

**ORIGINAL**

**EXPRESSION OF INTEREST**

*Engineering and Consulting Services  
Design and Construction of the  
Moncove Lake State Park  
Wastewater Treatment Plant Replacement and  
Lost River State Park Water System Renovation  
Solicitation No. CEOI 0310 DNR1600000008*

*Prepared for:*

**West Virginia Division of Natural Resources**  
Parks and Recreation Section  
324 4<sup>th</sup> Avenue  
South Charleston, West Virginia 25303

*Prepared by:*

**Potesta & Associates, Inc.**  
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Project No. 0101-15-0435

November 17, 2015

**POTESTA**



# TRANSMITTAL MEMO

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**To:** Mr. Guy Nisbet  
WV Department of Environmental Protection  
Purchasing Division  
2019 Washington Street, East  
Charleston, West Virginia 25305-0130

**Date:** November 17, 2015  
**Project No.:** 0101-15-0435

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Quantity	Description
4	Expression of Interest for Engineering and Consulting Services, Design and Construction of the Moncove Lake State Park Wastewater Treatment Plant Replacement and Lost River State Park Water System Renovation, Solicitation No. CEOI 0310 DNR1600000008 (One Original and Three Copies)
<b>Remarks:</b>	

**By:** Dana L. Burns/clr  
**c:** \_\_\_\_\_

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WV Purchasing Division

**POTESTA**

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## **EXPRESSION OF INTEREST**

### ***Engineering and Consulting Services Design and Construction of the Moncove Lake State Park Wastewater Treatment Plant Replacement and Lost River State Park Water System Renovation Solicitation No. CEOI 0310 DNR1600000008***

#### **1.0 INTRODUCTION**

Potesta & Associates, Inc. (POTESTA) is pleased with the opportunity to present our qualifications to the West Virginia Division of Natural Resources (WVDNR) Parks and Recreation Section to provide engineering and consulting services for the design and construction of the Moncove Lake State Park's wastewater treatment plant replacement and Lost River State Park's water system replacement concerning wells storage tanks and distribution pipe. We understand that required services may include, but are not limited to, review with the owner existing plans and conditions as well as park operating procedures and determine a plan that meets all objectives and can be implemented with minimal disruptions to daily operations; construction design in accordance with all state, federal and local regulations that pertain to the proposed project; preparation of bidding and contracting documents; participation in the evaluation of bids received; monitoring and observation construction activities on a periodic basis to insure compliance with plans and specifications; and obtaining necessary environmental permits.

#### **2.0 STATEMENT OF QUALIFICATIONS**

##### **2.1 Corporate Overview**

POTESTA is an engineering and environmental consulting firm located in Charleston, West Virginia providing professional services to deliver innovative, cost-effective solutions to complex problems. We have branch offices in Morgantown, West Virginia, and Winchester, Virginia. Our firm is multi-disciplinary and has a diversified practice covering engineering (civil, chemical, environmental, geotechnical, and mining), surveying, construction observation, permitting, site characterization and remediation, and general environmental consulting. POTESTA is well suited to provide services associated with wastewater and drinking water systems. We have worked on numerous large and small projects throughout West Virginia. Our 12 registered professional engineers have over 300 years of experience among them and are supported by a large group of engineers, designers, and surveyors. POTESTA's large staff of approximately 100 engineers, surveyors, designers and support personnel will ensure that the project is adequately staffed with experienced design professionals. This team will be lead by Mr. Dana L. Burns, P.E., Vice President, with over 36 years of experience with public works projects.

Environmental engineering, regulatory liaison and environmental compliance are also areas of exceptional strength for POTESTA. Ronald R. Potesta, President of the company, is a former director of the West Virginia Department of Natural Resources.

Our clients include public service districts, municipalities, county commissions, manufacturers, utility companies, waste management companies, architects, engineering design firms, attorneys, financial institutions, insurance companies, land developers, construction companies, chemical and mining companies, and local, state, and federal government agencies.

We carry a full line of insurance coverage including general liability, professional liability, errors and omissions, and workers' compensation. A copy of these insurance certificates are in **Appendix A**. **Appendix B** contains the signed EOI and Purchasing Affidavit. We use stringent quality control procedures to provide our clients with quality projects. POTESTA offers the following professional services.

- ▶ Water/Wastewater Storage Tank Design
- ▶ Water/Wastewater Treatment Design
- ▶ Sanitary/Storm Sewer Separation
- ▶ Preparation of Construction Documents (Calculations Brief, Construction Drawings, Contractor's Bid Sheet, Engineer's Cost Estimate, QA/QC Manual and Technical Specifications)
- ▶ Surveying (Traditional and Global Positioning System)
- ▶ Construction Observation/Administration
- ▶ Water Line Design
- ▶ Subsurface Investigations
- ▶ Feasibility Studies
- ▶ 404 Permit Preparation and Negotiation
- ▶ Acid Mine Drainage Control
- ▶ Asbestos Inspection
- ▶ Benthic and Biological Studies
- ▶ CADD Services (AutoCAD, Microstation, Various Software Design Packages, Digitizing and Plotting)
- ▶ Chemical Engineering
- ▶ Civil Engineering
- ▶ Clean Air Act Compliance
- ▶ Corporate Environmental Management
- ▶ Design of Slurry Impoundments and Refuse Disposal Sites
- ▶ Dewatering Plans
- ▶ Environmental Engineering
- ▶ Environmental Impact Studies
- ▶ Environmental Site Assessments
- ▶ Environmental Audits
- ▶ Erosion and Sedimentation Control Plans
- ▶ Expert Witness and Litigation Support
- ▶ Foundation Design
- ▶ Geological Services
- ▶ Geotechnical Engineering
- ▶ Ground and Surface Water Sampling
- ▶ Groundwater Investigation and Remediation
- ▶ Groundwater Protection Plans
- ▶ Hazardous Waste Management
- ▶ Hydrologic and Hydraulic Evaluations
- ▶ In-Situ and Ex-Situ Biostimulation/Bioaugmentation
- ▶ Landfill Design
- ▶ Landfill Closure Plans
- ▶ Mining Engineering
- ▶ Multimedia Sampling (Air, Fly Ash, Rock, Soil, Water)
- ▶ Permitting (Air, FERC, Fly Ash Haulback, Mining, NPDES, Quarry and Solid and Hazardous Waste)
- ▶ Pollution Prevention and Waste Minimization Planning
- ▶ Pre-Blast and Pre-Subsidence Surveys
- ▶ Reclamation Design and Planning
- ▶ Reclamation Liability Assessments
- ▶ Regulatory Liaison Services
- ▶ Risk-Based Environmental Assessment
- ▶ SARA Title III, TIER II and Form R Inventory and Reporting
- ▶ Site Characterization and Remediation Planning
- ▶ Site Design/Planning
- ▶ Spill Prevention Control and Countermeasure Plans
- ▶ Stabilization and Closure of Waste Impoundments
- ▶ Stormwater Management and Permitting

- ▶ Stream Benthic Macro-Invertebrate Surveys and Toxicity Evaluations
- ▶ Subsidence Studies
- ▶ Surface and Groundwater Monitoring, Statistical Analysis and Reporting
- ▶ UST Closure and Site Remediation
- ▶ UST Installation Monitoring
- ▶ Waste Facility Permitting and Design
- ▶ Waste Disposal Design
- ▶ Wetland Investigation and Delineation, Mitigation Design and Monitoring

POTESTA takes pride in our ability to provide clients with innovative and concise engineering design packages that will allow more of your money to be spent on actual construction rather than engineering design fees. Although POTESTA employs over 100 people, our corporate structure with low overhead allows our rates to be competitive with those of smaller firms.

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

POTESTA has the ability to complete every facet of the project from beginning to end, from the preliminary study through final design and construction observation/management. Our staff members are routinely involved in the preparation of funding applications and construction documents including participation in the bidding and construction phases of the project.

The project manager will be responsible for monitoring the project budget. POTESTA's staff submits time sheets on a weekly basis. All charges including labor hours and other project expenses are compiled in our accounting center and distributed to the project manager during the following week. In this manner, the project manager can keep close track of costs. In addition, field representatives routinely keep track of subcontractor costs on a daily basis. Thus we can, in effect, keep track of the total project costs on a weekly basis. Our subcontractors commonly invoice at monthly intervals and there is seldom any discrepancy between our field representative's pay items and our subcontractor's invoice.

POTESTA's engineering design department consists of 29 engineers, including 12 professional engineers. The diversity of our engineers' experience plus that of our CADD designers, field technicians, and construction monitors allows us to assemble cost-efficient, practical designs.

POTESTA's construction observation and administration personnel are experienced with stormwater, sanitary sewer, water supply projects, and numerous other civil, geotechnical, and environmental engineering projects, including adherence to specifications, pay quantity verification and dispute resolution. We have successfully completed many projects from start to finish.

POTESTA also maintains a comprehensive construction cost database containing construction bid item costs for numerous projects related to sanitary sewer projects. This database is utilized to develop construction cost estimates for our projects, and we feel results in a more representative estimate of probable construction costs for the client.

POTESTA can also complete applications for necessary permits and approvals such as NPDES stormwater construction registration, NEPA compliance, U.S. Army Corps of Engineers permit, Public Land Corporation stream activity permit, West Virginia Division of Highways occupancy permits, etc.

If selected for this project or for future projects, POTESTA has a staff of scientists with expertise in biological and toxicological services including biological surveys and bioassessments, stream remediation and restoration, endangered species surveys, water chemistry analysis, etc.

Additional information regarding POTESTA's wastewater, water, civil engineering design, construction monitoring, and surveying capabilities, as well as our expertise in biological and toxicological services, is included in **Appendix C**.

## 2.2 Experience with Federal and State Funding Programs

POTESTA's staff is highly experienced with federal, state (and local) grant programs and their funding requirements. We have worked on water, wastewater, sewer, highway, and other projects funded by state and federal agencies. Our staff is particularly experienced in projects funded by both West Virginia Clean Water and Drinking Water State Revolving Funds (WVSRF), United States Department of Housing and Urban Development (HUD, i.e., Small Cities Block Grants), United States Department of Agriculture, Rural Utility Services (RUS), United States Office of Surface Mining (OSM), administered by the West Virginia Department of Environmental Protection Abandoned Mine Lands (AML), congressional offices, and United States Department of Commerce - Economic Development Administration. These funds have been used to upgrade water and wastewater systems, construct water and wastewater treatment plants, extend water and sewer lines, construct sewer systems, build industrial parks, etc.

## 2.3 Similar Prior Experience

Following is a brief description of similar projects completed by POTESTA. **Appendix D** contains project abstracts of similar projects completed by POTESTA.

Project	Description
American Electric Power (AEP) Kanawha County, WV Project Manager: Pat Taylor	Evaluation of existing and design and permitting of a new peat WWTP facility for the London Locks Hydroelectric Plant in Kanawha County, West Virginia.
City of Philippi Barbour County, WV Project Manager: Terence Moran	Study, design, bidding, and construction phases services for existing potable water distribution system, including two new storage tanks, two new booster stations, upgrade existing booster station, 1,800 feet of 8-inch and 2,000 feet of 6-inch HDPE pipe, and flow metering station.



Project	Description
Town of Ceredo Wayne County, WV Project Manager: Terence Moran	Design, permitting, bidding, and construction phases services for a major upgrade to the Town's water distribution system, including 22,000 feet of water line, two new aboveground water storage tanks, telemetry, new booster station, and a renovated booster station.
City of Glenville Gilmer County, WV Project Manager: Mark Sankoff	Study, design, bidding, and construction phases services for upgrades to existing potable water treatment and distribution system, including 6,100 LF of 8-inch, 1,000 LF of 6-inch, and 800 LF of 2-inch water line; three river crossings (820 LF) of 10-inch water line via directional drilling.
Berkeley Springs Development, LLC – Villages at Coolfont Morgan County, WV Project Manager: Mark Kiser	Design of a public water supply system for approximately 1,300 customers, including commercial customers. System included three water supply wells, one water treatment plant (0.432 MGD), two 316,000-gallon water storage tanks, and 75,000 feet of water line.
City of Wellsburg's Combined Water and Sewer Board (CWSB) Brooke County, WV Project Manager: David Sharp	Replacement of a floating cover on the CWSB's existing 1,000,000-gallon reservoir, replacement and upgrade of 4,200 LF of existing water line, and upgrade existing 50+ year old water treatment plant.
Charles Town Racing and Slots Jefferson County, WV Project Manager: Vince Ammirato	Design and permitting of an initial capacity 250,000-gallon per day Sequence Batch Reactor (SBR) type WWTP (expandable to 375,000 gpd) for a gaming resort facility in Jefferson County, West Virginia.
Huntington Sanitary Board Cabell County, WV Project Manager: Pat Taylor	General agreement with the Huntington Sanitary Board (HSB) to perform services related to their long-term improvement plan. Redesign of conversion of four ejector stations to submersible pump stations; design, bidding, and construction management of combined sewer replacement involving 3,000 LF of 24"-36" pipe; design of 54-inch HDPE force main; evaluation of the mixing zone for the wastewater treatment plant discharge; design of a new HDPE effluent line, diffuser, and air chamber.
Summit at Cheat Lake Monongalia County, WV Project Manager: Pat Taylor	Design of a sanitary sewer collection system, incorporating 13,500 linear feet of 8-inch gravity sewer line, as well as 2,500 linear feet of 1.5-inch and 2-inch force main line from three pump stations.

Project	Description
Thorn Hill Development Jefferson County, WV Project Manager: Vince Ammirato	Design and permitting of a 50,000-gallon per day Membrane Bioreactor (MBR) type WWTP (expandable to 225,000 gpd) for a residential development in Jefferson County, West Virginia. The design included approximately 5,180 linear feet of force main and gravity sanitary sewer collection line and a pump station.
Tackley Mill Development Jefferson County, WV Project Manager: Vince Ammirato	Design and permitting of a 25,000-gallon per day Membrane Bioreactor (MBR) type WWTP (expandable to 1,000,000 gpd) for a residential development in Jefferson County, West Virginia. The design included approximately 17,000 linear feet of force main effluent discharge line and a pump station.
Berkeley Springs Development Morgan County, WV Project Manager: Mark Kiser	Design and permitting of a 440,000-gallon per day membrane bioreactor type WWTP for a large residential development in Berkeley County, West Virginia. The design included over 18,000 feet of gravity sewer line with sizes ranging from 8-inch to 15-inch and 5,800 feet of 8-inch force main and 85 feet of 2-inch force main. POTESTA also provided design for a water treatment plant and water distribution system for the development.
ECOLAB Berkeley County, WV Project Manager: Joe Knechtel	Evaluation and recommendations for the pretreatment of ECOLAB's effluent prior to discharge to the Berkeley County Public Service Sewer District's (BCPSSD) industrial wastewater treatment plant. The evaluation focused on bringing the effluent into compliance with permit limitations.
West Virginia American Water Fayette County, WV Project Manager: Mark Sankoff	Evaluation of existing sanitary wastewater system and providing recommendations for areas of rehabilitation and improvement in O&M practices for the City of Oak Hill, West Virginia WWTP.
West Virginia American Water Greenbrier County, WV Project Manager: Terence Moran	Evaluation of sanitary wastewater system and providing recommendations for areas of rehabilitation and improvement in O&M practices for the Town of White Sulphur Springs, West Virginia WWTP.
Old Standard Development Jefferson County, WV Project Manager: Vince Ammirato	Design and permitting of a 50,000-gallon per day Membrane Bioreactor (MBR) type WWTP (expandable to 250,000 gpd) for a large residential development in Jefferson County, West Virginia. The design included nearly 10,000 linear feet of force main and gravity sanitary sewer collection line and two pump stations.

Project	Description
Tucker County Development Authority Tucker County, WV Project Manager: David Sharp	Design, permitting, and construction administration/ observation of approximately 8,000 linear feet of water line and 8,000 linear feet of sewer line to extend service from the Town of Davis to the new Tucker County Industrial Park.
West Virginia Division of Highways Wood County, WV Project Manager: Terence Moran	Evaluation of replacing the Mineral Wells Rest Area Wastewater Treatment Plant, including evaluating multiple options including using a lift station/force main to direct sewage to the Mineral Wells Public Service District.
Boy Scouts of America Pocahontas County, WV Project Manager: Chris Grose	Design of replacement sanitary sewer collection system and design of new sewage stabilization lagoon at Dilley's Mill Boy Scout Camp in Pocahontas County, West Virginia.
Private Individual Greenbrier County, WV Project Manager: Terence Moran	Design and preparation of drawings and cost estimate for replacement study for 25,000 gpd package treatment plant - Lewisburg, West Virginia.
Timberwolf Development Corporation Kanawha County, WV Project Manager: Mark Kiser	Design and construction observation of water supply and sanitary sewer systems for Yorketown Subdivision, Charleston, West Virginia.
Union Carbide Corporation Kanawha County, WV Project Manager: Doug Bowe	Evaluated 300,000 linear feet of combined process/storm sewer water and designed a new system using a gravity and force main combination system for Union Carbide's South Charleston and Institute plants and their Technical Center, Charleston, West Virginia.

## 2.4 Qualifications of Personnel

Mr. Dana L. Burns, P.E., Vice President at POTESA, will serve as principal-in-charge for this project. As such, he will direct POTESA's staff, answer questions, address problems encountered and review the project budget. Mr. Burns has over 36 years experience with civil and environmental engineering projects, including working on projects funded by Small Cities Block Grant, United States Department of Agriculture-Rural Utility Services (USDA-RUS), AML, United States Department of Commerce - Economic Development Administration, West Virginia Infrastructure and Jobs Development Council, and others. This experience includes serving as a project manager for various sanitary sewer projects, industrial wastewater projects, water supply system extensions, water extension feasibility studies, and numerous West Virginia American Water projects. In addition to providing technical guidance throughout the project, Mr. Burns will be responsible for maintaining the schedule and budget for the project.

Mr. Terence C. Moran, P.E., will serve as project manager for this project. Mr. Moran has over 26 years experience on civil engineering projects, with particular emphasis on water/wastewater projects. Mr. Moran has served as the project manager/project engineer for 100+ water/wastewater projects, including preliminary engineering, environmental assessments, funding applications, hydraulic analysis, booster and lift station design, storage tank design, line sizing, design of treatment systems, drawings, specifications, cost estimates, bid documents, "shop drawing" review, construction management and construction inspection. Mr. Moran has completed water/wastewater projects in Barbour, Boone, Brooke, Cabell, Fayette, Greenbrier, Hardy, Harrison, Jefferson, Kanawha, Lincoln, Logan, Monongalia, Morgan, Nicholas, Preston, Putnam, Raleigh, Randolph, Tucker, Wyoming, and Upshur counties in West Virginia. He has completed these projects under the funding of USDA-RUS, HUD (Small Cities Block Grants), AML, United States Department of Commerce - Economic Development Administration, West Virginia Infrastructure and Jobs Development Council, and other funding agencies. Mr. Moran is currently working on POTEESTA's projects involving Economic Development Administration, USDA-RUS congressional funding, and from the West Virginia lottery.

Mr. Mark A. Sankoff, P.E., has over 33 years experience in civil engineering, with particular emphasis on water/wastewater projects. From 2007 to 2011, Mr. Sankoff was involved in the 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 for an average of over 5 tanks per year. Responsible for over 300 tanks in the largest water system in West Virginia. He has developed a broad base of experience in multiple areas relating to tank rehabilitation process. As the past Director of Engineering at West Virginia American Water, he served as project manager for numerous water projects, including the Kanawha County 2000 Water Project, installing over 100 miles of water main, six tanks and six boosters serving over 1,700 families. Mr. Sankoff has served as project manager for the EPA Initial Distribution System Evaluation (IDSE) computer modeling to study water age for the two largest systems in West Virginia with over 2,000 miles of distribution piping. He has designed or served as the project manager for the evaluation of water systems to identify deficiencies including evaluating and implementing the most cost-effective solution and has designed multiple water line replacement projects and water line extensions. He brings nine years experience in the operation and maintenance of the largest distribution system in West Virginia which has well over 100 different pressure gradients. Mr. Sankoff has extensive experience on multiple water projects, including preliminary engineering, comprehensive planning studies, funding applications, hydraulic analysis, booster station and storage tank design and rehabilitation, telemetry, line sizing, drawings, specifications, cost estimates, bid documents, shop drawings review, construction management and construction observations.

Mr. Pat Taylor, P.E., has substantial experience with state regulatory and funding programs. Mr. Taylor will serve as a liaison with the West Virginia Infrastructure and Jobs Development Council, and the West Virginia Bureau for Public Health. Mr. Taylor was a manager at West Virginia's Bureau for Public Health. His responsibilities included managing of the West Virginia Drinking Water Treatment Revolving Fund (DWTRF), the state water and sewer construction permitting program and the capacity development program. He also sat on the

West Virginia Infrastructure and Jobs Development Council, overseeing the Council's water technical committee, sitting on the sewer technical committee and also being a member of the council's funding committee. On a routine basis, Mr. Taylor worked with coordination of all funding agencies.

Mr. D. Mark Kiser, P.E., has over 31 years experience in civil engineering, with particular emphasis on design and construction administration. He has served clients on many water and wastewater projects. Mr. Kiser will serve on an as needed technical basis for this project. Mr. Kiser has successfully managed various water and wastewater projects, including recent projects with a combined contract value in the millions of dollars. These projects included 180,000 feet of gravity and pressure piping systems.

POTESTA's proposed construction technicians include Robert Lamm and Mike Whitman. Mr. Lamm has extensive experience with construction observation for potable water systems as well as sanitary sewer and wastewater treatment facilities. Most recently he completed construction observation for a 14,000 LF water main replacement project in Kanawha County. Mr. Whitman has 25 years experience with public water and sewer construction project oversight.

The personnel listed above are available to work on this project immediately upon notice to proceed. **Appendix E** of this proposal includes resumes of key individuals who are anticipated to work on this project. Our organizational chart is located in **Appendix F**.

### **3.0 PLAN OF APPROACH**

The following presents a typical plan of approach for projects of this nature.

#### **3.1 Development of Scope of Services**

POTESTA will work with the WVDNR to develop a successful approach to the project. Input will also be considered from the funding agency and WVDEP, if necessary. Items such as smoke testing and video recording of the system will be scheduled and performed.

#### **3.2 Preliminary Engineering Study**

POTESTA will perform the preliminary engineering study based on the scope of services developed in conjunction with the WVDNR. The preliminary engineering study will assess alternatives for design and construction of the proposed sanitary sewer collection lines, treatment facility, and related appurtenances for the Moncove Lake State Park WWTP and the water system at Lost River State Park. The results of the preliminary study will be presented to the WVDNR for review and comment on the proposed design alternatives. The preliminary study would include estimates of probable construction costs for the proposed construction alternatives.

### **3.3 Final Design and Specifications**

POTESTA will proceed with the final design and preparation of project specifications for the project once the 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. Construction drawings and specifications will be prepared for regulatory and funding agency and the WVDNR's review and approval prior to advertisement and bidding.

### **3.4 Construction Cost Estimate**

POTESTA will prepare a preliminary estimate of probable construction cost broken down by major work items. 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.

### **3.5 Permitting**

Several permits and/or permit modifications may be required for the proposed project. These may include a NPDES General Stormwater Permit, a modification to the facility's NPDES permit, West Virginia Department of Transportation Highway Occupancy Permit, Public Land Corporation Stream Activity Permit, US Army Corps of Engineers Nationwide Permit (NWP 12), and a West Virginia Department of Health Permit and a West Virginia Department of Environmental Protection Permit.

### **3.6 Bidding Documents Preparation/Bidding Assistance**

POTESTA will prepare a construction bid form and required bidding (i.e., contract) documents, and will assist the WVDNR 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 WVDNR in evaluation of the bids for cost, completeness and qualifications.

### **3.7 Construction Administration/Observation**

After bid evaluation and contractor selection by the WVDNR, 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 WVDNR and the contractor.

- ◆ Review contract documents, particularly items that were not prepared by POTESA, 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).
- ◆ 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 WVDNR, as typically required by the contract documents.
- ◆ Provide record drawings showing "as-built" features.

#### 4.0 CLOSING

POTESTA is excited about the possibility of working with the WVDNR. POTESTA's staff of over 100 people will allow us to assemble an experienced project team and complete this project in a timely and efficient manner. The successful POTESTA team will work together to meet your needs and complete your project.

We look forward to meeting with the WVDNR to better acquaint you with our qualifications and experience and to discuss your plans.

Respectfully submitted,

POTESTA & ASSOCIATES, INC.

A handwritten signature in cursive script that reads "Dana L. Burns".

Dana L. Burns, PE  
Vice President

DLB:JJB/mh



Client#: 1114469

POTESASS

ACORD™

## CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

3/10/2015

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): 304-347-0661	FAX (A/C, No): 304-347-0605
	E-MAIL ADDRESS: brenda.samples@usi.biz		
INSURED Potesta & Associates, Inc. 7012 MacCorkle Avenue SE Charleston, WV 25304	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A: Hartford Casualty Insurance Com		29424
	INSURER B: Trumbull Insurance Company		27120
	INSURER C: Catlin Specialty Insurance Comp		15989
	INSURER D:		
	INSURER E:		
INSURER F:			

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

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

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> B/PPD GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC		40UUNZD3122	03/07/2015	03/07/2016	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 - COM/POP AGG \$2,000,000 \$
	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS		40UUNZD3122	03/07/2015	03/07/2016	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$10000		40RHUZD2086	03/07/2015	03/07/2016	EACH OCCURRENCE \$9,000,000 AGGREGATE \$9,000,000 \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	40WEBU6524	03/07/2015	03/07/2016	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
C	Pollution Professional		CPV6743700316	03/07/2015	03/07/2016	5,000,000 5,000,000 Ded. 25,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACCRD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER Potesta & Associates, Inc. 7012 MacCorkle Avenue 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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Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

State of West Virginia  
 Centralized Expression of Interest  
 02 – Architect/Engr

Proc Folder: 147011

Doc Description: Addendum; Wastewater Treatment and Water System Renovations

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2015-10-23	2015-11-17 13:30:00	CEOI 0310 DNR1600000008	2

**BID RECEIVING LOCATION**

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

**VENDOR**

Vendor Name, Address and Telephone Number:  
 Potesta & Associates, Inc.  
 7012 MacCorkle Avenue, SE  
 Charleston, WV 25304  
 (304) 342-1400

**FOR INFORMATION CONTACT THE BUYER**

Guy Nisbet  
 (304) 558-2596  
 guy.l.nisbet@wv.gov

Signature X *Alana L Burns* FEIN # 311509066

DATE November 17, 2015

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

**ADDITIONAL INFORMATION:**

Addendum

Addendum No.01; issued to publish and distribute the following information as attached to the vendor community.

\*\*\*\*\*

Expression of Interest

The West Virginia Purchasing Division for the Agency, The West Virginia Division of Natural Resources (WVDNR), Parks and recreation Division is soliciting responses from qualified firms to provide engineering, and other related professional services to design and construct the replacement of a "Wastewater treatment plant at Moncove Lake State Park, Gap Mills, WV. and the renovation of a water system at Lost River State Park, Mathias, WV. per the attached specifications, and terms & conditions.

INVOICE TO	SHIP TO
DIVISION OF NATURAL RESOURCES PARKS & RECREATION-PEM SECTION 324 4TH AVE SOUTH CHARLESTON WV25305 US	STATE OF WEST VIRGINIA JOBSITE - SEE SPECIFICATIONS No City WV 99999 US

Line	Comm Ln Desc	Qty	Unit Issue
1	Architectural engineering		

Comm Code	Manufacturer	Specification	Model #
81101508			

**Extended Description :**

AE Services for Moncove Lake Wastewater Treatment Plant Replacement and Lost River Water System Renovations.

<b>DNR1600000008</b>	<b>Document Phase</b> Final	<b>Document Description</b> Addendum; Wastewater Treatment and Water System Renovations	<b>Page 3</b> <b>of 3</b>
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**ADDITIONAL TERMS AND CONDITIONS**

See attached document(s) for additional Terms and Conditions



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

State of West Virginia  
 Centralized Expression of Interest  
 02 – Architect/Engr

Proc Folder: 147011

Doc Description: Wastewater Treatment and Water System Renovations

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2015-09-29	2015-11-17 13:30:00	CEOI 0310 DNR1600000008	1

**BID RECEIVING LOCATION**

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

**VENDOR**

Vendor Name, Address and Telephone Number:  
 Potesta & Associates, Inc,  
 7012 MacCorkle Avenue, SE  
 Charleston, WV 25304  
 (304) 342-1400

**FOR INFORMATION CONTACT THE BUYER**

Guy Nisbet  
 (304) 558-2596  
 guy.l.nisbet@wv.gov

Signature X *Dana L. Burns* FEIN # 311509066 DATE November 17, 2015  
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<b>DNR1600000008</b>	<b>Document Phase</b> Final	<b>Document Description</b> Wastewater Treatment and Water System Renovations	<b>Page 3</b> <b>of 3</b>
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**ADDITIONAL TERMS AND CONDITIONS**

See attached document(s) for additional Terms and Conditions

ADDENDUM ACKNOWLEDGEMENT FORM  
SOLICITATION NO.: CEOI 0313 DNR160000008

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

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

Addendum Numbers Received:  
(Check the box next to each addendum received)

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

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Potesta & Associates, Inc.  
Company

*Dana L. Burns*  
Authorized Signature

November 17, 2015  
Date

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



**CERTIFICATION AND SIGNATURE PAGE**

By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained 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)

Dana L. Burns, Vice President

(Authorized Signature) (Representative Name, Title)



(304) 342-1400 / (304) 343-9031 / November 17, 2015

(Phone Number) (Fax Number) (Date)

STATE OF WEST VIRGINIA  
Purchasing Division  
**PURCHASING AFFIDAVIT**

**MANDATE:** 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 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: November 17, 2015

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 17 day of November, 2015.

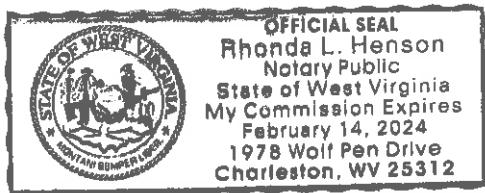
My Commission expires February 14, 2024.

**AFFIX SEAL HERE**

**NOTARY PUBLIC**

Rhonda L. Henson

*Purchasing Affidavit (Revised 08/01/2015)*



# 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.

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Regional Offices: Morgantown, WV and Winchester, VA

# POTESTA & ASSOCIATES, INC.

## *Computer-Aided Drafting and Design*

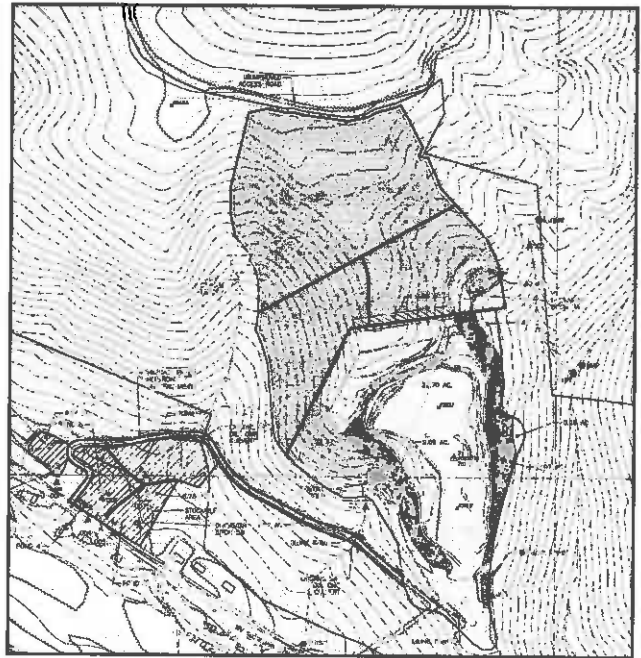
The Potesta & Associates, Inc. (POTESTA) computer-aided drafting and design (CADD) department provides state-of-the-art design and drafting services for in-house engineering and environmental consulting projects. We also provide personnel to clients who have a temporary need for additional drafting manpower. These services may be performed at your location or our office as required.

The CADD department utilizes the latest drafting/design software and computer hardware to maintain productivity at the high levels that clients demand and expect. We utilize the latest version in AutoCAD Civil 3D civil/survey design software to prepare, revise, and manipulate drawings and engineering data efficiently. Drawings and figures are produced using a Hewlett Packard 4000 and 5500 color ink jet plotters. POTESTA's experienced and trained professionals allow clients' projects and assignments to be completed rapidly and at reasonable cost.



Our CADD services include:

- Survey data manipulation including development of topographic mapping, cross sections, profiles, isopach drawings, etc.
- Site design including grading plans, drainage plans, utilities plans, right-of-way plans, etc.
- Roadway design.
- Water and sewer design.
- Permit drawings, maps, and exhibits.
- Earthwork and planimetric quantity development.
- Two and three dimensional graphics.



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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.



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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.

## *Mixing Zone Analysis and Diffuser Design*

Potesta & Associates, Inc. (POTESTA) has extensive experience in providing regulatory mixing zone analysis, as well as design and construction phase services for outfalls and diffusers. POTESTA can assist in every phase of the project from the data collection, modeling and conceptual design through final design, permitting, bidding, construction, and post-construction sampling and verification. Our projects proceed in an expedited manner to allow for compliance with permit deadlines. POTESTA's technical capabilities include:

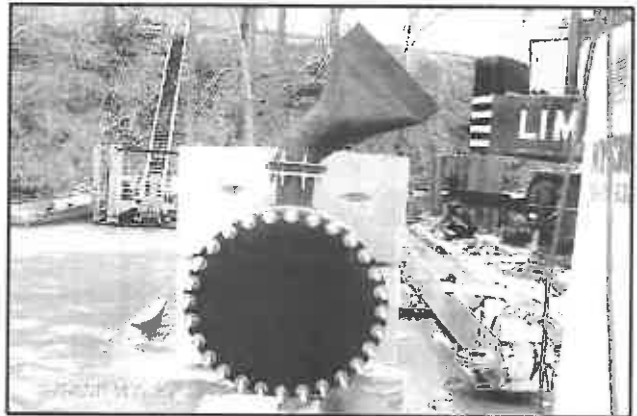
- Ambient and Effluent Data Collection
- Mixing Zone Modeling and Associated Studies
- Topographic Mapping, Including River Bottom
- Effluent Line/Diffuser Designs
- NPDES Permit Application/Section 404 Permits
- Wastewater Treatment Plant Designs
- Water Quality Assessments
- Environmental Impact Studies
- Construction Observation
- Mixing Zone Verifications



### **MIXING ZONES**

Mixing zones are often used in discharge situations where effluent quality does not meet water quality standards. Diffuser projects generally start with an evaluation study followed by conceptual design using a mixing model. POTESTA has worked with pollutants such as metals and organic chemicals, as well as "narrative" type standards regarding visual

discharges, etc. Mixing zone modeling is typically completed at POTESTA using the Cornell Mixing Zone Expert System (CORMIX) and CORHYD softwares.



### **DIFFUSER DESIGN**

POTESTA works closely with the client to identify cost-effective and appropriate diffuser designs. Common diffuser design goals include:

- Adequate Dilution and Velocity
- Ability to Discharge Peak Flow
- Equal Flow Distribution Among Ports
- Prevention of Sediment and Debris Intrusion
- Meeting Regulatory Standards

Once the design is complete, POTESTA works closely with state and federal regulatory agencies to prepare and gain approval for the necessary permit applications, such as NPDES and Section 404 permit applications.

POTESTA can perform construction observation of the installation of the diffuser for conformance to design requirements, including diver observation of the installed diffuser.

No matter the size or complexity of your water resource issue, POTESTA can help provide an integrated solution.



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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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# POTESTA & ASSOCIATES, INC.

## *Underground Storage Tank (UST) Services*

Potesta & Associates, Inc. (POTESTA) is an engineering and environmental consulting firm whose staff of professionals has completed numerous UST-related projects. Our qualified personnel can assist you with:

- UST Removal and Regulatory Closure
- Closure Sampling and Reporting
- Subsurface Contamination Assessment
- Installation/Removal Contractor Selection
- Contractor Oversight and Monitoring
- Hydrologic Investigations
- Complete Site Assessments
- Development of Corrective Action Plans
- Pilot Scale Remediation Technology Evaluation
- Implementation of Corrective Action for Releases
- Implementation of Monitoring Programs
- Groundwater Protection Plan Preparation
- Spill Prevention, Control and Countermeasure (SPCC) Plan Preparation



### UST CLOSURES

USTs that have been permanently taken out of service must be closed in accordance with environmental regulations. In addition to those services listed above, professionals at POTESTA can assist you with tank closure services including regulatory negotiations, filing of closure notification forms and filing of regulatory reports.

### SUSPECTED RELEASE

UST regulations require that the UST system owner/operator conduct certain investigations if a release of a regulated substance is suspected. A suspected release is defined in the regulations as:

- The discovery of released regulated substances at the UST site or in the surrounding area (presence of free product or vapors in soils, basements, sewer and utility lines, and nearby surface waters).
- Unusual operating conditions (erratic behavior of product dispensing equipment, sudden loss of product from UST system, or unexplained presence of water in the tank).
- Monitoring results from a release detection method indicate that a release may have occurred.

Our professionals are knowledgeable with respect to these regulations and can guide you through the investigations, regulatory negotiations and reporting requirements.

### CONFIRMED RELEASE

When a release is confirmed at a UST site, the owner/operator must initiate investigations and submit reports as required by the regulatory agency. We are knowledgeable with respect to these regulations and can assist you with the requirements.

### REMEDIAL ACTION

The release of a regulated substance into the environment requires remedial action to remove the source of the release and to clean up the affected area. POTESTA personnel have completed many remedial projects involving soil vapor extraction, air sparging, in-situ and ex-situ bioremediation and other innovative technologies.



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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:



- 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

### 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



### POTESTA & ASSOCIATES, INC.

7012 MacCorkle Avenue, SE, Charleston, West Virginia 25304  
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Regional Offices: Morgantown, WV and Winchester, VA

# WATER DISTRIBUTION SYSTEM UPGRADES

*Town of Ceredo  
Wayne County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the Town of Ceredo to provide design, permitting, bidding and construction phase services for a \$2,700,000 upgrade to the town's water distribution system. Included in the design was field testing to develop "C" values for modeling of existing water distribution system. Hydraulic modeling included Extended Period Simulation (EPS) computer modeling, to confirm acceptable tank turnover.

Construction included:

- Replacement of approximately 22,000 feet of water line, including replacement of crossings of highways and railroads, replacement of fire hydrants and reconnection of service settings.
- Replacement of an existing below grade reservoir with two new aboveground water storage tanks.
- Installation of a telemetry control system and automatic control valve to regulate the flow from the source of supply (City of Kenova).
- Installation of a new booster station to address low pressures.
- Abandonment of an existing booster station and replacement with a renovated booster station relocated from another part of the distribution system.



*New booster station during construction.*



*Replacement of water line along US Route 60.*



*Two new water storage tanks.*

As part of the project, POTESTA worked closely with the Town of Ceredo to identify what the town's priorities were, and developed a design to address those priorities. In addition, POTESTA identified a source of funding (Drinking Water Treatment Revolving Fund) and assisted the Town of Ceredo in obtaining a commitment for this funding. Construction was completed under the \$2,700,000 in project funding, allowing for additional upgrades to be designed and constructed.

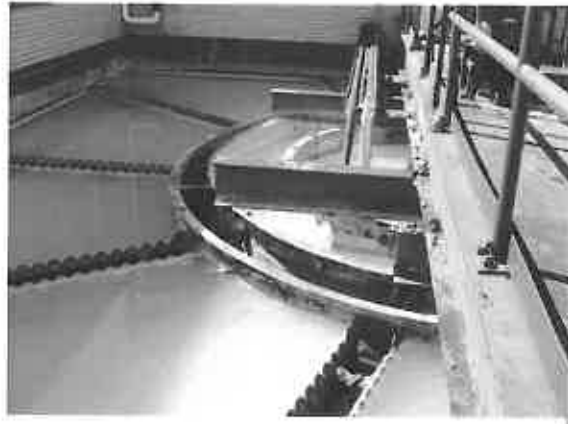
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# WATER SYSTEM IMPROVEMENT PROJECT

*City of Wellsburg  
Wellsburg, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the City of Wellsburg's Combined Water and Sewer Board (CWSB) to assist with the preparation of a preliminary engineering report (PER) and application to the West Virginia Infrastructure and Jobs Development Council (IJDC) for funding for a water system improvement project. The project included the replacement of a floating cover on the CWSB's existing 1,000,000-gallon reservoir, the replacement and upgrade of approximately 4,200 linear feet of existing water line located in a section of the City that was experiencing consistent low pressure issues, and an upgrade to the City's existing water treatment plant that was constructed over 50 years ago. The plant upgrades included renovation of the upflow clarifier, filter system, various electrical improvements, valve replacements, as well as upgrades to the chemical feed, chlorination, and control systems.



*Upflow Clarifier Prior to Replacement*



*Reservoir Floating Cover Replacement*

POTESTA's initial scope of services included the preparation of an overall system needs assessment which included a review of the treatment plant, distribution system, booster stations, tanks, telemetry, operational issues, etc. A report was generated that provided a complete list of needs for the CWSB. POTESTA also prepared an opinion of cost associated with the proposed upgrades and prioritized the list based on the financial capabilities of the CWSB. Once the needs were prioritized and funding options considered based on the desired increase to user rates, POTESTA assisted the CWSB with obtaining funding for the \$2,100,000 project. POTESTA then performed detailed design, prepared design plans and construction documents including bid and contract documents, and performed construction administration. The construction administration included reviewing shop drawing submittals, review of pay applications, preparation of change orders as necessary, and providing a resident project representative (RPR) on-site during construction to document compliance with the design plans.

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# WATER DISTRIBUTION SYSTEM UPGRADE

*City of Philippi  
Philippi, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the City of Philippi for study phase, design phase, bidding phase and construction phase services for a project involving upgrades and construction monitoring to their existing potable water distribution system.

The project included the following:

- 402,000 Gallon Storage Tank and Valve Vault
- 16,000 Gallon Storage Tank and Valve Vault
- Upgrade of Existing 160 GPM Booster to 285 GPM Booster Station
- 350 GPM Booster Station
- 50 GPM Booster Station
- 1,800 Feet of 8-inch HDPE Pipe
- 2,000 Feet of 6-inch HDPE Pipe
- Flow Metering Station
- Control Via Fiber Optic



*402,000-Gallon Water Storage Tank*

POTESTA prepared a preliminary engineering report and compiled the information necessary for a funding application with the United States Department of Agriculture - Rural Utilities Service (USDA-RUS). Additional services included final design of the project components, preparation of construction drawings and technical specifications, permit applications, and construction monitoring.

Included in the design phase was coordination of location of needed fire flow tests, and utilization of hydrant test data to “calibrate” existing system.



*50 GPM Booster Station*

Initial construction was completed under budget, allowing for additional construction including replacement of a railroad and river crossing.

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# WATER DISTRIBUTION SYSTEM UPGRADE

*City of Glenville  
Glenville, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the City of Glenville for study phase, design phase, bidding phase and construction phase services for a project involving upgrades and construction monitoring to their existing potable treatment and water distribution system.

The project includes the following:

- 6,100 LF of 8" Water Line
- 1,000 LF of 6" Water Line
- 800 LF of 2" Water Line
- 3 River Crossings (820 LF) of 10" Water Line via Directional Drilling
- 90 Valve Installations
- Over 10,000 SY of Asphalt Restoration
- Over 1,100 LF of Sidewalk Restoration
- Supply of a Backup Generator for the WTP
- Fencing of 4 Tank Sites
- 1,200 LF of Service Line
- 32 Fire Hydrants



*Main Street Where 8" Water Line Was Installed*

POTESTA prepared a preliminary engineering report and compiled the information necessary for a funding application with the West Virginia Infrastructure and Jobs Development Council. Additional services included final design of the project components, preparation of construction drawings and technical specifications, permit applications, and construction administration/monitoring.

The construction administration phase not only included providing a resident project representative but also included reviewing shop drawing submittals, reviewing pay applications, responding to requests for information, attending project meetings, etc.



*Proposed River Crossing*

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# HUNTINGTON SANITARY BOARD

## *Huntington, West Virginia*

POTESTA currently has a general agreement with the Huntington Sanitary Board (HSB) to perform services related to the Board's implementation of their Long-Term Control Plan, Water Treatment Plant Modernization Plan, and Storm Water Management Utility Establishment/Operation. This agreement has been comprised of multiple work orders for improvement of Huntington's combined sewer system.

Currently, POTESTA has concluded or is in the process of the following work:

- Redesign 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.



- Design, bidding, and construction management of combined sewer replacement project on 13th Street West and 19th Street, which includes a combination of full trench replacement and trench-less technology pipe lining for approximately 3,000 feet of 24 through 36-inch pipe.

- Flow monitoring and preliminary and final design for a new sewage lift station (approximately 31,000 gpm) to replace an existing antiquated station which pumps the majority of Huntington's wastewater to the treatment plant.



- Design, bidding, and construction management of a pump around bypass system at the 13<sup>th</sup> Street West pump.

- Assistance to the HSB regarding the CSO long-term control plan's implementation schedule.

- Management of preparation of wastewater treatment plant incinerator failure analysis.

## HUNTINGTON SANITARY BOARD

Page 2

- 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 pump station facility, including geotechnical evaluation.
- Evaluation of the mixing zone for the wastewater treatment plant discharge into the Ohio River through computer analysis. Based on the analysis, it was determined that the effluent line required a diffuser to allow for adequate mixing at the discharge.
- Design of 54-inch HDPE force main to replace the existing 54-inch PCCP force main that transports the entire HSB’s flow and had failed due to a build up of hydrogen sulfide gas at the top of the pipe at the forcemain’s crossing of the Huntington flood levee prior to the pipes entrance to the WWTP.
- Design of a new HDPE effluent line, diffuser, and air chamber located in the Ohio River to replace 50-year-old existing effluent line which failed due to excessive weight of fill placed on its corrugated metal pipe.



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# SOURCE WATER PROTECTION PLANS

## *West Virginia Department of Health & Human Resources Various Locations, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Health & Human Resources (DHHR) to prepare Source Water Protection Plans for 60 ground water and surface water public water systems (PWS) in West Virginia. Included in our scope of services was:

- Reviewing reports previously prepared by DHHR.
- Meeting with each PWS to identify source water concerns.
- Completing a field review to confirm previously prepared databases of potential contaminant sources (PCS).
- Developing protective strategies relative to the PCS of concern.
- Preparing a source water management plan, which included figures showing PCS, description of PCS, prioritization of PCS, the protective strategies, and methods for updating the plan. Contingency plans were also included.
- Presenting the plan at public forum (e.g., town council, board meeting, etc.) and answering questions on the plan.



*Potential Contaminant Source*

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# ASSET MANAGEMENT PLAN

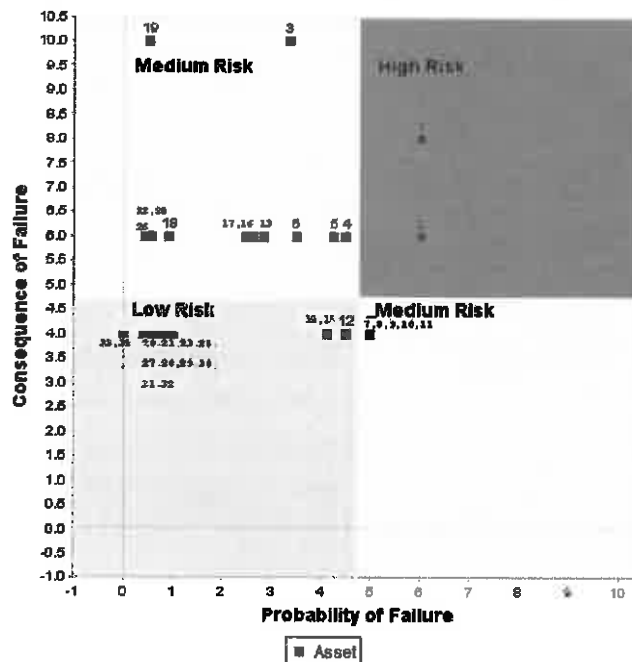
*Town of Ceredo  
Wayne County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the Town of Ceredo to prepare an Asset Management Plan, required as part of a sanitary sewer system upgrade funded by the Clean Water State Revolving Fund (CWSRF). Our effort included:

- Met on-site and reviewed the system with Town of Ceredo personnel.
- Development of asset inventory, including gravity lines, force mains, pump stations, etc.
- Identification of level of service and critical assets.
- Identification of asset redundancy, probability of failure, consequence of failure, maintenance cost, expected effective life, and replacement costs.
- Preparation of Long-Term Funding Plan.

The United States Environmental Protection Agency (USEPA) Check-up Program for Small Systems (CUP\$\$) program was used for preparing inventories, financial evaluations, etc.

POTESTA prepared the plan, received CWSRF's approval, and presented the plan in a public setting.



*Figure from CUP\$\$ Report*

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# ODOR CONTROL STUDY

## *Salt Rock Sewer Public Service District Cabell County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Salt Rock Sewer Public Service District (Salt Rock) to complete an odor control study mandated by the West Virginia Public Service Commission (WVPSC). The WVPSC had required that Salt Rock complete the study after complaints arose after a proposed lift station site was modified to include a “headworks” facility. The “headworks” facility included a screening unit and grit chamber. To complete the study, POTESTA:

- Reviewed project documentation.
- Reviewed sewage flow, hydrogen sulfide (H<sub>2</sub>S), and chemical dosing data.
- Visited the project site 10+ times to record observations.
- Estimated capital and operation/maintenance costs for three options (chemicals only, enclosure of facilities, or relocation of facilities) to reduce odors. Included in this was sizing of key components.
- Prepared a report summarizing the findings and providing recommendations.

In addition, POTESTA provided support by responding to additional requests from the WVPSC.

Project was completed using funding from the Clean Water State Revolving Fund (CWSRF).



*“Headworks” Facility with Scrubber Unit*

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# EVALUATION OF OVERFLOWS FROM SEWAGE PUMP STATION

*Salt Rock Sewer Public Service District  
Cabell County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Salt Rock Sewer Public Service District (Salt Rock) to evaluate overflows at the Culloden pump station. The Culloden pump station is part of a regional sewer transmission system that conveys sewage to Salt Rock's publicly owned treatment works (POTW). The pump station was overflowing during certain storm events, despite having twin 870 gallons per minute (GPM) storm pumps designed to engage during storm events. To complete the study, POTESTA:

- Reviewed project documentation, including design documents.
- Visited the project site to record observations, including electrical components.
- Coordinated obtaining flow/pressure data readings, and then compared results to design conditions.
- Prepared a report summarizing the findings and providing recommendations. Primary recommendations included studying upgrading average daily flow (ADF) pumps to increase velocities to 2 feet per second during ADF pumping to reduce solids deposition, and installation of additional metering.



*Culloden Pump Station with Odor Control Chemical Feed System in Background*

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*Project Abstract*

# **CITY OF THOMAS - WASTEWATER TREATMENT PLANT**

**City of Thomas**

***Thomas, West Virginia***

Potesta & Associates, Inc. (POTESTA) was retained by the City of Thomas to provide environmental consulting services related to its existing wastewater treatment facility. POTESTA's services included the following:

- Development of a biosolids management plan;
- Renewal application for individual NPDES sewage permit;
- Review of possible treatment modifications related to a combined influent consisting of municipal sanitary waste and industrial landfill leachate;
- Review of existing operation and maintenance procedures and suggestions for improvements; and
- Regulatory liaison.



In completing the aforementioned services, POTESTA also performed composite sludge sampling in the facility's lagoon. The purpose of this sampling was to determine sludge quantity as well as evaluate its chemical composition in order to properly consider various dewatering and disposal options. POTESTA has also been charged with collecting samples at the various stages of the treatment process. This information will prove to be useful in evaluating the best treatment options to meet the more stringent effluent limitations being imposed by regulatory agencies, particularly for metal concentrations.

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*Project Abstract*

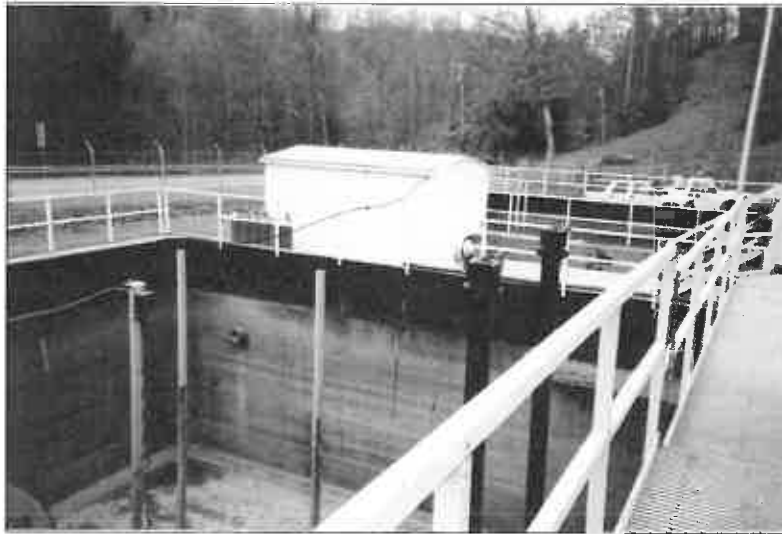
# **EVALUATION OF SANITARY WASTEWATER SYSTEM-CITY OF OAK HILL**

## **West Virginia-American Water Company**

### *Oak Hill, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by West Virginia-American Water Company (WVAWC) to evaluate the condition of the collection system and wastewater treatment plants (WWTPs) in the City of Oak Hill, evaluate current operation and maintenance (O&M) practices for the collection system and WWTPs, and provide recommendations on potential areas for rehabilitation and improvement in O&M practices for the Oak Hill Sanitary Collection and Treatment System.

Tasks completed as part of the preliminary evaluation included: file review at the West Virginia Department of Environmental Protection (WVDEP) Division of Water and Waste Management (DWWM); meeting with Oak Hill Sanitary Wastewater System personnel to review and discuss the existing sanitary wastewater system, including tours of the collection system and WWTPs; meetings with WVDEP-DWWM officials; preparation of a summary of five years of Discharge Monitoring Reports; preparation of a preliminary list of prioritized areas for sewer system evaluation study and/or rehabilitation; and preparation of a report summarizing the findings of the preliminary evaluation and providing recommendations.



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*Project Abstract*

# **CHARLES TOWN RACES & SLOTS WASTEWATER TREATMENT PLANT (WWTP)**

*Charles Town, Jefferson County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by PNGI Charles Town Gaming LLC to provide professional services for the design and permitting of a wastewater treatment plant (WWTP) in Jefferson County, West Virginia. The WWTP is to treat waste from the Charles Town Races & Slots race track and gaming resort. The facility is required due to the race track's planned expansion and the local Public Service District's lack of additional capacity.



*Wastewater treatment plant*

The planned expansion included waste flow from horse washing stalls, race track grandstands, restaurants, gaming facilities and hotels. A gravity main provides influent to the WWTP where a lift station and screening is provided. The WWTP for this project is based on a sequencing batch reactors (SBR) process supplied by Aqua-Aerobics Systems, Inc. Tertiary filtration and chemical treatment (ferric chloride and polymer) is provided to meet Chesapeake Bay standards for nutrient removal. Post-treatment with ultraviolet disinfection and aeration was also incorporated into the WWTP. The facility is designed

to meet an initial design daily flow of 250,000 gallons which can be increased to 325,000 gallons per day. Buildings were provided to house the headworks equipment, blowers, emergency generator, tertiary filter and ultraviolet unit and the motor control center, laboratory, office and garage.

POTESTA's responsibilities included:

1. Evaluation of existing WWTP to serve proposed development.
2. Preparation of permit applications including the Waste Load Allocation, West Virginia Department of Environment Protection NPDES permit for discharge into the Flowing Springs Run, West Virginia Department of Health to construct the WWTP, and CSX railroad crossing
3. Conducting a wetland delineation.
4. Site design of the WWTP.
5. Specifying and selecting treatment and other associated equipment.
6. Design, detailed construction drawings and technical specifications for the WWTP.
7. Assistance during construction.

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*Project Abstract*

# **EVALUATION OF SANITARY WASTEWATER SYSTEM - CITY OF WHITE SULPHUR SPRINGS**

**West Virginia-American Water Company**

*White Sulphur Springs, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by West Virginia-American Water Company (WVAWC) to evaluate the condition of the existing collection system and wastewater treatment plant (WWTP) in the City of White Sulphur Springs, evaluate current operation and maintenance (O&M) practices for the collection system and WWTP, and provide recommendations on potential areas for rehabilitation and improvement in O&M practices.

Tasks completed as part of the preliminary evaluation included: file review at the West Virginia Department of Environmental Protection (WVDEP) Division of Water and Waste Management (DWWM); meeting with White Sulphur Springs Sanitary System officials to review and discuss the existing sanitary wastewater system, including tours of the collection system and WWTP; meetings with WVDEP-DWWM officials; preparation of a summary of five years of Discharge Monitoring Reports (DMRs);

preparation of a preliminary list of prioritized areas for sewer system evaluation study and/or rehabilitation; and preparation of a report summarizing the findings of the preliminary evaluation and providing recommendations.



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# MINERAL WELLS REST AREA WASTEWATER TREATMENT PLANT

*West Virginia Division of Highways  
Wood County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Division of Highways (WVDOH) to evaluate sewage disposal options for their rest area along Interstate 77 near Mineral Wells in Wood County, West Virginia. The rest area was being served by a 30-year old package wastewater treatment plant (WWTP); discharge was not consistently meeting National Pollutant Discharge Elimination System effluent limitations and the WWTP was difficult to maintain due to its age and lack of readily available spare parts.

The objective of the evaluation was to provide the WVDOH with an estimate of necessary capital and operation/maintenance costs and advantages/disadvantages, and provide POTESTA's recommendations to assist the WVDOH in the selection of an appropriate wastewater disposal option.

The following options were evaluated:

Option 1: Replace the existing WWTP with a recirculating sand filter.

Option 2: Pump the sewage to the Mineral Wells Public Service District.

Based on our evaluation, POTESTA recommended to the WVDOH that they should pipe the sewage to the Minerals Wells Public Service District.



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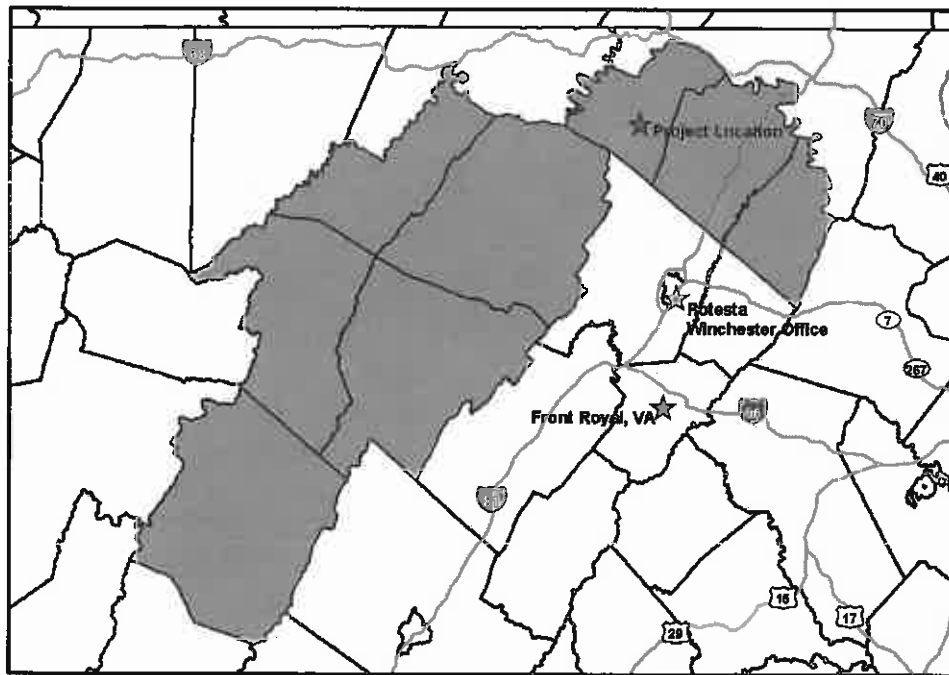
# **PUBLIC WATER SUPPLY SYSTEM THE VILLAGES AT COOLFONT**

***Berkeley Springs Development, LLC  
Morgan County, West Virginia***

Potesta & Associates, Inc. (POTESTA) was retained by Berkeley Springs Development, LLC to prepare the design of a public water supply system to provide service to approximately 1,300 customers, including commercial customers, at the proposed Villages at Coolfont located on a road off of U.S. Route 522 in Morgan County, West Virginia. Included in proposed construction was:

- Three Water Supply Wells
- One Water Treatment Plant (0.432 MGD)
- Two 316,000-Gallon Water Storage Tanks
- 75,000-Feet of Water Line
- Fire Hydrants, Gate Valves, and Other Appurtenances

As part of the design, POTESTA utilized computer hydraulic modeling to confirm that proposed line sizes allowed for anticipated operating conditions to meet regulatory standards. In addition, POTESTA utilized the computer hydraulic modeling to optimize the size of water lines, to provide savings and improve predicted water quality.



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*Project Abstract*

# **BOY SCOUT CAMP WATER AND SEWER SYSTEMS AT DILLEY'S MILL**

## **Buckskin Council - Boy Scouts of America**

*Dilley's Mill, Pocahontas County, West Virginia*

Potesta & Associates, Inc. (POTESTA) worked with the Buckskin Council of the Boy Scouts of America (BSA), the West Virginia Department of Environmental Protection (WVDEP) and the West Virginia Department of Health and Human Resources (WVDHHR) to correct problems with the existing drinking water and sanitary sewer systems at the Buckskin Reservation at Dilley's Mill, Pocahontas County, West Virginia.



After problems were discovered at the camp, the BSA asked POTESTA to review the sanitary sewer system and make recommendations regarding the upgrade and replacement of the existing lines. POTESTA was also asked to evaluate the existing sewage lagoon to determine if the facility was of adequate size. A site review of well locations, tank site, sewage treatment lagoon and alignment and location of both water and sewer lines was completed, and a report on problems identified and recommendations for correction was submitted to the BSA.

POTESTA provided administration and oversight of closure and abandonment of two of the camp's drinking water wells and the drilling of a replacement potable water well. Evaluation, recommendations and a master plan for replacement of the existing sanitary sewer system were provided by POTESTA engineers. The camp's sewage treatment lagoon was evaluated and recommendations were made for completely rehabilitating the lagoon to meet current regulatory standards.

POTESTA provided regulatory liaison and assistance with the forms required for well closure and abandonment, installation of a replacement well and replacement of the existing sewer system. Bid packages were developed for the required work and POTESTA worked closely with the BSA to issue and administer the contract with the successful bidder. After evaluation, the sewage lagoon was found to need replacement, and POTESTA worked with the BSA to provide design and construction of the replacement facility.

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# PRELIMINARY INVENTORY OF TOWN OF PINEVILLE WATER SYSTEM

*West Virginia American Water  
Pineville, West Virginia*

The Town of Pineville operates a public water system that provides water to approximately 1,175 customers in and around Pineville. Included in the water system is a water treatment plant, water storage tanks, and booster stations. West Virginia American Water (WVAW) retained Potesta & Associates, Inc. (POTESTA) to prepare a preliminary inventory of the Town of Pineville water system.

To complete the preliminary inventory, POTESTA:

- Reviewed information on the Pineville water system provided by WVAW.
- Reviewed West Virginia Bureau for Public Health (WVBPH) files on the water system.
- Met with Pineville water system officials to review and discuss the existing water system, including a “tour” of the water system, with particular emphasis on observation of the water treatment plant, water storage tanks and booster stations.
- Reviewed the latest copy of the WVBPH Sanitary Survey of the Pineville water system.
- Contacted the West Virginia Public Service Commission to identify customer complaints.
- Contacted the WVBPH to discuss concerns they may have regarding the water system, including identification of Administrative Orders.
- Contacted WVAW employees familiar with the water system to discuss concerns they may have.
- Prepared a report summarizing the preliminary inventory.



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## **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

### Water Lines, Water Storage Tanks, and Water Treatment Plants

New extensions and replacement of existing lines:

- Cassity Fork Water Supply Extension Project – Randolph County, WV (Project Manager)
- Godby Branch Water Supply Extension Project – Logan County, WV (Project Manager)
- Beaver Creek Water Supply Extension – Upshur County, WV (Project Manager)
- Buff Creek/Trace Fork – Putnam County, WV (Principal-in-Charge)
- Route 60 – Putnam County, WV (Principal-in-Charge)
- Boone County PSD numerous extensions – Boone County, WV (Principal-in-Charge)

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

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

Principal in charge for design of multiple water line extensions including design of water storage tanks, 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 in West Virginia, including:

- 10-Mile-South Putnam Water Supply Extension project – Lincoln and Putnam Counties, WV

- 5-Mile-Cline Hollow, Younger Drive, Left Hand Fork of Lens Creek, and Emmons-Grippe Water Supply Extension Project – Kanawha County, WV

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

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

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

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

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

West Virginia American Water Company – Principal-in-Charge for hydraulic analysis for water supply extensions (total of 23 miles) in Cabell County, West Virginia,

including line sizing and design of booster station and PRVs.

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

West Virginia Department of 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. Project included 90,000-gallon water tank, booster station, and pressure relief valves. Extension tied into Norton Harding Jimtown PSD System and served town of Cassity in Randolph County.

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

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

#### Sewer Lines and WWTPs

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

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

#### Storage Tanks

Principal-in-Charge of the registration, preparation of spill prevention response plans, and inspection of

aboveground storage tanks (ASTs) for over 500 ASTs for numerous clients, including:

- NiSource
- Rubberlite
- CI Thornburg
- Tetra Technologies
- CAMC
- Interstate Hardwood
- Central Supply

Closure of aboveground storage tanks, including preparation of documentation for regulatory agency and sample acquisition and analyses:

- Rhone-Poulenc Ag Company – Institute, WV
- American Cyanamid Company – Willow Island, WV

Investigation of contamination from underground storage tanks and hydrocarbon spills. Included preparation of necessary regulatory forms, sample acquisition and analyses, and meeting with regulatory agency.

- West Virginia Division of Natural Resources – various projects under Master Agreement
- Goldman Associates
- Vandalia Mining Company
- Marshall University

#### NPDES Industrial/Municipal Permitting

Completed NPDES renewal permitting and associated agency negotiations for several facilities.

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

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

**Hydrology and Hydraulics**

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

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

**Groundwater**

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

Groundwater sampling programs:

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

Management of pump tests:

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

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





**PROFESSIONAL REGISTRATION**

Professional Engineer - West Virginia  
Professional Engineer - Virginia

**PROFESSIONAL CERTIFICATIONS**

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

**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)

**AREAS OF SPECIALIZATION**

Water distribution, environmental permitting and compliance, environmental site assessments, source water protection, water and wastewater treatment, alternative sewer design, optimization techniques and NPDES permitting.

**PROFESSIONAL EXPERIENCE**

- Preparation of 120 source water assessment reports and source water protection plans for public water systems in West Virginia.
  - West Virginia Department of Health and Human Resources
- 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.
  - Boone County Public Service District
- Project Manager for 20,000+ feet of water line replacement, water tanks, telemetry, and booster stations.
  - Town of Ceredo
- Project Manager for design of Mill Creek Regional Water Supply Extension Project in Logan County, West Virginia. Design included 34 miles of distribution and transmission line, a booster station, two hydropneumatic tanks, two water storage tanks, three PRVs, a 2,800 GPM water plant, and a SCADA/telemetry system. Drawings, technical specifications, permit applications, and a cost estimate were prepared.
  - West Virginia Division of Environmental Protection/Logan County Public Service District
- Project Manager for construction administration/monitoring for the Poca River Road Water Line Extension Project; Cabell County Water Line Extension Project, Contract No. 7; Spite Road Water Line Extension Project; and Fisher Ridge Water Line Extension Project. Work included construction monitoring, preparation of weekly reports, review of contractor submittals, review of contractor invoices, and preparation of record drawings for 100,000+ linear feet of water line extensions.
  - West Virginia-American Water Company
- Design of main line pressure reducing valve and vault for the Glenwood Avenue Extension of the Cabell County Water Line Extension Project, Contract No. 6. Work included hydraulic sizing and preparation of drawing.
  - West Virginia-American Water Company

- 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 water line extension, and telemetry systems. Drawings, specifications, and a cost estimate were prepared.
  - City of Philippi
  
- Project Manager/Project Engineer for design of multiple water line extensions in West Virginia, including:
  - 10-Mile-South Putnam Water Supply Extension project in Lincoln and Putnam Counties;
  - 5-Mile-Cline Hollow 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;
  - 10-Mile Olive/Marshville/Catfish Hollow Water Supply Extension project in Harrison County;

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.

  - West Virginia Department of Environmental Protection
  
- Project Manager for Residuals Handling Facility project at the 32 MGD Kanawha Valley Water Treatment Plant, including coordination with design subconsultant. Design included sludge pumping station, 950,000-gallon reinforced concrete gravity thickener, two belt filter presses, chemical feed system, dewatering building to house the belt filter presses and chemical feed systems, plate settler, and associated control and piping. Work included preparing design concept; surveying; subsurface exploration; preparation of drawings, specifications, cost estimate and permit applications; conductance of pre-bid public relations meeting; evaluation of bids; construction observation; review of contractor submittals; review of change order requests; and review of contractor invoices.
  - West Virginia-American Water Company
  
- Evaluation of Town of Pineville water treatment plant and water distribution system, including observation of system during site visit, records review, discussions with regulatory officials, and issuance of findings in a report.
  - West Virginia-American Water Company
  
- 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.

- Tucker County Development Authority

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

- City of Philippi

- 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.

- Short Line Public Service District/Harrison County Planning Commission

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

- 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 Division of Environmental Protection

- 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-American Water Company

- Project Engineer for preparation of a conceptual design and cost estimate for the Mill Creek - Isom Community (Logan County Public Service District) Water Supply Extension Project.

- West Virginia Division of Environmental Protection

- Project Manager/Project Engineer for numerous conceptual waterline designs for 20 unserved areas (between 1991 and 1996) 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, Putnam, and Randolph Counties.

- West Virginia Division of Environmental Protection



## 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

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.

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.

Quarry Creek Subdivision consisting of vertical turbine booster station and a 330,000-gallon water storage tank, with an elevated storage tank bid option and water lines.

Kellys Creek Project consisting of 16-inch water main extension, booster station, and water storage tank along Route 60 using WVDEP, AML funding.

Little Sandy, Aarons Fork and Edens Fork Projects. Construction of water mains, a booster station and a 160,000-gallon storage tank utilizing two Small Cities Block Grants with KCDRA.

Summers-Mercer Water Project included design of an 8-inch water main to Hinton and a 24-inch water main from the new Bluestone plant to Princeton, including the pressure reducing stations along with the 300,000-gallon water storage tank near Pipestem.

Designed and constructed multiple small water main extensions, working with developers, customers and small contractors to serve new subdivisions and unserved areas.

**Sewer Lines and WWTPs**

Project Manager for the replacement of the Wastewater Treatment Plant at Point Pleasant, West Virginia. This included being responsible for design, plans, specifications, regulatory approval, bidding and bond sale, and construction management.

Project Manager for the Big Sandy Sewer Public Service District Vacuum System Project, which included the design and construction of three vacuum sewer stations, two sewage pump stations, a 9-mile force main, and the vacuum sewer collection system. Responsibilities of the above involved the preparations of engineering contracts, planning reports, plans and specifications, bid documents, operation and maintenance manuals, and change orders for state and federally funded wastewater and water projects. The process involved cost-effective analysis, public relations, technical writing, and public speaking.

Inspection of wastewater collection systems, writing Operation and Maintenance Manuals, Facility Plans, and Grant Applications for various clients.

Project Engineer for the Logan Wastewater Interceptor Project, the Town of Barboursville Lagoon Improvements, and the Philippi Wastewater Project including a new Oxidation Ditch Plant, renovation of an existing pump station, sewer main replacement design, and construction. Experience included designing wastewater treatment plants, sludge handling facilities including belt filter presses, wastewater collectors and pumping systems, site developments, access roads, and combined sewer overflow (CSO) facilities.



## 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

Water and wastewater project management/funding coordination, hydrologic and hydraulic engineering, fluid mechanics, and sediment transport; site development design; conceptual and final designs for chemical utility and municipal solid waste disposal sites; abandoned mine

lands reclamation projects; environmental permitting; construction plans and specifications.

## PROFESSIONAL EXPERIENCE

### Sewer Lines and WWTPs

Huntington Sanitary Board – Client Manager designed and/or managed the preparation of the following:

- Combined sewer replacement project on 13<sup>th</sup> Street West and 19<sup>th</sup> Street
- Rehabilitation/replacement of gravity sewer line within city
- Redesign of conversion of four ejector stations to submersible pump stations
- Flow monitoring and preliminary and final design for a new sewage lift station
- Assistance regarding the CSO long-term control plan's implementation schedule
- Management of preparation of wastewater treatment plant incinerator failure 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 pump station facility
- Evaluation of the mixing zone for the Wastewater Treatment Plant discharge
- 54" force main replacement, including replacement of flowmeter and vault

Town of Handley – Design of complete rehabilitation of three existing pump stations to include raising one station above flood plain level and design from a cast-in-place concrete cap to allow building to remain. Design also included rerouting an existing 2-inch force main from the existing 4-inch force main to a nearby manhole.

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 are not disturbed. Do to flat slope lines and requirement of line to meet existing manhole elevations, lines were accurate to a 1/100<sup>th</sup> foot.

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

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.

Water Lines, Water Storage Tanks, and Water Treatment Plants

West Virginia Infrastructure and Jobs Development Council:

- Oversight of water technical review committee for infrastructure water projects
- Member of sewer committee and sitting member of the Funding and Infrastructure Council
- Oversight of technical assistance/review for infrastructure water projects and wastewater preliminary applications Represented Bureau of Public Health in committee and council meetings
- Sitting member of consolidation committee

Permitting Program – Directed review and issuance of public water and wastewater, public swimming pool, agricultural waste construction permits and water vending machine permits.

Drinking Water Treatment Revolving Fund and State Tribal Assistance Grant Programs:

- Directed overseeing loan and grant administration including technical and financial review
- Project selection
- Coordination with appropriate federal and state agencies (environmental and funding) and public water systems Coordination of bid advertising, loan closing, construction administration (processing of invoices, change orders, etc.)
- Water system adherence to loan conditions

Program responsible for:

- Preparation of program grant applications and reporting to EPA including: annual reports, disadvantaged business enterprise reports, and intended use plans
- Oversight of 2 percent technical assistance grant with the West Virginia Rural Water Association, which provides continuing education to water treatment plant operators
- Oversight of the 4 percent administrative set-aside to Water Development Authority in financial management of the Drinking Water Treatment Revolving Fund

Capacity Development Program:

- Directed, assessed, reported on and provided assistance on the technical, financial and management capabilities of public waters systems
- Responsible for the oversight of program adherence to capacity development strategy, Governor's report, and annual reports to the EPA.

Project engineer on waterline extension projects, including WVDEP-AML projects in central and southern West Virginia. Projects contained waterline, tank and booster station design, preparation of contract bid documents, and construction management.

Villages of Coolfont – Project Engineer for design of 300 gallon per minute potable water treatment plant to serve 1300-home village center and spa, three deep wells and raw water transmission lines. Water treatment plan was designed to treat hard water.



**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  
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.

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.

ESAs (Phase I and II)

Numerous Phase I Environmental Site Assessments including reclamation liability assessments for mining and industrial properties in West Virginia and Kentucky. Projects typically focused on solid waste disposal practices, potential acid mine drainage discharges, underground storage tank status, areas of hydrocarbon soil contamination, PCB transformer concerns, and other environmental liabilities.

Phase II environmental site assessment for an abandoned mining complex located in Fayette County, West Virginia. The new owners wished to identify any liabilities and determine approximate clean-up costs for negotiations with the previous owners. The areas evaluated included two aerial tram head houses, a drum storage area, truck maintenance garage, mine machinery repair shop, two commercial properties, a lamp house, and other storage areas. Numerous areas of petroleum hydrocarbon contamination were identified and the extent of contamination documented. An on-site laboratory was used to expedite testing and establishing the boundary of areas requiring remediation. The results of the investigation were summarized in a report, including a detailed description of sampling and laboratory analysis methods, drawings showing sample locations, laboratory results, estimated volumes of contaminated soils, and recommendations for cleanup.

West Virginia Regional Jail and Correctional Facility Authority – Phase I Environmental Site Assessment to document potential liability for a tract being considered for a regional jail site in Kanawha County, West Virginia. Activities included historic records search, interviews, site reconnaissance and preparation of a report documenting the findings.

DiMucci Development – Phase I Environmental Site Assessment for property proposed for development as a strip mall.

The Multicare Companies, Inc. – Completion of eight Phase I Environmental Site Assessments for nursing and rehabilitation care facilities in West Virginia.

Virginia Electric Power Company – Assistance with site design and engineer's construction cost estimate for the remedial design of a CERCLIS waste disposal facility.

Phase I environmental site assessments for feedstock recovery sites associated with three coal-based synthetic fuel manufacturing plants. The feedstock recovery sites included numerous coal waste slurry impoundments, dry refuse piles, and mixed refuse disposal areas. Assessments focused on potential acid mine drainage problems, former waste disposal areas, and other mining-related environmental liabilities. A report was prepared detailing the findings for each site.

Storage Tanks

Rhone-Poulenc AG Company – Geotechnical and environmental investigation for two proposed aboveground reinforced concrete tanks to serve as secondary wastewater treatment unit. Investigation included soil drilling, sampling, laboratory analysis for engineering properties, and analysis for contamination. Field survey completed to locate existing structures. Report prepared outlining soils/geology, environmental concerns and foundation recommendations.

Closure of 13 aboveground RCRA storage tanks. Closure services included review of agency approved closure plan to determine compliance items, visual inspection of tank interiors and earthen containment berm areas, review of rinsate analyses, review of soils testing analysis from berm areas, and preparation of closure documentation and certification.

- Rhone-Poulenc AG Company
- American Cyanamid Company

Cannelton, Inc. – Abandoned underground storage tank investigation including sampling of tank contents, geoprobe investigation, and field and laboratory analysis of soil samples.

Sewer Lines and WWTPs

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

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

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

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

## EDUCATION

Associate      Engineering Technician, 2002  
Fairmont State College Transportation

Charleston High School, 1989  
WVWEA O&M Short School

## EMPLOYMENT HISTORY

2003-Present      Potesta & Associates, Inc.  
2002                  CTL Engineering, Inc.  
2000-2001         Site-Blauvelt Engineers  
1998-2000         Triad Engineering, Inc.  
1989-1998         Kroger Company

## PROFESSIONAL CERTIFICATION

WVDOH Compaction Inspector  
WVDOH Concrete Technician  
WVDOH Concrete Inspector  
WVDOH Asphalt Technician  
WVDOH Aggregate Inspector  
ACI Concrete Technician Grade 1

## AREAS OF SPECIALIZATION

Construction observation for public utility projects including installation and testing of piping, storage tanks and booster pumps for potable water piping, manholes and pump stations for sewer, and modifications to water treatment plants. Pressure testing of piping, sleeves (for "hot taps"), and vacuum testing of manholes.

Sampling and testing of materials, including soils and concrete. Testing included nuclear density, compaction testing of soil, stone and asphalt; one point proctor determinations, sand cone density tests, concrete/grout testing and cylinder/cube fabrication. Lab work included standard proctors, gradations, 200 washes, sieves, liquid and plastic limits, moistures, hydrometers, soil classification, sample logging, and compressive strength testing.

## PROFESSIONAL EXPERIENCE

### Construction Monitoring

Town of Ceredo – Resident Project Representative (RPR) for installation of approximately 18,000 feet of 8-inch and

6-inch water line, two water storage tanks and booster pump for the Water Distribution System Upgrade Project in Wayne County, West Virginia.

Fleming Landfill – RPR for installation of approximately 6,225 feet of 8-inch gravity line, 43 manholes (both less and greater than 8 feet in depth), a new pump station, and 3,500 feet of 4-inch force main the Sewer Line Project in Kanawha County, West Virginia. Construction included installation of an 8-inch HDPE effluent line and flow metering manhole to convey leachate from the Fleming Landfill to the local PSD, upgrade an existing pump station to handle the increased demand, and abandonment of an outdated pump station and force main.

West Virginia-American Water Company – RPR for Residuals project serving as a liaison to contractor and monitoring work for owner and engineer. Work included receiving materials, reviewing submittals and progress payments, drafting and issuing change orders, and preparing daily logs summarizing construction. Construction work included installation of sludge pumping station, 1,000,000 gallon concrete gravity thickener, plate settler, two 2.2-meter belt filter presses, chemical feed systems and conveyors, and a building to house equipment. Included was monitoring of pipe installation (e.g. backfill placement, pressure testing) for 25 different subsurface piping systems.

RPR for installation of approximately 9,000 linear feet of water line, a booster station, and a water storage tank at a coal mine complex in Logan County, West Virginia. Maintained daily logs of construction activities, verified pay requests, served as liaison with client, and developed record drawings.

RPR for installation of approximately 14,000 feet of 8-inch water line for the Fisher Ridge Phase II waterline extension in Putnam County, West Virginia. Maintained daily logs of construction activities, verified pay requests, served as liaison with client, and developed record drawings.

RPR for installation of approximately 11,000 feet of 8-inch, 6-inch, and 2-inch water line for the Mifflin-Sharple's waterline extension in Logan County, West Virginia. Included were upgrades to existing water line, a railroad crossing, and connections to the existing Logan County Public Service District Sharple's system. Maintained daily logs of construction activities, verified

pay requests, served as a liaison with client, and developed record drawings.

3M – Project Field Superintendent for West Virginia Turnpike 3M striping contract for the last four years. Oversees the striping and legend work for the 87-mile toll road. As Field Superintendent, verifies the materials, quantity and quality control. Coordinates work of the contractor with WVDOH, West Virginia Turnpike and West Virginia State Police. Handles all communications between the parties.

RPR for installation of approximately 3,700 feet of 12-inch and 8-inch HDPE subsurface effluent piping system. Tasks included verifying that bedding and backfill compaction requirements were met, along with requirements for pressure testing of installed pipeline and vacuum testing of manholes. Also, maintained daily logs of construction activities, informed client of progress and/or complications and developed record drawings.

West Virginia Division of Highways (WVDOH) – Consultant Inspector to West Virginia Division of Highways (WVDOH), overseeing work and progress of contractors to assure that projects meet WVDOH specifications. Duties included preparing daily reports, documentation of payable quantities of completed items (e.g., 200 LF of 24" RCP @ \$5/LF = \$1,000), contractor progress, time and material monitoring of additional work not included in the contract, file maintenance, receiving documents, attending meetings and maintaining public safety, as well as field inspection. Projects included Dry Run Bridge job and I-64 Institute to Dunbar project (including four bridges).

#### Civil/Site Design

Work experience includes various site development projects including placement of water, sewer, gas, electrical and storm water utilities associated with development.

#### Geotechnical

Kokosing/Frucon – Field technician testing soil and concrete for Marmet Lock and Dam project. Also supervised Soils Lab. Field duties included job site documentation, sampling and testing of materials. Conducted nuclear density tests, sand cone density tests, one-point proctor determinations, concrete/grout testing and cylinder/cube fabrication.

Completed the following types of inspections:

- Asphalt placement and compaction
- Clearing and grubbing
- Concrete
- Fill placement and backfill
- Free draining base trench
- MSE wall
- Pipe installation, backfill and testing
- Piling
- Structure demolition
- Subgrade placement and compaction
- Superstructure steel
- Traffic control

Inspected and tested asphalt placement, concrete placement, soil and aggregate compaction.

Conducted core drilling, jobsite documentation, lab work, density tests, operating nuclear density gauges, fabricating concrete cylinders and conducting roller passes on stone.

Yeager Airport – Concrete experience includes inspection and testing of concrete treated base (CTB) and Rapid Set Concrete in Charleston, WV.

Drilling experience includes logging split spoons and rock core samples, pumping water and reclaiming drill sites.

#### Surveying

Assisted with surveying projects, running levels, conducting right-of-way surveys, locating utilities, houses, buildings and driveways on plans, searching property deeds and will books, setting property and centerline stakes, TBMs and hard points. Also worked as a rodman.

