River in Harrison County, West Virginia.

Town of Granville – Completion of five (5) borings, laboratory testing, geotechnical recommendations, civil site design, contract document preparation, and construction monitoring/testing for the Bowser Street Landslide Repair in Granville, West Virginia.

MEPCO, 4West AWT Plant Geotechnical – Completion of five (5) borings, laboratory testing, geotechnical recommendations, and foundation analysis for a proposed reverse osmosis treatment plant at the 4West Deep Mine near Mount Morris, Pennsylvania.

MEPCO, Renner Portal Geotechnical – Completion of eight (8) borings, laboratory testing, and geotechnical recommendations for a proposed mine portal and access road near Mount Morris, Pennsylvania.



EDUCATION

B.S. Civil Engineering, 1991
Pennsylvania State University

EMPLOYMENT HISTORY

2004- Present Potesta & Associates, Inc.
1993-2004 Advanced Asphalt Technologies, L.P.
1991-1993 Pennsylvania Transportation Institute
Pennsylvania State University
1990 Pennsylvania Department of
Transportation

PROFESSIONAL REGISTRATION

Professional Engineer – West Virginia
Professional Engineer – Virginia

ABSTRACTS, PRESENTATIONS, AND MANUSCRIPTS

Anderson, D.A., Antle, C.E., Knechtel, K., Lui, Y., Marasteanu, M., "Factors Affecting the Precision of the Dynamic Shear Rheometer and Bending Beam Rheometer," Mechanical Tests for Bituminous Materials, Di Benedetto & Francken (eds) 1997

Knechtel, K., Aurilio, V., Harrigan, E., Chollar, B., "Rheological Analysis of Recovered Binders from the FHWA ALF Rutting Experiment," Petersen Asphalt Research Conference, Thirty-Fourth Annual Meeting.

AREAS OF SPECIALIZATION

Project leadership with an emphasis on design, water supply, sewer, permitting of civil and environmental projects. Experience in land development, storm water management, and regulatory issues with community, commercial, and residential projects.

PROFESSIONAL EXPERIENCE

Sewer Lines and WWTPs

Project Manager providing engineering design and permitting services with a local onsite soils evaluator, (OSE) to design several AOSS for residential dwellings in Loudoun County and Clarke County, Virginia (Purcellville, Leesburg, Bluemont, and Berryville). Projects included new development and repair systems of failed conventional systems. Design of repaired AOSS consisted of:

- Sizing trash and pump tanks.
- Incorporating 450-600 gpd multi-flow treatment systems.
- Design of force main and return line to drip irrigation fields.
- Design of shallow-placed, forward flushing drip dispersal fields which consisted of alternating two to four zones.
- Acquired the proper permits through the Loudoun County and Clarke County offices of the Virginia Department of Health (VDH) for these systems and provided construction oversight for construction of system.
- Worked with OSE to develop completion statements with as-built drawings and operation and maintenance manual for final permitting.

Carmeuse Lime & Stone – Project Manager providing permitting, design, and construction oversight services for a maximum 900 gpd AOSS for a new administration and lime kiln equipment/operations buildings at Carmeuse's Winchester Quarry in Clearbrook, Frederick County, Virginia.

- Teamed with an OSE to locate drain field and determined that a drip irrigation system was required for this onsite sewage system.
- Designed the waste water treatment system to include; 2,000-gallon primary tank, a 1,500-gallon

recirculation tank, three Advantex AX-20 treatment units, and a 1,500-gallon drain field dosing tank.

- Designed 1,475-foot force main and return line to drain field.
- Designed an alternating three-zone, shallow-placed, forward flushing drip dispersal field.
- Worked with the OSE in acquiring the proper permits for this design, and then developed bid and specification documents, assisted in pre-bid and pre-construction meetings and provided construction oversight for construction of this system.
- Developed the operation and maintenance manual and as-built drawings for final permitting through the Frederick County office of the Virginia Department of Health (VDH) Frederick County Department of Health.

Water Lines, Water Storage Tanks, and Water Treatment Plants

Carmeuse Lime & Stone – Project Manager providing permitting, design, and construction oversight services design, construction oversight and permitting waterworks system for a new administration and lime kiln equipment/operations buildings at Carmeuse’s Winchester Quarry in Clearbrook, Frederick County, Virginia.

- Acquired permitting and developed bid and specification documents for development of a 400-foot deep Class II-B groundwater well.
- Designed a water treatment system that included three sediment filters, one iron/manganese treatment unit with backwash capability, two 1,500 gpd reverse osmosis units with anti-sealant system, calcite filtration to reintroduce hardness and two 750-gallon storage tanks.
- Design was submitted to the Virginia Department of Health and a waterworks construction permit was acquired.
- Provided daily construction oversight of the waterworks construction, acquired certified operator to operate and maintain (daily) the system and provided assistance in waterworks permitting.

Stormwater

Developed Stormwater Pollution Prevention Plans (SWPPP) and Groundwater Pollution Prevention Plans (GPP) for numerous construction sites in West Virginia for WVDEP and National Pollution Discharge Elimination System (NPDES) permitting. Also developed Stormwater Pollution Prevention Plans (SWPPP) for various industrial sites in Virginia.

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

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. 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

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

Geotechnical engineer for various bridge and highway projects.

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.

Responsible for development of geotechnical and geological recommendations as well as development of stabilization designs for a number of 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.

WVDEP Abandoned Mine Lands and Reclamation – Subsurface investigation to determine the extent of a landslide for Courtright Highwall AML Project in Bridgeport, West Virginia. Field surveying was completed to establish topographic mapping and control, and subsequent design of landslide repair alternatives. Design ultimately selected included a reinforced slope using stabilizing grid. Landslide contained 400,000 cubic yards of material.

WVDEP Abandoned Mine Lands and Reclamation – Subsurface investigation, surveying, and design for reclamation of a large coal refuse pile and two mine

entries for Vivian Refuse Pile AML Project in Vivian, West Virginia. Plans, specifications, cost estimate, coal refuse reprocessing evaluation, and supporting documents for regrading over 150,000 cubic yards of refuse, surface water control, mine seals, and riprap toe protection were completed.

Evaluation of numerous failed soil fill slopes to determine probable failure mechanisms in order to develop remediation alternatives. Responsible for the development of regrading plans which included subsurface drains, benching schemes, and toe buttresses.

Completion of several environmental assessments for coal properties. Work included emphasis on both environmental and reclamation liabilities associated with pre and post SMCRA sites on the properties.

WVDEP Closure Assistance Program – Design of final landfill closure for abandoned solid waste facility. Design included diversion and collection channels, cap design, leachate collection system, and 150,000 gallon leachate storage tank in Montgomery, West Virginia.

Design, management, and project oversight during construction for the closure of a 7-acre biological sludge pond in Nitro, West Virginia. Preliminary design studies included the completion of batch tests to evaluate stabilization materials. Also handled the development and submittal of several permits associated with the project including erosion and sediment control plan, Army Corps of Engineers permit, and a wetlands investigation and nationwide 404 permit.

Development of closure design for a 14-acre inactive waste water treatment pond in Nitro, West Virginia. Responsibilities included evaluation of sludge stabilization technologies, types of reagent and mixing ratios to achieve the required in-place strengths. Conducted contractor interviews with the owner, as well as providing assistance to the owner during preparation of the construction contract. This project was also expanded to provide stabilization of a 1.5-acre digester basin adjacent to 14-acre pond. The original contract was extended to cover stabilization of this pond. Stabilization efforts included submittal of an Army Corps of Engineers' nationwide permit to stabilize the bank of the Kanawha River and application of a West Virginia NPDES General Stormwater Construction Permit.

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.

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.

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.

D. MARK KISER, P.E., L.R.S.

Chief Engineer, Licensed Remediation Specialist



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, South Carolina
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/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

Project engineer for development of Suncrest 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.

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.

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 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 the West Virginia Division of Environmental Protection, Office of Abandoned Mine Lands and Reclamation.

- 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.

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



EDUCATION

M.S. Engineering Management, 2006
Marshall University

B.S. Civil Engineering, 1988
University of Florida

Administration – United States Air Force Technical School

EMPLOYMENT HISTORY

2007-Present	Potesta & Associates, Inc.
2000-2007	WV Dept. of Health and Human Resources
1997-2000	Summit Engineering, Inc.
1997	Pyramid Consultants, Inc.
1995-1997	Haworth, Meyer and Boleyn, Inc.
1989-1995	GAI Consultants, Inc.
1979-1983	United States Air Force

PROFESSIONAL REGISTRATION

Professional Engineer – West Virginia

AREAS OF SPECIALIZATION

Drinking water and wastewater including funding coordination; hydrologic and hydraulic analysis including dam break; chemical and municipal solid waste disposal; surface coal mining; limestone quarry mining; abandoned mine lands reclamation; and site development.

PROFESSIONAL EXPERIENCE

Sewer Lines and WWTPs

Huntington Sanitary Board – Client Manager for oversight of designed construction of the following:

- Design, bidding, and construction management of combined sewer replacement project on 13th Street West and 19th Street, which included a combination of full trench replacement and trench-less technology pipe lining (cured-in-place pipe) for approximately 3,000 feet of 24 through 36-inch pipe.
- Redesign, bidding, and construction management of conversion of four ejector stations to submersible pump stations to include altering design from a cast-in-place concrete cap to allow building to remain. Design included new hatches and hoisting, ventilation equipment, heating, bypass features, and oversight of electrical design.
- 13th Street Pump Station – design, bidding, and construction management of installation of 30-inch bypass on 48-inch prestressed concrete cylinder pipe and replacement of 2-24" failing 90 degree discharge pipe bends, including air release valves. Project included installations of water stops in existing 48" pipe and coordination with the WVDEP to discharge into river during construction work.
- Assistance regarding the CSO long-term control plan's implementation schedule and lead participation development of asset management plan.
- Preparation of wastewater treatment plant incinerator failure analysis and replacement analysis.
- Environmental remediation of fly ash lagoon through West Virginia Voluntary Remediation Program and design of bioretention basin at WWTP for treatment of stormwater fitting "green" project criteria.
- Management of study and preparation of Preliminary Engineer Report for replacement of Huntington's primary 33 MGD pump station facility (13th Street).
- Evaluation of the mixing zone for the Wastewater Treatment Plant discharge.
- Replacement of 54" of PCCP force main crossing flood level at WWTP entrance.
- Design, bidding, and construction management of replacement of 54-inch CMP effluent line with 48-inch HDPE line and diffuser at WWTP, including installation of connection vault, degassing manhole, two manholes, and overflow channel and

rehabilitation of existing pipe at entrance to effluent line with ecocast lining.

- Design, bidding, and construction management of installation of new septage receiving and vacuum truck discharge station to include truck operator control station to allow flow measurement and billing, new access road and pump station to tie-into force main.

Town of Handley – Design of complete rehabilitation of three existing pump stations to include raising elevation of one station above flood plain level.

University of Charleston – Design engineer on rehabilitation of sanitary and stormwater system to include the design and construction of precise bore and jack of two sections main truck line (approximately 500 feet) under the existing main entrance area so that existing old trees, entrance walkways, and vegetation were not disturbed. Due to flat slope lines and requirement of line to meet existing manhole elevations, lines were accurate to a 1/100th foot.

Developed 201 Facilities Plan for \$28 million wastewater collection and treatment project in Logan County, West Virginia.

Summit at Cheat Lake Residential Development – Design of package plant and gravity inflow sewer lines, 2,500 linear feet of 1.5-inch and 2-inch force main line from three pump stations for 120-acre, 95-lot residential development at Cheat Lake in Monongalia County, West Virginia.

American Electric Power Company:

- London Locks, West Virginia and Clayton Lake, Virginia – Peat Sanitary Sewer Treatment System, including sediment basin, peat treatment, and UV system

Hydrology and Hydraulics

City of Charleston – Stormwater analysis on existing and future developments of residential watershed in Charleston, West Virginia. Preliminary design of channels, culverts, and flood detention structures. Preparation of design report in which various alternative hydraulic structures were compared with respect to cost and constructability.

Preliminary design of a stormwater management system and grading plans for a regional mall in Western Pennsylvania. Evaluation of several drainage alternatives and pond designs for a site containing numerous wetlands.

Analysis and design of stormwater management for six separate sites, two of them shopping centers, including storm channels, surface and subsurface stormwater detention facilities, culverts, and pipe sizing design.

Design, installation, monitoring and analysis of data from a stream gage for a water supply study of a power generating plant owned by an independent power company.

Pennsylvania Department of Transportation – Drainage structure designs for various projects to include hydrologic analysis, storm channel and detention pond design.

Private Dam Owners – Hydrologic and hydraulic analysis on various private dams within West Virginia to determine impacts from multiple storm events on dam principal and emergency spillways, overtopping and impacts to downstream structures, including dam break conditions using HEC-HMS and HEC-RAS computer programs.



EDUCATION

B.S. Civil Engineering, 1982
West Virginia University

EMPLOYMENT HISTORY

2011-Present Potesta & Associates, Inc.
1991-2011 West Virginia American Water
1988-1991 Dunn Engineers, Inc.
1982-1988 Kelley, Gidley, Blair & Wolfe, Inc.

PROFESSIONAL REGISTRATIONS

Professional Engineer – West Virginia
Professional Surveyor – West Virginia

PROFESSIONAL AFFILIATIONS

American Water Works Association
National Society of Professional Engineers

AREAS OF SPECIALIZATION

Water including design of water mains, water storage tanks, booster stations, pressure reducing stations, advanced metering infrastructure – (AMI) and Automated Meter Reading – (AMR) systems. Extensive knowledge in water distribution systems operation and maintenance.

PROFESSIONAL EXPERIENCE

Water Lines, Water Storage Tanks, and Water Treatment Plants

Confidential Coal Company – Onsite water management, reuse and disposal project; services included construction of 8,500 gallon per minute combination high pressure pump/pressure reducing station, controlling a 14 mile 26” HDPE pipe, an 8,500 gallon per minute pressure sustaining valve station, energy dissipation structure, river outfall and SCADA system.

Responsible for engineering at West Virginia American Water (WVAW):

- Supervising an engineering staff of eight, working in conjunction with other departments at WVAW.
- Developing and prioritizing multiple capital projects while developing and managing the multi-million capital budget for West Virginia. Budgeting includes developing and creating large investment projects, multiple public private partnerships and several acquisitions.
- Involved in multiple operational issues/projects including non-revenue water reduction, comprehensive planning studies including interconnection studies to combine operations to increase efficiencies.
- Worked on the automation of Bluestone Water plant which is intended to be the first one shift automated and unattended surface water treatment plant in West Virginia.
- Design of multiple pressure reducing stations and booster stations.
- Overseeing a \$1.5+ million per year tank painting program.
- Managed tank painting program, which included evaluating, prioritizing, draining and refilling tanks, tank inspections, preparation of contract documents, bidding, bid evaluations, contract awards, scheduling, taking tanks out of service while maintaining uninterrupted service to customers.
- Responsible for over 300 tanks in the largest water system in West Virginia.

Responsible for the Fayette AMI project, a \$4.3 million dollar meter replacement/automation project to automate almost 12,000 water meters in Fayette County, West Virginia. This project was part of an EPA Green Project and the project was successfully publically bid using a

performance specification using stimulus money. Methods were developed to economically work through terrain issues as it related to radio signals to develop a successful project. The project successfully incorporated acoustic listening devices to monitor the distribution system at night to reduce non-revenue water in the Fayette water system.

City of Glenville – Project Manager for the study, design, bidding, and construction phase services for project involving upgrades and construction monitoring to their existing potable treatment and water distribution system.

Town of Mills Creek – Project Manager for the design, permitting, preparation of construction plans, specs, and bidding documents, and construction administration/observation services for the construction of two backwash ponds behind the existing water treatment plant.

Responsible for the project management to complete the WVAW building complex at 1600 Pennsylvania Avenue, Charleston, West Virginia. Provided oversight of the building complex for all operation and maintenance items, as well as liaison with the leasees.

Project Manager of the Kanawha Valley to Montgomery Interconnection Project design which included over 20 miles of 20-inch to 12-inch water mains, two relay booster stations, one storage tank, Kanawha River Crossing, railroad crossings, two pressure reducing stations and radio telemetry.

Project Manager for the EPA IDSE disinfection project to develop the computer water models for the Charleston and Huntington water systems which calibrated the two largest water distribution systems in West Virginia.

Project Manager for the Kanawha County IDB Water Project 2000 which served 33 areas and brought water to over 1,740 families. The total project cost of over \$22 million included over 100 miles of water mains, five boosters and six water storage tanks of various sizes. Oversaw the design work of six consultants, including acquiring the rights-of-way, the bidding of 12 water main contracts, and the construction of those contracts with five consultants handling five contractors, while managing the bidding and construction of the above boosters and water storage tanks.

Prepared specifications and plans for numerous water main extensions, water storage tanks, boosters and hydro

pneumatic booster stations and pressure regulating stations including site work, other utilities, and property acquisition, including bidding, project and construction management.

Parcoal Project, Webster County, consisting of 8-inch water main extension and a 160,000-gallon water storage tank using an ARC Grant.

Southridge Development Project consisting of 16-inch water main extension to serve the Southridge Development on Corridor G.

Responsible for the 55-person department that maintained the Kanawha Valley water distribution system, which repaired an average of 1,500 main breaks per year up to 30-inch PCCP:

- Responsible for providing new water services – the department made an average of 850 taps per year
- Oversaw the leak survey effort to reduce unaccounted for water – developed a system to check night flow in systems using existing telemetry to determine leakage and direct efforts to maximize finding and fixing those leaks
- Coordinated the small diameter main replacement program which averaged over one million dollars per year
- Comprehensive supervisory experience between union and non-union personnel – responsible for five supervisors
- Assisted in union negotiations – developing a process to equalize overtime within the distribution department Worked with the Manager to develop 24-hour coverage shifts to provide better customer service and reduce O&M costs, including a 12-hour shift schedule using four foremen to provide round the clock coverage
- Served as the liaison with Kanawha County Commission and KCRDA on new water projects to serve un-served areas

Oversaw the completion of the construction of the Consolidated Office Complex for WVAW's corporate headquarters in Charleston in 1997 to 1999.

Kanawha County Water Main Extension Project consisting of waterlines, booster, a 200,000-gallon water storage tank, and four pressure-regulating stations for the Campbells Creek area of Kanawha Valley.

MARY M. ARMSTEAD, Ph.D., L.R.S.

Senior Scientist, Licensed Remediation Specialist



EDUCATION

- Ph.D. Biology/Ecotoxicology, 1994
Virginia Tech
- M.S. Biology/Aquatic Ecology, 1991
Marshall University
- B.S. Biology, 1987
University of Charleston

EMPLOYMENT HISTORY

- 1997-Present Potesta & Associates, Inc.
1996-1997 Terradon Corporation
1991-1996 Virginia Tech
1989-1991 Marshall University

PROFESSIONAL REGISTRATION

Licensed Remediation Specialist – West Virginia

PROFESSIONAL AFFILIATIONS

Society of Environmental Toxicology and Chemistry
North American Benthological Society
American Society for Surface Mining and Reclamation
Society of Environmental Toxicology and Chemistry

AREAS OF SPECIALIZATION

Development of remediation, recovery and restoration plans, as well as environmental and human health risk

assessments. Evaluating toxicity data, conducting habitat assessments and biological surveys, conducting biomonitoring and bioaccumulation studies, and NPDES permit development.

PROFESSIONAL EXPERIENCE

Biological Studies and Sampling

American Electric Power Company – Developed in-situ testing methodology for juvenile unionid mussels.

Environmental Planning and Analysis, Inc. – Reviewed data collected to determine the effects of pulp and paper mill effluent on freshwater and marine receiving systems to advise legal counsel for industry.

Army Corps of Engineers, Waterways Experimental Station – Assessed the effect of white phosphorous from ammunition on the benthic macroinvertebrate community structure in streams running through impact zones. Conducted similar studies on the LaCrosse River at Fort McCoy, Wisconsin and on two streams at Fort Bragg, North Carolina.

Massey Coal Corporation – Spill response involving a 250 million gallon coal mine slurry release including physical, chemical and biological monitoring, consulting relating to remediation and restoration, liaison with regulatory and emergency response agencies, assessment of damages and negotiations of fines.

Sonoco Products Company – Conducted field and laboratory analysis including effluent toxicity testing, water chemistry analysis, and benthic macroinvertebrate community structure analysis for an industrial facility in Downingtown, Pennsylvania to determine the impact of effluent treated with chlorine dioxide on the receiving stream.

Duquesne Light Company – Conducted sediment testing as part of a larger project to assess the fate and effects of a nuclear power plant outfall following the application of a molluscicide.

Sonoco Products Company – Determined the source of acute toxicity in settling pond effluent using toxicity testing, chemical analysis and measurement of retention time for an industrial facility in Hartsville, South Carolina.

Sheidow Bronze Corporation – Conducted benthic survey using USEPA Rapid Bioassessment Protocols to assess potential impacts from storm water runoff from a non-ferrous foundry that manufactures bronze castings.

Allegheny Energy Supply – Conducted a Use Attainability Analysis on a river system designated as a cold water fishery in Tucker County, West Virginia.

Client Confidential – Responsible for study design, data interpretation and expert witness testimony for a coal company on issues relating to treatment of mine discharge. Specific issues include aquatic toxicity and deposition of precipitates in a receiving stream.

MEPCO – Conducted benthic survey using USEPA Rapid Bioassessment Protocols to assess stream quality prior to the issuance of a re-mining permit in two streams in Monongalia County, West Virginia.

Stream/Wetland Delineation, Permitting and Mitigation

American Electric Power Company – Development of a watershed scale restoration plan for Leading Creek in southeastern Ohio. This project involved integration of biological surveys, toxicological testing, water chemistry monitoring and hydrological modeling into a GIS database for watershed scale modeling.

Client Confidential – Reviewed and prepared comments on study design and modeling of Total Maximum Daily Loads Strategies for several streams in West Virginia.

Water Pollution

IBM Corporation – Monitored effluent toxicity and permit compliance for industrial facility in New York.

Hoechst Celanese Corporation – Monitored 30-day chlorination of industrial facilities in Virginia and South Carolina for the control of *Corbicula fluminea* biofouling. Also, advised industries of most effective treatment initiation dates based on regular monitoring of the organisms reproductive condition.

Client Confidential – Reviewed water chemistry and toxicological studies from waste streams at a chemical plant to provide assistance in designing waste treatment plant upgrades.

Hoechst Celanese Corporation – Determined the effects of a thermal effluent mixing zone on juvenile fish recruitment and use of macrophyte habitat in the New River, Virginia.

Hoechst Celanese Corporation – Evaluated the effects of a thermal effluent mixing zone on fish passage and distribution in the New River, Virginia.

Allegheny Energy Supply – Mixing zone delineation using the CORMIX model and field surveys, including permitting modifications to incorporate a diffuser outfall and negotiations with state agencies to expedite permit modifications.

Virginia Environmental Endowment – Assessed the effect of agricultural runoff and other non-point source pollutants on habitat availability and benthic community structure in the Little River watershed, Floyd County, Virginia.

American Electric Power Company – Evaluated the impacts of point and non-point sources of pollution on sediment toxicity and unionid mussel recruitment in the Clinch River, Virginia.

NPDES Industrial/Municipal Permitting

Koppers Industries, Incorporated – Preparation of an NPDES and UIC permit applications for a wood treatment facility.

Risk Assessment

Conducted human health and ecological risk assessments relative to industrial site with lead and PCB contamination, including modeling of human health and ecological impacts, resulting in a site remediation and future use plan.

Stormwater

Conducted toxicity reduction investigations and toxicity reduction evaluations for a large bronze foundry/casting operation relative to storm water impacts from metals.

Mountain State Airgas – Storm water permit registration and pollution prevention plan updates for welding supply facilities.

Tetra Technologies – Prepared storm water permit and Storm Water Pollution Prevention Plan for calcium chloride production facility in northern West Virginia.

Sheidow Bronze Corporation – Responsible for reviewing a toxicity reduction evaluation, storm water toxicity data, and water quality data for a non-ferrous foundry that manufactures bronze castings to determine the source of toxicity.

Groundwater

Client Confidential – Responsible for database design, data analysis and interpretation for a long-term monitoring study of groundwater quality at an industrial landfill.

Regulatory and Litigation Support

Client Confidential – Researched regulatory and permitting issues relevant to expanding markets for a thermal vaporization facility.

Laboratory

AC&S Incorporated – Laboratory Supervisor for a state certified Aquatic Toxicity Laboratory which conducts acute and chronic single species toxicity tests.

Hester Industries – Statistical evaluations for the Quality Assurance/Quality Control program of an industrial facilities' laboratory.



EDUCATION

- M.S. Aquatic Ecology, 1990
Marshall University
- B.S. Biological Sciences, 1987
West Virginia State College

EMPLOYMENT HISTORY

- 1997-Present Potesta & Associates, Inc.
1990-1997 Terradon Corporation
1990 Union Carbide Corporation
1988-1989 Marshall University

PROFESSIONAL CERTIFICATIONS

OSHA Hazardous Waste Site Operations Supervisor Training

OSHA 40-Hour Hazardous Waste Site Operations Workers Training

AREAS OF SPECIALIZATION

Water permitting and compliance, SARA III (EPCRA) reporting and regulatory compliance, air permitting, and environmental management system manual preparation.

PROFESSIONAL EXPERIENCE

Water Permitting and Compliance

Industrial NPDES Permitting for a variety of West Virginia facilities:

- Cytec Industries, Inc
- MPM Silicones, LLC
- Koppers Industries, Inc.
- Elementis Specialties, Inc.
- Pilgrim's Pride Corporation
- PNGI Charles Town Gaming, LLC
- Armstrong World Industries
- Akzo Nobel Chemical, Inc.
- York Bronze Company
- Creo Manufacturing America, LLC

NPDES Permitting for municipal facilities and publicly-owned treatment works:

- Salt Rock Public Service District
- Boone County Public Service District
- City of Martinsburg, West Virginia
- City of Follansbee, West Virginia

NPDES Permitting for quarry mining facilities in West Virginia:

- Southern West Virginia Asphalt, Inc.
 - Kelly Mountain Quarry – Elkins, West Virginia
 - Bowden Quarry – Elkins, West Virginia
 - Sugarlands Quarry – St. George, West Virginia
- Continental Brick Company

NPDES General Storm Water Permitting, Storm Water Pollution Prevention Plans (SWPPP) and/or Groundwater Protection Plans (GPPs) for various facilities:

- Southern West Virginia Asphalt, Inc.
 - Alta, West Virginia
 - Beaver, West Virginia
 - Elkins, West Virginia
 - Huntington, West Virginia
 - Moorefield, West Virginia
 - Princeton, West Virginia
 - Summersville, West Virginia
 - Whitman, West Virginia
- West Virginia Paving, Inc.
 - Dunbar, West Virginia
 - Poca, West Virginia
 - Ripley, West Virginia

- Camden Materials,
- Kelly Paving, Inc.
 - Ravenrock, West Virginia
 - Benwood, West Virginia
 - Weirton, West Virginia
- Al Rec, LLC
- DALB, Inc.
- Hino Motors Manufacturing
- Steve Simpson & Associates, Inc.
- Integrity Delaware, LLC
- Lowe Products Company, Inc.
- Multicoat Products, Inc.
- PC West Virginia Synthetic Fuels, LLC
 - Chelyan, West Virginia
 - Summersville, West Virginia
 - Eckman, West Virginia
- J.F. Allen Company
- Enron Global Markets, LLC
- Potomac Construction Industries, Inc.
- Poor Charlie & Company
- Riverside Technologies, Inc.
- Greer Industries, Inc.
- Parks Corporation
- Constellation Power Development
- Shelly & Sands, Inc.

Metals Translator Studies and development of site-specific metals translators for various facilities in West Virginia:

- Boone County Public Service District
- Bluewell Public Service District
- Pilgrim's Pride Corporation
- Hobet Mining
- Continental Brick Company
- Coyote Coal Company
- White Flame Energy
- Creo Manufacturing America, LLC
- City of Follansbee, West Virginia
- Greer Industries, Inc.
- CONSOL Energy

Background Water Quality, Baseline Water Quality, and/or Mixing Zone Studies for various West Virginia facilities:

- Cytec Industries, Inc.
- Koppers Industries, Inc.
- Pilgrim's Pride Corporation
- Clearon Corporation
- Boone County Public Service District
- Bluewell Public Service District

Discharge Monitoring Reporting:

- Cytec Industries, Inc.
- Al Rec, LLC
- Southern West Virginia Asphalt, Inc.

Benthic Macroinvertebrate Studies:

- Hester Industries, Inc. - South Branch of the South Fork of the Potomac River
- Union Carbide Corporation – Ward Hollow of Davis Creek

Stream/Wetland Delineation, Permitting, and Mitigation for various projects in West Virginia:

- Resource Consultants and Developers, Inc.
- Morgantown Energy Technology Center
- Capels Resources
- Proposed 560-acre site of Apple Grove Pulp and Paper
- Howe's Leather

SARA III (EPCRA) Reporting and Compliance

Form R Toxic Chemical Release Inventory (TRI) evaluation and/or reporting for various facilities throughout West Virginia:

- DALB, Inc.
- UGM Addcar, Inc.
- LP Minerals, LLC
- Arch Coal, Inc.
- International Coal Group
- Greer Industries, Inc.
- Hester Industries, Inc.
- Sheidow Bronze Company
- AC&S, Inc.
- Creo Manufacturing America, LLC

Tier II Hazardous Chemical Inventory reporting for various facilities throughout West Virginia:

- Hester Industries, Inc.
- Walker Machinery Company
- AC&S, Inc.
- Creo Manufacturing America, LLC
- Greer Industries, Inc.
- Pfaff & Smith, Inc.

Section 304 Initial Notifications and Material Safety Data Sheet (MSDS) reporting for facilities in West Virginia:

- Patriot Mining Company, Inc.
- Greer Industries, Inc.

USEPA SARA III compliance audits for facilities in West Virginia:

- Hester Industries, Inc.
- Sheidow Bronze Company
- Patriot Mining Company, Inc.

Air Permitting and Compliance

Regulation 13 Permitting for various West Virginia facilities:

- Hester Industries, Inc
- Parks Corporation
- Greenbrier Limestone Corporation
- Century Limestone, Inc
- Meadows Stone & Paving, Inc
- Pfaff & Smith, Inc.
- Arrow Concrete Company
- Southern West Virginia Asphalt, Inc
 - Elkins, West Virginia
 - Whitman, West Virginia
 - Beaver, West Virginia
- West Virginia Paving, Inc.
 - Poca, West Virginia
 - Dunbar, West Virginia

Regulation 21 emissions calculations and registrations for a variety of industries in West Virginia, including manufacturing and chemical facilities, a bulk fuel terminal, numerous gasoline stations, and dry cleaners.

Title V Certified Emissions Statements (CESIs) and emissions inventories (EIs) for a variety of facilities throughout West Virginia, including manufacturing facilities, small chemical companies and numerous quarries and asphalt plants.

Emission Inventory Statements (EISs) for over 30 facilities, including a bulk gasoline terminal, manufacturing facilities, and numerous asphalt plants and quarries.

Environmental Management

Prepared Environmental Management System Manuals for facilities in West Virginia and Ohio:

- Gestamp West Virginia, LLC
- Greer Industries, Inc.
- PC West Virginia Synthetic Fuels, LLC
- Creo Manufacturing America, LLC
- SDR Plastics, Inc.
- West Virginia Forestry Association
- Koppers Industries

Landfills/Solid Waste/Waste Disposal

Jackson County Landfill:

- Monthly tonnage reports
- Coordination of groundwater, surface water and methane gas sampling and
- Operations Manual and Annual Operational Reports
- Hazardous Waste Exclusion Plan and associated training
- Response to DEP Notices of Violation

Operations Manual and Hazardous Waste Exclusion Plan for a landfill in Omar, West Virginia.

Comprehensive Litter and Solid Waste Control Plans for Jackson, Mason and Wood Counties, West Virginia.

Solid Waste Facility Siting Plans for Jackson, Mason, and Wood Counties, West Virginia.

Environmental Assessments/Impact Statements

Environmental Assessment or Categorical Exclusion documents for facilities in West Virginia and Maryland:

- Crown Communications (numerous cellular towers)
- Greystone Development
- Columbia Gas Transmission Corporation
- West Virginia Division of Highways

FERC Reports

Columbia Gas Transmission Corporation – Environmental Resource Reports for FERC applications for several pipeline projects. The projects included individual pipeline replacement projects and a large market expansion project.

ESAs (Phase I and II)

Phase I Environmental Site Assessments:

- Hester Industries, Inc.
- Parks Corporation
- Juliana Glass
- Resource Developers and Consultants, Inc.
- Barrack's Auto
- Go-Mart, Inc.

Phase II Environmental Site Assessments:

- Hester Industries, Inc.
- Juliana Glass
- Barrack's Auto

Remediation

Site Characterization/Remediation Plans for various facilities in West Virginia:

- Swanson Plating Company
- Transdistribution Company
- Wayne Lumber Company
- Batteries, Inc.
- Vienna Cleaners
- Inco Alloys



Environmental

Environmental Principal-in-Charge
Ronald R. Potesta - 35 Yrs.

Project Manager
Terence Moran, PE - 27 Yrs.

Backup Project Manager
Dan Miller, PhD - 30 Yrs.

Engineering

Engineering Principal-in-Charge
Dana L. Burns, PE, PS - 38 Yrs.

Civil/Site/Stormwater/Roadway Design
Everett Muiteen, PE - 4 Yrs.
Jarrett Smith, PE - 13 Yrs.
Joe Knechtel, PE - 27 Yrs.
Mark Isabell - 11 Yrs.
Tim Rice, EIT - 35 Yrs.
Chad Griffith, PE - 13 Yrs.
Jason Gandee - 9 Yrs.
Jessica Boggs - 5 Yrs.
Angela Pugh, EIT - 9 Yrs.
Jordan Beard - 3 Yrs.

Soils and Geotechnical Evaluations
Chris Grose, LRS - 26 Yrs.
Dove Sharp, PE - 21 Yrs.
Peter Potesta - 5 Yrs.
Jeremi Starwoy, EIT - 6 Yrs.

Surveying
Victor Dawson, PS - 34 Yrs.
Brad Starkey - 29 Yrs.
Charles Shaffer - 15 Yrs.
Rusty Hunter - 35 Yrs.
Ryan Bennett, SI - 3 Yrs.
Greg Hodges - 23 Yrs.
Tyler Aboytes - 2 Yrs.

Water/Sewer/Utility
Pat Taylor, PE - 28 Yrs.
Mark Sankoff, PE, PS - 33 Yrs.
Robert Ammirato, PE - 14 Yrs.

Construction Monitoring
Robert Lamm - 16 Yrs.
Gary Bridgette - 11 Yrs.
Matt Kirk - 43 Yrs.
Bill Cox - 19 Yrs.
Paul Kinzer - 19 Yrs.
Mike Whitman - 26 Yrs.

CAD Designers
Scott Bayard - 23 Yrs.
Michael Sankoff - 28 Yrs.
Brian Leedy - 17 Yrs.
Chuck Bird - 24 Yrs.
Russ Lester - 27 Yrs.
Joe Martin - 23 Yrs.
Charles Mosholder - 37 Yrs.

Wetlands Delineation and Permitting
Jessica Yeager - 22 Yrs.
Timothy Ferguson, MS - 11 Yrs.
Karri Rogers - 12 Yrs.
Lee Yost - 8 Yrs.
Dylan Korb - 2 Yrs.
Bruce Grist - 1 Yr.

Air Permitting and Compliance
Patrick Ward, PE - 24 Yrs.
Sister Agatha Manyamy - 4 Yrs.

Water
Mindy Armstead, Ph.D. - 20 Yrs.
Lisa Burgess - 27 Yrs.
Christina Moore - 18 Yrs.
Douglas Bowe - 29 Yrs.
Leah Creathers - 11 Yrs.
Coy Spencer - 14 Yrs.

Site Characterization / Remediation
David Corsaro, LRS - 18 Yrs.
Dennis Litwinowicz, LRS - 34 Yrs.
Lisa Sullivan - 19 Yrs.

Water Quality Treatment Regulations and Operations
David Peters, Class IV Water Operator - 37 Yrs.

Health and Safety
John Spencer - 37 Yrs.



West Virginia Ethics Commission
Disclosure of Interested Parties to Contracts

(Required by W. Va. Code § 6D-1-2)

Contracting Business Entity: Potesta & Associates, Inc. Address: 7012 MacCorkle Avenue, SE
Charleston, WV 25304

Authorized Agent: Dana L. Burns Address: Same as Above

Contract Number: DNR1800000006 Contract Description: Bowden State Fish Hatchery Rehabilitation

Governmental agency awarding contract: West Virginia Division of Natural Resources

Check here if this is a Supplemental Disclosure

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below (attach additional pages if necessary):

1. Subcontractors or other entities performing work or service under the Contract

Check here if none, otherwise list entity/individual names below.

Test Boring Services

2. Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)

Check here if none, otherwise list entity/individual names below.

Ron Potesta
Dana Burns

3. Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)

Check here if none, otherwise list entity/individual names below.

Signature: *Dana L. Burns*

Date Signed: 12/7/17

Notary Verification

State of West Virginia, County of Kanawha:

I, Dana L. Burns, the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this 7th day of December, 2017

Rhonda L. Henson

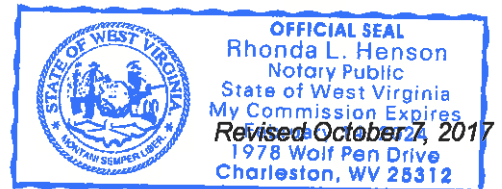
Notary Public's Signature

To be completed by State Agency:

Date Received by State Agency: _____

Date submitted to Ethics Commission: _____

Governmental agency submitting Disclosure: _____





State of West Virginia
 Expression of Interest
 Architect/Engr

Procurement Folder : 392857

Document Description : A/E Services for Bowden State Fish Hatchery Rehabilitation

Procurement Type : Agency Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version	Phase
2017-11-10	2017-12-13 13:30:00	AEOI 0310 DNR1800000006	1	Final

BID RESPONSE		VENDOR	
DIVISION OF NATURAL RESOURCES PROPERTY & PROCUREMENT OFFICE 324 4TH AVE SOUTH CHARLESTON US		Vendor Name, Address and Telephone Potesta & Associates, Inc. 7012 MacCorkle Avenue, SE Charleston, WV 25304 304-342-1400	WW 25303-1228

FOR INFORMATION CONTACT THE BUYER

Angela W Negley
 (304) 558-3397
 angela.w.negley@wv.gov

Signature X *Dana L. Burns* FEIN # 31-1509066 DATE *12/7/17*

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

ADDITIONAL INFORMATION:

Expression of Interest

A&E Services for Bowden State Fish Hatchery

The West Virginia Division of Natural Resources (WVDNR) is soliciting AEOI responses from qualified firms to provide architectural /engineering services for rehabilitation of the Bowden State Fish Hatchery Hatchery per the attached bid requirements, specifications and terms & conditions.

INVOICE TO		SHIP TO	
DIVISION OF NATURAL RESOURCES PARKS & RECREATION-PEM SECTION 324 4TH AVE SOUTH CHARLESTON WW25305 US		SUPERINTENDENT DIVISION OF NATURAL RESOURCES BERKELEY SPRINGS STATE PARK 121 SOUTH WASHINGTON ST BERKELEY SPRINGS WW 25411-3284 US	

Line	Commodity Line Description	Qty	Unit Issue
1	Architectural engineering		

Commodity Code	Manufacturer	Model #	Specification
70101803			

Extended Description

A/E design services and contract administration for rehabilitation of the Bowden State Fish Hatchery..

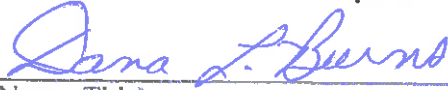
SCHEDULE OF EVENTS		
Line	Event	Event Date
1	Technical Question Deadline 9am	2017-11-29

DNR180000006	Document Phase Final	Document Description A/E Services for Bowden State Fish Hatchery Rehabilitation	Page 3 of 3
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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.



(Name, Title)

Dana Burns, PE, Vice President

(Printed Name and Title)

7012 MacCorkle Avenue, SE, Charleston, WV 25304

(Address)

304-342-1400/304-343-9031

(Phone Number) / (Fax Number)

dlburns@potesta.com

(email address)

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

Potesta & Associates, Inc.

(Company)



(Authorized Signature) (Representative Name, Title)

Dana Burns, PE, Vice President

(Printed Name and Title of Authorized Representative)

12/7/17

(Date)

304-342-1400/304-343-9031

(Phone Number) (Fax Number)

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

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

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

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

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

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

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Potesta & Associates, Inc.

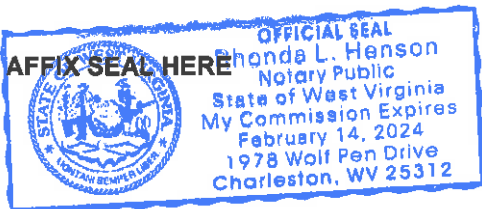
Authorized Signature: *Dana L. Burns* Date: 12/11/17

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 11 day of December, 2017.

My Commission expires February 14, 2024.



NOTARY PUBLIC *Rhonda L. Henson*

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.

Potesta & Associates, Inc.

Company

Dana L. Burns

Authorized Signature

12/7/17

Date

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