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## Header

List View

**General Information** | Contact | Default Values | Discount | Document Information

Procurement Folder: 146152

SO Doc Code: CEOI

Procurement Type: Central Contract - Fixed Amt

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Vendor ID: 000000197868

SO Doc ID: DNR1600000006

Legal Name: ANDERSON & ASSOCIATES OF VIRGINIA INC

Published Date: 10/21/15

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Total Bid: \$0.00

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Response Time: 12:10

Solicitation Description: Addendum No 02, Water & wastewater Improvements.

Total of Header Attachments: 0

Total of All Attachments: 0



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

**State of West Virginia  
 Solicitation Response**

**Proc Folder :** 146152

**Solicitation Description :** Addendum No 02, Water & wastewater Improvements.

**Proc Type :** Central Contract - Fixed Amt

Date issued	Solicitation Closes	Solicitation No	Version
	2015-11-18 13:30:00	SR 0310 ESR11171500000002302	1

**VENDOR**

000000197868

ANDERSON & ASSOCIATES OF VIRGINIA INC

**FOR INFORMATION CONTACT THE BUYER**

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

**Signature X** **FEIN #** **DATE**

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

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Architectural engineering				

Comm Code	Manufacturer	Specification	Model #
81101508			

**Extended Description :** AE Services for Babcock wastewater treatment plant replacement and Droop Mountain water supply improvements.



**Expression of Interest  
Babcock and Droop Mountain State Parks  
Wastewater & Water Supply Improvements**

**Due: November 17, 2015 - 1:30 pm**

Department of Administration, Purchasing Division  
Purchasing Department  
2019 Washington Street East  
Charleston, WV 25305-0130

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November 18, 2015

Mr. Guy Nisbet  
Buyer Supervisor  
Department of Administration  
Purchasing Division  
2019 Washington Street, East  
Charleston, WV 25305

Re: Babcock and Droop Mountain State Parks  
Water and Wastewater Improvements - JN  
31940.99

Dear Mr. Nisbet,

Anderson & Associates with our project partner, Triad Engineering (Project Team) is pleased to submit this proposal for professional services relating to park improvements at Babcock and Droop Mountain State Parks.

#### **UNDERSTANDING**

1. This project involves design and construction administration/inspection for wastewater improvements to Babcock Lake Park and water improvements Droop Mountain State Park.
2. These services will involve engineering, geotechnical and construction services for each park individually.
3. The selected project team will review the existing plans and conditions to make recommendations to the Department of Natural Resources (DNR).
4. After consensus amongst the project team including DNR, the project team will design improvements with accordance to WV State Regulations, West Virginia Bureau of Public Health, West Virginia Department of Environmental Protection and requirements of the DNR.
5. The Project Team will assist the DNR with soliciting and approval of a responsive contractor.
6. Upon execution of the contract the Project Team will provide Construction Administration/Construction Inspection in conjunction with personnel from the parks and the DNR.

#### **APPROACH**

We will:

1. Following an initial scope kick-off meeting we will work with the DNR's personnel to procure information that will aid the project success.
2. The project team will gather available information to determine project parameters with the DNR
3. Provide 50%, 90%, and final project documents with cost estimates to the DNR for approval and review. Review meetings will be held at each milestone.
4. Submit the approved contract documents to DNR for their review and approval.

## **PROJECT SCHEDULE**

Will be provided upon project initiation

## **A STRONG EXPERIENCED PROJECT TEAM**

The project team will consist of:

- **Bill Keaton, PE – Officer-in-Charge and Project Manager**
- **Jessica Nichols, PE – Quality Assurance and Quality Control**
- **Dennis Amos, PE – Project Engineer**
- **Matt Gross, PE – Project Engineer**
- **Chris Kaknis, LS – Survey Manager**
- **Carmen Dunford – Design Technician**
- **Nicole Kmetz- Environmental Technician**
- **Daniel Lipscomb, PE – Project Engineer**
- **Jeffrey T. Huffman, MS, PE – Geotechnical Engineering**

The Project Team as assembled has over **224 years of experience** with this type of project. Details of each team member role are included in the proposal.

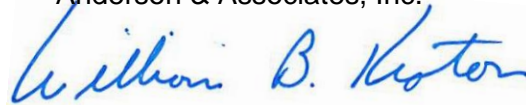
## **PROJECT RESPONSIVENESS/OFFICE LOCATION**

The Project Team has staff immediately available to undertake this project. Our location in Princeton, West Virginia and St. Albans, WV enables our project team to easily perform field work to ensure a successful project for the DNR.

We have the desire to work closely with you and your staff on the ground and in the office to provide projects that will serve as the basis for improvements to your system to include better operations and cost effective changes to your system. In addition, the cost estimates will serve as the basis for budget figures appropriate for the project.

We look forward to discussing our qualifications with you in more detail. If you have any questions, or if we can help in any way, please let us know.

Sincerely,  
Anderson & Associates, Inc.



William B. Keaton. PE  
Vice President

WBK/wbk



# B. INTRODUCTION

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Anderson & Associates, Inc. is an employee-owned professional design services firm. Founded in 1968, the company is headquartered in Blacksburg, Virginia, and has grown to include offices located in Virginia, West Virginia and North Carolina.

A&A invests in our people, fostering not only technical skills, but the total development of the individual. A determined effort is made to recruit top-notch people, assist them in personal and professional development, and allow them to be directly responsive to clients rather than to internal management. All full-time employees are also eligible to become owners through an Employee Stock Ownership Plan (ESOP). Your work will be performed by employee-owners who have a high stake in your satisfaction and are particularly concerned about upholding the firm's well-earned reputation. With our strong staff and years of building good relationships within the communities where we work, clients appreciate the benefits of cooperative, dedicated performance.

Core services at A&A include civil, environmental, and transportation engineering, surveying, planning and landscape architecture. The firm specializes in the planning, design, and construction administration of public and private works. Institutional, municipal, state, industrial, and recreational projects encompass areas such as master planning, utilities, water, wastewater, stormwater, transportation, and site development. A&A's consistent focus on improving responsiveness to clients reflects our dedication.

Anderson & Associates, Inc. has been helping our clients achieve their goals for infrastructure and citizens alike for over three decades. Our team is practiced in designing solutions—not just projects. Taking into consideration your project's unique circumstances and your specific goals, we develop a response that addresses funding assistance if applicable, public information dissemination, and operational sustainability as well as engineering features. We work as a partner with you to ensure your ability to serve your many constituents. From daily operations to emergency needs to anticipating regional growth, the demands on today's municipal management and staff are enormous and often require a team approach.

The Project Team specializes in systems similar to this project. We have worked for many Cities, Towns, Counties, Service Authorities, and Public Service Districts. For these clients and others, we have modeled, designed, and administered construction contracts for numerous water and wastewater systems.

On the following pages, we have highlighted a few of our clients and some representative projects that we have worked on. We consider our relationships to our clients to be a partnership. We strongly encourage you to contact our clients and ask any additional questions regarding the services and performance that A&A offers.

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## WASTEWATER QUALIFICATIONS

Anderson & Associates has been offering wastewater engineering services since our founding in 1968. This work has included studies, design, construction inspection, construction administration, and operation assistance for collection systems, pump stations and wastewater treatment plants. Facilities have ranged in size from 1000 gallons per day to 13.5 million gallons per day. Most of these facilities handled municipal wastewater consisting of domestic, commercial, and industrial wastes. Anderson & Associates is also experienced with some industrial wastewater treatment and recirculating aquaculture systems.

Our team of professional engineers, graduate engineers, technicians, and construction inspectors has experience with projects from process investigation, evaluation, concept development, design, construction, and into operation. Our familiarity with all of the stages of a project contributes to the development of reasonable solutions.

## WASTEWATER TREATMENT EXPERIENCE

Anderson & Associates has experience with the evaluation and design of secondary and tertiary wastewater treatment facilities using both conventional and alternative treatment processes. While facilities have ranged in size from 1000 to 13,500,000 gallons per day (gpd), many of these facilities have treated domestic and commercial wastewater from truck stops, shopping centers, campgrounds, resorts, research stations, churches, correctional facilities, as well as small communities. Conventional process experience includes trickling filters, packed biological reactors, rotating biological contactors, and variations of the activated sludge process including “packaged” extended aeration and sequencing biological reactors. All of these systems were designed to meet secondary treatment limits and several met various tertiary treatment requirements including reduced BOD, ammonia, and suspended solids. Several facilities have been designed for future phosphorus removal, but few small plants have constructed or operate phosphorus removal facilities. Phosphorus can be removed biologically or chemically, however chemical treatment using alum precipitation has typically been used for small treatment facilities.

Anderson & Associates also has extensive experience with alternative treatment systems. These have found particular favor with clients generating low flow and needing to minimize operating cost and complexity. Experience has included subsurface treatment and dispersal using enhanced flow or low pressure distribution, forest spray irrigation, constructed wetlands, pond systems, and wastewater aquaculture.

Other treatment experience of significance for this project include experience with recirculating aquaculture systems. This work has included evaluation of existing systems, conceptual design and planning, and detailed design of new treatment facilities to be used for both pilot studies and production.

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**WATER & WASTEWATER** A&A has been offering water and wastewater engineering services since our founding in 1968. This work has included studies, design, construction inspection, construction administration, and operation assistance for collection and distribution systems, pump stations, and treatment plants. Facilities have ranged in size from 1,000 gallons-per-day to 25 million gallons-per-day.

A&A has provided engineering services related to all components of water supply, treatment, and distribution systems, in addition to all aspects of wastewater, from collection system design and I/I analysis to treatment systems, including innovative and on site systems. Pertinent to the Town's requirements, these projects have included the following:

Water Storage Tanks	Inflow/Infiltration Analysis
Water Distribution Mains	Collection System Design
Regulation Compliance	On site systems
Operational Assistance	Pumping Stations
Water & Sewer Modeling	Sewer Rehabilitation
Master Planning	Rate Studies

**ENVIRONMENTAL** A&A has experience in performing environmental assessments for water and wastewater projects, site development, coal mine reclamation projects, dam removal projects, and stone quarry operations. We also have performed wetlands impact assessments and designed mitigation measures. We also are able to perform environmental studies, site reviews, subsurface investigations (with geotechnical assistance), and coordinated soil and groundwater sampling for storage containment areas.

We have the experience to assist you with interpretation of state and federal environmental regulations, including the assessment of potential impacts of proposed regulations. Our staff includes several engineers with years of experience in analyzing, assessing, and interpreting the meanings, effects, and impacts of federal and state environmental requirements and regulations.

**SURVEY AND MAPPING** A&A has been providing field surveying to support engineering and development for the last 40 years. We are capable of providing Boundary, Subdivision, Easement, GPS, Topographic, and Route Location Surveys, as well as Aerial Photo Control and Construction Staking. We have also recently been involved with asset management and data collection for VDOT along the interstate highway corridors in the Commonwealth. In addition, we have added the capabilities of a new 3D scanner for detailed surveys in congested areas, with complex piping systems, bridges, and buildings.

**FUNDING** No plan is successful unless it can be implemented. Funding of projects thus becomes a key element of project planning. Anderson & Associates is familiar with all available infrastructure and economic development funding programs and has provided both technical and administrative assistance in preparing successful funding applications, including 40 Rural Development projects over our last 40 years in business. Experience with other funding programs oriented toward utility system projects and economic development has included the Environmental Protection Agency (EPA), Economic Development Administration (EDA), Community Development Block Grant (CDBG), Department of Environmental Quality (DEQ), and the Appalachian Regional Commission (ARC). We have close ties with various agency personnel and keep up to date on requirements through regular communication and attendance at workshops and information sessions. We have also assisted agency personnel with advice on policy and document revisions, and workshop presentations.



# C. APPROACH

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- A. The project team will attend monthly project meetings with the project team which includes the West Virginia Department of Natural Resources. During these meetings, schedule, costs and expected progress will be discussed along with any other items to be decided. Additionally, a monthly progress report will be forwarded to the team members. This report include budgetary items and the items listed above
- B. The project team uses Microsoft Project to schedule and track the tasks/expenditures relating to each project. This schedule will be updated and included in the progress meeting. As part of this project the following items will be included:
  - a. During design estimated opinion of probable cost at 50%.
  - b. During design estimated opinion of probable cost at 90%
  - c. At the terminus of design a final cost estimate will be provided.
  - d. During bidding – value engineering will be used to ascertain if the bid prices are reasonable.
  - e. During construction monthly progress meetings will include budget and materials control with reconciliation of what the contractor is claiming against what is actually done.
- C. The construction schedule will be handled within the meetings described above. Corrections and changes will be undertaken when warranted. Any additional days due to weather of unforeseen circumstances will have to be documented and approved by the engineer.
- D. The project team has included previous projects that demonstrate our experience. It is expected that the following disciplines will be required:
  - a. Planning
  - b. Landscape Architecture
  - c. Site design
  - d. Utility design
  - e. Project Management and coordination with the entities involved
  - f. Geotechnical engineering
  - g. Environmental engineering

## **Phase 1—Pre-submission Site Plan Design Development**

### Task #1—Project Initiation

- ◆ Project start up, strategy, Initial meetings

### Task #2—Schematic Master Development Plan

- ◆ Layout and Rough Grading Plan
- ◆ Cut and Fill Assessment

### Task #3—Water and Sewer Evaluation

- ◆ Water supply system - research capacity/ flow requirements /tie in location
- ◆ Sanitary Sewer System - research capacity/ flow requirements/tie in location

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Task #4—Wetlands and Ecological Assessment

- ◆ Wetlands Assessment
- ◆ ETR Species Habitat Assessment

Task #5—Storm Water management Evaluation and Strategy

- ◆ Determined best practices going forward

Task #6—Geotechnical Evaluation

- ◆ Test basic slope stability

Task #7—Pre-submission Conference

- ◆ Coordinate meeting with the town of Poughkeepsie

## **Phase 2—Detailed Site Plan Design Submission**

Task #8—Full environmental Assessment Form

- ◆ Preparation of Full EAF

Task #9—Submittal of Master Development Plan

- ◆ Overall Master Development Plan

Task #10—Submittal for Site Plan Approval—Phase 1 Commercial

- ◆ Cover
- ◆ Existing conditions Plan
- ◆ Demolition
- ◆ Preliminary Site Plan
- ◆ Grading and Erosion Control Plan
- ◆ Utility layout/ design/ coordination
- ◆ Fire apparatus/ Service vehicle plan
- ◆ Landscape Plan
- ◆ Lighting Plan
- ◆ Site Details

Task #11—DOT Traffic Improvement Plans

- ◆ Coordinate separate DOT Submission
- ◆ Traffic Safety Plan

Task #12—Engineering Report—Water Study

Task #13—Engineering Report—Sanitary Sewer Supply

Task #14—BPH Coordination

- ◆ Prepare water and sewer profiles
- ◆ Coordinate with and approval from DCWWA (water meter)
- ◆ Design Pump Station (Expand existing DeLaval Site)
- ◆ Coordinate Separate Plan submittal and details

Task #15—Project Meetings, conference and correspondence

Task #16—Response to regulatory comments

This is a project approach to get the project to bidding.

# D. PERSONNEL

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## BABCOCK AND DROOP MOUNTAIN

### STATE PARKS



**BILL KEATON, PE**  
OFFICER-IN-CHARGE  
AND PROJECT MANAGER



**JESSICA NICHOLS, PE**  
QUALITY ASSURANCE /  
QUALITY CONTROL



GEOTECHNICAL



**DENNIS AMOS, PE**  
PROJECT ENGINEER



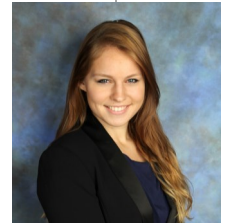
**MATTHEW GROSS, PE**  
PROJECT ENGINEER



**CHRIS KAKNIS, LS**  
SURVEY MANAGER



**CARMEN DUNORD**  
DESIGN TECHNICIAN



**NICOLE KMETZ**  
ENVIRONMENTAL  
TECHNICIAN

### RESUMES

Following the organizational chart, resumes of the key personnel can be seen highlighting their experience, qualifications and any specialized training.

# BILL KEATON, P.E.

## Officer-in-Charge and Project Manager

Mr. Keaton is Vice President of Environmental Engineering at Anderson & Associates, Inc. He manages a variety of civil engineering projects, He has over 20 years of experience in a variety of environmental and wastewater projects, and holds a BS in Civil Engineering, and a BA in Business from the West Virginia Institute of Technology, as well as an MBA from Webster University. Bill has worked on projects in several states, including North Carolina, Virginia, West Virginia, Tennessee, and New York. Keaton's experience allows him to use his knowledge to create effective engineering plans and solutions that will satisfy our clients goals. His experience is listed below:

**LOW MOOR WASTE WATER TREATMENT PLANT IMPROVEMENTS, ALLEGHANY COUNTY, VA.** A&A is providing engineering improvements of the existing Low Moor Wastewater Treatment Plant located in Low Moor, Virginia. Suggested improvements were prepared for the UV disinfection as well as the mechanical post aeration system. Officer-in-Charge.

**WATER TREATMENT PLANT AND SUPPLY WELLS, TOWN OF SOUTHEAST, NY.** Provided services for design of a 20,000 gpd per day water treatment plant and supply wells to serve the Town of Southeast Springhouse area residents. Project Manager and Lead Designer.

**WASTEWATER TREATMENT PLANT IMPROVEMENTS, PRINCETON SANITARY BOARD, PRINCETON, WV.** Provided construction phase of a wastewater treatment plant upgrade project that consisted of the rehabilitation of primary clarifiers, a new headworks building with influent pump station, new ultraviolet disinfection, ATAD/SNDR solids digester, new SCADA systems, new generator and electrical upgrades to the facility. Project Manager and Lead Engineer

**POTABLE WATER TREATMENT PLANT REPLACEMENT, RADFORD ARMY AMMUNITION PLANT/ALLIANT TECH SYSTEMS, INC., RADFORD, VA.** A&A assisted ATK by providing a detailed evaluation of the existing Building 419 Potable Water Treatment Plant. The evaluation assessed the capacity, condition, risks, and costs of upgrading individual treatment and pumping units. An evaluation of existing potable water treatment plant and related facilities was conducted. Life cycle cost assessment for upgrade versus replacement, and design of a new state of the art water treatment plant on a fast track basis. Project Engineer.

**CLARKE COUNTY SANITARY AUTHORITY, BERRYVILLE, VA.** Providing an updated PER and water model for the water treatment plant and water distribution system. The PER will address the feasibility and associated costs to update the existing SCADA system or converting to a radio system, updating control equipment, and evaluating the capability for the plant to produce more water to meet demands in the area. The water system model will evaluate the capability of the distribution system to meet current and existing demands and will provide a prioritized list of recommended water system improvements.



### EDUCATION:

BS/1993/West Virginia Institute of Technology/  
Civil Engineering

MBA/1992/Webster University

BA/1987/West Virginia Institute of Technology/  
Environmental Engineering

### REGISTRATION:

Virginia

West Virginia

Tennessee

### YEARS OF EXPERIENCE:

With A&A since 2013

With other firms 25 years

# JESSICA NICHOLS, P.E.

## Quality Control and Quality Assurance

Ms. Nichols joined Anderson & Associates as Vice President of Municipal Engineering, bringing with her a vast amount of experience in Water and Wastewater Treatment Facilities and Transmission systems, Stormwater, Land Her expertise in engineering and design combined with her knowledge and familiarity with Southwest Virginia, allow Ms. Nichols to provide creative and effective engineering and planning solutions that address client goals in an efficient and proactive manner. Her professional experience is highlighted below.

**WASTEWATER SYSTEM IMPROVEMENTS, BLAND COUNTY, VA.** Anderson & Associates, Inc. is providing engineering design and surveying services for a gravity collection system, approximately 25,000 linear feet of force main sewer, and multiple pump stations to serve the Bland Courthouse community in Bland County. This project provided much needed sewer service to a community that has lacked it. It allowed for enhanced environmental resource protection and commercial/industrial development opportunities within and around Bland. Officer in Charge

**WATER SYSTEM IMPROVEMENTS PER, THOMAS BRIDGE WATER CORPORATION, MARION, VA.** Our services included the update of water distribution system mapping to identify the type, size and location of the existing piping. A&A then performed a leak detection study on portions of the existing system to aid in locating sections of waterline that contribute to the Corporation's unaccounted for water losses. A hydraulic model was then generated and A&A performed an analysis on the existing system. A&A prepared a preliminary engineering report (PER) that conformed to both Rural Development and VDH guidelines with our recommended improvements. A&A provided funding assistance in order to obtain additional funding for the design of the selected improvements. Officer in Charge.

**GALAX WATER TREATMENT PLANT AND PUMP STATION PER. CITY OF GALAX, VA.** A&A assisted the City of Galax's efforts to improve operational reliability and efficiency in its water treatment system. A&A prepared a PER for the City to evaluate and make recommendations on upgrading the Water Treatment Plant and the East Galax and City View pumping stations. The result of the report was minor electrical work for the City View pump station along with the recommendation of a backup power supply for two pump stations. Officer in Charge

**Water & Wastewater System Improvements, Town of Pearisburg, VA.** This project began with the development of Preliminary Engineering Reports as part on an on-going effort to continue improving the Town's water and wastewater system infrastructure and operation. Following these studies, A&A assisted the Town with a Rural Development funding application and funding was received to move forward with design of the recommended improvements. Design included the replacement and extension of portions of the existing water distribution and wastewater collection systems. Approximately 18,000 feet of 10, 8, 6, 4 and 2-inch water mains and 1,800 feet of 8-inch sewer mains were replaced. The water system was connected to the existing Riverbend Tank with a master meter which will allowed the Town to abandon the aging Virginia Heights hydrotank. Officer-in-Charge.



### EDUCATION:

BS/1998/Virginia Polytechnic Institute and State University/  
Civil Engineering

### REGISTRATION:

P.E. Licenses:

Virginia

No. [REDACTED]

Delaware

No. [REDACTED]

Maryland

No. [REDACTED]

Pennsylvania

No. [REDACTED]

### YEARS OF EXPERIENCE:

With A&A since: 2013

With other firms:

15 Years

### PROFESSIONAL MEMBERSHIPS:

American Council of Engineering Companies

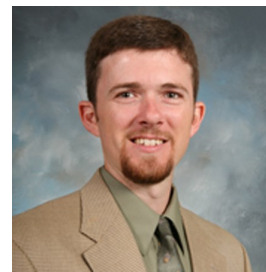




# DENNIS A. AMOS, PE

## Project Engineer

Mr. Amos began his career with the West Virginia Department of Transportation, prior to moving to private sector engineering. His experience includes water and sewer systems, transportation systems, and hydraulic analysis. He brings extensive knowledge of funding requirements and regulations. His experience is highlighted below:



### Red Sulphur PSD

**Wastewater Treatment Plant Upgrade** – Develop plans, contract documents and technical specifications for the upgrade of the existing Red Sulphur PSD wastewater treatment plant to an SBR based treatment process. Also included in the work were a new UV disinfection unit and a new belt filter press facility.

**Lindside Wastewater System Extension** – Develop plans, contract documents and technical specifications for the extension of the existing Red Sulphur PSD wastewater collection system from Peterstown to Lindside. Included in the project were various gravity collection system components and the design of three wastewater pumping stations and associated force mains.

**Red Sulphur Water System Extension – Phase II** – Develop plans, contract documents and technical specifications for the extension of Red Sulphur PSD’s existing water distribution system from Peterstown to Bozoo and from Lindside to Rock Camp. Included in the project were various distribution system components and the design of a pump station and water storage tank.

### Lashmeet PSD

**Spanishburg Water System Extension** – Develop plans, contract documents and technical specifications for the extension of West Virginia American’s existing water distribution system into Spanishburg.

### Eastern Wyoming PSD

**Mullens Water System Improvements** – Develop plans, contract documents and technical specifications for the replacement of the existing Mullens water distribution system. Included in the project were various distribution system components, two water storage tanks, and a new water treatment facility.

#### EDUCATION:

BS/1998/West Virginia University/Civil Engineering

#### Registration:

Professional Engineer/  
VA [REDACTED]

Professional Engineer/  
WV [REDACTED]

#### Years of Experience:

With A&A since: 2005

With other firms:  
7 years

#### Professional Membership:

American Water Works Association

American Society of Civil Engineers

# MATTHEW G. GROSS, PE

## Project Engineer

Mr. Gross has a wide range of experience in environmental, water, and wastewater systems. He has both designed and managed water and wastewater projects on numerous municipal systems. He has worked extensively on treatment and pump station designs for Anderson & Associates. This work has included the evaluation, design, equipment selection, preparation of construction documents, construction management, start-up, and operational assistance. As part of this water and wastewater experience, he has developed specific expertise with pumps and pumping systems. His experience is highlighted below:

**COMPREHENSIVE WATER TREATMENT PLANT EVALUATION**, TOWN OF POCAHONTAS, VA. Anderson & Associates, Inc. prepared a PER to assess the Pocahontas WTP and compare upgrade and replacement alternatives. A&A also performed a brief rate study to determine if rates are adequately set. The work was funded by a 2012 West Virginia Bureau for Public Health (WVBPH) Planning Grant. Project Engineer.

**WASTEWATER SYSTEM IMPROVEMENTS**, ALLISON GAP, SMYTH COUNTY AND TOWN OF SALTVILLE, VA. Preliminary engineering report, funding application, environmental assessment. Preliminary design of wastewater collection system to serve Allison Gap, with connection to Town of Saltville system. Included services to investigate existing inflow and infiltration in the Saltville collection system. VDHCD planning grant funding. Project Engineer.

**WASTEWATER CONSENT ORDER ASSISTANCE**, CRAIG-NEW CASTLE PUBLIC SERVICE AUTHORITY, VA. In 2009, the PSA entered into a Consent Special Order with the DEQ to bring its wastewater facility into compliance. A&A prepared a Compliance Correction Plan to fulfill DEQ requirements. This plan addressed various overflows and how the PSA will achieve consistent compliance with the effluent limits. A&A also evaluated the need for making physical improvements at the treatment plant and new technologies for reducing total suspended solids (TSS). In addition, we evaluated the request to construct a car wash which would connect into the sanitary sewer system. Comments were provided regarding the pretreatment of wastewater prior to discharge to the PSA system. A&A then designed the recommended improvements based on the previous study. Design included flow improvements and the upgrade of an existing pump station. In 2011, A&A conducted a pilot evaluation of a covered Bio-Dome system to improve TSS (algae) removal from the plant effluent. Project Engineer.

**WATER AND WASTEWATER IMPROVEMENTS**, FLOYD COUNTY PUBLIC SERVICE AUTHORITY, FLOYD COUNTY, VA. Helped design location for new sewer line and estimate cost for water and sewer system improvements. Provided construction contract administration services for execution of the construction contract. Project Manager.



### EDUCATION:

BS/1997/Virginia Tech/  
Civil Engineering

### REGISTRATION:

2002/Professional  
Engineer/VA

### YEARS OF EXPERIENCE:

With A&A since: 1995

### PROFESSIONAL MEMBERSHIPS:

American Society of  
Civil Engineers

American Water Works  
Association



# CHRISTOPHER B. KAKNIS, LS

## Survey Manager

Mr. Kaknis began his survey career at A&A as a rodman and is now the Associate Vice President of the survey department. He works closely with other Survey Managers to coordinate the allocation of survey crews and equipment. Mr. Kaknis also provides day-to-day supervision and direction to field crews and in-house CADD operations, as well as quality control reviews. During his 25 years of service he has successfully managed a variety of large projects that include, GPS, topographic, route, utility, boundary, construction staking, control, and aerial surveys.

**TUNNEL WATERLINE REPLACEMENT, BLAND COUNTY, VA.** Provided planning, design and construction administration for the replacement of approximately one mile of waterline located in the VDOT East River Mountain Tunnel on Interstate 77 in Bland County, Virginia and Mercer County, West Virginia. This project was designed on a fast-track basis due to a leak in the existing waterline that was increasingly becoming worse. The design featured the capability to automatically detect leaks and rapidly shut-off flow to the water main in the event of a leak. This was done in order to minimize potential impacts on traffic operations in the tunnel and to solve an on-going maintenance problem due to leaks in the existing waterline in the tunnel. Survey Manager.

**ISLE OF PINES WATERLINE EXTENSION, BEDFORD COUNTY PSA, VA.** Provided survey and design for the Isle of Pines waterline extension. This 13,000 linear foot waterline project connected the independently operated Isle of Pines well system to the Smith Mountain Lake Central water system, and allowed the BCPSA to consolidate facilities by closing the Isle of Pines well and removing the Isle of Pines tank. This project was the next phase of work to the Smith Mountain Lake Phase I water system designed in 2002. Survey Manager.

**BOUNDARY SURVEY, LEWISBURG, WV.** A&A prepared a boundary survey of approximately 1,000 acres in Greenbrier County for Land Resource Companies. Survey Manager. **CONTROL SURVEY, WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, ROUTE 52, WILLIAMSON, WV.** Control for aerial photography. Establishment of 27 monument pairs for future topography and location work for approximately 26 miles of new roadway. CADD Technician.

**OAKHURST GOLF COURSE, WHITE SULFUR SPRINGS, WV.** Provided a 750 acre boundary survey consisting of four mountainous tracts for development of a gated golf community located in Greenbrier County, West Virginia. The developer/designer Jack Johnson Company, and developer/owner Lewis Keller, worked together to create Oakhurst Links.. Other services provided included an ALTA/ACSM survey, offsite utility easement plats, subdivision plat, staking of proposed roads, and staking of golf fairways and greens design by Nicklaus. A&A also performed a reconnaissance of the site and delineated all jurisdictional waters including wetland and streams. Survey Manager.



### EDUCATION:

Course Work/Virginia Tech/Forestry

### REGISTRATION:

Certified Land Surveyor/VA/2001

Certified Professional Surveyor/WV/2003

Certified Professional Surveyor/NC2011

Confined Spaces Certification

CSX General Training Certification

### YEARS OF EXPERIENCE:

With A&A since 1985

With other firms 1 years

### PROFESSIONAL MEMBERSHIPS:

Virginia Association of Surveyors

# CARMEN B. DUNFORD

## Design Technician

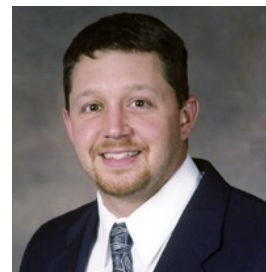
Before joining A&A, Mr. Dunford worked with the Department of Conservation and Recreation on the installation of new water and electric lines throughout Claytor Lake State Park. Since joining A&A, Mr. Dunford has assisted in the preparation of design plans and details for numerous projects. He also has extensive onsite construction inspection experience. His experience is highlighted below:

**WATER SYSTEM IMPROVEMENTS, PRICES FORK, BLACKSBURG, VA.** Prepared preliminary engineering studies and funding applications, provided design, construction contract administration, and inspection for this major water system improvement project which connected the Prices Fork community of Montgomery County with the Radford Arsenal treatment system and the Town of Blacksburg. This project included 58,000 ft. of 12" and 8" pipe, a 500,000 gallon water tank, a 400 gpm booster station, and connections for approximately 350 new and existing customers. These improvements also eliminated dependence on a failing well system and included coordination with utility companies to avoid possible conflicts. Technician/Inspector.

**NUCKOLLS CURVE WATERLINE EXTENSION, GRAYSON COUNTY, VA.** Anderson & Associates, Inc. provided engineering services for the Nuckolls Curve Waterline Extension Project. This valuable project has provided potable water service to over forty new county customers. The project included performing a detailed topographic survey for 3,800 linear feet of waterline. The detailed topographic survey consisted of performing a 10' wide strip topographic survey along the proposed alignment of the waterline. Base mapping of the proposed improvements were also generated. This base mapping was used to develop waterline plan and profile sheets. The project also included the addition of fire hydrants to the distribution system so which were up to Virginia Department of Health (VDH) standards. Design Technician

**WATER DISTRIBUTION, BEDFORD COUNTY PSA, VA.** Smith Mountain Lake, Phase 1 Water System. New waterline to extend water service from the Highpoint Water Treatment Plant to the North side of Hales Ford Bridge on Route 122. Also proposed is the design of a one million-gallon water storage tank. Drafting Technician.

**WATER TREATMENT PLANT EVALUATION AND IMPROVEMENTS DESIGN & SURVEY, TOWN OF HILLSVILLE, VA.** The Town's water treatment plant and Howlett Street water tank were in need of improvements in order to continue to provide quality drinking water to its existing and future customers. Our assistance began by locating funding options and as a result, SERCAP and Mount Rogers PDC provided the funding needed for this study. As a next step, we worked closely with the Town to prepare a Preliminary Engineering Report (PER) to address needed improvements. After completion of the PER, we assisted the Town with a VDH Construction Funding application to help fund the improvements. Design Technician.



### EDUCATION:

AAS/1995/New River  
Community College/  
Architectural  
Technology

### REGISTRATION:

Erosion and Sediment  
Control Certification

VDOT Asphalt Field  
Certificate

### YEARS OF EXPERIENCE:

With A&A since: 1996

# NICOLE KMETZ

## Environmental Technician

In her position at Anderson & Associates, Ms. Kmetz serves as an environmental scientist on environmental engineering projects. Her work has included the permitting of boat ramps, Environmental Impact Reviews of major universities, and Phase 1 Environmental Site Assessments of properties. Her experience is highlighted below:

**SEVEN MILE FORD SEWER PER**, SMYTH COUNTY, VA. A&A provided a preliminary engineering report to be used as a basis for funding applications and subsequent implementation of recommended utility improvements. This study has addressed such issues as capacities, fire flows, maximizing existing resources, centralization, reliability, adjacent systems, operation and maintenance, cost projections, solving existing problems, and planning for the future. A&A is working with County staff to rank the various alternatives and options to recommend the best solution to improve residential and commercial/industrial service and balance overall costs in the project area. Environmental Scientist.

**SOUTH FORK REED CREEK SEWER REPLACEMENT**, RURAL RETREAT, VA. Coordinated with state and federal agencies to obtain applicable permits, South Fork Reed Creek. Environmental Scientist.

**ENVISOUTH FORK REED CREEK SEWER REPLACEMENT**, RURAL RETREAT, VA. Coordinated with state and federal agencies to obtain applicable permits, South Fork Reed Creek. Environmental Scientist.  
**ENVIRONMENTAL IMPACT REVIEW**, BLACKSBURG, VA. Performed an environmental impact review for the Virginia Tech Football Indoor Practice Facility. Environmental Scientist.

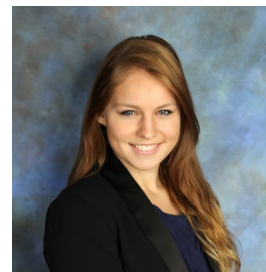
**ENVIRONMENTAL SITE ASSESSMENT**, HARRISONBURG, VA. Analysis of the “East Tower Project” and immediate surrounding grounds at James Madison University. Environmental Scientist.

**ENVIRONMENTAL SITE ASSESSMENT**, BLACKSBURG, VA. Preparation of Phase I ESA in accordance with ASTM standard 1527. A 5 building multi-family residential complex. Environmental Scientist.

**ENVIRONMENTAL SITE ASSESSMENT NRV COMMERCE PARK**, DUBLIN, VA. Preparation of Phase I ESA on 420 acre site, the largest site A&A has ever conducted an ESA on. Environmental Scientist.

**ENVIRONMENTAL SITE ASSESSMENT**, BLACKSBURG, VA. Conducted Phase I ESA and Phase II ESA groundwater and vapor testing on 5 acre building lot. Environmental Scientist.

**ENVIRONMENTAL REPORT**, SMYTH COUNTY, VA. Coordinated with state and federal agencies, conducted site visit and habitat location survey, and prepared an Environmental Report adhering to USDA Rural Development’s strict environmental review process. Environmental Scientist.



### EDUCATION:

BS/2013/Bridgewater College

Environmental Science

### YEARS OF EXPERIENCE:

With A&A since 2013

With other firms: 0 years

# JEFFREY T. HUFFMAN, MS, PE

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Senior Geotechnical Engineer

## PROFESSIONAL EXPERIENCE

27 Years

### Highlights of Experience

Mr. Huffman brings over 27 years of full-time design and project management experience as well as 5 years of teaching experience to Triad Engineering. Mr. Huffman joined Triad in 2013 to provide geotechnical expertise to the southwest region. Prior to coming to Triad he served in a number of technical and leadership positions for various consultants in the mid-Atlantic area. His expertise is in geotechnical engineering, receiving his undergraduate degrees in civil engineering with a specialty in geotechnical engineering. He has completed the course work for his Ph. D. also in this field.

### Education

Ph.D. Course Work Completed, Civil Engineering (Geotechnical), Virginia Polytechnic Institute and State University, Blacksburg, Virginia, Dissertation in progress. Anticipated completion December 2016.

M.S., Civil Engineering (Geotechnical), 1990, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.

B.S., Civil Engineering, 1988, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, Graduated Cum Laude.

### Registrations, Licenses & Training

Registered Professional Engineer

West Virginia  
Pennsylvania  
Kentucky  
Ohio  
North Carolina

### HIS PROJECT EXPERIENCE INCLUDES:

#### Triad Engineering, Scott Depot, West Virginia

##### Senior Geotechnical Engineer, 9/13 – Present (Part-time).

Mr. Huffman has played an important role in maintaining the technical quality and management of the geotechnical work in the region.

Mr. Huffman has been involved in the forensic investigation, monitoring, and short term remediation of the reinforced soil slope failure at Yeager airport. Work on this project also includes developing a permanent repair. He has provided geotechnical expertise for numerous landslide investigation and remediation projects in West Virginia and Kentucky. He has been project manager for 17 foot high, 250 + foot long dam modification project involving training walls and crest lowering. Mr. Huffman provides technical expertise on retaining wall design, deep foundation design, and well pad design.



# DANIEL H. LIPSCOMB, PE

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Project Manager

## PROFESSIONAL EXPERIENCE

11 Years

## EDUCATION

BS, Civil Engineering Technology, Fairmont State College, WV

## Highlights of Experience

Mr. Lipscomb is currently a Project Engineer at the St. Albans branch of TRIAD. In this capacity, he has been involved in development and management of subsurface exploration projects and development of geotechnical engineering reports providing recommendations based on field observations and laboratory results for bearing capacity, earthwork operations, earthen dam embankments, slope stability, flexible and rigid pavement design, lateral earth pressures, sinkhole remediation, geophysics (electrical resistivity and ground penetrating radar), and rock excavation. These projects have included freshwater dams, shopping centers, roadway/bridges, buildings, retaining walls, residential communities, water storage tanks, waste water treatment facilities, and structures for coal mining facilities. Duties included assignment of laboratory testing, visual inspection of soil/rock specimens, geophysics, and earthen embankment evaluation. Mr. Lipscomb has additional experience in areas relating to civil site design, hydrologic and hydraulic design, grading plans, water line plans, sewer line plans, hydraulic calculations, storage tank sizing, booster station design, roadway layout and design, storm water management plans, technical specifications, environmental and regulatory permitting, blast monitoring, and construction quality control.

## Registrations, Licenses & Training

Registered Professional Engineer, West Virginia

### HIS PROJECT EXPERIENCE INCLUDES:

#### **Subsurface and Foundation Investigations** (West Virginia, Virginia, Maryland, Kentucky, and Ohio)

Mr. Lipscomb has performed subsurface and foundation investigations for various private business and industrial firms. The projects consisted of performing subsurface investigations and analysis and recommending appropriate foundation types based on the results of the subsurface investigation. The projects also involved estimating potential settlement, delineating potential subsurface problems, and providing related recommendations regarding the geotechnical aspects of the projects. A geotechnical report was prepared and provided to the client for each project. Mr. Lipscomb has also designed foundation systems for buildings and other structures.

#### **Dominion Transmission, Inc.** (Chelyan, West Virginia)

As project engineer, Mr. Lipscomb processed information gathered during drilling activities and developed a report of subsurface exploration to aid in the design of a horizontal directional drilling project under the Kanawha River in Kanawha County, West Virginia. This included providing rock core unconfined compression test results, and performing a review of rock core samples to observe their Mohs Scale of Mineral Hardness values. Regional geologic information was also given to aid in the project's design.

#### **Water Distribution System Upgrades** (Boone, Wayne, Berkley, Lincoln, and Logan Counties, West Virginia)

Mr. Lipscomb has served as the project engineer for the detailed design of over 30 miles of water line extensions and associated appurtenances, including the preparation of construction drawings, water storage tank sizing and design, booster station design, hydraulic calculations, technical specifications, cost estimates, contractor's bid documents, review and recommendation of contractor's bids, and review of shop drawings.

# E. EXPERIENCE

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# AMIGO DEVILS FORK WASTEWATER

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Amigo, West Virginia



**FIRM'S RESPONSIBILITY:**

Feasibility Study & Treatment Plant Design

**OWNER:**

Upper Guyandotte

Watershed Association

300 Front St.

Mullens, WV 25882

Val Page

304-294-8966



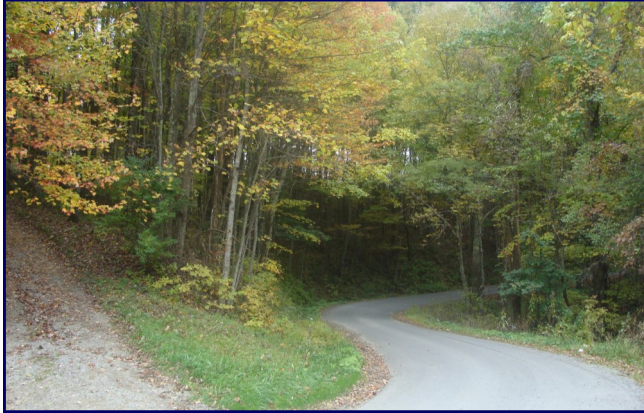
This project involved the compilation of a feasibility study and preliminary engineering report to consider options to provide wastewater collection and treatment service to approximately 60 customers in the Amigo area who had no wastewater treatment in the area. These options included investigations of traditional and innovative collection and treatment options.

Once the preliminary engineering had been completed, we worked with the Upper Guyandotte Watershed Association and the Crab Orchard-MacArthur Public Service District to apply for construction funding through the West Virginia Infrastructure and Jobs Development Council.

Final design included plans for collection and treatment, including a pump station to serve the Amigo and JA Woods communities. Collection mainly consisted of 8" gravity wastewater collection and appurtenances flowing to a single pump station that delivered the wastewater to a wastewater treatment facility where the water was treated and discharged to the Devils Fork River. The selected alter-

# COALDALE MOUNTAIN WATERLINE EXTENSION

WV DEP– Abandoned Mine Lands



**FIRM’S RESPONSIBILITY:**

Design, Hydraulic Modeling, Surveying, Mapping

**OWNER:**

WV DEP-Abandoned Mine Lands (AML)  
1601 57th Street SE  
Charleston, WV 25304  
Mr. Jonathan Holbert, PE  
304-926-0499

**COMPLETION DATE:**

2010 - Design

**TOTAL PROJECT COST:**

\$1.3 Million



The Coaldale Mountain Waterline Extension Project involves extending water service to residents along Bramwell Hill Road and Coaldale Mountain Road who currently collect rainwater or haul water for use at their residences.

A&A is responsible for surveying, and performing hydraulic modeling, design, preliminary design, and final design of 33,000 linear feet of water line, a booster station, a 75,000 gallon water storage tank and appurtenances.

This project is extending water to residents by utilizing a connection with the Bluewell Public Service District along Bramwell Hill Road and constructing a booster station to fill a 75,000 gallon water storage facility on Coaldale Mountain.

A&A has contracted with the Bluewell PSD for the construction phase of the project, scheduled to begin in 2013. Our work with the WVDEP and PSD throughout the bidding and construction processes will include resident project representation services.

# MOOREFIELD/HARDY COUNTY, WV REGIONAL

## WASTEWATER, COLLECTION, TREATMENT, AND SLUDGE MANAGEMENT

Town of Moorefield, WV



### **Project Description**

The Town of Moorefield, along with regional partners Hardy County and the Pilgrim's Pride poultry facilities, embarked on a project that will greatly reduce pollution entering the Potomac River and will be the single most significant contribution in WV towards achieving the Potomac Tributary Strategy to protect Chesapeake Bay. Each regional partner operates wastewater treatment facilities that discharge along the South Branch of the Potomac River. Combined, the partners are responsible for a total of nine discharge points; including five wastewater treatment plants and four combined sewer overflow (CSO) discharges. This project will intercept flow from all nine discharge points and convey it to a new state-of-the-art regional wastewater treatment facility that will treat up to 4.1 million gal-

lons per day of wastewater. The new plant will meet WV NPDES discharge limits and will be consistent with Chesapeake Bay protection goals.

In May of 2006, the Town of Moorefield retained AECOM (formerly Metcalf & Eddy) as the project engineer. In 2007, AECOM hired Triad to design the wastewater collection system. The collection network consists of nearly four miles of sewer lines, including a 24-inch gravity sewer, an 18 inch force main, and a single pumping station. The pumping station includes three pumps. Also, Triad surveyed collection line alignments and pumping station sites, and provided geotechnical engineering for the pump station. To provide the client the most efficient and cost effective service as possible, work was performed by multiple Triad locations.

In September 2010, Triad was hired by the Town of Moorefield to replace AECOM for the duration of the project. Triad's duties for this phase of the project included value engineering of the existing design and complete construction administration services. This required full time construction oversight, shop drawing and submittal review, and review and approval of contractor pay requests.

This single project will remove about 85 percent of West Virginia's 2002 point source phosphorus load to the Chesapeake Bay and will remove about 26 percent of the point source nitrogen load. The plant will create a sound environmental basis for continued economic development in the South Fork of the Potomac River Valley. The new plant will eliminate five existing wastewater plants including the Town of Moorefield, two poultry industry plants and two Hardy County wastewater plants. The project will also reduce Town of Moorefield CSO discharge volume by eliminating one permitted stormwater discharge and one wastewater pumping station

Services provided by TRIAD included surveying and mapping to generate an existing conditions site map of the pipe routes and pumping station sites, geotechnical engineering for the pump station sites, and generation of design drawings and construction bid packages for the collection system and pump station. Services for the WWTP include value engineering for the WWTP design, and construction administration services during the construction process.

### **Project Contact**

Moorefield / Hardy County Wastewater Authority

Phone: (304) 530-6142



# WASTEWATER TREATMENT PLANT IMPROVEMENTS

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Town of Belle, WV



## PROJECT DESCRIPTION

The project consists of constructing a new 0.35 MGD WWTP and converting the existing aeration tanks to EQ basins. The project also includes installing a new headworks structure with an automatic bar screen and grit removal system, a second external secondary clarifier, all associated piping and valves, electrical upgrade and new emergency generator and a complete rehabilitation of the main pump station.

Services provided by TRIAD included surveying and mapping to generate an existing conditions site map, Geotechnical Engineering to determine foundation design parameters, assistance obtaining project funding, obtaining permits from the West Virginia Department of Environmental Protection (WVDEP), generation of design drawings and construction bid packages and provide construction administration services during the construction process.

## PROJECT CONTACT

Town of Belle

Phone: (304) 949-3841



# ALLISON GAP SEWER PROJECT

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Town of Saltville/Smyth County, Virginia



## **FIRM'S RESPONSIBILITY:**

Design, Construction Contract  
Administration

## **OWNER:**

Smyth County  
121 Bagley Circle, Ste 100  
Marion, VA 24354  
Mr. Scott Simpson  
276-783-3298

## **COMPLETION:** 2005

Anderson & Associates, Inc. provided award winning services for this project. A&A was presented the ACEC 2006 Virginia Engineering Excellence Merit Award for this project. We were retained by Smyth County and the

Town of Saltville to design and complete the Allison Gap Sewer Project to sewer a congested rural community. This project included the following:

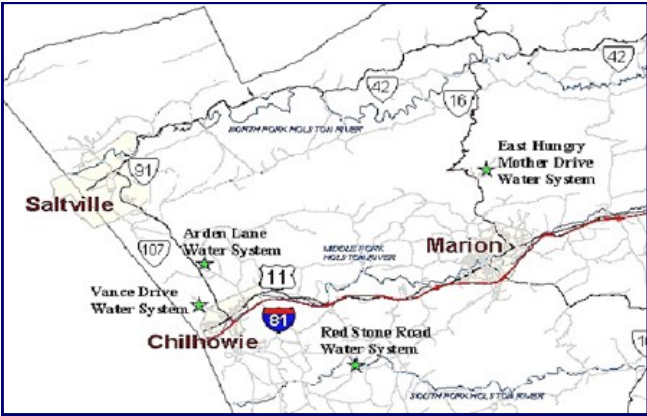
- The design and installation of over 58,000 feet of gravity flow sewer collector lines to serve approximately 385 residential and non-residential users.
- The expansion of the Saltville Wastewater Treatment Plant from 0.5 million gallons per day (MGD) to 0.99 MGD, and including the installation of a new aeration basin, clarifiers, two new sludge digesters, and sludge drying beds.
- The replacement of approximately 8,000 feet of the main sewer interceptor along McHenry Creek and manhole rehabilitation to correct inflow and infiltration problems.
- Design of the main pump station and force main for the expanded treatment facility.

Anderson & Associates, Inc. provided basic design services as well as construction administration services. This included the preparation of detailed design plans and specifications for the construction of the proposed sewer system, and the preparation of all bid documents, administration of the construction bid process, and monitoring of construction progress. A&A also secured loans and



# EAST HUNGRY MOTHER WATER PROJECT

Smyth County, Virginia



**FIRM'S RESPONSIBILITY:**  
Planning, Design, Contract  
Administration, Inspection

**OWNER:**  
Smyth County  
121 Bagley Circle, Suite 100  
Marion, VA 24354  
Mr. Scott Simpson, PE  
276-783-3298

**COMPLETION DATE:**

The East Hungry Mother Water Project was an extension of the Smyth County Water systems affecting four residential areas within the County including Arden Lane, East Hungry Mother Drive, Red Stone Road, and Vance Drive. The project consisted of installing approximately 25,000 feet of water lines and related appurtenances to provide public water service to areas that did not have adequate service, and improve service to areas that have experienced deterioration from old water lines.



# WASTEWATER SYSTEM IMPROVEMENTS

Town of Elkton, Virginia



## **FIRM'S RESPONSIBILITY:**

Preliminary Engineering Report, Rate Study,  
Design of Upgrades, Operational Assistance

## **OWNER:**

Town of Elkton  
173 W. Spotswood  
Avenue  
Elkton, VA 22827  
Mr. Reid Wodicka  
Town Manager  
540-298-9860



Anderson & Associates, Inc. worked with the Town of Elkton to assess and improve the Town's wastewater treatment system. Work initially began as an assessment of the treatment facility to accommodate anticipated growth and nutrient limits for nitrogen and phosphorous. The Preliminary Engineering Report (PER) evaluated the Town's options for meeting the proposed nutrient limits and increased capacity needs of the Town, and proposed a phased approach for improvements. The initial two phases of work were undertaken as part of a Revolving Loan Fund project to address the existing deficiencies in the treatment facility and to provide a new electrical backbone for the facility. Improvements at the treatment facility included new influent screening, clarifier repairs, ultraviolet disinfection system replacement, new effluent metering facility, new sludge press and rehabilitation to existing sludge facilities, and new primary electrical system with back-up power. The work has also included a significant sanitary sewer rehabilitation component that has included internal inspection of sewer mains, joint testing and sealing, sewer main lining, manhole replacement and rehabilitation, and point repairs to various sewer mains.



# TUNNEL WATERLINE REPLACEMENT

Bland County, Virginia

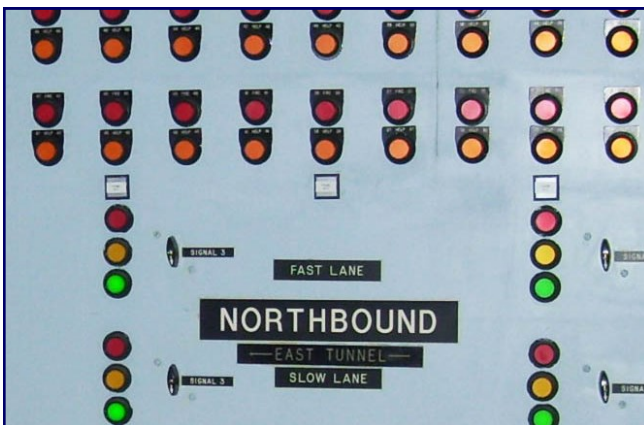


## **FIRM'S RESPONSIBILITY:**

Design, Construction Administration,  
Inspection

## **OWNER:**

Bland County  
P.O. Box 510  
Bland, VA 24315  
Mr. Rodney Ratliff  
Director  
276-688-4607



Provided planning, design and construction administration for the replacement of approximately one mile of waterline located in the VDOT East River Mountain Tunnel on Interstate 77 in Bland County, Virginia and Mercer County, West Virginia.

The initial work included an evaluation of the existing tunnel waterline to identify shortcomings that were contributing to operations and maintenance difficulties. A design was formulated to meet constraints of Virginia Department of Transportation and meet the needs of the County's operation staff. The design featured the capability to automatically detect leaks and rapidly shut-off flow to the water main in the event of a leak. This was done in order to minimize potential impacts on traffic operations in the tunnel and to solve an on-going maintenance problem due to leaks in the existing waterline in the tunnel.

Construction logistics were an important consideration in the design. Following design, Anderson & Associates provided construction contract administration and inspection services for the project.





# WASTEWATER TREATMENT PLANT VALUE ENGINEERING

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Town of Strasburg, Virginia



**FIRM'S RESPONSIBILITY:**  
Value Engineering Study

**OWNER:**  
Town of Strasburg  
174 East King Street  
Strasburg, VA 22657  
Mr. Judson Rex  
Town Manager  
540.465.9197



In 2011, Anderson & Associates and RH & Associates, Inc. teamed up to provide an independent Value Engineering (VE) analysis of proposed wastewater treatment plant upgrades designed by another engineering firm. The Town was proposing to expand its treatment plant to accommodate an average flow of 2.0 million gallons per day and upgrade the treatment process to comply with more stringent nitrogen and phosphorous discharge limits. In addition, the Town wished to upgrade systems and controls to address existing problems created by the age and design of the existing plant.

The study was performed for participation in the Water Quality Improvements Fund (WQIF) for projects greater than \$10 million in construction costs. Because the design had already progressed to the 90% completion stage, the site of the treatment plant, the basic treatment process and the sludge treatment process were all excluded from the VE analysis. These items had previously undergone evaluation by the Town and their design engineer. The VE analysis identified several areas of potential cost savings for consideration by the Town and their design engineer. The VE process included a final meeting to present the findings and a VE process training session for the Town staff conducted by RH & Associates.



# WASTEWATER SYSTEM IMPROVEMENTS

Floyd, Virginia



## **FIRM'S RESPONSIBILITY:**

Preliminary Engineering Report, Design,  
Administrative & Operational  
Assistance

## **OWNER:**

Floyd-Floyd County Public  
Service Authority  
169 PSA Road  
P.O. Box 407  
Floyd, VA 24091  
Mr. Elwood Holden  
Superintendent

The Floyd-Floyd County PSA operated a .15 MGD wastewater treatment plant which was last upgraded in about 1980. The PSA needed to increase capacity to accommodate local economic development and was faced with new require-

ments for ammonia nitrogen removal.

Anderson & Associates evaluated the existing facilities and determined that a significant expansion in capacity could be provided by just upgrading some critical elements in the treatment process. Two additional rotating biological contactors (RBC's) were installed and the flow routed to provide both parallel and series flow through to units to create multi-stage treatment and achieve adequate nitrification of ammonia. New blowers were provided to drive the air driven RBC's and for improved aerobic digestion. The project also included a new chlorine contact tank, effluent flow meter, a sludge belt press, and sludge storage building. The treatment plant capacity was increased to .25 MGD while still discharging to a relatively small stream that is part of the headwaters for the New River.

The project was financed through USDA Rural Development. Work by A&A included a detailed



# WASTEWATER SYSTEM DEVELOPMENT

Fluvanna County, Virginia



## **FIRM'S RESPONSIBILITY:**

Preliminary Engineering Report,  
Funding Assistance, Design,  
Construction Contract Administration, Opera-  
tional Start-Up Assistance

## **OWNER:**

Fluvanna County  
P.O. Box 540  
Palmyra, VA 22963  
Mr. John Robins  
Director of Public Works  
434-591-1925



Our involvement on this project began with short term and long term wastewater planning and preliminary engineering for the Fluvanna Courthouse, Palmyra, and Pleasant Grove areas of Fluvanna County, VA. A&A evaluated numerous alternatives and made recommendations regarding the County's needs for both wastewater distribution and treatment, then prepared plans and specifications for the new system. An environmental review was prepared and environmental permits and clearances obtained.

Following this study, A&A proceeded with the design of approximately 5,700 feet of 8-inch sewer main, 1,400 feet of force main, a 100 gpm pump station, and a 40,000 gpd wastewater treatment plant using the extended aeration process and ultraviolet light disinfection.

A&A worked with the County beginning with the PER study phase, progressing through securing of funding for the project, continuing with design and construction phase services, and rounding out our services with operational start-up assistance. Funding was provided by the VDEQ's Re-



# WASTEWATER SYSTEM IMPROVEMENTS

Harper's Ferry Job Corps Center & Jefferson County High School



## FIRM'S RESPONSIBILITY:

Environmental Assessment, Design

## OWNER:

Jefferson County Public Service District

340 Edmond Road, Suite A

Kearneysville, WV 25430

Ms. Susanne Lawton

General Manager

304-725-4647



## COMPLETION DATE:

2000

The Harper's Ferry Job Corps Center operated a dated wastewater stabilization pond in a remote part of Jefferson County. The Jefferson County School Board operated a small wastewater treatment plant which served Jefferson County High School. The treatment systems discharged to small streams, were limited in their capacity to expand, and required operation by personnel who were already busy with other duties at each site. The Jefferson County PSD undertook a project to connect these facilities to public sewer.

Anderson & Associates provided planning, environmental, and engineering design services to Mark Jeffries Engineering, the PSD's project manager for the work. A&A prepared construction contract documents, plans and technical specifications for two wastewater pump stations and approximately 15,000 feet of force main. Work also included the preparation of environmental documents, permit applications, wastewater facilities closure plans, and O&M manuals for the new facilities. The unique force main design included an intermediate pump station which allowed flexibility for the expansion of Jefferson County High School, and the force main also al-



# WATER SYSTEM IMPROVEMENTS

Town of Pearisburg, Virginia



## **FIRM'S RESPONSIBILITY:**

Preliminary Engineering Report, Design, Construction Administration

## **OWNER:**

Town of Pearisburg

112 Tazewell Street

Pearisburg, VA 24134

Mr. Kenneth Vittum

Town Manager

540-921-0340

Anderson & Associates, Inc. prepared a water system PER to evaluate the existing water distribution system and recommend improvements. This report is part of an on-going effort by the Town to continue improving the infrastructure and operation of the Town water distribution system.

The Town had numerous 1, 2 and 4 inch waterlines that need to be replaced with 6, 8, and 10 inch waterline to improve available flow and pressure issues. In addition, this report outlined the measures that had been taken to reduce water loss and improve accountability in an effort to meet the EPA driven 30% water loss regulation. The report also evaluated the effect of future development within the County and the additional flows that will have to be transmitted through the Town system to meet the needs of these developments and waterline extensions.

A&A responsibilities in completing the PER included preparation of mapping, hydraulic analysis, system pressure evaluation, system effective storage evaluation, and a leak detection study of the existing Town water system.

Following the PER, A&A designed and performed construction administration for 18,000 linear feet of waterline and 1,800 feet of sewer line.



# WATER SYSTEM IMPROVEMENTS

Camp on Craig, Craig County, Virginia



## FIRM'S RESPONSIBILITY:

Design

## OWNER:

HopeTree Family Services

P.O. Box 307

New Castle, VA 24127

Mr. Dale Hamann

Director

540-864-6640



The Virginia Department of Health (VDH) requested the immediate disinfection of the potable well for a 24-hour residential facility for troubled teens (Camp on Craig) using injection of hypochlorite solution into the water system. A&A designed and coordinated the installation of a chlorination system to provide disinfection and adequate contact time to meet VDH requirements. This work was completed in 2 weeks.



Subsequently, VDH determined the existing well source was considered ground water influenced and A&A was then hired for Phase 2 improvements. This included siting and drilling a new well and the addition of a new treatment building and equipment to provide disinfection and storage volume to satisfy VDH requirements. The treatment building also included water softening equipment and new booster pumps to provide adequate water quality and pressure for the water system. Finally, A&A provided startup

# WELL #4 DEVELOPMENT

Craig-New Castle PSA, Virginia



## **FIRM'S RESPONSIBILITY:**

Well Development

## **OWNER:**

Craig-New Castle PSA

P.O. Box 128

New Castle, VA 24127

Mr. Donald Jones

Public Works Director

540-864-6368



A&A provided planning and design for the development of a 130 gpm well (Well #4) to connect to the Authority's water distribution system. The well was given to the Authority by the public school system, since their facilities are served by the Authority. Work consisted of documenting well construction, conducting a yield and drawdown test, identifying well protection during new school construction, and design of the well head and disinfection facilities. Design was funded by a VDH Planning Grant with construction performed by the Authority as force account.

# F. REFERENCES

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*[Include a list of three (3) references, from local governments and/or similar projects only, who can confirm to the firm's knowledge, quality of work, timeliness, diligence, flexibility and overall expertise. Include names, contact persons and phone numbers or email addresses of all references. ]*

**Mike Watson**, Town Manager

Town of Bluefield

PO Box 1026

Bluefield, VA 24605

276-322-4626

**Chris Clark**, Public Works Director/Engineer

County of Allegheny

9212 Winterberry Avenue, Suite A

Covington, VA 24426

540-863-6650

**Mike Kennedy**, Public Works Director

City of Lexington

890 Shop Road

Lexington, VA 24450

540-463-3154





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

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

Proc Folder: 146152  
 Doc Description: Addendum No 02, Water & wastewater Improvements.  
 Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2015-10-21	2015-11-18 13:30:00	CEOI 0310 DNR1600000006	3

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

**VENDOR**  
 Vendor Name, Address and Telephone Number:  
 Anderson & Associates, Inc.  
 100 Ardmore Street  
 Blacksburg, VA 24060  
 540-552-5592

**FOR INFORMATION CONTACT THE BUYER**  
 Guy Nisbet  
 (304) 558-2596  
 guy.l.nisbet@wv.gov

Signature X *William B. Koster* FEIN # 54-1035891 DATE 11/17/2015

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

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

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

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

**DEFINITIONS:**

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

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

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

**AFFIRMATION:** By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

**WITNESS THE FOLLOWING SIGNATURE:**

Vendor's Name: Anderson & Associates, Inc.

Authorized Signature: *[Signature]* Date: 11/16/2015

State of Virginia

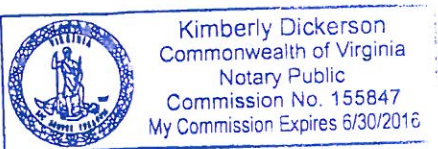
County of Montgomery, to-wit:

Taken, subscribed, and sworn to before me this 16<sup>th</sup> day of November, 2015.

My Commission expires June 30, 2016.

**AFFIX SEAL HERE**

**NOTARY PUBLIC** *[Signature]*  
*Purchasing Affidavit (Revised 08/01/2015)*




**CERTIFICATION AND SIGNATURE PAGE**

By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Anderson & Associates, Inc.

\_\_\_\_\_  
(Company)

  
\_\_\_\_\_  
(Authorized Signature) (Representative Name, Title)

540-552-5592 / 540-552-2729 / November 17, 2015  
(Phone Number) (Fax Number) (Date)

ADDENDUM ACKNOWLEDGEMENT FORM  
SOLICITATION NO.:

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

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

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

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

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

Anderson & Associates, Inc.

Company



Authorized Signature

November 18, 2015

Date

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