

*Expression of Interest  
To the  
West Virginia Division of  
Natural Resources*

*for the*

*Bluestone Park  
Water Line  
Replacement Project*

*RFQ # DNR 209036*

*October 6, 2008*

*Submitted by:*



1428 Main Street  
P.O. Box 1309  
Princeton, WV 24740  
304-431-7800 phone  
304-425-0445 fax

October 6, 2008

West Virginia Division of Natural Resources  
Purchasing Division  
2019 Washington Street, East  
Charleston, WV 25305-0130

**RE: Expression of Interest – The Bluestone Park Water Line  
Replacement  
DNR EO#209036**

To Whom It May Concern:

Pentree, Incorporated is pleased to have the opportunity to provide the West Virginia Division of Natural Resources with our high standard of professional engineering design services for the Bluestone Park Water Line Replacement Project.

In addition to our qualifications, Pentree, Incorporated offers the following advantages to our selection for the engineering of the Bluestone Park Water Line Replacement project:

- **Successful Experience in Water Projects:** As demonstrated in the Previous Experience Section, our team has evaluated, designed and managed construction projects for numerous clients. In doing so, we have successfully worked on their behalf to communicate with, and meet the requirements of regulatory agencies.
- **Technical Experience:** Pentree, Incorporated was established over a century ago and we have integrated the knowledge and experience gained throughout the years into our work today. We design, prepare construction documents, bid and oversee construction on over \$20 million dollars of water projects per year. The projects referenced in our proposal demonstrate our abilities in these projects.
- **Experience in Local Areas:** Pentree, Incorporated has provided engineering services and construction management for clients in Southwestern Virginia as well as Southern West Virginia; consequently, our understanding of the drinking water needs in the area will be of great benefit to the Division of Natural Resources.

#DNR 209036

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- **Personnel:** The team Pentree, Incorporated has assigned to the Bluestone Park Water Line Replacement Project is a combination of professionals, each with experience in the specific role they will take in completing the project. Our engineers will insure that the design is completed to a degree above and beyond the basic scope of services.

We thank you for your consideration of our qualifications and look forward to the opportunity to present our qualifications and project methodology to you in person.

Sincerely,

PENTREE, INCORPORATED

A handwritten signature in black ink, appearing to read 'J. Tuggle', is written over the printed name.

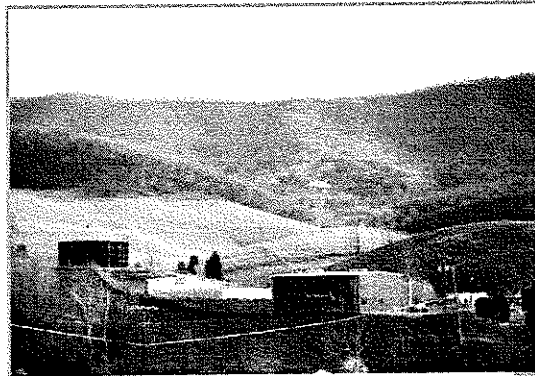
JOHN W. TUGGLE, P.E., P.S.  
President/ Principal-In-Charge

## STATEMENT OF QUALIFICATIONS

**Pentree, Incorporated is uniquely qualified to provide the West Virginia Division of Natural Resources with the engineering design and construction services necessary for the Bluestone Park Main Water Line Replacement Project.** We have provided these services with the highest level of technical expertise and client satisfaction for numerous clients throughout the state of West Virginia.

**Pentree, Incorporated** was established over a century ago to provide quality engineering services to the State of West Virginia, Public Service Districts, Counties, Municipalities and private clientele.

Today, **Pentree, Incorporated** prides itself on continuing that tradition. Located in Princeton, West Virginia, our staff includes five registered professional engineers and four licensed professional surveyors. Additionally, our staff of six construction inspectors and thirteen diversely skilled technicians and support personnel supplies the resources and support necessary to provide our clients with the thorough and efficient services they desire and deserve.



***Bluewell Public Service District***

As a part of Resource Engineering Group, Inc., **Pentree, Incorporated** can offer its clients services above and beyond those of most engineering firms. In addition to civil engineering, survey and construction management, we now offer environmental assessment and permitting, pipeline inspection, hydraulic pipe modeling and GIS mapping services, all of which are beneficial to our client's infrastructure improvements.

**Pentree, Incorporated** is guided by the mission statement: ***To establish and maintain on-going relationships by providing the highest level of performance possible toward attaining the goals of the organizations we serve as we strive to enhance the communities in which we live.***

Our staff is actively involved in all aspects of the engineering process from consulting and planning through funding and preparation of documentation needed throughout the construction process to meet the requirements of funding agencies.

**Pentree, Incorporated** has developed strong working relationships with funding agencies and has earned a good reputation for the quality of our work. We have extensive experience in projects funded by a variety of federal and state sources, either individually or in combination, including those most specific to public utilities projects, which include:

- ❑ ***Rural Economic and Community Development Administration (USDA/RUS)***
- ❑ ***WV Infrastructure and Jobs Development Council***
- ❑ ***WV Department of Environmental Protection – Abandoned Mine Lands Program***
- ❑ ***WV Department of Environmental Protection – Construction Grants Program***
- ❑ ***West Virginia Development Office – Small Cities Block Grants (HUD)***
- ❑ ***Water Development Authority***
- ❑ ***Appalachian Regional Commission***
- ❑ ***US Department of Commerce – Economic Development Administration***

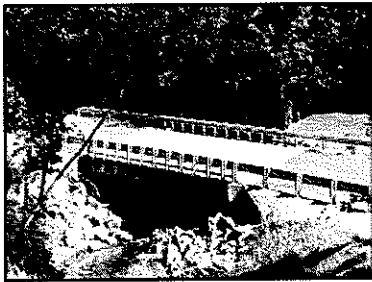
# SERVICES

Pentree, Incorporated provides a wide variety of engineering and consulting services:



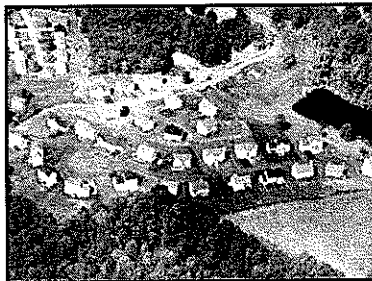
## **Civil / Environmental Engineering**

- Public Utilities Comprehensive Studies and Feasibility/ Preliminary Engineering Reports
- Wastewater Collection & Treatment Systems
- Water Treatment & Distribution Systems
- Storm Water Management
- Land Planning and Development
- Structural Design



## **Transportation Engineering**

- Highway/Roadways
- Parking Lots
- Bridges
- Airports



## ➤ **Photogrammetry**

- Digital Aerial Photography & Mapping
- 3D Terrain Modeling
- 2-D and 3-D Digital Documentation

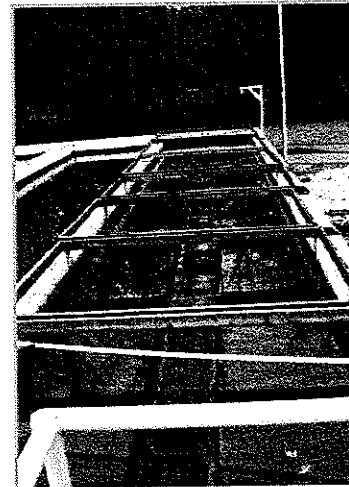


## ➤ **Field Services**

- Owner's
- Survey
- Construction Management
- Owner's Representative Services

## TECHNICAL EXPERTISE

Pentree Incorporated's roots are firmly planted in the engineering of publicly funded water and wastewater projects throughout the state of West Virginia and in western Virginia. For over a century, we have provided our technical expertise in all aspects of engineering and field services. The proven methods of approach we apply assure our clients of a successful project that meets their needs for the present and future. From the beginning phases of investigation and evaluation through design, funding and construction management, ***Pentree, Incorporated provides the highest standards of performance.***



*Settling Basins – Green Valley  
Glenwood Public Service District*

## DESIGN

Pentree Incorporated's Project Engineers utilize the most current technology available for design of your project, providing accuracy, flexibility for modifications and clear, concise and understandable drawings. A well-designed project has more bidders with a closer spread in bids than a poorly designed project. ***Pentree, Incorporated has earned a reputation among funding agencies and contractors for well designed projects resulting in more bidders and costs that meet funding allocations.***

## SURVEY

Pentree Incorporated's survey department provides survey services and mapping, utilizing top of the line equipment operated by several full-time survey crews. In addition to stakeout and mapping, the department prepares plats and performs courthouse searches. We are also available to assist our clients in the acquisition of easements, right-of-ways and other property to enable the project to move forward efficiently and effectively. ***Pentree, Incorporated provides the experienced and knowledgeable survey personnel essential to expediting your project.***

## **CONSTRUCTION MANAGEMENT AND INSPECTION**

Over the past century, Pentree, Incorporated has developed and employed methods in our construction management and inspection process that have been proven effective and efficient. Our measures include daily logs and inspection sheets, cut sheets, quantity tracking and field drawings. Our approach to a successful construction project includes good interaction between the Engineer, Construction Manager and Owner, along with the use of Experienced Surveyors, Inspectors and Technicians. We strive for positive dealings with Contractors, Funding Agencies, Regulatory Agencies and we believe in teamwork with all parties involved with a project.

***Pentree, Incorporated's team provides the communication needed and the documentation necessary to meet the client's needs and those of funding and regulatory agencies.***

## **ON-GOING RELATIONSHIPS**

Most importantly, we recognize that our client may look to us for assistance in a variety of areas long after construction is complete, and we offer that follow-up service without charge to our client. Our corporate mission is ***"To Establish and Maintain On-Going Relationships by Providing the Highest Level of Performance Possible Toward Attaining the Goals of the Organizations we Serve as we Strive to Enhance the Communities in Which we Live."*** Being there for our clients after their projects have been completed is just one way we strive to achieve our mission.



## PROJECT TEAM

**West Virginia Department of  
Environmental Protection**

***John Tuggle, P.E., P.S.***  
Principal-In-Charge / Project Manager

***Robert D. Hazelwood, P.E., P.S.***  
Vice President

***Daniel R. Shorts, P.E., P.S.***  
Senior Project Manager

***Matthew Anderson, P.E.***  
Project Engineer

## MANAGEMENT AND STAFFING

**Pentree, Incorporated** has dedicated personnel committed to providing superior service throughout all aspects of the engineering process, from consulting and planning through funding and preparation of documentation needed throughout the construction process to meet and exceed the requirements of the funding agencies.

Pentree, Incorporated offers a highly qualified and experienced staff to the WV DNR for the **Bluestone Park Main Water Line Replacement Project**. Our staff includes:

**3 CIVIL ENGINEERS**  
**1 SANITARY ENGINEER**  
**1 STRUCTURAL ENGINEER**  
**1 TRANSPORTATION ENGINEER**  
**4 SPECIFICATION WRITERS**  
**3 CADD OPERATORS**  
**3 SURVEYORS**  
**5 CONSTRUCTION INSPECTORS**  
**3 PHOTOGRAMMETRISTS**  
**2 ADMINISTRATIVE SUPPORT PERSONNEL**

Pentree, Incorporated is staffed with five registered professional engineers, four of whom are also licensed professional surveyors. Additionally, the staff of five construction inspectors and sixteen diversely skilled technicians and support personnel provides the resources and support necessary to provide our clients with the thorough and efficient services they desire and deserve.

## THE WV DNR BLUESTONE PARK MAIN WATER LINE REPLACEMENT PROJECT TEAM

Pentree, Incorporated will assign a team of talented and experienced engineers and firm principals to the water line extension project. Each member of this team brings a specific area of expertise that is essential for a successful project

**John Tuggle, P.E., P.S.**, President of Pentree, Incorporated is the **Principal-In-Charge** and will serve as **Project Manager**. He is actively involved in the daily management of the firm. Mr. Tuggle's experience working with our clients during the funding process of infrastructure projects, including determining eligibility and feasibility, will be a strong asset to your project. Additionally, Mr. Tuggle's expertise and knowledge of the regulatory and permitting processes of the DEP will assure you of a quality project that meets your specifications.

**Bob Hazelwood, P.E., P.S.** will serve as **Chief Engineer** for the project. Mr. Hazelwood will be responsible for overseeing all technical aspects of the project. Mr. Hazelwood has over 25 years of experience in the evaluation and design of water and wastewater projects, specifically AML funded projects.

**Daniel R. Shorts, P.E., P.S.** will serve as **Project Engineer**. Mr. Shorts has extensive experience with the design and construction of water plants along with the associated storage and distribution systems. He also is well versed in all administrative aspects of projects.

Mr. Shorts will be assisted by, **Matthew Anderson, P.E.**, who will provide assistance for design. **Gary Shields, P.E., P.S.** provides supervision of the survey department at Pentree, Incorporated. He will assign, review and take ultimate responsibility for any survey work necessary for your project.

Resumes for the team members follow.

**JOHN TUGGLE, P.E., P.S.**  
**PRESIDENT / PRINCIPAL-IN-CHARGE**



**PROJECT EXPERIENCE:**

- **TOWN OF NORTHFORK WATER LINE**  
EXTENSION – Principal-In-Charge
- **BERKELEY COUNTY PUBLIC SERVICE SEWER DISTRICT** BAKER HEIGHTS WASTEWATER TREATMENT PLANT, INWOOD WASTEWATER TREATMENT PLANT, ECOLAB AND APACHE PUMP STATION – Principal-In-Charge
- **JEFFERSON COUNTY PUBLIC SERVICE DISTRICT** BRECKENRIDGE PUMP STATION, NPDES PERMIT RENEWAL AND DISTRICT PLAN REVIEW; Principal-In-Charge
- **CITY OF MOUNT HOPE KILSYTH UTILITY**  
EXTENSION; Principal-In-Charge
- **ELKHORN PUBLIC SERVICE DISTRICT**  
SANITARY SEWER PROJECT - Principal-In-Charge
- **GREEN VALLEY-GLENWOOD COUNTY PUBLIC SERVICE DISTRICT** VARIOUS WASTEWATER PROJECTS – Project Oversight, Contract and Construction Administration
- **COWEN PUBLIC SERVICE DISTRICT** CAMDEN WATER TREATMENT PLANT UPGRADE AND WATER LINE EXTENSION PROJECT; SANITARY SEWER LINE EXTENSION PROJECTS – Project Manager, Contract and Construction Administration
- **MCDOWELL COUNTY PRISON SITE**  
DEVELOPMENT - Principal-In-Charge
- **WEBSTER COUNTY INDUSTRIAL PARK –**  
Project Manager, Contract and Construction Administration
- **WEST VIRGINIA DEPARTMENT OF TRANSPORTATION** DISTRICT 10 HEADQUARTERS COMPLEX – Project Manager, Contract and Construction Administration
- **GAULEY RIVER PUBLIC SERVICE DISTRICT** TWENTYMILE AND ROUTE 39 / PETERS CREEK WATER LINE EXTENSION PROJECT – Project Manager, Contract and Construction Administration
- **CITY OF OAK HILL SANITARY BOARD** WOLF CREEK PARK SANITARY SEWER SERVICE, FAYETTE PLATEAU PACKAGE PLANT AND POTENTIAL SANITARY SEWER PLANT UPGRADE; Principal-In-Charge
- **TOWN OF FAYETTEVILLE** NICKLEFILLE SEWER PROJECT – Principal-In-Charge
- **WYTHE COUNTY** FORT CHISWELL PLANT UPGRADE - Principal-In-Charge

**PROFESSIONAL RESPONSIBILITIES:**

Mr. Tuggle joined Pentree, Incorporated in 1985 and serves as President and Principal-In-Charge for the firm. His primary responsibility is the oversight of all firm projects.

Mr. Tuggle has extensive experience working with various regulatory and funding agencies, and is extremely knowledgeable of contract preparation, analysis and interpretation. He has also recommended and assisted numerous clients in securing the best source of funding to suit their needs.

Mr. Tuggle has been involved with various types of projects including:

- Water Treatment Plants
- Water System Upgrades
- Water Line Extensions
- Wastewater Treatment Plants
- Sanitary Sewer System Upgrades
- Sewer Line Extensions
- Storm Water Management
- Industrial Park Site Development
- Subdivision Development
- Highways and Roads
- Access Roads
- Bridges
- Airports

**EDUCATION:**

B.S. Civil Engineering Technology 1982  
Bluefield State College

**ACTIVE REGISTRATIONS:**

Professional Engineer, 1988 #011845  
State of West Virginia  
Professional Surveyor  
State of West Virginia  
Class II Operator's License Water  
Class II Operator's License Waste Water

# **ROBERT HAZELWOOD, P.E., P.S.**

## **EXECUTIVE VICE-PRESIDENT**



### **PROJECT EXPERIENCE:**

- **GREENBRIER COUNTY PUBLIC SERVICE DISTRICT #2** SANITARY SEWER COLLECTION SYSTEM AND WASTEWATER TREATMENT PLANT – Design Engineer and Quality Control
- **RED SULPHUR SPRINGS PUBLIC SERVICE DISTRICT** VARIOUS SANITARY SEWER AND WATER PROJECTS – Design Engineer and Quality Control
- **RAVENSCLIFF-MCGRAWS-SAULSVILLE PUBLIC SERVICE DISTRICT** WATER PROJECTS – Design Engineer and Quality Control
- **GREEN VALLEY-GLENWOOD PUBLIC SERVICE DISTRICT** SANITARY SEWER PROJECTS INCLUDING A 1.5 MGD WASTEWATER TREATMENT PLANT, SEWER LINE EXTENSIONS AND UPGRADES – Design Engineer and Quality Control
- **EDRAY TECHNICAL PARK**, POCAHONTAS COUNTY, WEST VIRGINIA – Design Engineer and Quality Control
- **FOUNTAIN SPRINGS INDUSTRIAL PARK**, MONROE COUNTY, WEST VIRGINIA – Design Engineer and Quality Control
- **PETERSTOWN SATELLITE MEDICAL CLINIC ADDITION**, MONROE COUNTY, WEST VIRGINIA – Design Engineer and Quality Control
- **DEER RUN SUBDIVISION**; 13 LOTS ON 14 ACRES – Design Engineer and Quality Control
- **PLEASANT VALLEY ESTATES**; 23 LOTS ON 17 ACRES - Design Engineer and Quality Control
- **TWIN OAKS SUBDIVISION**; 18 LOTS ON 12 ACRES - Design Engineer and Quality Control
- **EASTERN WYOMING PSD**; MULLENS WYCO WATER PROJECT - WATER TREATMENT PLANT, WATER STORAGE TANKS, AN UPGRADE OF THE LOWER GULF WATER SYSTEM AND AN UPGRADE OF THE UPPER GULF WATER SYSTEM.

### **PROFESSIONAL RESPONSIBILITIES:**

Mr. Hazelwood joined Pentree, Incorporated in 1979 and serves as Executive Vice President for the firm. In this capacity, his primary responsibility is to provide Quality Control and Quality Assurance for projects.

Mr. Hazelwood's experience includes preliminary and final design, preparation of contract documents and specifications and project management.

Additionally, Mr. Hazelwood has extensive knowledge working with regulatory agencies and in recommending and assisting clients in securing cost effective funding for their projects.

- Water Treatment Plants
- Wastewater Treatment Plants
- Storm Water Management
- Industrial Parks
- Airports
- Subdivisions
- Shopping Centers
- Access Roads

### **EDUCATION:**

M.S. Sanitary Engineering 1976  
VPI and State University

B.S. Civil Engineering 1975  
West Virginia Institute of Technology

### **ACTIVE REGISTRATIONS:**

Professional Engineer, 1980	#008452
State of West Virginia	
Professional Surveyor	#1179
State of West Virginia	

## **DANIEL R. SHORTS, P.E., P.S.**

### **SENIOR PROJECT MANAGER**

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#### **PROJECT EXPERIENCE:**

- **AMERICAN ELECTRIC POWER** JARROLD, MILAM AND CARETTA SUBSTATIONS – Project Manager for the Site Development of the Electrical Substations
- **BLUERIDGE WOOD PRODUCTS** CYCLONE TOWER AND BUILDING RECONSTRUCTION – Project Manager and Structural Design
- **LOCHGELLY ROAD** – Project Manager for Sanitary Sewer Rehabilitation
- **JASON'S TRUCK WASH** – Project Manager for Site Development of the Facility
- **FORT CHISWELL WWTP UPGRADE** FROM .5 TO 1.25 MGD – Project Manager for Upgrade Design and Facilities Plan
- **OYLER AVENUE SIDEWALK PROJECT** – Project Manager for TEA-21 Project
- **WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DISTRICT 10 COMPLEX**, MERCER COUNTY, WEST VIRGINIA – Project Manager and Structural Engineer for Multiple Buildings, Access Road and Utility Plans
- **BERKELEY COUNTY PUBLIC SERVICE SEWER DISTRICT** INWOOD AND BAKER HEIGHTS WASTEWATER TREATMENT PLANTS – Structural Design of the Wastewater Treatment Plants and Other Associated Structures
- **WYCO-MULLENS REGIONAL WATER**, WYOMING COUNTY, WEST VIRGINIA – Structural Design of the Water Treatment Plant and Other Associated Structures
- **WISE COUNTY VIRGINIA PUBLIC SERVICE DISTRICT LOWER BIRCHFIELD WATER PROJECT** – Structural Design and Project Management for the 7-Mile Water Line Extension and an In-Pressure Reducing Station
- **COALFIELD EXPRESSWAY**, WYOMING AND McDOWELL COUNTIES OF WEST VIRGINIA – Project Manager and Structural Engineering for the Study, Design and Construction Plans of this 4-Lane Interstate
- **CITY OF OAK HILL**, FAYETTE COUNTY, WEST VIRGINIA – Project Manager and Structural Engineer for the 5-Street Sanitary Sewer Project

#### **PROFESSIONAL RESPONSIBILITIES:**

Mr. Shorts has been a member of Pentree, Incorporated for over sixteen years. Throughout his employment Mr. Shorts has provided project management for over fifty projects. The scope of services he provides to projects includes design, site planning, access road development, utilities layout, survey, construction management and inspection.

His project experience extends to:

- Multi-Story Buildings
- Water Treatment Plants
- Water Distribution Systems
- Wastewater Treatment Plants
- Access Roads
- Highways
- Bridges

Mr. Shorts is a structural engineer and provides project management, design and construction inspection for all of the firm's bridge and highway projects, and other projects as needed.

#### **EDUCATION:**

- M.S. Civil Engineering, 2001  
Virginia Tech University
- B.S. Civil Engineering, 1983  
West Virginia Institute of Technology

#### **ACTIVE REGISTRATIONS:**

- Professional Engineer, 1995 #011840  
State of West Virginia
- Professional Engineer, 1999 #034253  
State of Virginia
- Professional Engineer, 2001 #27290  
State of North Carolina
- Professional Surveyor, 1995  
State of West Virginia

# **MATTHEW P. ANDERSON, P.E.**

## **PROJECT MANAGER / ENGINEER**

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### **PROJECT EXPERIENCE:**

- **GLEN WHITE-TRAP HILL** PHASE I WATER LINE EXTENSION – Rights-of-Way, Permitting and Drafting
- **EASTERN WYOMING PSD** MULLENS-WYCO WATER TREATMENT PLANT – Drafting, Design for New “Smaller” Plant System
- **TOWN OF DAVY BIG SANDY-ASCO WATER LINE EXTENSION** – Drafting
- **GREEN VALLEY-GLENWOOD PUBLIC SERVICE DISTRICT** – Route 20 Sandlick Drafting and Permitting
- **BLUEWELL PUBLIC SERVICE DISTRICT** WATER TREATMENT PLANT UPGRADE –Drafting
- **RED SULPHUR PUBLIC SERVICE DISTRICT** LINDSIDE SANITARY SEWER LINE EXTENSION – Drafting and Permitting
- **RED SULPHUR PUBLIC SERVICE DISTRICT** WASTEWATER SYSTEM UPGRADE – Drafting and Rights-of-Way
- **RED SULPHUR PUBLIC SERVICE DISTRICT** PHASE II WATER UPGRADES – Drafting
- **US GYPSUM** ROUTE 71 UTILITY RELOCATION, SALTVILLE, VIRGINIA – Pressure Testing
- **GAP MILLS PUBLIC SERVICE DISTRICT** WATER TREATMENT PLANT – Drafting
- **GREENBRIER VALLEY ECONOMIC DEVELOPMENT CORPORATION** EDRAI INDUSTRIAL PARK – Drafting
- **GREENBRIER VALLEY ECONOMIC DEVELOPMENT CORPORATION** RAHALL TECHNOLOGY AND BUSINESS CENTER – Survey, Design, Drafting on Second Site
- **BERKELEY COUNTY PUBLIC SERVICE SEWER DISTRICT** PUMP STATION #5 – Assisted on Report Preparation
- **SOUTHERN APPALACHIAN LABOR SCHOOL** NEW DORMITORY FACILITY – Architectural Design and Detailing, Site Design and Miscellaneous Drafting and Permitting
- **RAVENSCLIFF-MCGRAWS-SAULSVILLE PUBLIC SERVICE DISTRICT** JESSE MATHENY WATER PROJECT– Drafting, Design and Permitting
- **WYOMING COUNTY COMMISSION** WESTERN WYOMING COUNTY WATER STUDY – Drafting and Layout

### **PROFESSIONAL RESPONSIBILITIES:**

Mr. Anderson joined Pentree, Incorporated in 2002 and serves as Project Manager and Engineer for the firm. In this capacity he has a variety of responsibilities including, but not limited to:

- Drafting
- Utility Design
- Site Design
- Permitting
- Specifications
- Technical Writing
- Hydraulic Analysis

Additionally, Mr. Anderson is experienced with Water CAD and other design and modeling programs.

### **EDUCATION:**

B.S. Civil Engineering Technology - 1998  
Bluefield State College Summa Cum Laude  
B.S. Architectural Engineering Technology - 1999  
Bluefield State College Summa Cum Laude

### **ACTIVE REGISTRATIONS/AFFILIATIONS:**

Professional Engineer, 2005 #033121  
State of Virginia  
American Society of Civil Engineers

# R. GARY SHIELDS, P.E., P.S. SURVEY MANAGER

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## PROJECT EXPERIENCE:

- **APPALACHIAN POWER COMPANY** – Survey Manager for Boundary and Topographical Survey and Control Stakeout
- **GLENFIELD SUBDIVISION**, MERCER COUNTY, WV – Survey Manager for Lot and Utility Design and Layout
- **RAHALL TECHNOLOGY CENTER**, GREENBRIER COUNTY, WV – Survey Manager for Elevation and Location Survey
- **MIDVOL**, MERCER AND McDOWELL COUNTIES, WV – Survey Manager for GPS Control Network for Aerial Mapping of 34,000 Acres of Coal Reserves
- **McKENZIE COMPANY**, GREENBRIER COUNTY, WV – Project Oversight of Boring Operation into Abandoned Mine for AML Mine Reclamation
- **GAULEY RIVER PUBLIC SERVICE DISTRICT** ROUTE 39/TWENTYMILE WATER LINE EXTENSION PROJECT – Survey Manager for Tank Site Survey
- **CITY OF OAK HILL PHASES II AND III SIDEWALK PROJECT** – Survey manager for the Site Survey and Construction Layout
- **CITY OF OAK HILL SANITARY BOARD** – Lead Surveyor for Elevation and Location Survey of Existing Sewer Lines
- **DAVY-BIG SANDY WATER**, McDOWELL COUNTY, WV – Survey of Railroad Crossings and Plant Site Upgrade, Prepared Permits for Railroad Crossing
- **LOCUST HILLS SUBDIVISION**, JEFFERSON COUNTY, WEST VIRGINIA – Survey Manager for Property Survey
- **PAGE KINCAID PUBLIC SERVICE DISTRICT** WATER LINE EXTENSION PROJECT – Survey Manager for GPS Survey
- **TOWN OF UNION**, WEST VIRGINIA PHASE III SIDEWALK PROJECT – Survey Manager for Site Survey
- **MONROE COUNTY BOARD OF EDUCATION** – Survey Manager for Drainage and Site Development Plan
- **COWER PUBLIC SERVICE DISTRICT** INDUSTRIAL PARK UTILITIES EXTENSIONS – Survey Manager for Construction Stakeout
- **CITY OF PRINCETON RESCUE SQUAD** – Survey Manager for Elevation Certificate
- **TOWN OF FAYETTEVILLE** HUSE CEMETERY AND MAUSOLEUM SURVEY & BOUNDARY & ANNEXATION SURVEY – Project Manager
- **M TRIPLE J, LLC** RESIDENTIAL SUBDIVISION – MERCER COUNTY, WV – Project Manager
- **CITY OF OAK HILL** WHITE OAK SEWER EXTENSION – Project Manager
- **TOWN OF RAINELLE** PROPOSED RAILROAD MUSEUM & POLICE STATION SURVEYS – Project Manager

- **APPALACHIAN POWER COMPANY** – McGRAW & SUBSTATION – WYOMING COUNTY, WV – Lead Surveyor

## PROFESSIONAL RESPONSIBILITIES:

Mr. Shields joined Pentree, Incorporated in 2003 and serves as Survey Manager for the firm. Prior to his employment with Pentree, Mr. Shields worked as an Independent Licensed Land Surveyor. Currently, he supervises, assigns and reviews all of Pentree, Incorporated's survey activities.

Mr. Shields is extremely skilled in various types of surveys including, but not limited to:

- Control Surveys
- Topographical Surveys
- Boundary Surveys
- Easement Surveys
- Construction Layout
- GPS

In addition to Mr. Shields's experience as a surveyor, he is a Licensed Professional Engineer. In this capacity he is knowledgeable in the planning and design of storm water management systems, potable water systems and sanitary sewer systems. Furthermore, his experience encompasses preparation of specifications, permits and plans, and providing construction inspection for subdivision developments.

## EDUCATION:

B.S. Civil Engineering Technology 1980  
Bluefield State College

## ACTIVE REGISTRATIONS:

Professional Engineer	, 1990	#10786
State of West Virginia		
Professional Surveyor	1982	#766
State of West Virginia		
Professional Surveyor	1986	#1545
State of Virginia		



## PREVIOUS EXPERIENCE IN WATER SYSTEM PROJECTS

Over the past century, Pentree, Incorporated has surveyed, planned, designed and managed construction for numerous water system projects.

On the following pages are examples of specific recent projects that represent our abilities in water projects that are comparable in size and with the scope of services similar to the needs of the WV DNR Bluestone Park Main Water Line Replacement Project.



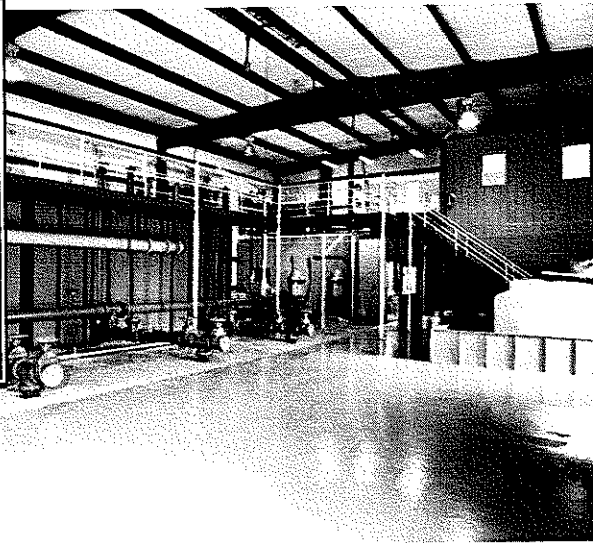
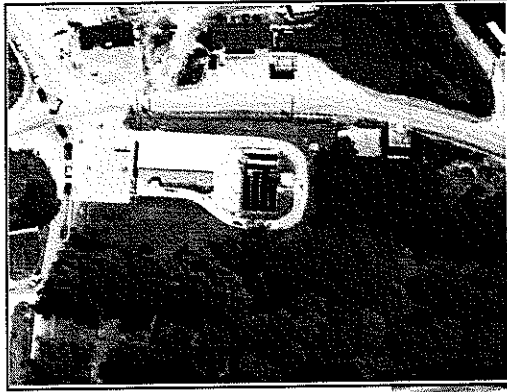
The representative water system projects are as follows:

- Green Valley – Glenwood Public Service District
- Town of Union
- Ravencliff-McGraw-Saulsville Public Service District
- Gauley River Public Service District
- Red Sulphur Public Service District – Phase I
- Red Sulphur Public Service District – Phase II
- Bluewell – Route 20 (Cooperative effort between Green Valley – Glenwood, Bluewell Public Service District and the Mercer County Commission)

*Twin Water Storage Tanks at Gauley River PSD  
(above) Booster Station – (Below)*



References for each of these projects are included and we welcome you to contact them, most of whom are repeat clients.



## Green Valley – Glenwood PSD

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**Owner/Contact:**

Green Valley – Glenwood Public Service District  
PO Box 6099,  
Bluefield, WV 24701  
304-325-6832

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**Project Location:**

Mercer Co., WV

**Responsibilities:**

Structural Engineering  
Civil/Site Engineering

**Applicable Codes:**

Local codes & ordinances  
IBC  
ADA

**Project Cost:**

\$4,770,000

**Completion Date:**

2005

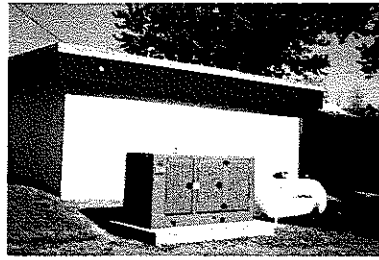
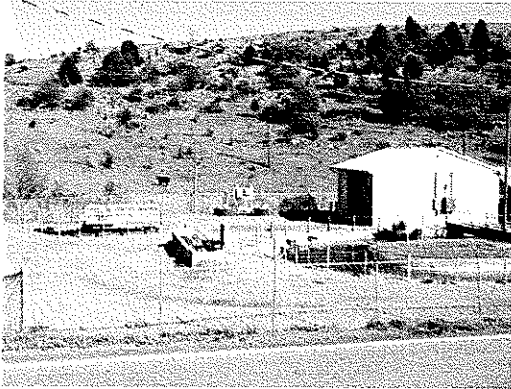
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### ***Water System Upgrade and Extension***

The project done in two phases includes: upgrade of two existing water treatment plants (0.86 and 0.58 MGD), ***an additional 600,000 gallons of water storage, repainting four existing water tanks;*** and the extension of 38,000 lineal feet of 2" to 12" water mains, valves, hydrants, meters, and a 250 gpm booster station, to ultimately serve 3,300 Mercer County water customers. The project phases will be funded by USDA Rural Development Grants and Loans.

#### **PROFESSIONAL ENGINEERING SERVICES PROVIDED:**

- Preliminary Engineering Reports and studies
- Assist owner with applications for state and federal funding
- Preliminary and final design in accordance with federal, state & local requirements
- Preliminary and final base mapping
- Property acquisition
- Assist owner in acquiring permits and regulatory approvals
- Prepare bidding and contract documents, and bidding evaluations
- Construction administration, monitoring and inspection
- As-Built drawings
- Start up and close out assistance



## Town of Union

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**Owner/Contact:**

Town of Union  
PO Box 13  
Union, WV 24983  
Tel: 304-772-5522

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**Project Location:**

Monroe County, WV

**Responsibilities:**

Structural Engineering  
Civil/Site Engineering

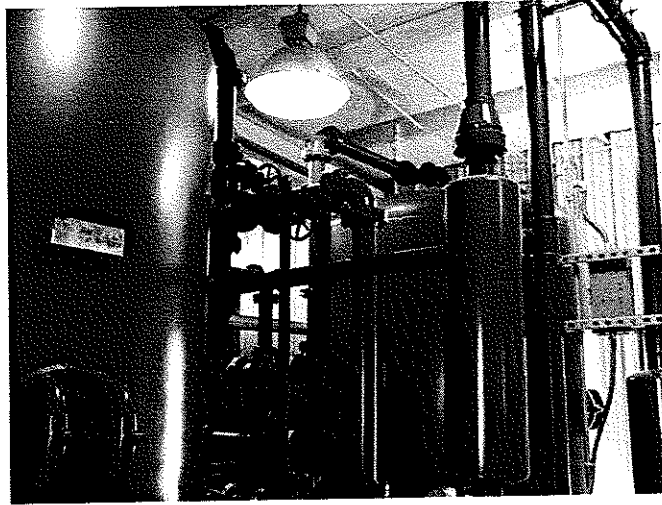
**Applicable Codes:**

Local codes & ordinances  
IBC  
ADA

This project involved raw water development, the construction of a new water plant for ground water source and two 160,000 gallon storage tanks. ***Also an upgrade of the existing water treatment plant and well source, the addition of emergency generators at the existing plant and over twelve miles of water distribution line.***

**PROFESSIONAL ENGINEERING SERVICES PROVIDED:**

- Preliminary Engineering Reports and studies
- Assist owner with applications for state and federal funding
- Preliminary and final design in accordance with federal, state & local requirements
- Preliminary and final base mapping
- Property acquisition
- Assist owner in acquiring permits and regulatory approvals
- Prepare bidding and contract documents, and bidding evaluations
- Construction administration, monitoring and inspection
- As-Built drawings



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## Ravenclyff-McGraws-Saulsville PSD

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**Owner/Contact:**

Ravenclyff-McGraws-Saulsville PSD  
P.O. Box 217  
McGraws, WV 25875  
Tel: 304-294-4511

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**Project Location:**

Wyoming Co., WV

**Responsibilities:**

Structural Engineering  
Civil/Site Engineering

**Applicable Codes:**

Local codes & ordinances  
IBC  
ADA

The current .88 mgd water treatment plant, water storage facilities, and water transmission and distribution lines, were constructed in 4 project phases over the last 15 years to provide service for over 800 customers, including a 66 unit nursing home, 2 schools, a 4-H Camp, and Twin Falls State Park.

**Keyrock Area Water Extension**

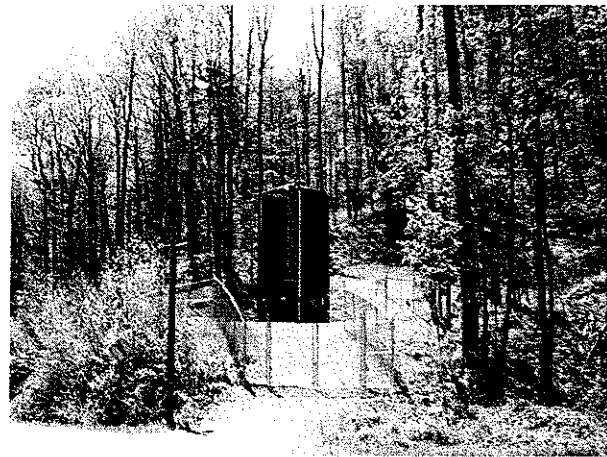
**This project includes 89,000 lf of water main, 2 water storage tanks, and booster station(s), to extend service through rugged and remote sections of the county to provide water for approximately 156 new customers. Cost: \$4.3 million**

**Jesse-Matheny Water Extension**

This project will consist of two phases and will include 97,000 lf of water main to serve approximately 477 new customers. Estimated Cost: \$5.9 million

**PROFESSIONAL ENGINEERING SERVICES PROVIDED:**

- Preliminary Engineering Reports and studies
- Assist owner with applications for state and federal funding
- Preliminary and final design in accordance with federal, state & local requirements
- Preliminary and final base mapping
- Property acquisition
- Assist owner in acquiring permits and regulatory approvals
- Prepare bidding and contract documents, and bidding evaluations
- Construction administration, monitoring and inspection
- As-Built drawings



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## Gauley River PSD

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**Owner/Contact:**

Gauley River PSD  
P.O. Box 47  
Swiss, WV 26690  
Tel: 304-632-2508

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**Project Location:**

Fayette Co., WV

**Responsibilities:**

Civil/Site  
Engineering

**Project Cost:**

\$4.9

**Completion Date:**

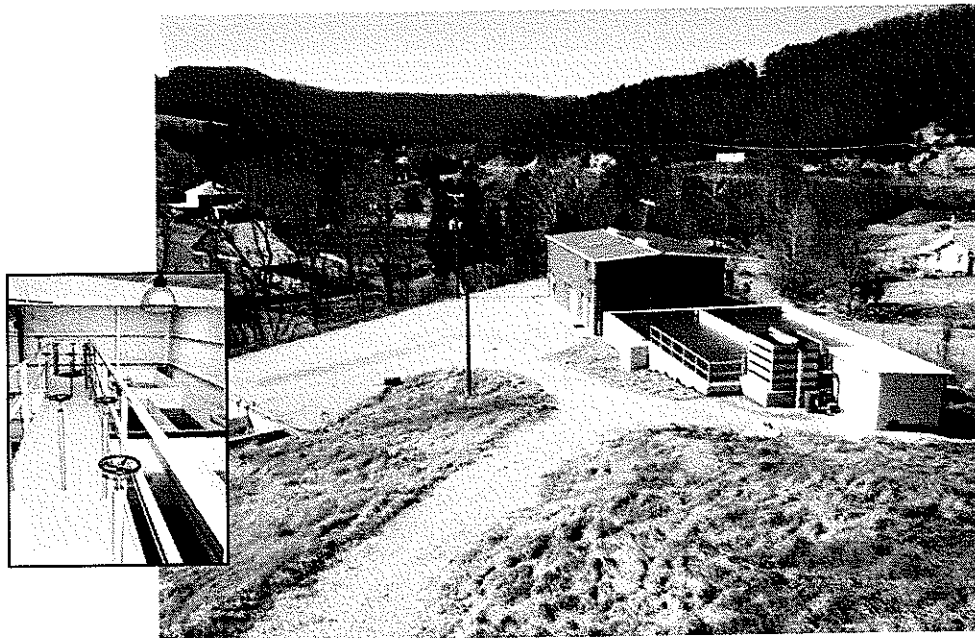
2008

***Water Line Extension and Water Storage***

This project consists of two water line extensions and water storage tanks. The twenty-mile water line extension project includes a total of over 40,000 LF of 8", 6" and 2" water line. The Route 39/Peters Crook Water Extension project includes a total of over 74,000 LF of 8", 6", 4" and 2" water line in addition to two booster station installations and one booster station upgrade. The water storage tank portion of this project includes one 75,000 gallon and one 108,000 gallon tank.

**PROFESSIONAL ENGINEERING SERVICES PROVIDED:**

- Preliminary Engineering Reports and studies
- Assist owner with applications for state and federal funding
- Preliminary and final design in accordance with federal, state & local requirements
- Preliminary and final base mapping
- Property acquisition
- Assist owner in acquiring permits and regulatory approvals
- Prepare bidding and contract documents, and bidding evaluations
- Construction administration, monitoring and inspection
- As-Built drawings



## Red Sulphur PSD-Greenville Water Extension

### Owner/Contact:

Red Sulphur PSD  
PO Box 697,  
Peterstown, WV 24963  
Tel: 304-753-4003

### Project Location:

Monroe Co., WV

### Responsibilities:

Structural Engineering  
Civil/Site Engineering

### Schedule (months):

Design –  
Construction –

### Applicable Codes:

Local codes & ordinances  
BOCA  
ADA

### Project Cost:

\$4,228,000

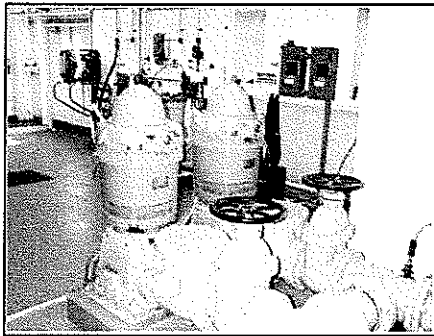
### Completion Date:

2006

**The Greenville Water Project** extends water service to 157 additional customers in the Greenville and Wikel areas of Monroe County with an additional raw water source development at the 0.14 water plant, a 75 gpm booster station, **125,000 gallon water storage tank**, and 66,000 lf. of water lines, valves, hydrants and meters. Estimated cost is \$2,728,000 of USDA Rural Development grants and loans, and a \$1.5 million HUD Small Cities Block Grant.

### PROFESSIONAL ENGINEERING SERVICES PROVIDED:

- Preliminary Engineering Reports
- Assist owner with applications for state and federal funding
- Design, plans, and specifications in accordance with federal, state and local requirements
- Preliminary and final base mapping
- Assist owner in acquiring permits and regulatory approvals
- Prepare bidding and contract documents, and bidding evaluations
- Construction administration, monitoring and inspection
- Start up and close out assistance



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## Red Sulphur PSD-System Extension, Phase II

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**Owner/Contact:**

Red Sulphur PSD  
POB 697,  
Peterstown, WV 24963  
Tel: 304-753-4003

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Extend water service to 206 additional customers in the Bozoo, Rock Camp, Cashmere and Lindsides areas of the county with an upgrade to the water plant settling basin and sludge disposal facilities, add a 150 gpm booster station, and 100,500 lineal feet of water line, valves, hydrants, and meters.

**Project Location:**

Monroe Co., WV

**Responsibilities:**

Structural Engineering  
Civil/Site Engineering

**Applicable Codes:**

Local codes & ordinances  
BOCA  
ADA

**Project Cost:**

\$3,080,000

Over the last 15 years Pentree has assisted the Red Sulphur PSD with several projects to become the regional water system for the western portion of Monroe County (120 square miles). Funded by USDA Rural Development grants and loans, and West Virginia Governor's Grants. Upon completion of Phase II upgrades, and the future Greenville project, the Red Sulphur Public Service District will serve 1,992 water customers, with project totals over \$10 million from 1989 to 2006.

**PROFESSIONAL ENGINEERING SERVICES PROVIDED:**

- Preliminary Engineering Reports
- Assist owner with applications for state and federal funding
- Design, plans, and specifications in accordance with federal, state and local requirements
- Preliminary and final base mapping
- Assist owner in acquiring permits and regulatory approvals
- Prepare bidding and contract documents, and bidding evaluations
- Construction administration, monitoring and inspection
- Start up and close out assistance



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## Bluewell PSD – Rt. 20 Sandlick Water Project

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**Owner/Contact:**

Bluewell PSD  
P.O. Box 3066 Bluewell Station  
Bluefield, WV 24701  
Tel: 304-589-3470

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**Project Location:**

Mercer Co., WV

**Responsibilities:**

Civil/Site  
Engineering

**Applicable Codes:**

Local codes &  
ordinances  
BOCA  
ADA

**Project Cost:**

\$2,080,000

***Route 20 – Sandlick Water Project***

Extend water service to 200 additional customers, and providing an interconnect between Green Valley-Glenwood and Bluewell PSDs for a regional water bulk rate sales agreement. The project includes 41,000 lineal feet of water mains, valves, hydrants, meters, and a 750 gpm booster station. The \$2,080,000 costs will be funded with USDA Rural Development grant and loan.

**PROFESSIONAL ENGINEERING SERVICES PROVIDED:**

- Preliminary Engineering Reports
- Assist owner with applications for state and federal funding
- Preliminary and final design in accordance with federal, state & local requirements
- Preliminary and final base mapping
- Property acquisition
- Assist owner in acquiring permits and regulatory approvals
- Prepare bidding and contract documents, and bidding evaluations
- Construction administration, monitoring and inspection.
- Start up and close out assistance



## REFERENCES

- **Gauley River Public Service District**  
Russell Deering, Chairman  
304-753-4003
- **Greenbrier Valley Economic Development Authority**  
Dick Nevi, Executive Director  
304-645-7155
- **Red Sulphur Public Service District**  
Porter Robertson  
304-753-4003
- **Greenbrier County Public Service District No. 2**  
James Estep, Chairman / Rodney Knapp, Manager  
304-438-9283
- **Jefferson County Public Service District**  
Suzanne Lawton, Manager  
304-725-4647
- **City of Oak Hill**  
Tom Oxley, City Manager  
304-469-9541

## **REGULATORY AND/OR FUNDING AGENCIES:**

- **USDA Rural Development / RUS**  
Randy Plum, Chief Community Program Director  
304-284-4884
- **Region I Planning and Development Council**  
David Cole, Executive Director  
304-431-7225
- **Region IV Planning and Development Council**  
W.D. Smith, Executive Director  
304-872-4970
- **WV Infrastructure and Jobs Development Council**  
Jeff Brady, Executive Director  
304-558-4607