

**ORIGINAL**

**EXPRESSION OF INTEREST FOR  
PROFESSIONAL ENGINEERING DESIGN  
SERVICES AND CONSTRUCTION  
MONITORING SERVICES FOR THE  
MOUNT STORM MINE 25A PROJECT  
RFQ NO. DEP14369**

*Prepared for:*

**West Virginia Department of Environmental Protection**

Department of Environmental Protection  
Office of Abandoned Mine Lands and Reclamation  
601 57<sup>th</sup> Street, SE  
Charleston, West Virginia 25304

RECEIVED

*Prepared by:*

2008 OCT 22 P 1: 08

**Potesta & Associates, Inc.**

7012 MacCorkle Avenue, SE  
Charleston, West Virginia 25304  
Phone: (304) 342-1400 Fax: (304) 343-9031  
E-mail: potesta@potesta.com

PROCURING DIVISION  
STATE OF WV

**CONTACT: Mr. Dana Burns, Vice President**

Signature: *Dana L. Burns*

Project No. 0101-08-0492

October 22, 2008

**POTESTA**



# TRANSMITTAL LETTER

7012 MacCorkle Avenue, SE, Charleston, WV 25304 ■ Phone: (304) 342-1400 ■ Fax: (304) 343-9031

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

Date: October 22, 2008  
Project No.: 0101-08-0492

Sent Via:  Mail  Federal Express  United Parcel Service  
 Hand Carried  Other: \_\_\_\_\_

Quantity	Description
2	Expression of Interest for Professional Engineering Design Services and Construction Monitoring Services for the Mount Storm Mine 25A Project, RFQ No. DEP14369 (One Original and One Copy)
1	CD of Expression of Interest for Professional Engineering Design Services and Construction Monitoring Services for the Mount Storm Mine 25A Project, RFQ No. DEP14369
<b>Remarks:</b>	

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

## TABLE OF CONTENTS

1.0	QUALIFICATIONS.....	1
1.1	Corporate History and Experience.....	1
1.2	Experience, Qualifications, and Performance Data of Primary Staff .....	5
1.3	Experience, Qualifications, and Performance Data of Other Staff .....	6
1.4	Management Plan and Location of Facilities.....	7
2.0	CLOSING .....	10

### APPENDICES

Insurance and Worker's Compensation Certificates .....	APPENDIX A
DEP14369 Signature Sheets and Affidavit.....	APPENDIX B
AML Consultant Confidential Qualification Questionnaire.....	APPENDIX C
AML and Related Project Experience Matrix.....	APPENDIX D
Service Briefs.....	APPENDIX E
Project Abstracts .....	APPENDIX F
Project Organization Chart .....	APPENDIX G

**EXPRESSION OF INTEREST FOR  
PROFESSIONAL ENGINEERING DESIGN  
SERVICES AND CONSTRUCTION  
MONITORING SERVICES FOR THE  
MOUNT STORM MINE 25A PROJECT  
RFQ NO. DEP14369**

**1.0 QUALIFICATIONS**

**1.1 Corporate History and Experience**

Potesta & Associates, Inc. (POTESTA) proposes to provide professional engineering design services and construction monitoring services to the West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands & Reclamation (WVDEP, AML). These services will consist of attendance at pre-bid and pre-construction conferences, construction monitoring, providing an updated revised Engineer's Cost Estimate, review of plan and specification and other miscellaneous services as may be required for the Mount Storm Mine 25A Project located in Grant County, West Virginia. The project will consist of:

- ◆ Upgrading of 1,500 feet of access road to the site.
- ◆ Dewatering the impoundment and backfilling the highwall area with compacted mine spoil.
- ◆ Constructing underdrains and diversion ditches to carry the water safely off-site.
- ◆ Constructing natural stream channel and grouted riprap channel with culverts.
- ◆ Constructing and revegetation of areas disturbed during construction.

POTESTA is an engineering and environmental consulting firm providing professional services to deliver innovative, cost-effective solutions to complex problems. Our firm is multi-disciplinary and has a diversified practice covering engineering (civil, chemical, environmental, geotechnical, mechanical, and mining), permitting, site characterization and remediation, and general environmental consulting. Civil/site and geotechnical engineering are areas of extensive expertise at POTESTA. We have worked on numerous large projects (university dorms to power plant foundations) throughout the region. Our 12 registered professional engineers have over 225 years of experience among them and are supported by a large group of engineers, designers, surveyors and a landscape architect. Regulatory liaison and environmental compliance are areas of exceptional strength for POTESTA as the President of the company is a former director of the West Virginia Department of Natural Resources, and a Vice President is a former director of the West Virginia Division of Environmental Protection.

Our clients include state, local, and federal government agencies, mining companies, manufacturers, utility companies, waste management companies, chemical companies, architects, attorneys, financial institutions, insurance companies, land developers, and construction companies.

We carry a full line of insurance coverage including general liability, errors and omissions, and workers' compensation; Insurance and Workers Compensation Certificates are included in **Appendix A**. We also have quality control procedures to assist in providing our clients with quality projects.

POTESTA offers the following professional services.

- ▶ 404 Permit Preparation and Negotiation
- ▶ Acid Mine Drainage Control
- ▶ Asbestos Inspection
- ▶ Benthic and Biological Studies
- ▶ CADD Services (AutoCAD 2007, Various Software Design Packages, Digitizing and Plotting)
- ▶ Chemical Engineering
- ▶ Civil Engineering
- ▶ Clean Air Act Compliance
- ▶ Construction Monitoring
- ▶ Corporate Environmental Management
- ▶ Design of Slurry Impoundments and Refuse Disposal Sites
- ▶ Dewatering Plans
- ▶ Environmental Engineering
- ▶ Environmental Impact Studies
- ▶ Environmental Site Assessments
- ▶ Environmental Audits
- ▶ Environmental Engineering
- ▶ Erosion and Sedimentation Control Plans
- ▶ Expert Witness and Litigation Support
- ▶ Feasibility Studies
- ▶ 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 and Land Use and Natural Resource Planning
- ▶ Landfill Closure Plans
- ▶ Land Use and Natural Resource Planning
- ▶ Mining Engineering
- ▶ Multimedia Sampling (Air, Fly Ash, Rock, Soil, Water)
- ▶ Pollution Prevention and Waste Minimization Planning
- ▶ Permitting (Air, FERC, Fly Ash Haulback, Mining, NPDES, Quarry and Solid and Hazardous Waste)
- ▶ Post Reclamation Land Uses
- ▶ Pre-Blast and Pre-Subsidence Surveys
- ▶ Preparation of Construction Documents (Calculations Brief, Construction Drawings, Contractor's Bid Sheet, Engineer's Cost Estimate, QA/QC Manual and Technical Specifications)
- ▶ 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
- ▶ Sewer Line Design
- ▶ Site Characterization and Remediation Planning
- ▶ Site Design/Planning
- ▶ Soil Science/Agronomy
- ▶ Spill Prevention Control and Countermeasure Plans
- ▶ Stabilization and Closure of Waste Impoundments
- ▶ Stormwater Management and Permitting
- ▶ Stream Benthic Macro-Invertebrate Surveys and Toxicity Evaluations
- ▶ Stream and Water Restoration
- ▶ Subsidence Studies
- ▶ Subsurface Investigations
- ▶ Surface and Groundwater Monitoring, Statistical Analysis and Reporting
- ▶ Surveying (Traditional and Global Positioning System)

- ▶ UST Closure and Site Remediation
- ▶ UST Installation Monitoring
- ▶ Waste Facility Permitting and Design
- ▶ Waste Disposal Design
- ▶ Water Line Design
- ▶ Water/Wastewater Treatment Design
- ▶ Wetland Investigation and Delineation, Mitigation Design and Monitoring

POTESTA has the following staff in our Charleston, West Virginia office:

- 18 Engineers, Including 10 Professional Engineers
- 19 Scientists (Biologists, Ecologists, Environmental Scientists, Etc.)
- 3 Geologists/Hydrogeologists/Geological Scientist
- 1 Hydrologist
- 7 Surveyors
- 7 CADD Operators/Designers
- 7 Technicians/Construction Monitors
- 2 Chemists
- 18 Support and Other Staff

POTESTA, since starting in 1997, has grown to almost 100 employees in three offices. Included are 12 registered professional engineers (R.P.E.'s), three registered professional licensed land surveyors (P.L.S.'s), one registered professional geologist, and two PhD's whose specialties include aquatic biology and water quality. POTESTA has assembled a team that has historically served WVDEP, AML on numerous AML projects. In fact our staff has worked on over 70 AML projects for WVDEP (and more in other states) on four different WVDEP, AML contracts dating back into the mid 1980's. We have an ongoing workload with WVDEP, AML.

POTESTA will perform the work for this project from our Charleston, West Virginia office. Our proximity to WVDEP's Charleston office will facilitate immediate response to your needs and allow meetings to be attended within minutes notice; in addition, we can draw upon support from our Morgantown office which also has experience with AML projects. POTESTA emphasizes that we will make a priority commitment to this project.

POTESTA has completed projects involving Civil, Structural, Geological, Hydrological and Reclamation Engineering; Land Use and Natural Resource Planning; Soil Science/Agronomy; Hydrology/Geology; Stream and Water Restoration; and Post Reclamation Land Uses. In addition, POTESTA is currently a contractor to the WVDEP Landfill Closure Assistance Program (LCAP) for surveying, geotechnical and other engineering services for preparing construction documents for reclamation of landfills, and for closure and remediation of underground storage tanks (UST's). We also have open ended statewide contracts with the West Virginia Division of Highways (WVDOH) for survey services and asbestos inspection services. In addition, we have the preeminent staff in West Virginia for addressing issues regarding water quality and regulatory issues since (a) two of our principals are former heads of the state environmental regulatory agency and one was also chief of the water quality regulatory agency, and, (b) we have several PhD's and others with degrees whose specialty is water quality. As a result, POTESTA will provide the required expertise to complete this AML project in a timely, economical, and efficient manner.

POTESTA has assembled a successful team of employees that have historically worked on WVDEP, AML projects. In fact, our staff has 100+ years experience working on WVDEP, AML projects and AML projects in other states. Our staff's direct knowledge of the AML program guidelines and personnel, our familiarity with the applicable state regulations, and our commitment to success will benefit WVDEP, AML.

POTESTA has 10+ employees with experience on WVDEP, AML projects. POTESTA employees have worked on and have experience in the following WVDEP, AML projects:

- ◆ Assessment of Contamination (e.g., PCB's, asbestos)
- ◆ Demolition of Structures
- ◆ Diversion of Stormwater
- ◆ Identifying Acid Mine Drainage
- ◆ Landslides
- ◆ Mine Fires
- ◆ Passive Acid Mine Drainage Treatment
- ◆ Reclamation of Refuse Piles
- ◆ Sealing Mine Portals
- ◆ Stream Relocations
- ◆ Subsidence Assessment and Remediation
- ◆ USCOE Permitting
- ◆ Water Line Design
- ◆ Water Supply Feasibility Studies and Design
- ◆ Inventory of Residential Water Supplies
- ◆ Wetland Assessments

POTESTA has completed or is working on several projects involving AML sites, or projects similar to a WVDEP, AML type project. These include water line design and construction administration and observation, design and permitting of refuse piles and slurry impoundments, evaluating mine drainage from pre-SMCRA sites, reclamation designs for WVDEP, LCAP, landslides, stream monitoring, development of grading plans, mine reclamation liability assessments, watershed assessments including evaluation of impact from AMD including AMD from pre-SMCRA sites, detention pond designs, wetland studies, mine site design and permitting and design of numerous storm water structures.

**Appendix B** contains the executed Request for Quotation form and Purchasing Affidavit form.

The following describes POTESTA's qualifications for the surveying, aerial mapping, subsurface exploration, and laboratory services necessary for this project:

POTESTA proposes to utilize our own survey crews on this project. POTESTA will perform all of the surveying required for this contract using in-house personnel. POTESTA has three licensed professional surveyors with over 40 years of combined surveying experience. Our surveyors are

experienced in all aspects of surveying such as topographic mapping, boundary and property surveys, and construction surveys for layout of work, record drawings, and quantity measurements.

POTESTA's surveyors use state-of-the-art "Field to Finish" equipment such as total station instruments, data collectors, AutoCAD 2007, Autodesk Land Desktop 2007 and Autodesk Civil 3D 2008 design software, computer hardware for data management, and a Hewlett Packard Designjet 5500 color ink jet plotter.

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

POTESTA utilizes state of the art computers and hardware, networked through Windows NT, for interfacing of drafting and surveying departments. Thus, drawing and surveying data files can be shared efficiently.

Surveys and mapping are completed to the standards as outlined by the National Map Standards as well as other applicable quality standards.

Additional information on POTESTA's corporate history and experience is included in the AML Consultant Confidential Qualification Questionnaire included in **Appendix C**.

## **1.2 Experience, Qualifications, and Performance Data of Primary Staff**

Primary staff POTESTA commits to this contract and their roles are as follows:

Mr. Dana L. Burns, PE, Vice President at POTESTA, will serve as principal-in-charge for this project. Mr. Burns has served as project manager or principal-in-charge on three open end contracts for WVDEP, AML from 1986 through 1997 totaling over 60 projects. In addition, Mr. Burns has served as the principal-in-charge for four other WVDEP, AML projects since 2003. Mr. Burns' experience includes 28 years of civil and environmental engineering and related projects including water line extensions, sealing portals, regrading refuse, site assessments, mine fires, preliminary feasibility evaluations, detailed design, and preparation of construction drawings, specifications, and bid documents. Mr. Burns will ensure that the AML workload is properly supported.

Messrs. Mark Kiser, P.E., and Terence Moran, P.E., will serve as a project manager/design team leader. Mr. Kiser has served as a project manager/project engineer for over 30 AML projects in West Virginia between 1988 and 1997. Mr. Kiser has 24+ years experience in civil and environmental engineering projects including evaluation, design, preparation of plans and specifications, and construction administration. He has worked on over 60 AML projects as well as extensive experience with the coal industry. Mr. Kiser performs constructability reviews on our projects during and after design. Mr. Kiser is currently POTESTA's project manager for



POTESTA's WVDEP, LCAP contract. Mr. Moran has served as project manager/project engineer or assisted with over 60 AML projects in West Virginia and Virginia between 1989 and 1999. Mr. Moran has 17+ years experience in civil and environmental engineering projects, including evaluation, design, preparation of plans and specifications, and construction administration. Mr. Moran has co-authored multiple papers, including one on the abatement of AMD at the Omega Mine site and another on evaluating AMD of AML sites during preacquisition site assessments. Messrs. Kiser and Moran have worked on AML projects that addressed such technical issues as AMD, sealing portals, regrading refuse, diverting stormwater, landslides, subsidence and water supply. Messrs. Kiser and Moran are both familiar with requirements of AML projects and will ensure that WVDEP is satisfied with POTESTA's work by ensuring that proper QA/QC and timeliness are adhered to.

**NOTE: Since POTESTA has 12 professional engineers (P.E.), a combined significant track record with AML projects, POTESTA believes it can handle a substantial AML workload. Hence, POTESTA can adequately staff the Mount Storm Mine 25A Project. POTESTA can assign an additional four design teams to other AML projects if asked to do so.**

POTESTA has four other P.E.s with AML and related design experience in Messrs. Vince Ammirato, Bill Drinkard, Patrick Ward, and Ryan McGlothen, who will also serve as design team leaders. Their individual experiences and capabilities are discussed in further detail later in this section and in **Appendix D**.

In addition to the design team leaders, POTESTA has an additional project manager/project engineer in Mr. Chris Grose who has worked on numerous WVDEP, AML projects. Mr. Grose will serve as POTESTA's geotechnical scientist for work on this contract. Mr. Grose currently oversees aspects of geotechnical work at POTESTA and worked on WVDEP, AML projects from 1990 to 1997. Mr. Grose will evaluate slope stability issues with respect to regraded coal refuse.

Abbreviated personal history statements of primary staff and more detailed descriptions of staff experience are presented in the AML Consultant Confidential Qualification Questionnaire in **Appendix C**, and the AML and Related Project Experience Matrix in **Appendix D**.

### **1.3 Experience, Qualifications, and Performance Data of Other Staff**

POTESTA has a staff of almost 100 technical and support personnel. Combined with our team of highly experienced subcontractors, POTESTA is exceptionally well suited to: (1) complete surveying and mapping; (2) perform geotechnical services including subsurface exploration and laboratory analysis; (3) design drainage diversion structures such as mine seals, reinforced concrete caps over vertical openings, channels and culverts, perform regrading plans for the refuse areas, and design dewatering plans, if necessary; (4) develop engineering drawings, contract specifications, permit applications and other contract documents; and (5) attend a pre-bid meeting and preconstruction conference as may be required for the Mount Storm Mine 25A Project. POTESTA can conduct all design engineering work required for this project with present personnel.

POTESTA's project managers will be supported by a team of engineers, scientists, surveyors, hydrologists, geologist/hydrogeologists, biologists, CADD operators, and other support personnel from POTESTA's staff. Included are geotechnical scientists and geotechnical engineers such as Mr. Chris Grose and Mr. Patrick Ward, P.E., who have both worked on numerous AML projects in the early to mid 1990's; project engineers such as Daniel Lipscomb, E.I.T., Ryan McGlothen, P.E., Robert Ammirato, E.I.T., Jarrett Smith, P.E., and Kenneth Kinder, P.E.; Mr. Vince Ammirato, P.E., a civil engineer with an emphasis in structural engineering who has extensive experience in design of reinforced concrete and steel structures; Mr. Bill Drinkard, P.E., a mining engineer whom has worked on numerous projects involving earthwork, site drainage, AMD, mine land reclamation, calculations, plans and specifications and construction administration; Mr. Denny Kohler, an environmental scientist who was in charge of surface mine reclamation for a major coal company for 18 years and has prepared numerous reclamation plans including reclamation of a coal waste impoundment in Kanawha County; Mr. Victor Dawson, P.L.S., who has worked on developing mapping or performing construction layout on projects dating back into the late 1980's; and POTESTA's team of CADD Operators whom have also worked on AML projects.

Abbreviated personal history statements of key personnel are presented in the AML Consultant Confidential Qualification Questionnaire presented in **Appendix C**. Additional information is included in Section 1.4 "Management Plan and Location of Facilities."

Our corporate and staff's experience involves civil (including water supply systems), structural, geological, hydrological, environmental, mining, geotechnical, and reclamation engineering; land use and natural resource planning; soil science/agronomy; hydrology/geology; surface/underground coal mining; environmental and ecological principles in land reclamation, stream and water restoration, and post reclamation land uses; and contract administration. Our capabilities, qualifications and expertise in design of AML projects are further exemplified in **Appendix E - Service Briefs** and **Appendix F- Project Abstracts**.

POTESTA provides multi-disciplinary services and can perform all of the professional services required under this contract.

## **1.4 Management Plan and Location of Facilities**

### **Management Plan**

POTESTA's proposed project organization chart including key staff and subcontractors is shown by Figure 1 in **Appendix G**. Work will be performed at POTESTA's Charleston, West Virginia office or on-site as may be required. Our Charleston location is convenient with respect to WVDEP's Charleston office; the effort will be supported by our Morgantown office if needed.

POTESTA's professional, technical, and support staff have extensive experience on water supply and WVDEP, AML projects. We are well qualified to serve WVDEP on this project. We stand ready to commit the personnel and resources required to complete this project in a timely, technically sound,

and cost-efficient manner. POTEESTA's large staff size will allow us to work on this project on an accelerated schedule if necessary.

As shown by Figure 1 in **Appendix G**, POTEESTA's principal-in-charge will be responsible for contract management (administration) and shall coordinate and direct all aspects of the project. The principal-in-charge will review the proposed project, assign a project manager, assemble a project team and appoint key staff to develop a proposed scope of work. The principal-in-charge and project manager will visit the site with WVDEP, AML to review site conditions and the proposed services to be completed and guide the preparation of a detailed proposal and cost estimate. A written proposal including a detailed scope of work and an associated manhour and cost estimate will then be prepared and submitted to WVDEP, AML for review. The project manager will review the proposal with the WVDEP, AML including a task-by-task discussion of work items and the related costs. Upon WVDEP, AML's approval of the proposal, the project manager will arrange for the start of project activities. The principal-in-charge will provide the project manager the required staff necessary to complete the project activities, will review the project budget and schedule during performance of the project, and will provide a final QA/QC review of the documents prior to submittal to the WVDEP, AML. Mr. Dana Burns, P.E. will serve as the principal-in-charge on this project. Day-to-day project activities for this project will be performed under the direction of our project manager, Mr. Mark Kiser, P.E. Mr. Terence Moran, P.E. will serve as a "backup" project manager for quality assurance/quality control. The project manager will develop a detailed step-by-step project work plan so that the project activities are completed in a correct manner, on-budget, and on-time. They will also review work products at intermediate points and prior to project completion. They will conduct project status reports which may include weekly meetings, memos, or telephone calls with the WVDEP, AML project manager as required. The project manager will supervise the day to day work in progress, will coordinate with POTEESTA's subcontractors to provide necessary services, and review work products at intermediate points and prior to submittal to the WVDEP, AML.

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

WVDEP, AML has indicated that 90 days are required for submittal of deliverables for the Mount Storm Mine 25A Project. We stand ready to meet your time frame. We can provide up to four design teams to complete the required engineering services with an additional two design teams as "backup" to be utilized if needed. The assignment tasks are noted on the design team descriptions on Figure 1 in **Appendix G**. If needed, we can accelerate your schedule.

## **Project Budget Control**

The project manager will be responsible for monitoring the project budget and keeping the principal-in-charge informed of its status. POTEESTA's staff enters time into POTEESTA's Timetrax computer system on a daily and/or weekly basis. POTEESTA's project managers can access Timetrax at any time, thus allowing "real-time" control of project 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 a discrepancy between our field representative's pay items and our subcontractor's invoice.

## **Schedule Control**

Direct responsibility for schedule control lies with the project manager. Initially, the project manager will review schedule requirements (understood to be 90 days for submittal of preliminary design documents) to see how they can be achieved given the anticipated scope of work. As the project progresses, the project manager will monitor progress and compare it with the established schedule on a weekly basis keeping the principal-in-charge aware of the schedule's status. In this manner, the principal-in-charge can make staff adjustments to allow the project manager to maintain the project schedule. If circumstances develop that make it impossible to maintain the project schedule, the project manager will contact the WVDEP project manager to develop a mutually acceptable adjustment to the schedule and/or work plan.

## **Location of Facilities**

POTEESTA will complete the work under this contract in our Charleston, West Virginia office. Our subcontractors are located in the Charleston area or other strategic regions and are quite familiar with the coalfields of West Virginia where the Mount Storm Mine 25A Project is located. Our close proximity to WVDEP's Charleston office will allow the project to be completed in a timely, economical manner as well as provide WVDEP, AML with easy access to us.

## **Quality Assurance/Quality Control**

Submittals to the WVDEP will be reviewed and commented on by the project manager and the principal-in-charge prior to submittal to the WVDEP. Both the project managers and the principal-in-charge have worked on numerous WVDEP, AML projects, and thus understand the level of detail and expectations for WVDEP, AML projects. POTEESTA utilizes standardized Quality Assurance/Quality Control (QA/QC) practices such as consistency checks, color coding of checked copies/calculations, and review of method of measurements versus quantity tallies to insure QA/QC expectations are met.

## **2.0 CLOSING**

We look forward to continuing to serve WVDEP, AML on the Mount Storm Mine 25A Project and bring it to completion. Our commitment is to provide quality service, rapid response and project completion, and to exceed your expectations for services performed under this project. We believe the track record of our professionals demonstrates our ability and commitment.

**ACORD CERTIFICATE OF LIABILITY INSURANCE**

9/22/08

**PRODUCER**  
 Wells Fargo Ins. Services  
 of West Virginia, Inc.  
 Box 1551  
 Charleston WV 25326-1551  
 (304) 346-0611

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

**COMPANIES AFFORDING COVERAGE**

COMPANY  
**A** Travelers Indemnity Co of Amer

COMPANY  
**B** Travelers Property Cas Ins Co

COMPANY  
**C** Travelers Indemnity Company

COMPANY  
**D** American Safety Indemnity Co

**INSURED**  
 Poteste & Associates, Inc.  
 7012 MacCorkle Avenue SE  
 Charleston, WV 25304


**COVERAGES**  
 THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOT WITHSTANDING 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.

CP LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A	<b>GENERAL LIABILITY</b> <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR OWNER'S & CONTRACTOR'S PROT	880-1872M318	3/07/08	3/07/09	GENERAL AGGREGATE \$ 2,000,000
					PRODUCTS-COMP/OP AGG \$ 2,000,000
					PERSONAL & ADV INJURY \$ 1,000,000
					EACH OCCURRENCE \$ 1,000,000
					FIRE DAMAGE (Any one fire) \$ 300,000
					MED EXP (Any one person) \$ 5,000
B	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	BA-1603M466	3/07/08	3/07/09	COMBINED SINGLE LIMIT \$ 1,000,000
					BODILY INJURY (Per person) \$
					BODILY INJURY (Per accident) \$
					PROPERTY DAMAGE \$
GARAGE LIABILITY	<input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$
					OTHER THAN AUTO ONLY:
					EACH ACCIDENT \$
C	<b>EXCESS LIABILITY</b> <input checked="" type="checkbox"/> UMBRELLA FORM <input type="checkbox"/> OTHER THAN UMBRELLA FORM	CUP-92714081	3/07/08	3/07/09	EACH OCCURRENCE \$ 3,000,000
					AGGREGATE \$ 3,000,000
					\$
A	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> THE PROPRIETOR/PARTNERS/EXECUTIVE OFFICERS ARE: <input type="checkbox"/> INCL <input type="checkbox"/> EXCL	680-1672M318	3/07/08	3/07/09	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTH-ER
					EL EACH ACCIDENT \$ 1,000,000
					EL DISEASE-POLICY LIMIT \$ 1,000,000
					EL DISEASE-EA EMPLOYEE \$ 1,000,000
D	<b>OTHER Professional Liability</b> Pollution Liability	PPL018828-0801 PPL018828-0801	3/15/08 3/15/08	3/15/09 3/15/09	\$3,000,000 Professional Liability \$10,000 Each Wrongful Act \$3,000,000 Pollution Liability \$5000 Each Occurrence

**DESCRIPTION OF OPERATIONS/LOCATION/VEHICLES/SPECIAL ITEMS**  
 RE: DEP14388

**CERTIFICATE HOLDER**  
 WV DEP - Office of AML&R  
 601 57th Street  
 Charleston, WV 25304

**CANCELLATION**  
 SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE  


## IMPORTANT

If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

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).

## DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.



**PRODUCER:**

BrickStreet Mutual Insurance Company  
400 Quarrier Street  
Charleston, WV 25301

**CERTIFICATE HOLDER:**

POTESTA & ASSOCIATES INC  
7012 MACCORKLE AVE SE  
CHARLESTON, WEST VIRGINIA, 25304-0000

**INSURED:**

POTESTA & ASSOCIATES INC  
7012 MACCORKLE AVE SE  
CHARLESTON, WEST VIRGINIA, 25304-0000

## CERTIFICATE OF INSURANCE

The policy of insurance listed below has been issued to the insured named above for the policy period and coverage indicated. This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policy below. Coverage is contingent on the insured's compliance with policy conditions and premium payment.

If the policy is canceled before the expiration date, BrickStreet Mutual Insurance Company will endeavor to mail a written notice to the certificate holder within 30 days of cancelation. Failure to mail the notice shall impose no obligation or liability of any kind upon BrickStreet Mutual Insurance Company.

**POLICY NUMBER: WC10013153-05**

**DATE CERTIFICATE ISSUED: 3-31-2008**

**POLICY EFFECTIVE DATE: 4-1-2008**

**EXPIRATION DATE: 4-1-2009**

### WORKERS COMPENSATION AND EMPLOYERS LIABILITY

#### LIMITS / COVERAGE

**WORKERS COMPENSATION - STATUTORY LIMITS**

**EMPLOYERS LIABILITY LIMITS:**

<b>BODILY INJURY BY ACCIDENT:</b>	<b>\$ 100,000.00</b>	<b>EACH ACCIDENT</b>
<b>BODILY INJURY BY DISEASE:</b>	<b>\$ 500,000.00</b>	<b>POLICY LIMIT</b>
<b>BODILY INJURY BY DISEASE:</b>	<b>\$ 100,000.00</b>	<b>EACH EMPLOYEE</b>

**WV BROAD FORM EMPLOYERS LIABILITY ENDORSEMENT -  
COVERAGE FOR WV CODE 23-4-2(d)(2)(ii)**

**FEDERAL COAL MINE HEALTH AND SAFETY ACT COVERAGE ENDORSEMENT -  
COVERAGE FOR WV CODE 23-4b-1 - FEDERAL BLACK LUNG COVERAGE**

**SPECIAL PROVISIONS IF ANY:**





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

# Request for Quotation

RFQ NUMBER  
**DEP14369**

PAGE  
**1**

ADDRESS CORRESPONDENCE TO ATTENTION OF  
**CHUCK BOWMAN**  
**304-558-2157**

**RFQ COPY**

**TYPE NAME/ADDRESS HERE**

Potesta & Associates, Inc.  
 7012 MacCorkle Avenue, SE  
 Charleston, WV 25304

**ENVIRONMENTAL PROTECTION**

DEPARTMENT OF  
 OFFICE OF AML&R  
 601 57TH STREET SE  
 CHARLESTON, WV  
 25304 304-926-0499

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
09/11/2008				

BID OPENING DATE: **10/23/2008** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-29		
<p>MT. STORM MINE 25A DESIGN SERVICES</p> <p>EXPRESSION OF INTEREST</p> <p>THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES AT THE MT. STORM 25A IN GRANT COUNTY, WEST VIRGINIA, PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS.</p> <p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THIS CONTRACT IS AUTOMATICALLY NULL AND VOID AND IS TERMINATED WITHOUT FURTHER ORDER.</p> <p>***** THIS IS THE END OF RFQ DEP14369 ***** TOTAL: _____</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Dana L. Burns</i>	TELEPHONE (304) 342-1400	DATE October 23, 2008
TITLE Vice President	FEIN 311509066	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

STATE OF WEST VIRGINIA  
Purchasing Division

## PURCHASING AFFIDAVIT

**VENDOR OWING A DEBT TO THE STATE:**

**West Virginia Code §5A-3-10a** provides that: 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 the debt owed is an amount greater than one thousand dollars in the aggregate.

**PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:**

**West Virginia Code §21-1D-5** provides that: Any solicitation for a public improvement construction contract shall require each vendor that submits a bid for the work to submit at the same time an affidavit that the vendor has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code. A public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the West Virginia Code may take place before their work on the public improvement is begun.

**ANTITRUST:**

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership or person or entity submitting a bid for the same materials, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

**LICENSING:**

Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

**CONFIDENTIALITY:**

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit [www.state.wv.us/admin/purchase/privacy](http://www.state.wv.us/admin/purchase/privacy) for the Notice of Agency Confidentiality Policies.

Under penalty of law for false swearing (West Virginia Code §61-5-3), it is hereby certified that the vendor acknowledges the information in this said affidavit and is in compliance with the requirements as stated.

Vendor's Name: Potesta & Associates, Inc. - Dana L. Burns

Authorized Signature: *Dana L. Burns*

Date: October 23, 2008

WEST VIRGINIA DEPARTMENT ENVIRONMENTAL PROTECTION  
 AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE Attachment "B"

PROJECT NAME: Mount Storm Mine 25A DATE (DAY, MONTH, YEAR): 22, October, 2008 FEIN: 311509066

1. FIRM NAME: Potesta & Associates, Inc. 2. HOME OFFICE BUSINESS ADDRESS: 7012 MacCorkle Avenue, SE Charleston, West Virginia 25304 3. FORMER FIRM NAME: N/A

4. HOME OFFICE TELEPHONE: (304) 342-1400 5. ESTABLISHED (YEAR): 1997 6. TYPE OWNERSHIP: Individual Partnership Joint-Venture 6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES NO

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE: 7012 MacCorkle Avenue, SE, Charleston, WV 25304 / (304) 342-1400 / Dana L. Burns / 82

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM: Ronald R. Potesta, President; Dana L. Burns, Vice President and Treasurer; Laidley Eli McCoy, Vice President and Secretary. 8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS: N/A

9. PERSONNEL BY DISCIPLINE
- |                         |                          |                           |                             |
|-------------------------|--------------------------|---------------------------|-----------------------------|
| 17 ADMINISTRATIVE       | 2 ECOLOGISTS             | 1 LANDSCAPE ARCHITECTS    | 1 STRUCTURAL ENGINEER       |
| ARCHITECTS              | 1 ECONOMISTS             | 2 MECHANICAL ENGINEERS    | 7 SURVEYORS                 |
| 10 BIOLOGIST            | ELECTRICAL ENGINEERS     | 1 MINING ENGINEERS        | 1 TRANSPORTATION ENGINEERS  |
| CADD OPERATORS          | 1 ENVIRONMENTAL ENGINEER | PHOTOGRAMMETRISTS         | 1 INFORMATION TECHNOLOGIST  |
| CHEMICAL ENGINEERS      | ESTIMATORS               | PLANNERS: URBAN/REGIONAL  | 1 SAFETY/INDUSTRIAL HYGIENE |
| CIVIL ENGINEERS         | 3 GEOLOGISTS             | 1 SANITARY ENGINEERS      | 2 CHEMIST                   |
| CONSTRUCTION INSPECTORS | HISTORIANS               | 4 SOILS ENGINEERS         | OTHER                       |
| DESIGNERS               | 1 HYDROLOGISTS           | 2 SPECIFICATION WRITERS   |                             |
| 10 DRAFTSMEN            | 1 TOXICOLOGIST           | 7 ENVIRONMENTAL SCIENTIST |                             |

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 10  
 \*RPES other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.

96 TOTAL PERSONNEL

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE?  YES  NO  N/A

1.1. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Confidential Qualification Questionnaire".

<p><b>NAME AND ADDRESS:</b>                  Digital Graphic Mapping                  172 Imboden Drive, Suite 13                  Winchester, Virginia 22603</p>	<p><b>SPECIALTY:</b>                  Aerial Photography and Mapping</p>	<p><b>WORKED WITH BEFORE</b>                  Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p><b>NAME AND ADDRESS:</b>                  Sturm Environmental Services, Inc.                  Brushy Fork Road                  Bridgeport, West Virginia 26330</p>	<p><b>SPECIALTY:</b>                  Environmental and Coal Related Laboratory</p>	<p><b>WORKED WITH BEFORE</b>                  Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p><b>NAME AND ADDRESS:</b>                  Test Boring Services                  140 Mong Road                  Scenery Hill, Pennsylvania 15360</p>	<p><b>SPECIALTY:</b>                  Soil and Rock Boring</p>	<p><b>WORKED WITH BEFORE</b>                  Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p><b>NAME AND ADDRESS:</b>                  Ackenheil &amp; Associates WV, Inc.                  PO Box 416, HUB Industrial Park                  Nitro, West Virginia 25143-0416</p>	<p><b>SPECIALTY:</b>                  Geotechnical Laboratory</p>	<p><b>WORKED WITH BEFORE</b>                  Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p><b>NAME AND ADDRESS:</b></p>	<p><b>SPECIALTY:</b></p>	<p><b>WORKED WITH BEFORE</b>                  Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p><b>NAME AND ADDRESS:</b></p>	<p><b>SPECIALTY:</b></p>	<p><b>WORKED WITH BEFORE</b>                  Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p><b>NAME AND ADDRESS:</b></p>	<p><b>SPECIALTY:</b></p>	<p><b>WORKED WITH BEFORE</b>                  Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p><b>NAME AND ADDRESS:</b></p>	<p><b>SPECIALTY:</b></p>	<p><b>WORKED WITH BEFORE</b>                  Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p><b>NAME AND ADDRESS:</b></p>	<p><b>SPECIALTY:</b></p>	<p><b>WORKED WITH BEFORE</b>                  Yes <input type="checkbox"/> No <input type="checkbox"/></p>

12. A Is your firm experienced in Abandoned Mine Land Remediation/Mine Reclamation Engineering?

YES

Description and Number of Projects: POTESTA's principal-in-charge, Dana L. Burns, P.E. and two project managers, Messrs. Mark Kiser, P.E. and Terence Moran, P.E. have each worked on over 60 AML projects dating back to 1986, including landslide investigation and abatement, mine subsidence stabilization projects, acid mine drainage treatment, refuse piles, mine drainage, mine portal seal, and water supply projects. POTESTA has 10+ staff with experience on AML projects. POTESTA's principal engineers have extensive experience with preparing design plans for refuse piles. Many of the previous AML projects won reclamation awards including: Bear Run Refuse; Kimball Refuse Piles; Owings Mine Complex; Pine Creek (Omar) Refuse; Turner-Douglas Complex; Grass Run Refuse. These projects were completed by Dana Burns, Mark Kiser, and Terry Moran.

NO

B. Is your firm experienced in Soil Analysis?

YES

Description and Number of Projects: POTESTA's staff is experienced in all aspects of soil analysis, including geotechnical and environmental soil analysis. POTESTA's staff has worked on 30+ AML projects involving soil science, including slope stability and revegetation. POTESTA is experienced in soil analysis as it relates to this project. POTESTA's principal engineers have developed and implemented plans for nutrient and lime requirements testing to determine revegetation requirements, acid-base accounting of rock samples to evaluate the potential of excavated materials to generate acidity, and analysis of coal refuse to determine the potential for reprocessing.

NO

C. Is your firm experienced in hydrology and hydraulics?

YES

Description and Number of Projects: POTESTA's staff is experienced in hydrology and hydraulics as it relates to AML projects in West Virginia. POTESTA's staff has worked on 60+ AML projects that involved sizing channels, culverts, and waterlines. POTESTA has developed well over 100 storm water management plans for mines, industrial facilities and new site development projects throughout West Virginia.

NO

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

YES

Description and Number of Projects: POTESTA's staff routinely develop contour mapping for use with design. We subcontract aerial mapping development, but complete the ground control necessary for developing mapping. On smaller projects, we perform the topographic survey work and subsequently develop the contour mapping. POTESTA has completed 200+ mapping development projects in the last five years.

NO

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

YES

Description and Number of Projects: POTESTA's staff is exceptionally experienced at domestic waterline design. POTESTA's staff has worked on waterline designs and water treatment plant designs for municipalities, WVDEP AML, and private utilities. POTESTA's staff includes one project manager, Terence C. Moran, PE, who has managed design of numerous AML waterlines, including 20+ mile Cow Creek-Sarah Ann Extension and 30+ mile/2,800 GPM Water Treatment Plant Mill Creek Regional Water Supply project. We are also exceptionally well qualified to evaluate aquifer degradation, including aquifer degradation by AML sites. Our staff has worked on 80+ evaluations of aquifer degradation. POTESTA has performed over 30 water line design projects totaling several hundred miles of installed water line.

NO

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

YES

Description and Number of Projects: POTESTA has completed numerous projects addressing acid mine drainage evaluation and abatement design. POTESTA's staff has worked on 30+ projects involving AMD evaluation and 10+ projects involving AMD abatement design. In both cases, many of the projects involved AML sites. We have worked extensively with Anker Energy, Dominion Generation, and the WVDOH, among others with acid-base accounting evaluations and the subsequent development of plans to prevent/abate AMD generation. Additionally, we worked extensively with Elk Run Coal Company to devise a plan to limit AMD generation and to treat the remaining AMD.

NO

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
Burns, Dana L. Vice President	19	28
		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 17

Brief Explanation of Responsibilities

Mr. Burns will serve as principal-in-charge for this project with his significant experience with AML type projects. Mr. Burns has served as the project manager or principal-in-charge on three open end contracts for WVDEP, AML from 1986 through 1997, totaling over 60 projects. He will ensure the personnel required to efficiently complete this project will be identified. He will coordinate contract issues with the State of West Virginia.

EDUCATION (Degree, Year, Specialization)

MS, 1979, Civil Engineering with Environmental Engineering Emphasis  
BS, 1978, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

West Virginia Coal Association  
American Society of Civil Engineers  
West Virginia Association of Consulting Engineers  
American Consulting Engineering Council - Trans Committee

REGISTRATION (Type, Year, State)

PE, 1985, WV  
PS, 1995, WV

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
Kiser, D. Mark Chief Engineer	16	23
		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 17

Brief Explanation of Responsibilities

As Chief Engineer, with significant experience in coal refuse stabilization design and mine portal closures and drainage channelization, he will serve as a design team leader. Mr. Kiser will also provide constructability reviews and QA/QC for the various draft submissions and final construction documents.

EDUCATION (Degree, Year, Specialization)

BS, 1984, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)  
PE, 1990, WV  
PE, 1998, IN  
PE, 1998, SC  
Licensed Remediation Specialist, 1998, WV

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
Moran, Terence C. Senior Engineer I	15	18
		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 18

Brief Explanation of Responsibilities

Mr. Moran will serve as project manager coordinating interaction between the WVDEP, design team members, and subconsultants. Mr. Moran has served as a project engineer/project manager for over 60 AML projects in West Virginia between 1989 and 1999. He will set the schedule and ensure it is met on a weekly basis. He will also serve as one of the principal designers of the reclamation design solution.

EDUCATION (Degree, Year, Specialization)

MS, 1989, Civil Engineering  
BS, 1987, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Society of Civil Engineers

REGISTRATION (Type, Year, State)

PE, 1996, WV  
PE, 1998, VA

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
Taylor, Patrick A. Senior Engineer II	17	17
		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 12

Brief Explanation of Responsibilities

Mr. Taylor will serve as a project engineer, including completing field work, design, and preparation of drawings, technical specifications, bid forms, and cost estimates. Mr. Taylor has project engineer experience in AML projects consisting of emergency slide remediation, refuse fill and slurry pond reclamation, abandoned portal closures, and slurry pond reclamation. Mr. Taylor also served as a branch manager for a private consulting firm responsible for surface mining permitting, design and reclamation.

EDUCATION (Degree, Year, Specialization)

MS, 2006, Engineering Management  
BS, 1988, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Society of Civil Engineers

REGISTRATION (Type, Year, State)

PE, 1994, WV



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

<p>NAME &amp; TITLE (Last, First, Middle Int.) Lipscomb, Daniel H. Engineer II</p>	<p>YEARS OF AML DESIGN EXPERIENCE: YEARS OF AML RELATED DESIGN EXPERIENCE:</p>	<p>YEARS OF EXPERIENCE</p>	<p>YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 1+</p>
<p>Brief Explanation of Responsibilities Mr. Lipscomb has extensive experience in design and permitting of water supply systems and interaction with the public to gain easements. Mr. Lipscomb also has significant experience in subsurface explorations and soil evaluations.</p>			
<p>EDUCATION (Degree, Year, Specialization) BS, 2002, Civil Engineering Technology</p>			
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS REGISTRATION (Type, Year, State)</p>			
<p>13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)</p>			
<p>NAME &amp; TITLE (Last, First, Middle Int.) Potesta, Ronald R. President</p>	<p>YEARS OF AML DESIGN EXPERIENCE: YEARS OF AML RELATED DESIGN EXPERIENCE:</p>	<p>YEARS OF EXPERIENCE</p>	<p>YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:</p>
<p>Brief Explanation of Responsibilities As President, Mr. Potesta directs the full resources of the firm to meet the complete requirements of this project for WVDEP.</p>			
<p>EDUCATION (Degree, Year, Specialization) MS, 1975, Economics with a Concentration in Mineral Economics, Econometrics, and Micro Economics BS, 1971, Business Administration</p>			
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS Commissioner, Ohio River Valley Water Sanitation Commission; Board of Directors, WV Chapter of the Nature Conservancy; National Institute for Chemical Studies; WV Environmental Institute; WV Manufacturers Association REGISTRATION (Type, Year, State)</p>			

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
McCoy, Laidley Eli Vice President			

Brief Explanation of Responsibilities

Dr. McCoy will serve as a back-up principal-in-charge. In addition, Dr. McCoy manages the entire environmental and natural science division of the company. He will coordinate required environmental support services for the completion of this reclamation design.

EDUCATION (Degree, Year, Specialization)  
 PhD, 1981, Aquatic Ecology  
 MS, 1974, Biological Science  
 BS, 1972, Zoology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Grose, Christopher A. Senior Engineering Associate	13	18	10

Brief Explanation of Responsibilities

Mr. Grose will coordinate the drilling and geotechnical analysis for the refuse slope stability design, identification of borrow sites for soil cover, and investigation and design of solutions for subsurface hydrogeology within the deep mines and recommendations for mine seals.

EDUCATION (Degree, Year, Specialization)

MS, 1990, Geological Engineering  
 BS, 1988, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  
 American Society of Civil Engineering  
 Association of Engineering Geology  
 Society of American Military Engineers

REGISTRATION (Type, Year, State)

Licensed Remediation Specialist, 1998, WV

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Ammirato, Vincent J. Senior Engineer I		10	6

Brief Explanation of Responsibilities

Mr. Ammirato will provide structural engineering that may be required for this project. His extensive background with Columbia Gas in plant design and pipeline distribution will be well suited for the possible structural requirements this project may have.

EDUCATION (Degree, Year, Specialization)

BS, 1970, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)  
 PE, 1980, WV  
 PE, 1992, PA  
 PE, 1992, OH  
 PE, 1993, VA

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Ward, Patrick E. Senior Engineer I	4	10	2

Brief Explanation of Responsibilities

Mr. Ward will serve as a project engineer and has extensive experience on WVDEP, AML projects, having served as a project engineer on refuse piles, mine drainage, and subsidence projects in the early to mid-1990's.

EDUCATION (Degree, Year, Specialization)

MS, 1992, Civil Engineering (Geotechnical)  
 BS, 1990, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)  
 PE, 1997, WV

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
McGlothen, Ryan K. Senior Engineer	11	7
<p>Brief Explanation of Responsibilities</p> <p>Mr. McGlothen will serve as a project engineer on this project. Mr. McGlothen will assist with design calculations and preparation of the drawings and technical specifications. He has extensive experience with slope stability, earthwork design, and monitoring of drilling, as well as hydrologic and hydraulic design.</p>		
<p>EDUCATION (Degree, Year, Specialization)</p> <p>BS, 1996, Civil Engineering</p>		
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS</p> <p>American Society of Civil Engineers</p> <p>PE, 2002, WV</p>		
<p>13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)</p>		
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
Kohler, Dennis J. Staff Scientist I	7	33
<p>Brief Explanation of Responsibilities</p> <p>Mr. Kohler will serve as a project scientist for issues regarding reclamation, including revegetation. Mr. Kohler has extensive experience with the coal mining, having worked for the coal industry for numerous years and being directly responsible for reclamation of surface operations for over 15 years.</p>		
<p>EDUCATION (Degree, Year, Specialization)</p> <p>BS, 1977, Environmental Science and Resource Management</p>		
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS</p> <p>REGISTRATION (Type, Year, State)</p>		

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
Sedosky, Timothy B. Staff Scientist I	12	12

Brief Explanation of Responsibilities  
 Mr. Sedosky will review the site for possible wetlands and delineate, as required, wetland areas to be impacted by potential reclamation activities. He will prepare required permits to the WVDNR and US COE for wetland disturbance and mitigation.

EDUCATION (Degree, Year, Specialization)  
 BS, 1995, Wildlife and Fisheries Resource

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  
 REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
Litwinowicz, Dennis L. Staff Scientist I		28

Brief Explanation of Responsibilities  
 Mr. Litwinowicz will serve as a project geologist, including observation of subsurface exploration activities and assistance on evaluation of other geologic activities.

EDUCATION (Degree, Year, Specialization)  
 BS, 1980, Geology and Mineralogy

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  
 REGISTRATION (Type, Year, State)  
 Certified Petroleum Geologist, 1984

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Dawson, Victor M. Survey Supervisor	7	25	10

**Brief Explanation of Responsibilities**

Mr. Dawson will coordinate required surveying for aerial mapping control if needed, establish construction benchmarks, topographic surveys, boundary surveys and/or property and deed research, survey of boring locations and profiling significant existing drainage courses not clearly defined in the aerial mapping.

**EDUCATION (Degree, Year, Specialization)**

AS, 1983, Surveying

**MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS**

American Congress Surveying and Mapping  
West Virginia Association of Land Surveyors  
North Carolina Society of Surveyors  
South Carolina Society of Surveyors

**REGISTRATION (Type, Year, State)**

PS, 1988, NC  
PS, 1989, SC  
PS, 1993, WV

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Osborne, Ralph E. CADD Designer	7	31	15

**Brief Explanation of Responsibilities**

Mr. Osborne will provide the CADD support in preparation of construction drawings for the project. He will also reduce survey data at booster station and water storage tank sites to provide sufficient mapping to complete the design.

**EDUCATION (Degree, Year, Specialization)**

AS, 1983, Mining Technology

**MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS**

**REGISTRATION (Type, Year, State)**

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
Sankoff, Michael B. CADD Designer/Supervisor	7	20
<p>YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 9</p>		
<p>Brief Explanation of Responsibilities</p> <p>Mr. Sankoff will provide the CADD support in preparation of construction drawings for the project. He will reduce survey data to provide sufficient mapping to complete the design.</p>		
<p>EDUCATION (Degree, Year, Specialization)</p> <p>BS, 1987, Industrial Management AS, 1986, Drafting and Design Engineering Technology AS, 1986, Mechanical Engineering Technology</p>		
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS</p> <p>REGISTRATION (Type, Year, State)</p>		

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
Ammirato, Robert J. Engineer	1	4
<p>YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 4</p>		
<p>Brief Explanation of Responsibilities</p> <p>Mr. Ammirato will serve as a project engineer for the project, including hydraulic calculations, layout, drawing preparation, design, technical specifications, bid forms, cost estimates, and field work. He has extensive experience in water supply and waste water system design, permitting, and regulations.</p>		
<p>EDUCATION (Degree, Year, Specialization)</p> <p>BS, 1999, Mechanical Engineering</p>		
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS</p> <p>REGISTRATION (Type, Year, State)</p> <p>EIT, 1999, VA</p>		

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Kindler, Kenneth K. Engineer	1	4	3

Brief Explanation of Responsibilities

Mr. Kinder has extensive experience in hydrologic and hydraulic design as well as subsurface explorations, design of coal ash disposal facilities and preparation of cost estimates.

EDUCATION (Degree, Year, Specialization)

BS, 2003, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

PE, 2008, WV

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Smith, Jarrett M. Engineer II	2	4	4

Brief Explanation of Responsibilities

Mr. Smith has been involved extensively with development of hydrologic and hydraulic calculations including preparation of NPDES stormwater construction permits. He also has significant expertise in the development of site grading plans and quantity/cost estimates.

EDUCATION (Degree, Year, Specialization)

BS, 2002, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

National Society of Professional Engineers

REGISTRATION (Type, Year, State)

PE, 2008, WV



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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	
Drinkard, William F. III Senior Engineer I	4	33	7
<p>Brief Explanation of Responsibilities</p> <p>Mr. Drinkard will serve as a project engineer and has extensive coal industry design experience in refuse disposal areas, mine facility construction utilities, access roads, drainage controls, and portal closings. In addition, Mr. Drinkard will prepare NPDES permit applications for construction activities and other required storm and mine drainage calculations.</p>			
<p>EDUCATION (Degree, Year, Specialization)</p> <p>MS, In Progress, Environmental Engineering MBA, 1981, Business Administration BS, 1980, Mining Engineering</p>			
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS</p> <p>REGISTRATION (Type, Year, State) PE, 1981, WV PS, 1992, WV</p>			

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	
Junker, David N. Senior Scientist I		18	
<p>Brief Explanation of Responsibilities</p> <p>Mr. Junker will provide as needed geological/hydrogeological services for this project.</p>			
<p>EDUCATION (Degree, Year, Specialization)</p> <p>MS, 1990, Hydrogeology and Geology BS, 1973, Geology</p>			
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS</p> <p>REGISTRATION (Type, Year, State) Registered Professional Geologist, 1993, KY Licensed Remediation Specialist, 1998, WV</p>			

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

Microsoft Office XP (Excel, Access, Word, PowerPoint)

WordPerfect 11

Adobe PageMaker 7 (Publication Software)

MicroStation (Allows users to create 3D models of permanent assets - the models and all of their components are electronic simulations of real-world objects); used for CADD drawing preparation.

Autodesk Land Desktop 2007 (3D modeling software that provides topographic analysis, real-world coordinate systems, volume totals, roadway geometry.)

Haestad Methods (Numerous software packages used for designing storm water structures [e.g., channels, culverts, ponds, etc.] and water distribution systems.)

MapTech, Terrain Navigator (Combines regional collections of topographic maps with powerful PC navigation software for 2D/3D viewing, customizing, printing and GPS use.)

AutoCAD, 2007 and 2008 Used for preparing CADD drawings.

Softdesk 8.0 Civil/Survey Design Software

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

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Lick Creek Waterline Extension - Phase I, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$1,200,000	50%
Town of Ceredo Water Distribution System Upgrade - Contract No. 1, Ceredo, WV	Town of Ceredo PO Box 691 Ceredo, WV 25507	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$830,500	50%
Town of Ceredo Water Distribution System Upgrade - Contract No. 2, Ceredo, WV	Town of Ceredo PO Box 691 Ceredo, WV 25507	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$884,872	50%
Wash Branch Waterline Extension, Boone County, WV	Massey Coal Services 315 70 <sup>th</sup> Street, SE Charleston, WV 25304	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$550,000	20%
Hatfield-McCoy/Water Ways Waterline Extension, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$900,000	20%
Spruce Laurel Stream Monitoring, Boone County, WV	WVDEP - AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Post-grouting stream monitoring.	\$3,000,000 (Est.)	15%

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

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Landfill Closure Design, Various Environmental Remediation Projects Nitro, WV	Solutia, Inc. 1 Monsanto Road Nitro, WV 25143	Preparation of closure drawings, construction specifications, environmental sampling, and regulatory liaison.	\$4,000,000	70%
Fleming Landfill Sewer Line, 2 miles of Sewer Line, Kanawha County, WV	WVDEP Office of Waste Management 1356 Hansford Street Charleston, WV 25301	Mapping development, design of sewer system, and preparation of drawings, specifications, and cost estimate.	\$1,100,000	99%
Pocahontas County Landfill Expansion, Closure, and Operations Consulting Dummore, WV	Pocahontas County Solid Waste Authority 910-C Tenth Avenue Marlinton, WV 24454	Design and permitting associated with expansion of the landfill including preparation of drawings, specifications, and contract documents and administration.	\$400,000	85%
The Villages at Coolfont, Morgan County, WV	Berkeley Springs Develop, LLC 99 N. Washington Ave. Berkeley Springs, WV	Engineering design and permitting for 1300 home community including water treatment plant and distribution system, wastewater treatment plant and collection system, roads, stormwater management system, and property surveys.	\$50,000,000 Excluding Home Construction Costs	80% (Design)
Fort Martin Power Station Coal Combustion By-Product Landfill Expansion, Monongalia County, WV	Allegheny Energy Supply 800 Cabin Hill Drive Greensburg, PA 15601	Wetland delineation, engineering design, and permitting for a 100-acre landfill including synthetic liner system, leachate pumpback system, stormwater management system, and access roadways.	\$25,000,000	90% (Design)

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

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Site Assessment and Closure/Capping Plan for Jackson County Landfill, Ripley, WV	WVDEP Office of Waste Management 1356 Hansford Street Charleston, WV 25301	Site assessment to determine compliance with 33CSRI, engineering design and contract bid documents for closure/capping of 20-acre landfill.	\$3,000,000	99% (Construction)
Big Sandy Peaker Plant Wayne County, WV	Constellation Power Company 250 West Pratt Street, 23rd Floor Baltimore, MD 20201	Environmental permitting, site survey and stakeout, geotechnical exploration, and foundation design.	Unknown	100%
Environmental Site Assessment of Mine Drainage from AML Sites, McDowell County, WV	Jackson & Kelly, PLLC 1600 Laidley Tower Charleston, WV 25322	Field reconnaissance, field measurements, laboratory analysis, and report summarizing AMD.	N/A	100%
Construction Layout for Mahan Tipple and Refuse AML Maintenance Project, Fayette County, WV	WVDEP Office of Abandoned Mine Lands Reclamation Nitro, WV 25143	Surveying and stakeout for construction contractor for AML site.	\$3,500	100%
Construction Layout for Lynn Brook (Boud) Drainage, AML Reclamation Project, Kanawha County, WV	WVDEP Office of Abandoned Mine Lands Reclamation Nitro, WV 25143	Surveying and stakeout for construction contractor for AML site.	\$2,000	100%
TOTAL, NUMBER OF PROJECTS:			TOTAL ESTIMATED CONSTRUCTION COSTS:	
16 (POTESTA has completed well over 1000 projects.)			\$90,870,872	

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUBCONSULTANT TO OTHERS

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
Bradshaw Schools Site Utilities	Design Water Supply and Sanitary Sewer Systems	ZMM, Inc. 222 Lee Street, W. Charleston, WV 25302	2009	\$60,000,000	\$750,000
Charleston Greenspace Project	Site Utilities, Stormwater Management and Agency Coordination	Andropogon Associates, Ltd. 10 Shurs Lane Philadelphia, PA 19127	2008	\$750,000	\$20,000

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD		ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER			
Sundial Refuse Pile Project, Raleigh County, WV	WVDEP, AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$3,900,000	2004	No
Georges Creek Rockslide Retaining Wall, Kanawha County, WV	WVDEP, AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$430,000	2005	Yes
William Nursing Home Landslide Retaining Wall, Mingo County, WV	WVDEP, AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$2,500,000	2005	Yes
Fisher Ridge Waterline Extension - Phase II, Putnam County, WV	Putnam County Commission 3389 Winfield Road Winfield, WV 25213	\$400,000	2004	Yes
Stephens Auto/Betsy Lane Waterline Extension, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	\$250,000	2005	Yes
Trace Branch at Robinson Waterline Extension, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	\$250,000	2006	Yes
Six Mile to Corridor G Waterline Extension, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	\$600,000	2006	No
Joos Creek Waterline Extension, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	\$750,000	2006	Yes
Cabell County Waterline Extension, Cabell County, WV	West Virginia American Water PO Box 1906 Charleston, WV 25327	\$3,000,000	2002	Yes

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD					
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	COMPLETED (YES OR NO)	
City of Philippi Relocation of Waterline, Philippi, WV	City of Philippi PO Box 460 Philippi, WV 26416	\$1,000,000	2004	No	
Tucker County Industrial Park, Tucker County, WV	Tucker County Development Authority 215 First Street Parsons, WV 26287	\$1,100,000	2003	Yes	
Mifflin-Sharples Waterline Extension, Logan County, WV	West Virginia American Water PO Box 1906 Charleston, WV 25327	\$600,000	2006	Yes	
Mountain Laurel Potable Water Supply Extension, Logan County, WV	Mingo-Logan Coal Company PO Box E Sharples, WV 25183	\$450,000	2006	Yes	
Kanawha Eagle Coal Refuse Disposal Impoundment, Ongoing, Kanawha County, WV	Kanawha Eagle Limited Liability Company PO Box 100 Winifrede, WV 25314	\$1,500,000	2003	Yes	
Hampton-Clarke IQAT Closure Design Evaluation, Fairmont, WV	Hampton-Clarke, Inc. 175 Route 46 West Fairfield, NJ 07004	\$1,500,000	2003	Yes	



18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
Sulphur Springs Bridge Replacement Over Opequon Creek, Jefferson/Berkley County, WV	West Virginia Division of Highways Capitol Complex, Bldg 5 Charleston, WV 25305	Unknown	2003	Yes	W.R. Ramsey & Associates
Smith Bridge Replacement, Wetzel County, WV	West Virginia Division of Highways Capitol Complex, Bldg 5 Charleston, WV 25305	Unknown	2002	Yes	W.R. Ramsey & Associates
Martha Girder Bridge, Cabell County, WV	West Virginia Division of Highways Capitol Complex, Bldg 5 Charleston, WV 25305	Unknown	2003	Yes	Modjeski and Masters, Inc.
Martha Truss Bridge Replacement, Cabell County, WV	West Virginia Division of Highways Capitol Complex, Bldg 5 Charleston, WV 25305	Unknown	2003	Yes	Modjeski and Masters, Inc.
Blackwell Field Redevelopment, Charleston, WV	University of Charleston 2013 MacCorkle Ave. SE Charleston, WV 25304	\$100,000	2005	Yes	BBL Carlton
Benedum Residence Hall Replacement, Charleston, WV	University of Charleston 2013 MacCorkle Ave. SE Charleston, WV 25304	\$2,200,000	2004	Yes	BBL Carlton
Dundon Bridge Replacement, Clay, WV	West Virginia Division of Highways Capitol Complex, Bldg 5 Charleston, WV 25305	Unknown	2004	No	Modjeski and Masters, Inc.
UC Pharmacy School, Charleston, WV	University of Charleston 2013 MacCorkle Ave. SE Charleston, WV 25304	\$6,000,000 Our Fee \$55,000	2006	Yes	Pray Construction Company

19. Use this space to provide any additional information description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.

Potesta & Associates, Inc.'s (POTESTA) "Expression of Interest for Professional Engineering Design Services and Construction Monitoring Services for the Mount Storm Mine 25A Project" supports this questionnaire in providing POTESTA's qualifications and resources for serving the West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands and Reclamation on this project. In summary, POTESTA:

1. Has assembled a team of in-house personnel and subcontractors who have historically worked on AML projects. POTESTA in-house staff includes 12 Professional Engineers including 10 in the primary office, three of whom has each worked on over 60 AML projects.
2. Has a large local staff with a unique multidiscipline technical emphasis (including civil engineering, structural engineering, geological engineering, hydrological engineering, mine land reclamation, with a strong emphasis on water quality and aquatic life and toxicity). Two members of POTESTA's staff have their Ph.D.'s, and 12 have their Masters Degree.
3. Has 10+ employees with experience on WVDEP AML projects. POTESTA employees have worked on and have experience in the following type of WVDEP AML projects:
  - Water Supply Feasibility Studies and Design
  - Assessment of Contamination (e.g., PCB's, asbestos)
  - Demolition of Structures
  - Diversion Structures
  - Identifying Acid Mine Drainage
  - Inventory of Residential Water Supplies
  - Landslides
  - Mine Fires
  - Passive Acid Mine Drainage Treatment
  - Reclamation of Refuse Piles
  - Sealing Mine Portals
  - Stream Relocations
  - Subsidence Assessment and Remediation
  - USCOE Permitting
  - Wetland Assessments
4. Can handle a substantial AML workload (more than our competitors) since POTESTA has two Professional Engineer (P.E.) Project Managers each with experience on 60+ AML projects.
5. Office is located in Charleston, West Virginia in close proximity to WVDEP's Charleston office, with offices in Morgantown, West Virginia and Winchester, Virginia.
6. Staff has had a positive relationship with WVDEP, AML in the past, which we would like to continue.

20. The foregoing is a statement of facts.

Signature: Dana L. Burns

Printed Name: Dana L. Burns

Title: Vice President

Date: October 22, 2008

# POTESTA & ASSOCIATES, INC.

## *Civil Engineering and Design*

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

- Phase I environmental site assessments
- Floodplain determination
- Geotechnical explorations including soil, bedrock, and groundwater characterization
- Foundation recommendations
- Monitoring well systems and site characterization plans
- Boundary, topographical and photogrammetric surveys
- Utility planning
- Earthwork evaluations including volume analysis
- Opinion of probable costs/engineer's construction cost estimates

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

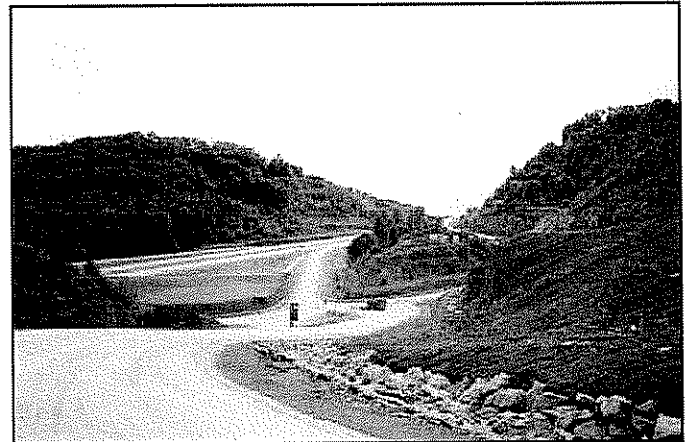
### Our design services include:

- Erosion and sediment control plans
- Earth retaining structures design
- Geometric site layout
- Grading and drainage plans, including excavation and fill optimization
- Access road design
- Hydraulic structure design
- Water and sewer design
- Slope stability analysis
- Subsurface drainage system design
- Construction drawings, specifications and contract document preparation

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

- Stormwater management permit/erosion and sediment control plans
- Office of Air Quality Permit to Construct
- Wetland delineation and permits
- National Pollutant Discharge Elimination System (NPDES) permits
- Floodplain management permits
- Groundwater protection plans
- Spill prevention control and countermeasure plans
- Environmental site assessments
- Environmental impact statements

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



### POTESTA & ASSOCIATES, INC.

7012 MacCorle Avenue, S.E. • Charleston, West Virginia 25304

Phone: (304) 342-1400 Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)

Regional Offices: Morgantown, West Virginia and Winchester, Virginia

# POTESTA & ASSOCIATES, INC.

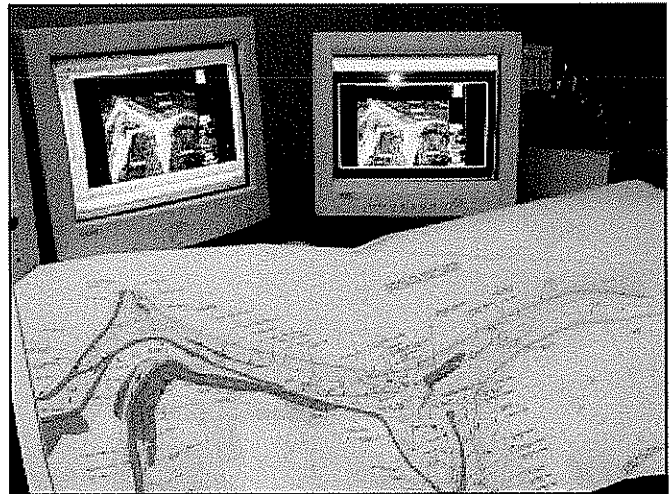
## *Computer Aided Drafting and Design*

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 AutoCAD, AutoCAD Land Development Desktop 3 civil/survey design software, and Microstation to prepare, revise, and manipulate drawings and engineering data efficiently. Drawings and figures are produced using a Hewlett Packard 1050c Plus color ink jet plotter. POTESTA's experienced and trained professionals allow clients' projects and assignments to be completed rapidly and at reasonable cost.

Our CADD services include:

- 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
- Survey data manipulation including development of topographic mapping, cross sections, profiles, isopach drawings, etc.



**POTESTA & ASSOCIATES, INC.**

7012 MacCorkle Avenue, S.E. • Charleston, West Virginia 25304

Phone: (304) 342-1400 Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)

Regional Offices: Morgantown, West Virginia and Winchester, Virginia

# POTESTA & ASSOCIATES, INC.

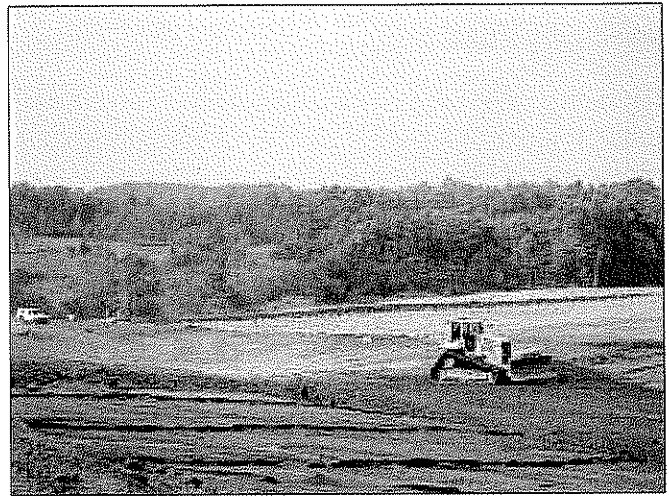
## *Construction Monitoring*

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

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

- Conducting a pre-construction review of design and contract documents to identify potential problem areas, and consultation with the owner or client to develop strategies or procedures to avoid anticipated problems.
- Assistance in contractor selection. POTESTA can recommend construction contractors who specialize in the type of work associated with the project and can assist in bid evaluation by reviewing proposed quantities, unit costs, lump sum costs, and any proposed exceptions or qualifiers for the project. POTESTA can conduct pre-bid conferences to help contractors understand project requirements. We can also conduct pre-construction conferences prior to the start of the project to help establish lines of communication, review detailed plans, discuss testing requirements and establish proper reporting procedures.

- POTESTA can provide surveying for construction layout, measurement for payment quantities, and documentation of as-built conditions. Survey results are downloaded to form computer-aided drafting (CAD) drawings allowing the efficient preparation of record drawings and any subsequent evaluations required.



- Construction monitoring can include field testing to document compliance such as field density tests, concrete testing, sampling of materials for laboratory analysis, and documentation of site conditions and work performed on a daily basis or as required.
- Preparation of summary of construction reports including photographs, videotape documentation, test results, daily construction logs, industrial hygiene monitoring, and other documentation as may be required by the client.
- Preparation of certifications as may be required.



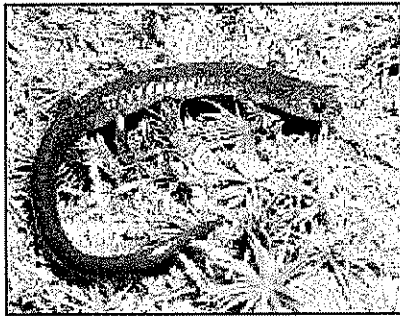
### POTESTA & ASSOCIATES, INC.

7012 MacCorkle Avenue, S.E. • Charleston, West Virginia 25304  
Phone: (304) 342-1400 Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)  
Regional Offices: Morgantown, West Virginia and Winchester, Virginia

## POTESTA & ASSOCIATES, INC.

# Endangered Species Consultation

The Endangered Species Act (ESA) requirements can delay if not halt important projects. Being able to respond promptly and thoroughly to the Fish and Wildlife Service's (Service) requests for an evaluation of probable project impacts on either endangered species, threatened species, or species of concern can facilitate needed regulatory approvals.



Potesta & Associates, Inc. (POTESTA) has extensive experience in biological assessments (BA) related to the ESA. We utilize a combination of in-house professionals and recognized experts to complete projects for our clients. This arrangement allows us to provide a work product which is acceptable to the Service.

For the last several years, our office has worked with natural gas transmission companies preparing environmental reports which include assessments and remediation of impacts to rare, threatened, and endangered species. POTESTA's biologists have worked on natural gas projects within the core summer roosting and maternity range of the Indiana bat. This work provided the firm's biologists with considerable experience in identifying suitable Indiana bat habitat in Ohio, Kentucky, Virginia, and West Virginia. Other biologists within our office also have experience in bat surveys, echo location, bat identification and mussel surveys.

We have established professional relationships with local and regional experts on projects in our region. These relationships allow us to have access to recognized experts on the appropriate species on an as-needed basis. The advantage to the client is that

this approach allows us to select the best individual for the task at hand.

These experts have specialized in the study of their species of interest for many years and are familiar with the life cycle, habitat requirements and sampling techniques for the species. POTESTA supplements these individuals with our experienced field staff, who are intimately familiar with the project, to constitute an effective team to respond quickly to threatened and endangered species issues. POTESTA provides final reports with additional information obtained from the noted expert, as well as relevant mapping and other supporting information.

This team approach allows for a complete evaluation of the potential impact a project may have on a species of concern. The most basic level of services in this area is a partial evaluation based only on literature reviews. An intermediate level of effort would be the literature review and a thorough field review of the project site to evaluate habitat. A complete evaluation would include the literature review, habitat evaluation, and extensive field collection program during the appropriate season of the year. Our subcontractors have the appropriate permits to collect the species in question.



### POTESTA & ASSOCIATES, INC.

7012 MacCorkle Avenue, S.E. • Charleston, West Virginia 25304

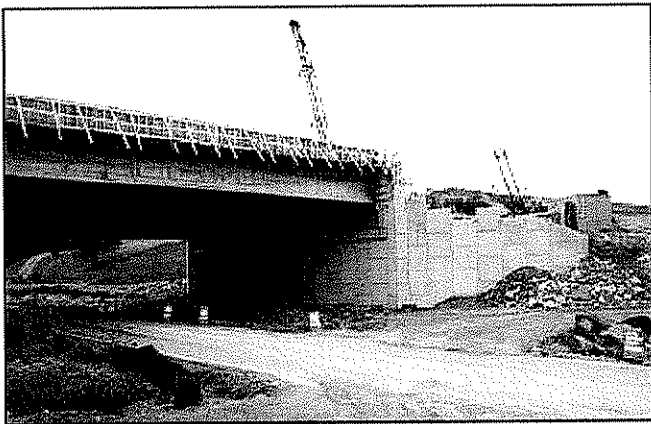
Phone: (304) 342-1400 Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)

Regional Offices: Morgantown, West Virginia and Winchester, Virginia

Potesta & Associates, Inc.'s (POTESTA) engineers and geologists have extensive experience related to the geotechnical engineering and geological disciplines. These areas include subsurface investigations, monitoring well and piezometer installations, foundation design recommendations, slope stability analysis, and remedial designs as they relate to construction, mining, waste disposal, environmental remediation, and other projects.

### SUBSURFACE INVESTIGATIONS

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



POTESTA can provide field engineers and geologists who are knowledgeable using the latest

technologies to assist in collecting and analyzing samples. Our knowledge of the proper procedures and familiarity with local conditions allows office and field personnel to adjust the investigative plan if unanticipated field conditions are found.

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

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

### SLOPE STABILITY ANALYSIS AND REMEDIAL DESIGN

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

*(see next page)*



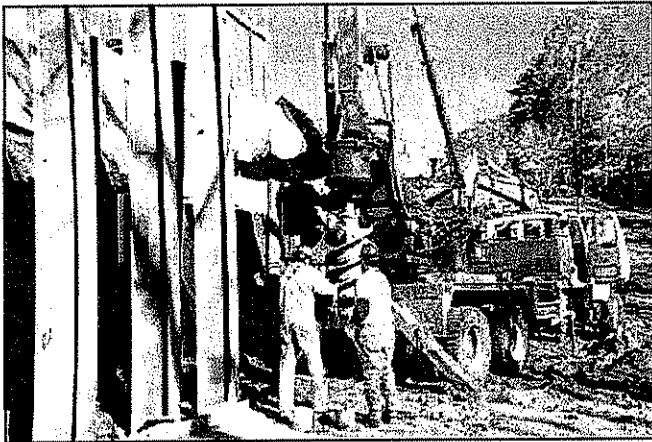
**POTESTA & ASSOCIATES, INC.**

7012 MacCorkle Avenue, S.E. • Charleston, West Virginia 25304

Phone: (304) 342-1400 Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)

Regional Offices: Morgantown, West Virginia and Winchester, Virginia

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



## FOUNDATION DESIGN RECOMMENDATIONS

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

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

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



### POTESTA & ASSOCIATES, INC.

7012 MacCorkle Avenue, S.E. • Charleston, West Virginia 25304

Phone: (304) 342-1400 Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)

Regional Offices: Morgantown, West Virginia and Winchester, Virginia



# 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 detention systems
  - Ponds
  - Pipes
  - Underground bladders
  
- 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
- Culvert Master
- Flow Master
- Pond-Pac
- 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.



**POTESTA & ASSOCIATES, INC.**

7012 MacCorkle Avenue, S.E. • Charleston, West Virginia 25304

Phone: (304) 342-1400 Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)

Regional Offices: Morgantown, West Virginia and Winchester, Virginia

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, 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:

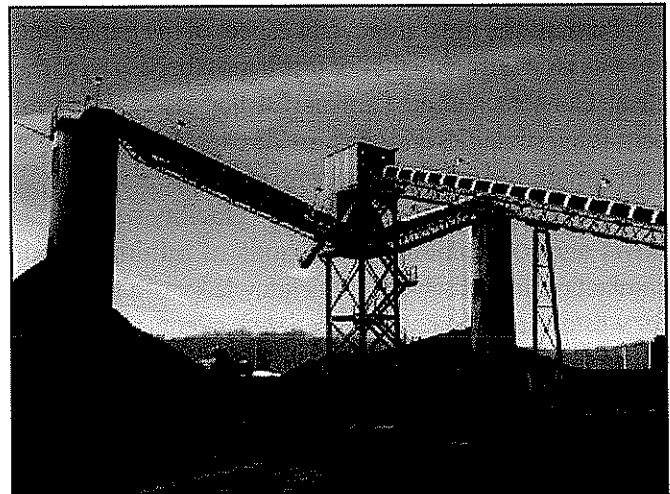
- Coating operations
- Petroleum and petrochemical operations
- Chemical manufacturing
- Manufacturing facilities
- Mining
- Quarries
- Natural gas compressor stations
- Electric utilities

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 need for review comments and revisions which could slow the approval process. Our thorough knowledge of the various phases and requirements of the permitting

*(see next page)*



**POTESTA & ASSOCIATES, INC.**

7012 MacCorkle Avenue, S.E. • Charleston, West Virginia 25304

Phone: (304) 342-1400 Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)

Regional Offices: Morgantown, West Virginia and Winchester, Virginia

process, coupled with our technical expertise, may facilitate the approval of permits that are operation based and thus more acceptable to you.

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

## **WATER**

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

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

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

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

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

## **WASTE**

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

We have experience in:

- Bioremediation
- Resource recovery
- Sludge handling/stabilization
- Utilization of coal combustion by-products
- Construction monitoring/management

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



**POTESTA & ASSOCIATES, INC.**

7012 MacCorkle Avenue, S.E. • Charleston, West Virginia 25304

Phone: (304) 342-1400 Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)

Regional Offices: Morgantown, West Virginia and Winchester, Virginia



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

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

- Surveying - topo and boundary
- Base mapping from aerial photography
- Geotechnical engineering
- Land planning
- Environmental issues evaluation and mitigation
- Site grading
- Vehicular and pedestrian circulation
- Utility design
- Site features
- Stormwater management plans

Some clients who have used our site design services include:

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



**POTESTA & ASSOCIATES, INC.**

7012 MacCorkle Avenue, S.E. • Charleston, West Virginia 25304  
Phone: (304) 342-1400 Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)  
Regional Offices: Morgantown, West Virginia and Winchester, Virginia

# POTESTA & ASSOCIATES, INC.

## *Surveying and Mapping*

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

POTESTA's surveyors use state-of-the-art equipment such as Topcon total stations, Trimble R-8 GNSS, and SMI Version 8 data collectors with SMI software. Reduction and design software used includes AutoCAD, Softdesk Civil/Survey design, Autodesk Land Design, Microstation, and InRoads design software.

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

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

photography.

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

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



applicable quality standards.

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



**POTESTA & ASSOCIATES, INC.**

7012 MacCorkle Avenue, S.E. • Charleston, West Virginia 25304

Phone: (304) 342-1400 Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)

Regional Offices: Morgantown, West Virginia and Winchester, Virginia

# POTESTA & ASSOCIATES, INC.

## *Water and Wastewater Engineering*

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

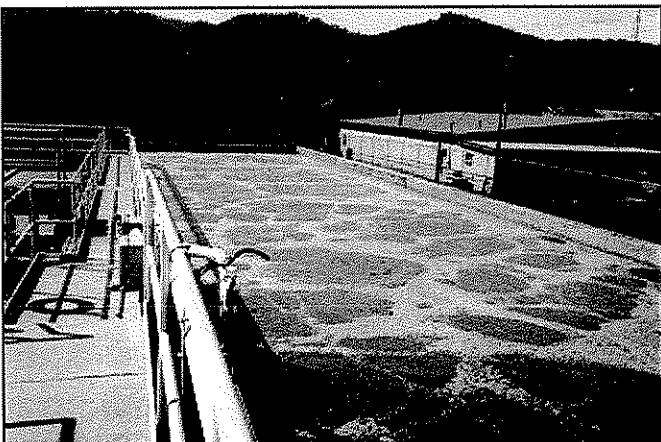
### WATER AND WASTEWATER DESIGN

- Feasibility studies
- Conceptual design
- Final design
- Bidding and construction
- Construction monitoring
- Wastewater audits
- Wastewater minimization studies
- Engineer's cost estimates
- Small flows design (traditional and innovative treatment systems for low volume flows)
- Sewage collection and treatment
- Water treatment and distribution
- Industrial wastewater treatment
- 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



**POTESTA & ASSOCIATES, INC.**

7012 MacCorkle Avenue, S.E. • Charleston, West Virginia 25304

Phone: (304) 342-1400 Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)

Regional Offices: Morgantown, West Virginia and Winchester, Virginia

Wetlands play a significant role in business and industry. These unique aquatic habitats can present problems with regard to development of properties because they are protected by the Clean Water Act.

Potesta & Associates, Inc. (POTESTA) has a qualified staff of scientists and engineers who are trained and experienced in the identification and permitting of wetlands, the mitigation of displaced wetlands and the design of constructed wetlands.

### INVESTIGATION AND DELINEATION

Wetland investigations and delineations are conducted by POTESTA's scientists as part of pre-development site investigation and environmental impact assessments. During a wetland investigation, the site is examined for the presence of wetland indicators, including specific hydrology, soils and vegetation. Any wetlands discovered are delineated in accordance with the U.S. Army Corps of Engineers Wetlands Delineation Manual (1987).

### PERMITTING

Once wetlands have been identified and delineated, POTESTA can prepare application packages for permits to fill and/or dredge these areas for further development. The U. S. Army Corps of Engineers (COE) is the agency responsible for granting wetland permits under Section 404 of the Clean Water Act. In addition to the COE permit, individual states must approve each permit granted, certifying that it meets the state's water quality standards.

Our employees have established working relationships with both the federal and state agencies in this region. We are very familiar with the data required and can work with the agencies to obtain timely review and issuance of permits.



### MITIGATION AND DESIGN

Wetland mitigation and design come into play when wetlands being displaced or filled are large enough to require mitigation under state and federal standards. In some cases, wetland mitigation can be achieved solely through the payment of a fee to a mitigation bank or fund, established for the creation, protection or enhancement of other wetland areas. In this case, POTESTA can prepare an appropriate mitigation offer and negotiate with state and federal authorities for its approval.

Depending upon the availability of suitable sites, wetland mitigation can also consist of the actual design and construction of new wetlands, or the enhancement of existing wetlands. Our staff includes qualified engineers experienced in the design of created wetlands. Working as a team with staff biologists, we can produce a cost-effective functional design for presentation to state and federal authorities. Once approved, we can provide monitoring of the construction of the new wetlands.



**POTESTA & ASSOCIATES, INC.**

7012 MacCorkle Avenue, S.E. • Charleston, West Virginia 25304

Phone: (304) 342-1400 Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)

Regional Offices: Morgantown, West Virginia and Winchester, Virginia

*Project Abstract*

**RED JACKET REFUSE PILE CONSTRUCTION  
LAYOUT-AML RECLAMATION PROJECT  
Thaxton Construction Company**

*Mingo County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Thaxton Construction Company to provide construction layout for the Red Jacket Refuse Pile AML Project in Mingo County, West Virginia. Thaxton Construction Company was contracted by the West Virginia Division of Environmental Protection (WVDEP) Office of Abandoned Mine Lands and Reclamation (AML) to perform reclamation on an AML refuse pile.

Proposed reclamation included regrading a 500-foot long coal refuse pile and revegetation. Construction documents were prepared by others.

POTESTA's tasks for the project include:

1. Survey of "pre-construction" and "post-construction" cross sections.
2. Computation of (or assistance with) certain as-built quantities, including earthwork and revegetation.
3. Submittal of "post-construction" cross section drawings depicting existing and final grades.

**POTESTA & ASSOCIATES, INC.**  
Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/[www.potesta.com](http://www.potesta.com)



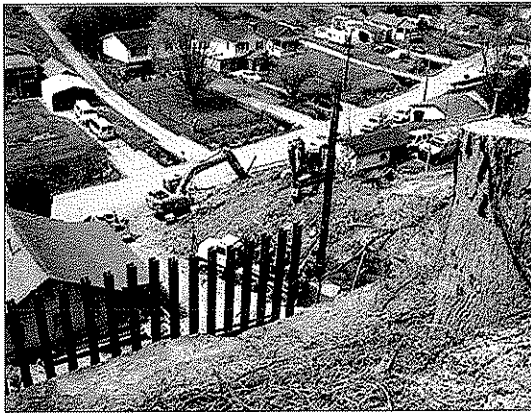
*Project Abstract*

# **GEORGE'S CREEK (LUCAS) LANDSLIDE MAINTENANCE**

## **West Virginia Department of Environmental Protection- Office of Abandoned Mine Lands**

*Kanawha County, West Virginia*

POTESTA was retained by the West Virginia Department of Environmental Protection - Office of Abandoned Mine Lands (WVDEP) to evaluate and perform geotechnical engineering services for a landslide related to historic mining activity which was threatening a nearby residential structure.



A portion of the existing hillside immediately adjacent to the rear of the residential structure was excavated prior to construction of the structure to a near vertical slope exposing weathered shale and a coal seam near the slope's base. The exposed coal seam was determined to be the No. 2 Gas seam which was reportedly mined in the 1950s. Some drainage was noted flowing from the coal seam and the resulting water was conveyed through a nearby culvert to Georges Creek. Attempts were made by WVDEP to excavate loose rock and soil from the hillside in an effort to improve stability of the slope. Following this initial work the slope continued to slough with periodic small slides and slope

movement believed to be caused by continued subsidence of the underground mine works.

POTESTA performed a subsurface exploration to assist in evaluating the landslide condition, including the type and condition of the rock located in the slope as well as the attitude, thickness and condition of the underlying coal seam. POTESTA survey crews also completed a topographic survey of the affected area including the surrounding residential structure, drains and wooded hillside. The remedial measures to correct the landslide area included the design of a 25-foot high steel soldier beam and concrete lagging retaining wall with sloped, compacted backfill constructed from on-site materials. The retaining wall design required the application of a rock anchor tie-back system due to mine voids existing at the base of the hillside slope that were encountered during the subsurface exploration

As part of the project, POTESTA assisted the WVDEP with contract administration and performed construction observation services during the construction phase.

**POTESTA & ASSOCIATES, INC.**  
Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/www.potesta.com

*Project Abstract*

# **MAHAN TIPPLE AND REFUSE AML MAINTENANCE PROJECT**

**Thaxton Construction Company**

*Fayette County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Thaxton Construction Company to provide construction layout for the Mahan Tipple and Refuse Maintenance AML Project in Fayette County, West Virginia. Thaxton Construction Company had been contracted by the West Virginia Division of Environmental Protection (WVDEP) Office of Abandoned Mine Lands and Reclamation (AML) to perform maintenance on an AML refuse pile, originally reclaimed in the late 1980's, that had a significant failure near the toe of the refuse pile.

Proposed maintenance included excavation of material near the toe, installation of a rock buttress at the toe (approximately 1,000 cubic yards), installation of two grouted riprap channels totaling approximately 300 feet, and regrading and revegetation. Total proposed excavation was approximately 10,000 cubic yards. Construction documents for the project were prepared by another consultant.

POTESTA's tasks for the project included:

1. Construction layout of lines/grades for earthwork, including survey of "pre-construction" and "post-construction" cross sections.
2. Construction layout of proposed channels.
3. Computation of (or assistance with) certain as-built quantities, including earthwork, channels, and revegetation.
4. Submittal of "post-construction" cross section drawings depicting existing and final grades.

**POTESTA & ASSOCIATES, INC.**  
Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/[www.potesta.com](http://www.potesta.com)

*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.

**POTESTA & ASSOCIATES, INC.**

Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/[www.potesta.com](http://www.potesta.com)

*Project Abstract*

# **CABELL COUNTY WATER LINE EXTENSIONS**

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

*Cabell County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by West Virginia American Water Company (WVAWC) to design and prepare construction/bid documents for approximately 23 miles of 2 through 8-inch diameter waterline in Cabell County. WVAWC provided POTESTA with a conceptual plan of proposed waterlines and aerial photography contact prints. POTESTA scanned contract prints to develop 24 inch x 36 inch drawings at an approximate scale of 1 inch = 100 feet. Over 40 plan view drawings were created.

POTESTA performed field reconnaissance and coordination with public and private utility companies to establish locations of underground utilities. Roadway drainage culverts were also added to the plan view drawings.



Based on the topography, existing utilities and service connection locations, POTESTA selected the proposed waterline location and added it to the plan view. POTESTA then completed hydraulic analysis using a computer flow model to design line sizes and evaluate pressures and fire flow. POTESTA prepared a calculation brief for submittal to the West Virginia Department of Health.

POTESTA finalized the design drawings showing proposed line location, type and size; valve locations; hydrant locations; connection details; meter settings; road crossings; stream crossings; and approximate property boundaries.

POTESTA developed bid quantities and an engineer's cost estimate and created a bid form using WVAWC approved format. POTESTA was also responsible for preparing permit applications for submittal to West Virginia Department of Health, West Virginia Division of Highways, West Virginia Division of Natural Resources, Public Land Corporation, and CSX Railroad.

POTESTA provided construction management, administration, and monitoring during the construction phase of the project.

**POTESTA & ASSOCIATES, INC.**

Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/www.potesta.com

*Project Abstract*

# **ENGINEERING SERVICES FOR WEST VIRGINIA PUBLIC SERVICE COMMISSION CASE AND TEMPORARY BOOSTER STATION Town of Ceredo**

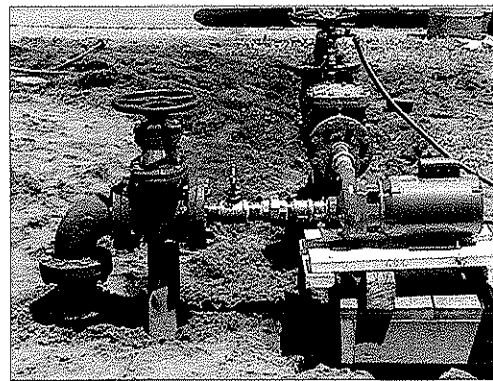
## *Wayne County, West Virginia*

Potesta & Associates, Inc.(POTESTA) was retained by the Town of Ceredo to provide engineering services relative to a complaint case against the City of Kenova.

The City of Kenova sells water to the Town of Ceredo. After an upgrade to the City of Kenova's water system, the supply to the Town of Ceredo diminished, resulting in the Town of Ceredo utilizing a backup water source, "boil water" advisories being issued, and the Town of Ceredo filing a complaint against the City of Kenova with the West Virginia Public Service Commission (WVPSC). The Town of Ceredo retained POTESTA to provide engineering services to help address these issues.

As part of the services provided, POTESTA:

1. Evaluated the water supply from the City of Kenova, and provided recommendations on how to alleviate the problem.
2. Designed and prepared drawings and a West Virginia Department of Health and Human Resources application to allow installation of a temporary booster station to supplement the water supply from the City of Kenova.



**POTESTA & ASSOCIATES, INC.**

Charleston, WV • Morgantown, WV • Winchester, VA

(304) 342-1400/www.potesta.com

*Project Abstract*

# **FAIRVIEW OAKS SUBDIVISION WATER LINE EXTENSION**

## **Fairview Oaks, LLC**

*Morgan County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained to provide engineering services for extension of water service to a proposed subdivision just north of Berkeley Springs, West Virginia. POTESTA's services included:

1. Meeting with the Berkeley Springs Water Works (BSWW) to obtain information on the existing water system, identifying a path for the water line extension, and obtaining BSWW requirements for the water line extension;
2. Preparing base mapping for the water line extension (from two separate sources), and performing a site reconnaissance to locate site features;
3. Coordinating fire hydrant flow tests of the existing water system with BSWW to obtain data for hydraulic evaluation;
4. Completing hydraulic evaluation of the proposed water line, including evaluation of fire flow capacities, utilizing the computer program WATERCAD;
5. Preparing construction drawings and technical specifications;
6. Preparing permit applications to the West Virginia Department of Health and Human Resources Office of Environmental Health Services and West Virginia Division of Highways, and interacting with those agencies until permits were issued.



*Path of Water Line Extension*

Total extension length was approximately 4,200 feet.

**POTESTA & ASSOCIATES, INC.**  
Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/[www.potesta.com](http://www.potesta.com)

*Project Abstract*

# **FEASIBILITY STUDY AND PREPARATION OF FUNDING APPLICATION FOR WATER SYSTEM EXPANSION**

## **City of Philippi**

*Philippi, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the City of Philippi to perform a feasibility study and subsequent funding application for a project involving upgrades to their existing potable water distribution system.

The project included the following:

- Hydraulic analysis of a sector of the City currently being served by an old storage tank.
- Conceptual design of:
  - 402,000 gallon storage tank
  - 16,000 gallon storage tank
  - 600 gpm booster station
  - 300 gpm booster station
  - 1,800 feet of 8" pipe
  - 2,000 feet of 6" pipe
  - Pressure reducing station

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 will include final design of the project components, preparation of construction drawings and technical specifications, permit applications, and construction monitoring.

**POTESTA & ASSOCIATES, INC.**

Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/www.potesta.com

*Project Abstract*

## **MIFFLIN-SHARPLES WATER LINE EXTENSION West Virginia American Water**

### ***Logan County, West Virginia***

Potesta & Associates, Inc. (POTESTA) was retained to provide engineering services for extension of water lines in the Mifflin-Sharples areas of Logan County, West Virginia.

The design concept involved extending West Virginia American Water line from Boone County to the Logan County Public Service District's (LCPSD) Sharples system and providing service to approximately 25 new customers, and then extending water line south along State Route 17 to a new deep mine complex. Approximately 11,000 linear feet of 8-inch, 6-inch and 2-inch water line were designed, as well as numerous connections to existing water line, upgrade of existing water line, and rehabilitation of LCPSD's water storage tank. Services included:



1. Completing a hydraulic evaluation of the extension to size proposed water line, including flow testing of the existing LCPSD system.
2. Preparing drawings, specifications, and a cost estimate.
3. Preparing permit applications to the West Virginia Department of Health and Human Resources, CSX Transportation (for a railroad crossing), West Virginia Division of Highways, U. S. Army Corps of Engineers and West Virginia Public Land Corporation, and interacting with those entities until permits were issued.
4. Providing bidding phase services, construction management services, and full-time construction observation.

Construction was completed under budget.

**POTESTA & ASSOCIATES, INC.**  
Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/www.potesta.com



# **POTABLE WATER SUPPLY FOR MOUNTAIN LAUREL COMPLEX**

## **Mingo-Logan Coal Company**

### ***Logan County, West Virginia***

Potesta & Associates, Inc. (POTESTA) was retained to provide engineering services for the potable water supply for a new deep mine complex in Logan County, West Virginia. The design concept involved extending water line from a nearby public water system to serve the proposed mine office, coal preparation plant, and bathhouse. Approximately 9,000 linear feet of 10-inch, 8-inch, 6-inch and 4-inch High Density Polyethylene (HDPE) water line were designed, as well as a water storage tank, booster station and blow-off assemblies. Services included:

1. Completing a hydraulic evaluation of the extension to size proposed water line, including developing estimated flow for the facilities.
2. Preparing drawings and specifications.
3. Preparing a permit application to the West Virginia Department of Health and Human Resources.
4. Providing bidding phase services, construction management services, and full-time construction observation.



**POTESTA & ASSOCIATES, INC.**

Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/www.potesta.com

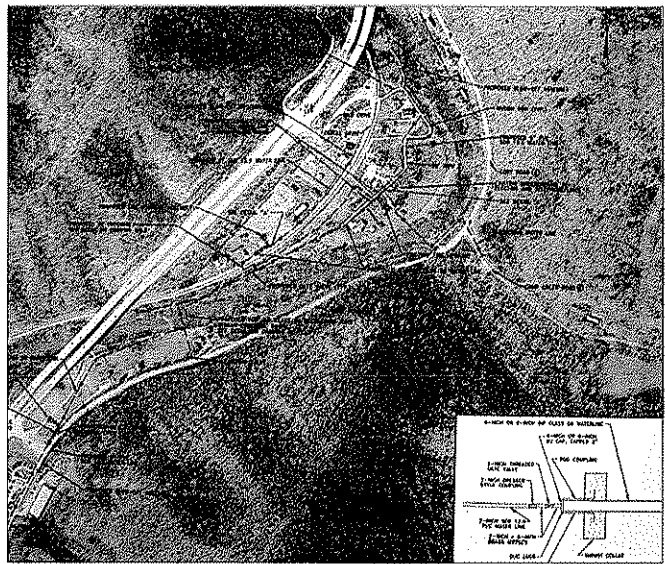
*Project Abstract*

# PERMITTING AND CONSTRUCTION DRAWINGS FOR STEPHENS AUTO/BETSY LANE WATER LINE EXTENSION Boone County Public Service District

## *Boone County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the Boone County Public Service District (BDPSD) to prepare permit applications and construction drawings for the Stephens Auto/Betsy Lane water line extension. More specifically, POTESTA:

- Surveyed a proposed railroad crossing;
- Prepared construction drawings that presented the proposed water line extension; and
- Prepared permit applications to the West Virginia Department of Highways, West Virginia Department of Health and Human Resources, West Virginia Public Land Corporation, United States Army Corps of Engineers and CSX Transportation.



The construction drawings depicted a water line extension that included approximately 4,800 linear feet of 6-inch and 2-inch water line, two fire hydrants, one river crossing, one railroad crossing and 19 potential customers.

Permits were issued and the water line extension was constructed using a combination of “in-house” and contractor personnel.

**POTESTA & ASSOCIATES, INC.**

Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/www.potesta.com

# PERMITTING AND CONSTRUCTION DRAWINGS FOR THE SIX MILE TO CORRIDOR G WATER LINE EXTENSION Boone County Public Service District

*Boone County, West Virginia*

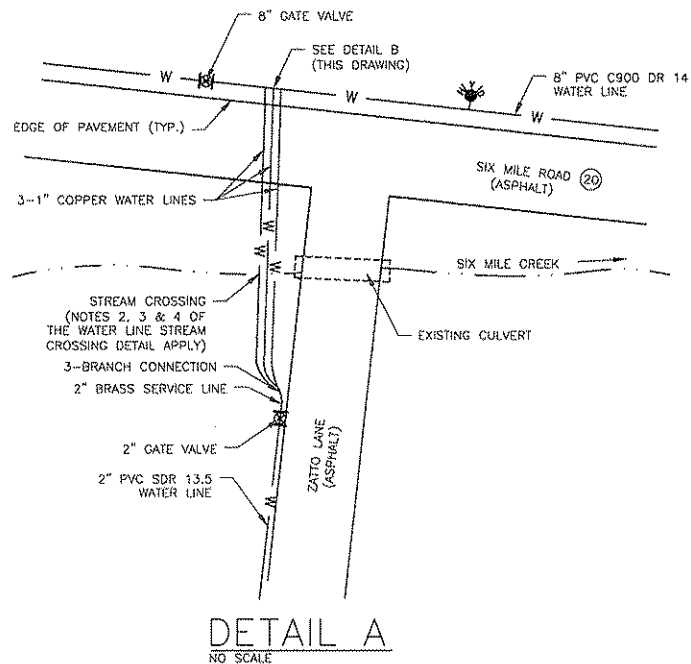
Potesta & Associates, Inc. (POTESTA) was retained by the Boone County Public Service District to prepare permit applications and construction drawings for the Six Mile to Corridor G Water Line Extension. Approximately 8,700 feet of 8-inch and 2-inch water line were designed with multiple stream crossings, and branch connection roadway crossings. POTESTA's services included:

Working with West Virginia American Water Company to develop a cost-effective branch connection method by modifying their typical specifications to accommodate a combined stream and roadway crossing with topographical restraints;

Preparing construction drawings that presented the proposed water line extension;

Completing a hydraulic evaluation of the proposed water line, including evaluation of fire flow capacities, utilizing the computer program WATERCAD; and

Preparing permit applications to the West Virginia Division of Highways, West Virginia Department of Health and Human Resources, West Virginia Public Land Corporation, and United States Army Corps of Engineers.



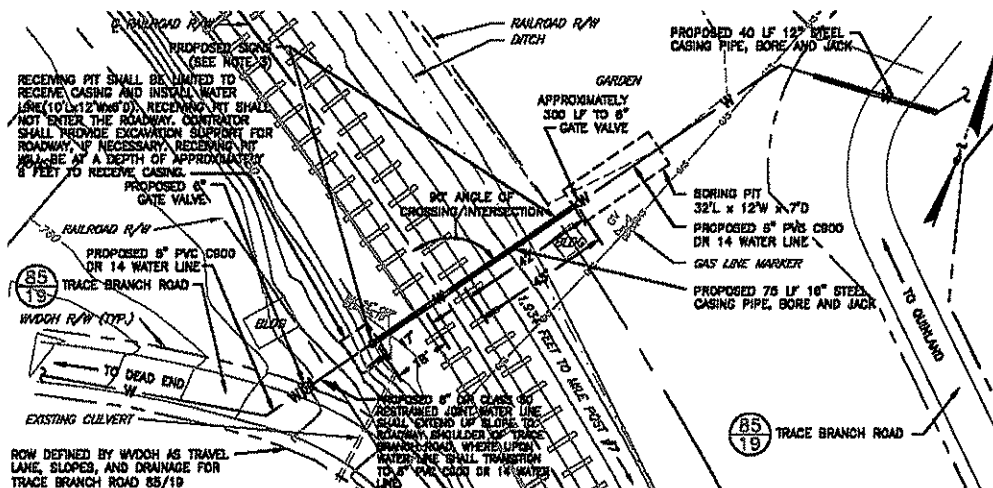
# PERMITTING AND CONSTRUCTION DRAWINGS FOR TRACE BRANCH AT ROBINSON WATER LINE EXTENSION Boone County Public Service District

## Boone County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the Boone County Public Service District to prepare permit applications and construction drawings for the Trace Branch at Robinson Water Line Extension. Approximately 3,100 feet of 6-inch and 2-inch water line was designed with multiple stream crossings, roadway crossings, and a railroad crossing. Services associated with the design included:

1. Surveying for the railroad crossing and conducting direct correspondence with the CSX Transportation to determine acceptable railroad crossing criteria. Challenges with the railroad crossing design included complications associated with the close proximity of existing structures, and topographical restraints limiting casing length and water line depth;
2. Preparation of construction drawings that presented the proposed water line extension;
3. Preparation of permit applications to the West Virginia Division of Highways, West Virginia Department of Health and Human Resources, West Virginia Public Land Corporation, United States Army Corps of Engineers, and CSX Transportation.

Railroad Crossing Plan Drawing



**POTESTA & ASSOCIATES, INC.**  
 Charleston, WV • Morgantown, WV • Winchester, VA  
 (304) 342-1400/www.potesta.com

*Project Abstract*

**PERMITTING FOR LOWER WHITE OAK  
DRIVE WATER LINE EXTENSION  
West Virginia-American Water Company**

***Boone County, West Virginia***

Potesta & Associates, Inc. (POTESTA) was retained by West Virginia-American Water (WVAW) to prepare permit applications for the Lower White Oak Drive water line extension in Boone County, West Virginia. The water line extension was to be constructed by the Boone County Public Service District (BCPSD), with WVAW providing operation and maintenance. The water line extension consisted of approximately 2,400 feet of 6-inch and 2-inch water line to serve eight new customers. Three crossings of White Oak Branch were included in the project.

POTESTA prepared the following permit applications:

- 1) For the three stream crossings:
  - United States Army Corps of Engineers, West Virginia Public Land Corporation (WVPLC), and West Virginia Department of Environmental Protection 401 water quality certification.
- 2) For installation with the right-of-way of a highway:
  - West Virginia Division of Highways (WVDOH) Highway Occupancy permit application.

POTESTA prepared the permit applications on short notice to expedite the start of construction. Construction commenced shortly after permits were received, and the water line installation was completed shortly thereafter.

**POTESTA & ASSOCIATES, INC.**  
Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/www.potesta.com

*Project Abstract*

# **POCA RIVER WATERLINE EXTENSION**

## **West Virginia American Water Company**

*Putnam County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by West Virginia American Water Company (WVAWC) to prepare a design and develop bidding/construction documents for approximately 68,000 linear feet of 6 to 8-inch diameter waterline following the Poca River in Putnam County. POTESTA utilized USGS topographic mapping enlarged to create base mapping for the project.

POTESTA performed field reconnaissance and coordination with public and private utilities to establish locations of underground utilities. Road drainage culverts were also added to the plan drawings.

Based on topography, existing utilities, and required service connection locations, POTESTA selected the proposed waterline location and prepared plan view drawings. The plan drawings included the proposed line location, type, and size; valve locations; hydrant locations; connection details; meter settings; road crossings; and stream crossings.

POTESTA developed bid quantities and an engineer's cost estimate and developed a bid form using WVAWC approved format. POTESTA was also responsible for preparing permit applications to the West Virginia Department of Health, West Virginia Division of Highways, and West Virginia Division of Natural Resources Public Lands Corporation.

POTESTA provided construction management, administration and monitoring during the construction phase of the project.

**POTESTA & ASSOCIATES, INC.**

Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/[www.potesta.com](http://www.potesta.com)

*Project Abstract*

# **PRELIMINARY ENGINEERING FOR THE JOE'S CREEK WATER LINE EXTENSION Boone County Public Service District**

*Boone County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the Boone County Public Service District (BCPSD) to complete preliminary engineering services associated with the proposed Joe's Creek water line extension in Boone County, West Virginia. The BCPSD was evaluating extension of water lines in the Joe's Creek area, and requested assistance with preliminary sizing of lines and other features, and preparation of estimates of probable construction and total project costs.

To complete the project, POTESTA:

- a. Performed a site reconnaissance to locate the pathway of the water line, identify potential customers, etc.;
- b. Met with utility officials to identify location and capacity of existing water system infrastructure;
- c. Completed hydraulic calculations to size the water line;
- d. Prepared a report summarizing the effort with attached calculations, drawing depicting a layout of the extension, and cost estimates.

The preliminary design anticipated approximately 9,000 linear feet of 8-inch water line, 7,000 linear feet of 6-inch water line, and 1,000 feet of 2-inch water line to serve 64 customers. Fire flow service was proposed for lower elevation areas. A 35-gallon per minute hydropneumatic booster station/tank was proposed to serve higher elevation areas. The preliminary estimate of probable construction cost was \$650,000.

POTESTA completed the project on a fast track (two-week) schedule.

**POTESTA & ASSOCIATES, INC.**  
Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/[www.potesta.com](http://www.potesta.com)

*Project Abstract*

# **PRELIMINARY INVENTORY OF TOWN OF PINEVILLE WATER SYSTEM**

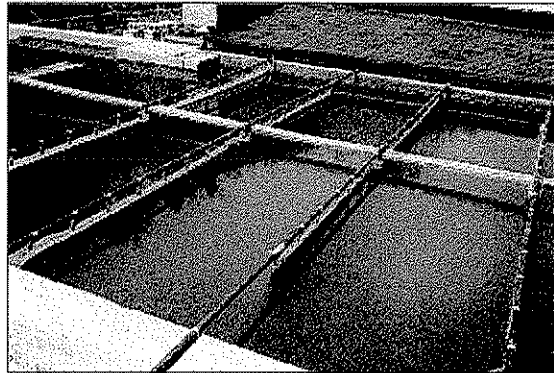
## **West Virginia-American Water Company**

*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 Company retained Potesta & Associates, Inc. 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 WVAWC.
- 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 (WVPSC) to identify customer complaints.
- Contacted the WVBPH to discuss concerns they may have regarding the water system, including identification of Administrative Orders.
- Contacted WVAWC employees familiar with the water system to discuss concerns they may have.
- Prepared a report summarizing the preliminary inventory.



**POTESTA & ASSOCIATES, INC.**  
Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/[www.potesta.com](http://www.potesta.com)



*Project Abstract*

# RELOCATION OF WATER LINE

## City of Philippi

### *Philippi, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained to prepare construction documents, prepare permit applications, and provide as needed construction monitoring for relocation of water lines disrupted by the West Virginia Division of Highways' (WVDOH) Philippi Bridge Bypass Project.

Included in the proposed relocation was:

- ◆ 1000 feet of 12-inch ductile iron pipe,
- ◆ 1100 feet of 8-inch ductile iron pipe,
- ◆ 800 feet of 6-inch ductile iron pipe,
- ◆ 200 feet of 4-inch ductile iron pipe,
- ◆ 1000 feet of service line,
- ◆ 13 valves, and
- ◆ Associated appurtenances such as meters, fire hydrants, and steel casing.

Care was taken to relocate lines to areas not interfering with proposed highway construction, existing utilities, and other proposed relocated utilities.

POTESTA prepared plan drawings showing the relocated water line; detail drawings showing trenches, pavement replacement, stream crossings, valve settings, pay items, and quantities; and specifications. Permit applications were prepared and submitted to the West Virginia Bureau for Public Health, United States Army Corps of Engineers, and the West Virginia Public Lands Corporation.

Work was coordinated with the WVDOH, City of Philippi, and another engineering firm preparing the design of relocated sanitary lines.



**POTESTA & ASSOCIATES, INC.**

Charleston, WV • Morgantown, WV • Winchester, VA

(304) 342-1400/[www.potesta.com](http://www.potesta.com)

*Project Abstract*

# **SPITE ROAD WATERLINE EXTENSION CONSTRUCTION ADMINISTRATION AND OBSERVATION**

**West Virginia-American Water Company**

*Putnam County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by West Virginia American Water Company (WVAWC) to provide construction administration/observation for construction of approximately 13,000 linear feet of 2-inch and 8-inch diameter waterline following Spite Road in Putnam County.

As part of POTESTA's construction administration and monitoring, POTESTA:

1. Attended meetings as needed;
2. Assisted with review of change orders;
3. Provided a nearly full-time representative to observe construction;
4. Reviewed contractor invoices and made recommendations regarding payment;
5. Prepared weekly reports summarizing construction activities;
6. Provided record drawings showing "as-built" features;
7. Handed out "welcome packets" to customers.

Construction proceeded smoothly, and the water line was installed. Throughout the project, POTESTA interacted with WVAWC, the West Virginia Division of Highways (WVDOH), and other entities with an interest in the project.

**POTESTA & ASSOCIATES, INC.**

Charleston, WV • Morgantown, WV • Winchester, VA

(304) 342-1400/www.potesta.com

*Project Abstract*

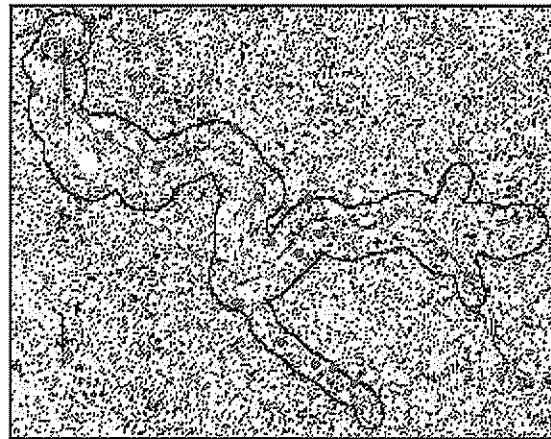
# **SOURCE WATER ASSESSMENT PROTECTION PROGRAM**

## **West Virginia Bureau for Public Health**

Potesta & Associates, Inc. (POTESTA) assisted the West Virginia Bureau for Public Health (WVBPH) by providing source water assessment services associated with WVBPH's Source Water Assessment and Protection Program (SWAPP). The source water assessment locates potential contaminant sources that are within a zone of critical concern (ZCC) along the intake stream and its tributaries. POTESTA's services included:

1. Obtained and reviewed water quality data for violations of maximum contaminant levels allowed by the Environmental Protection Agency and obtained United States Geological Survey stream flow data.
2. Surveyed ZCC for potential contaminant sources (PCS) that could impact the intake stream and confirmed their location using a handheld Global Positioning System (GPS).
3. Input PCS stream flow, water quality and land area data into Microsoft Access database.
4. Merged Microsoft Access Database with ArcView 3.2a software to provide a graphical representation of the PCS data collected from the field.
5. Prepared digital topographic mapping, including rivers, major roadways and potential contaminant sources for each public water system utilizing ArcView 3.2a software, GPS data collected during the field survey, and data from the WVBPH.
6. Prepared detailed summary reports for each public water system identifying PSCs and issues such as vandalism at the drinking water treatment plant and public water system plans for low water situations.

The West Virginia Bureau for Public Health used the electronic format maps POTESTA created using ArcView 3.2a software as well as data collected during the windshield survey to target allocation of available funds for further investigation and improvement of the public water systems.



*Map showing ZCC (red) and PCSs (circles) against 7.5' topographic map.*

**POTESTA & ASSOCIATES, INC.**

Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/[www.potesta.com](http://www.potesta.com)

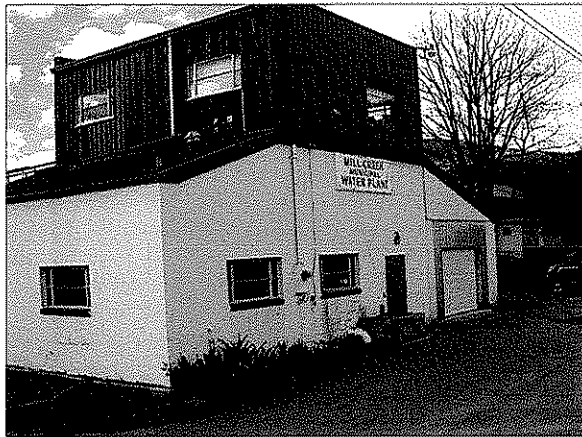
*Project Abstract*

# **WATER LOSS EVALUATION PLAN FOR THE MILL CREEK WATER DISTRIBUTION SYSTEM**

## **Town of Mill Creek**

*Randolph County, West Virginia*

The Town of Mill Creek operates a potable water treatment and distribution system that serves 370 residential customers and 10 industrial/commercial customers. The system dates back to the early 1900s, with major upgrades occurring in the 1960s, and extensions added in the 1990s. The West Virginia Department of Health and Human Resources had expressed concern for the large quantities of unaccountable water produced at the Mill Creek water plant (over 50% of total water production). The Town of Mill Creek worked with other agencies to find possible leaks, but was not able to locate a significant problem.



Potesta & Associates, Inc. (POTESTA) was retained to prepare a plan to evaluate the distribution system to identify areas that experience water loss. In order to create the plan, POTESTA obtained the town's water distribution system mapping and met with a town representative to review the system. With this information, POTESTA developed a plan to isolate various regions throughout the water distribution system and install leak detection equipment to monitor each region. Provided in the plan were detailed instructions on how to

isolate each region and estimates of construction and total project cost to install the leak detection equipment.

Also included in the water loss evaluation plan was a second option to improve the water distribution system. This option included replacement of approximately 2,000 feet of a water main that had reoccurring maintenance issues and the addition of a booster station to improve service to customers with low water pressure. Construction and total project cost estimates were also provided for the second option.

POTESTA continues to work with the Town of Mill Creek to assist in monitoring the leak detection equipment and evaluation of the results, and in obtaining funding for implementation of improvements.

**POTESTA & ASSOCIATES, INC.**  
Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/www.potesta.com

*Project Abstract*

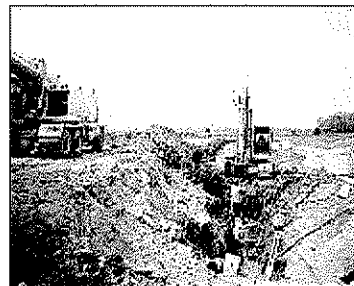
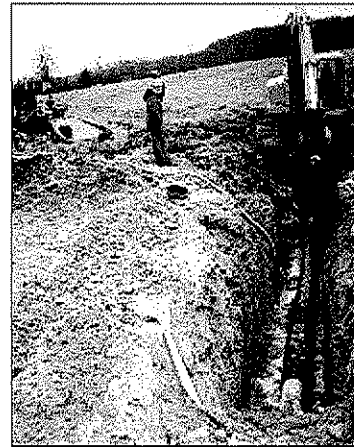
# **TUCKER COUNTY INDUSTRIAL PARK CONSTRUCTION OF ADDITIONAL WATER AND SEWER LINE**

## **Tucker County Development Authority**

### *Tucker County, West Virginia*

After completion of initial construction at the Tucker County Industrial Park, additional monies remained. The owner, Tucker County Development Authority, authorized Potesta & Associates, Inc. (POTESTA) to prepare bidding documents for construction of additional water and sewer lines at the site, using the remaining monies. More specifically, POTESTA:

1. Completed ground survey to develop topographic mapping to reflect "as-constructed" conditions after the first phase.
2. Prepared drawings and specifications depicting the construction of an additional 1,000 feet of gravity sewer line including five manholes, and 500 feet of additional water line, including construction through wetlands and across a stream.
3. Prepared permit applications for crossing of the stream and wetlands, and to obtain approval from the West Virginia Bureau for Public Health.
4. Prepared bidding documents and coordinated obtaining approval from the United States Economic Development Agency.
5. Presented the project at a pre-bid meeting.
6. Compiled contractor bid information.
7. Provided construction phase services, including attending a preconstruction meeting, reviewing and commenting on shop drawings on manholes, pipe and other materials; and providing nearly full-time construction observation services.



The additional water and sewer lines were successfully installed.

**POTESTA & ASSOCIATES, INC.**

Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/[www.potesta.com](http://www.potesta.com)

# **TUCKER COUNTY INDUSTRIAL PARK**

## **Tucker County Development Authority**

*Davis, West Virginia*

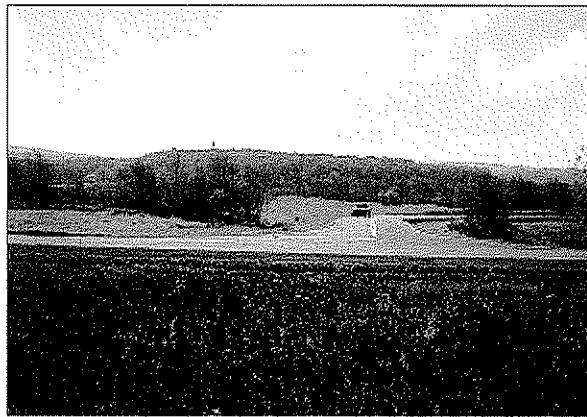
Potesta & Associates, Inc. (POTESTA) was retained to prepare construction documents for all the infrastructure improvements for Tucker County's new 162-acre industrial park along WV Rt. 93 near Davis, West Virginia. The site will provide almost 80 acres of developable land for new business interests in Tucker County.



The site includes significant wetlands within the developable acreage, requiring POTESTA to develop both utility extensions (water and sewer) and access road design that avoided most of the wetlands, yet serviced the entire park. The water and sewer lines for the park tie into the City of Davis's existing system. Over 8,000 linear feet of 8" water line and 6,500 linear feet of 3" force main sewer line were extended from Davis.

A 75-gallon per minute lift station was designed within the park at the lowest possible elevation and located to allow gravity sewer to follow the new access road, providing nearby sewer service to the most developable land.

The construction cost for this project was \$1.1 million and the design was fast-tracked and completed in a 4-month time frame because of grant requirements of the U. S. Economic Development Administration. Construction was completed within the grant time frame. The project entailed permit applications from the U. S. Army Corps of Engineers for wetland disturbance, WV Department of Health for sewer and water extensions, WV Department of Environmental Protection for stormwater management and erosion control (NPDES) and WV Public Lands Corporation for stream crossings. Road design was reviewed and approved by the WV Division of Highways because the Division was providing grant funding for the 2,000-foot access road.



**POTESTA & ASSOCIATES, INC.**  
Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/[www.potesta.com](http://www.potesta.com)

*Project Abstract*

# **UNITED STATES ROUTE 60 UPGRADE**

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

*Putnam County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by West Virginia-American Water Company (WVAWC) to prepare a design and develop bidding/construction documents for approximately 18,000 linear feet of 16-inch diameter waterline following United States Route 60 in Putnam County. POTESTA utilized USGS topographic mapping enlarged to create base mapping for the project.

POTESTA performed field reconnaissance and coordination with public and private utilities to establish locations of underground utilities. Road drainage culverts were also added to the plan drawings.

Based on topography, existing utilities, and required service connection locations, POTESTA selected the proposed waterline location and prepared plan view drawings. The plan drawings included the proposed line location, type, and size; valve locations; hydrant locations; connection details; meter settings; road crossings; and stream crossings.

POTESTA developed bid quantities and an engineer's cost estimate and developed a bid form using WVAWC approved format. POTESTA was also responsible for preparing permit applications to the West Virginia Department of Health, West Virginia Division of Highways, and West Virginia Division of Natural Resources Public Lands Corporation.

**POTESTA & ASSOCIATES, INC.**

Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/[www.potesta.com](http://www.potesta.com)

# LICK CREEK WATER LINE EXTENSION – PHASE I Boone County Public Service District

## *Boone County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained to provide engineering services for extension of water lines in the Lick Creek area at Danville, Boone County, West Virginia. The water line design consisted of connecting to an existing West Virginia American Water line along Lick Creek Road and extending the new water line to approximately 200 customers.



The design was performed in an expedited time frame and took future water line extensions into consideration by sizing the water line to provide required pressure and flow for residential and fire protection purposes. This included adjusting an existing pressure reducing valve to add pressure to the system without exceeding guidelines set by the West Virginia Public Service Commission. Design services included hydraulic evaluation of existing and proposed water line, preparing drawings and specifications, and preparation of permit applications. Permit applications included the West Virginia Department of Health and Human Resources, West Virginia Division of Highways, U. S. Army Corps of Engineers and West Virginia Public Land Corporation, and interacting with those entities until permits were issued.

Bidding and construction phase services were provided by aiding the Boone County Public Service District in selection of a contractor and providing construction observation. Construction of the water line extension came in under budget which allowed additional extension of water line using funding secured for the project. The additional water line design was again completed in an expedited time frame to aid in securing unit prices from the contractor for the water line installation. Ultimately, the project encompassed approximately 32,000 linear feet of 8-inch, 6-inch, and 2-inch water line.

**POTESTA & ASSOCIATES, INC.**  
Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/www.potesta.com



*Project Abstract*

**WVIJDC APPLICATION AND PRELIMINARY  
ENGINEERING –TOWN OF CEREDO  
MUNICIPAL WATER DEPARTMENT  
DISTRIBUTION SYSTEM UPGRADE  
Town of Ceredo**

*Wayne County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the Town of Ceredo to evaluate deficiencies in its water distribution system and prepare a funding application for monies to implement upgrades to the system, including deficiencies identified in an order from the West Virginia Public Service Commission. More specifically, POTESTA:

1. Evaluated two alternatives for the upgrade that generally differed by whether West Virginia American Water or the Town of Ceredo would serve approximately 215 existing customers east of Twelvepole Creek. Each alternative included upgrades in water lines, installation of fire hydrants, and replacement of the town's approximate 100-year old reservoir. Preliminary estimates of probable construction cost, operation/maintenance costs, debt service, total project costs, and potential customer rates were estimated for each alternative. One alternative had an estimated total project cost of \$2,100,000, while the other had an estimated total project cost of \$4,300,000. Results of the evaluation were summarized in a preliminary engineering report.
2. Prepared a West Virginia Infrastructure and Jobs Development Council (WVIJDC) preliminary application for funding of the recommended alternative. The West Virginia Drinking Water Treatment Revolving Fund was identified as the source of funding. The WVIJDC application and preliminary engineering report were then submitted to the WVIJDC for approval.

**POTESTA & ASSOCIATES, INC.**  
Charleston, WV • Morgantown, WV • Winchester, VA  
(304) 342-1400/www.potesta.com