



# West Virginia Purchasing Division

2019 Washington Street, East  
Charleston, WV 25305  
Telephone: 304-558-2306  
General Fax: 304-558-6026  
Bid Fax: 304-558-3970

The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Header

List View

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

Procurement Folder: 133553

SO Doc Code: CEOI

Procurement Type: Central Contract - Fixed Amt

SO Dept: 0310

Vendor ID: 00000204789

SO Doc ID: DNR1600000010

Legal Name: THRASHER GROUP INC

Published Date: 10/27/15

Alias/DBA:

Close Date: 12/1/15

Total Bid: \$0.00

Close Time: 13:30

Response Date: 12/01/2015

Status: Closed

Response Time: 9:55

Solicitation Description: Addendum;Greenbrier State Forest  
AE Serv/water system improv

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 :** 133553

**Solicitation Description :** Addendum;Greenbrier State Forest AE Serv/water system improv

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

Date issued	Solicitation Closes	Solicitation No	Version
	2015-12-01 13:30:00	SR 0310 ESR12011500000002468	1

<b>VENDOR</b>
000000204789 THRASHER GROUP 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 :** Water System Improvements at Greenbrier State Forest.

**West Virginia Purchasing Department  
Greenbrier State Forest Water System Improvements  
RFP DNR1600000010**

**Division of Natural Resources  
December 1, 2015**



**THRASHER**

155 Blue Angel Lane, Beaver, WV, 25813  
[www.thrashereng.com](http://www.thrashereng.com)



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: 133553

Doc Description: Addendum;Greenbrier State Forest AE Serv/water system improv

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2015-10-27	2015-12-01 13:30:00	CEOI 0310 DNR1600000010	2

**BID RECEIVING LOCATION**

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

**VENDOR**

Vendor Name, Address and Telephone Number:

The Thrasher Group, Inc  
 600 White Oaks Blvd.  
 Bridgeport, WV 26330  
 304-624-4108

**FOR INFORMATION CONTACT THE BUYER**

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

Signature X

FEIN # 55-0633596-6

DATE 12/1/2015

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

**ADDITIONAL INFORMATION:**

Addendum

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

\*\*\*\*\*  
Expression of Interest

The West Virginia Purchasing Division for the Agency, The West Virginia Division of Natural Resources (WVDNR) is soliciting CEOI responses from qualified firms to provide a contract to provide engineering services necessary for the preparation of plans and specifications and to obtain necessary health department and environmental permits for the construction of repairs to the water system at Greenbrier State Forest per the specifications and terms & conditions as attached.

INVOICE TO	SHIP TO
DIVISION OF NATURAL RESOURCES PARKS & RECREATION-PEM SECTION 324 4TH AVE SOUTH CHARLESTON WV25305 US	SUPERINTENDENT DIVISION OF NATURAL RESOURCES GREENBRIER STATE FOREST HC30, BOX 154 CALDWELL WV 24925-9709 US

Line	Comm Ln Desc	Qty	Unit Issue
1	Architectural engineering	0.00000	

Comm Code	Manufacturer	Specification	Model #
81101508			

Extended Description :

Water System Improvements at Greenbrier State Forest.

**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:**

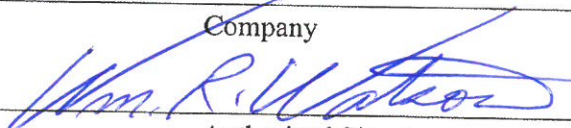
(Check the box next to each addendum received)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input 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.

The Thrasher Group, Inc.

\_\_\_\_\_  
Company

  
Authorized Signature

12/1/2015

\_\_\_\_\_  
Date

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

Revised 6/8/2012



SOLICITATION NUMBER: CEOI DNR 1600000010

Addendum Number: 01

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The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

**Applicable Addendum Category:**

- Modify bid opening date and time
- Modify specifications of product or service being sought
- Attachment of vendor questions and responses
- Attachment of pre-bid sign-in sheet
- Correction of error
- Other

**Description of Modification to Solicitation:**

This addendum is issued to modify the solicitation per the attached documentation and the following:

1. To republish page 11 Section 3 Project Specifications correcting item #2 Background information per the attached.

No other changes.

**Additional Documentation:** Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

**Terms and Conditions:**

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.



December 1, 2015

Division of Natural Resources  
Parks & Recreation - PEM Section  
324 4th Avenue  
South Charleston, WV 25305

RE: Engineering Services for Water System Improvements

Dear Members of the Selection Committee:

Aging infrastructure is a serious problem throughout West Virginia and West Virginia's State Parks are not exempt. You will find in the review of our proposal that Thrasher has a large portfolio of technical experience paired with the knowledge to provide the professional services needed by the Department of Natural Resources to get this project done.

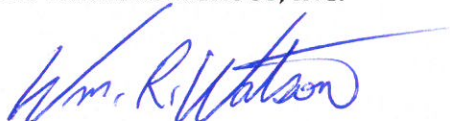
Thrasher is the right engineering firm for your project for several reasons:

- **Resources for immediate action:** Our engineers and field personnel are readily available and will assure timely response to your needs
- **Expertise:** The Thrasher team has done more water and sewer improvement projects in the State of West Virginia than any other firm submitting on this EOI. From our ACEC award winning Hardy County Water Plant Project to our ACEC award winning Crown Community Sewer project, our team has unparalleled technical expertise in both water and sewer projects.
- **Cost effectiveness:** Thrasher has offices and staff all throughout the State of West Virginia which allows us to work more cost effectively for the WVDNR.

Thrasher knows Greenbrier County well. We have been working for the Greenbrier Public Service District for over 30 years. Our reputation and experience in Greenbrier County along with our technical expertise in water system rehabilitation projects will prove beneficial for the DNR.

Thrasher's dedication to our clients, and the understanding that no other firm in West Virginia knows water like we do, makes us the right fit for the water system improvement projects at Greenbrier State Forest.

Sincerely,  
THE THRASHER GROUP, INC.



Wm. Randy Watson  
Project Manager

**THRASHER**

155 Blue Angel Lane, Beaver, WV, 25813  
[www.thrashereng.com](http://www.thrashereng.com)

# Qualifications

With multi-discipline capabilities, Thrasher offers all of the professional services needed to deliver successful projects to both public and private clientele. The firms' roots were planted in civil engineering and consulting services for public utility projects. Even with expanded services, we are focused on civil engineering projects for water and wastewater within the State of West Virginia.

By providing a full range of quality professional engineering, surveying, architectural, environmental and related field services, this partnership has positioned itself as one of the leading consulting teams in the Mid-Atlantic region.

## Disciplinary Practices :

- Civil Engineering
- Water Treatment and Distribution
- Wastewater Collection and Treatment
- Land & Site Development
- Roadways / Bridges /Streetscapes
- Storm Water Systems
- Dams and Levees
- Architecture
- Land Planning and Landscape
- Parks and Recreation
- Survey
- Construction Monitoring
- Materials Testing
- Environmental Services
- Pipeline Inspection
- GIS Mapping Software Development

## Areas of Service:

- Planning
- Preliminary engineering
- Funding direction & application assistance
- Regulatory permitting
- Design and construction document preparation
- Bid documentation & process oversight
- Construction administration & monitoring
- Post construction service & on-going commitment
- Cost estimating

Successful projects require more from an engineering firm than just technical design expertise. At Thrasher, our project managers and engineers focus on all aspects of "getting the job done."





Water

## WATER TREATMENT AND DISTRIBUTION

Meeting increasingly stringent water quality standards demands experienced and dedicated water system specialists. Since our very first water project over 30 years ago, there has always been a potable water project underway at Thrasher. These projects provide safe drinking water to towns, cities, and entire counties. The team at Thrasher is highly skilled and practiced in both conventional ground and surface water treatment systems involving rapid mix, flocculation, sedimentation, filtration, membrane, and reverse osmosis processes.

Whether it is designing more efficient processes, integrating alternative energy sources, reducing water loss, or increasing system capacity; our clients can count on Thrasher to find practical, low cost, environmentally friendly solutions to their supply needs.

### WATER SERVICES:

- Distribution System Design
- Booster Stations and Hydraulic Modeling
- Water Reservoir Rehabilitation
- Water Loss Evaluation and Analysis Studies
- Feasibility Studies/Facility Planning
- Water Treatment Plant Design
- SCADA and Telemetry Systems
- Existing System Evaluation
- Storage Facility Design
- Pump Station Design
- Construction Monitoring
- Geographical Information Systems (GIS)

THRASHER



## Environmental

## Environmental

In today's ever-changing regulatory landscape, compliance with federal and state environmental laws is critical to the success of projects. Compliance can often seem at odds with the project vision and financial constraints. The Thrasher team partners as a technical and regulatory advocate to overcome obstacles and guide our clients through complicated policies to achieve their goals.

From initial investigations to final design, our environmental experts are there to assist in all facets of our clients' projects. Our team has developed relationships with academic consultants from multiple universities that are here to aid in specialized assessments.

### **ENVIRONMENTAL SERVICES:**

- All Appropriate Inquiry (AAI)
- Environmental Site Assessments
- NEPA Compliance for Publicly Funded Projects (CATEX, EA, EIS)
- Ecological Studies
- Brownfield Redevelopment
- Industrial Hygiene and Demolition Planning
- Underground Storage Tank (UST) Consulting Services
- Wetland Delineation, Design, and Mitigation
- Remediation Investigation and Feasibility Studies, Alternatives, and Design
- Hydro-geologic and Geologic Investigations
- Ground-water Monitoring
- Sampling and Laboratory Analysis
- Solid and Hazardous Waste Management
- SPCC, GWPP, SWPP Environmental Compliance Plans
- Stream Assessments, Design, and Mitigation
- Erosion and Sediment Control Plans



## Survey

## Survey

Thrasher employs one of the largest survey departments in the Mid-Atlantic region and offers a wide range of land surveying and related services for federal, state, and private clients. We are committed to evolving our techniques and equipment to best serve our clients and their growing needs.

At Thrasher, we are able to provide both surveying and engineering services which provide a distinct advantage over survey-only companies. The combination of these two services provide our surveyors with a better understanding of what engineers and architects require to develop an appropriate design for different types of projects. Our field and survey personnel offer extensive experience, certified training, and flexibility to meet our clients' unique project schedules.

### **GENERAL SURVEY SERVICES:**

- Large-scale Boundary Work
- Topographic Survey and Mapping
- ALTA/ACSM Survey and Mapping
- Lake and River Soundings
- Accident Reconstruction Survey and Mapping
- Drug-free Zone Mapping
- Expert Witness Testimony
- Construction Layout
- Permanent Project GPS Base Stations
- Building Control and Layout
- Road/Bridge Alignment and Staking
- Sewer/Water/Pipeline
- Site Layout
- Quality Assurance Surveying
- Volume/Quantity Surveys
- As-Built Surveys

### **GPS SURVEYS:**

- Geodetic Control Networks
- Ground Control for Aerial Mapping
- Telecommunications
- FAA 1A and 2C Letters

### **ROUTE LOCATION SURVEYS:**

- Transmission Lines
- Natural Gas Pipelines
- Wind Turbine
- Roadway, Railway and Rec Trails

### **COAL AND ENERGY SURVEYS:**

- Pre and Post Mining Blast Surveys
- Water Quality Monitoring Plan
- Construction Layout
- Emergency Control Survey/Plans

## Project Team



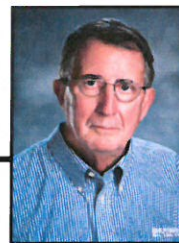
**Clay Riley, PE**  
Quality Assurance/  
Quality Control



**Wm. Randy Watson**  
Project Manager



**Anthony Brown, PE**  
Project Engineer



**Tom Urquhart, PE, BCEE**  
Hydraulics Modeling

### Main Point of Contact:

Wm. Randy Watson  
Project Manager  
rwatson@thrashereng.com

### Office Locations:

Bridgeport, WV  
Charleston, WV  
Beckley, WV  
Oakland, MD  
Fredericksburg, VA  
Canton, OH  
Canonsburg, PA

### Thrasher Information:

Incorporated in 1983  
[www.thrashereng.com](http://www.thrashereng.com)



## Project Team/Experience

Clay Riley, PE, focuses on the administration of water and wastewater projects in addition to serving as the Project Manager for utility clients. Assignment of the right project team for each client, project scheduling, quality assurance, quality control, and ensuring positive client relations are Clay's primary responsibilities.

Mr. Riley is a Partner within Thrasher and has spent his entire engineering career with the firm, where his portfolio of work includes multi-phased projects to provide public utility service to areas within the Mid-Atlantic region. Clay also serves as the Infrastructure Chairman for the state of West Virginia ACEC Organization. Clay will serve in a quality assurance and quality control capacity for the Greenbrier State Forest project.

### Education:

- Bachelor of Science, Electrical Engineering - West Virginia University
- Bachelor of Science, Computer Engineering - West Virginia University

### Registrations:

- Registered Professional Engineer [PE]
  - Maryland [REDACTED], West Virginia [REDACTED], Ohio [REDACTED], Kentucky [REDACTED], Pennsylvania [REDACTED] and North Carolina [REDACTED]

### Related Experience Includes:

- Regions I, II, V, VI, VII and VIII Planning and Development Councils - Source Water Protection Plan Projects - 35 total utilities
- Hardy County Public Service District Caledonia Heights I&I Project - Hardy County, West Virginia
- Greater Harrison County Public Service District Lost Creek Supply Replacement - Harrison County, West Virginia
- Sun Valley Public Service District Water System Extension - Harrison County, West Virginia

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Wm. Randy Watson has extensive experience in water system designs and water loss reduction across the Mid-Atlantic Region. Randy joined Thrasher in 1984 and has worked in and helped develop the utility department in that time. His responsibilities include system layout, existing system analysis, project funding applications, and construction management. Randy undertakes each project with an extreme level of knowledge and experience which is beneficial to clients.

Randy specializes in distribution system replacements, water line extensions, water loss reduction, water treatment plant design and water tank design and rehabilitation. Randy has been successful in developing cost effective project alternatives and his reputation with agencies and policies make him an expert in his field.

### Education:

- Bachelor of Science, Mining Engineering Technology - Fairmont State University
- Associate of Science, Design and Drafting - Fairmont State University

### Affiliations:

- American Water Works Association

### Related Experience Includes:

- Monongah Water System Upgrades - Marion County, West Virginia
- Bridgeport Water Extension Project - Harrison County, West Virginia
- Farmington Partial Water Distribution System Replacement - Marion County, West Virginia
- Middlebourne Municipal Water Works, Water System Extension and Upgrades - Tyler County, West Virginia

## Project Team/Experience

Mr. Anthony Brown began his career with Thrasher in 2009 and has worked his way up to now serve as Project Manager and Project Engineer for various projects, specifically within the public utility area. Anthony has significant working experience in facilities planning, cost estimation, CAD design, construction document preparation and contract administration. He also is adept in working with regulatory and other agencies in permitting.

As Project Manager and Design Engineer, Mr. Brown applies his knowledge with his invaluable hands on experience in the field to guide clients from conceptual phase all the way through the construction process.

### Education:

- Bachelor of Science, Industrial Engineering- West Virginia University

### Registrations:

- Registered Professional Engineer
- States of West Virginia

### Related Experience Includes:

- Greenbrier PSD #2 Boundary Adjustment (enlargement to serve areas requested by County Commission) - Greenbrier County, West Virginia
- City of Mount Hope Summit Water Line Extensions - Fayette County, West Virginia
- Gauley River Public Service District Water System Improvements Project - Fayette County, West Virginia

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Tom Urquhart, PE, BCEE, joined Thrasher following 33 years as chief engineer and general manager for the Morgantown Utility Board. Tom has focused his engineering expertise in quality control and hydraulics modeling for both water and wastewater systems, utilizing the KY Pipe Modeling Program. Tom, a Board Certified Environmental Engineer (BCEE) and has experience in civil engineering of public utilities including design and construction of water storage tanks, new and replacement water and sanitary sewer lines, pump stations, water treatment and wastewater treatment plants

He also has extensive experience in management and operations of public utilities systems, including budgeting and rate structures.

### Education:

- Bachelor of Science, Civil Engineering - West Virginia University

### Registrations:

- Registered Professional Engineer [PE]
  - Maryland [REDACTED], West Virginia [REDACTED], Ohio [REDACTED], and Pennsylvania [REDACTED]

### Related Experience Includes:

- Pocahontas County Public Service District County-wide Hydraulic Modeling - Pocahontas County, West Virginia
- Timberline Four Seasons Resort Complete Hydraulic Modeling - Tucker County, West Virginia

## Related Experience

### Thrasher's Work in Greenbrier County

- Greenbrier Valley Economic Development Corporation Rahall Technology and Business Center
- Greenbrier County PSD #2 Water System
- Greenbrier County PSD #2 Sewage Treatment Plant
- Greenbrier County PSD #2 Improvement and Modifications of Drying Beds
- Western Greenbrier Development Corporation
- West Virginia State Tax Department Mapping
- Greenbrier County Board of Education Crichton Elementary School Additions and Renovations
- City of White Sulphur Springs New Maintenance Facility
- The Greenbrier Resort New Chapel



## Related Experience

### Greenbrier County PSD #2 Water System Projects

For this project, the Thrasher team designed water collection, distribution, storage, and treatment facilities. Prepared plans, specifications, and contract documents and performed inspection services during construction.

#### Western Greenbrier Water Study

In September of 2013, an engineering agreement was signed with the Greenbrier PSD#2 to provide Study and Report Phase Services for the expansion of public water service to the communities along I-64/US Route 60, including but not limited to Crawley, Sawyer's Crossing, Sam Black Church, Clintonville, Alta, Williamsburg and Trout.

This Study consists of the preparation of a feasibility study and preliminary engineering report in order to provide design and construction services for public water service provision in and around the aforementioned areas of Greenbrier County. Once funding is secured, preparation of specifications and design for the water system extension, preparation of bidding and contracting documents, participation in the evaluation of bids received and monitoring and inspection of construction activities will be performed.

The scope of the project consists of the preparation of Preliminary Design Phase documents consisting of final design criteria, preliminary drawings, and specifications, written descriptions of the Project and the provision of necessary field surveys and topographic and utility mapping for design purposes. Utility mapping will be based upon information obtained from utility owners.

Additionally Thrasher will advise if additional reports, data, information, or services are necessary and assist the District in obtaining such reports, data, information, or services. Based on the information contained in the Preliminary Design Phase documents, Thrasher will prepare a revised opinion of probable Construction Cost, and assist Owner in collating the various cost categories which comprise Total Project Costs.

CLIENT:  
Greenbrier County PSD #2

CONTACT:  
Mr. Kevin Williams, Manager

ADDRESS:  
PO Box 673  
Rainelle, WV 25962

PHONE:  
304-438-9283

## Related Experience

### West Virginia Division of Natural Resources State Park Experience

#### Chief Logan State Park Conference Center

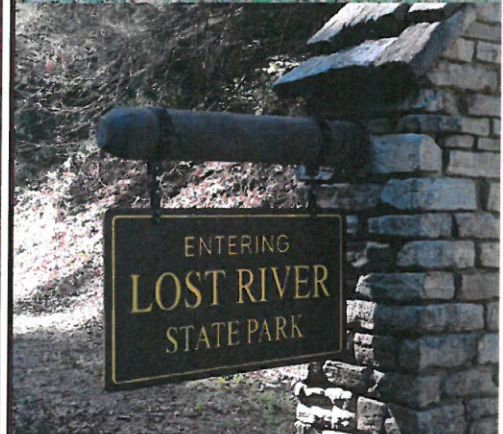
The Chief Logan State Park was in need of a conference center. Thrasher, as the site development consultant, teamed with an architectural firm was hired by the West Virginia Division of Natural Resources to provide the State Park with utility, site development and roadway design for the new conference center.

#### Lost River Wastewater Collection System

The West Virginia Division of Natural Resources hired Thrasher to provide services for a new wastewater collection system for the Lost River State Park. Along with the construction of the wastewater collection system, Thrasher provided erosion and sediment analysis, roadway repairs and the construction of an underground electrical system, eliminating over 49 poles and 12,400 LF of electrical lines.

#### Watoga Water and Sanitary Sewer Improvement

Thrasher was able to provide the West Virginia Division of Natural Resources at Watoga State Park with water and sewer system improvements. The Thrasher team provided design and construction services at the park of various degrees. It was important to the Division of Natural Resources to keep the areas of construction with the least amount of disturbance as possible. New water treatment plants were installed and new water lines. New septic tank including leech fields were installed for remote cabins in lieu of a collection system(s).



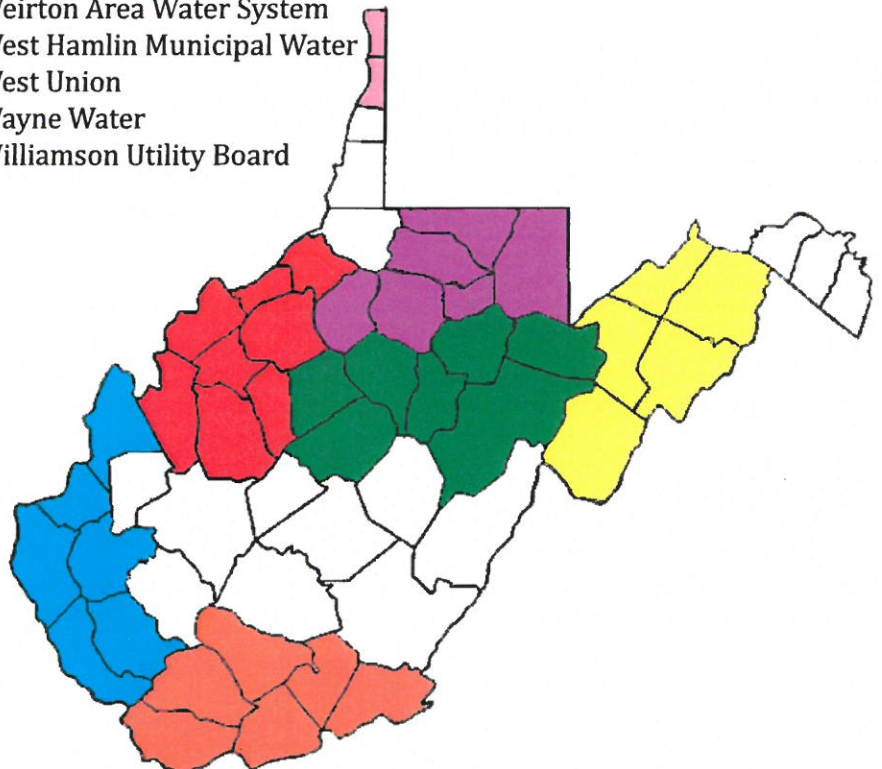
## Related Experience

### Source Water Assessments

#### State of West Virginia

Thrasher has been retained to develop multiple Source Water Protection Plans as required by Senate Bill 373. Below is a comprehensive list of the utilities and map of Regions for which Thrasher is either currently, or has done Source Water Assessments for:

- Athens
- Big Bend PSD
- Bluewell PSD
- Buffalo Creek PSD
- Burnsville Public Utility
- Central Hampshire PSD - Green Spring
- Chester Water System
- Clarksburg Water Board
- Fairmont
- Flatwoods Canoe Run PSD
- Follansbee Hooverson Heights
- Fort Gay Water Works
- Gilbert Water Works
- Glenville Utility
- Green Valley Glenwood PSD Bulltail
- Green Valley Glenwood PSD Glenwood
- Hammond Public Service
- Harman
- Kenova Municipal Water
- Kermit Water Works
- Kingwood Water Board
- Lincoln PSD
- Logan
- Logan County PSD - Greenville
- Logan County PSD - Northern
- Lumberport
- Man Water Works
- Matewan Water Works
- McDowell County PSD Bartley
- McDowell County PSD Berwind
- Middlebourne
- Milton Water
- Mingo County PSD - Naugatuck
- Monongah
- Oceana
- Pendleton County PSD - Upper Tract
- Pinveville Municipal
- Pocahantas Water System, VA
- Preston County PSD 1
- Red Sulphur PSD
- Ripley
- Rowlesburg Water Works
- Shinnston
- Sistersville
- Sugar Creek PSD
- Taylor County PSD
- Timberline Four Seasons Resort Management
- Weirton Area Water System
- West Hamlin Municipal Water
- West Union
- Wayne Water
- Williamson Utility Board



## Related Experience

### Hamrick Public Service District Water Treatment Plant Upgrades and Extensions

#### Water Line Extension and Water Treatment Plant Upgrades

Thrasher was first hired by the Hamrick Public Service Direct, located in Tucker County, West Virginia to design and provide inspection services for a water line extension in the Holly Meadows and Lead Mine areas of the County. This project consisted of more than 15 miles of water line, a 100,000 gallon water storage tank and a 100 GPM booster pump station. Approximately 120 new water services were installed including providing potable water to a recreational area.

#### Water Treatment Plant Upgrades

This project also included the addition of a pre-sedimentation basin ahead of the water filters at the Hamrick PSD potable water treatment plant. The Hamrick PSD utilizes the Dry Fork River as raw water supply. During times of high turbidity in the river, the water plant could not treat the water efficiently as there was not adequate settling time ahead of the filters. Because of this issue, the plant would have to shut down or reduce production significantly during heavy rain events, thereby not allowing the PSD to guarantee it could deliver a source of clean, reliable water to its customers.

Thrasher designed a baffled sedimentation basin ahead of the filters allowing the PSD to treat water from the Dry Fork, despite high levels of turbidity. Thrasher's success in these water projects have led to a long term working relationship with the PSD that has extended into serving as their engineer for sanitary sewer projects, as well. Currently, Thrasher is working on an additional water project for HPSD to replace its existing water filters and also to extend its water service through an extension to additional customers in unserved areas.



CLIENT:  
Hamrick PSD

CONTACT:  
Mr. Michael Helmick, General  
Manager

ADDRESS:  
PO Box 228  
Hendricks, WV 26271

PHONE:  
304-478-2898

## Related Experience

### Town of Rowlesburg Water Treatment and Distribution System

#### **PHASE I WATER SYSTEM IMPROVEMENTS: WATER TREATMENT PLANT PROJECT**

The Town of Rowlesburg, located in northeastern Preston County, West Virginia had a water treatment plant which inadequately served the Town's residents. The plant was located in a floodplain along the Cheat River, which serves as the raw water source for the plant. In 1985, during what was considered a 100-year flood, the plant was under water and damaged, but continued to operate. The old plant was losing over half of the produced water due to leaks.

Thrasher was hired to provide preliminary engineering services, funding acquisition assistance, field surveying, property and easement acquisition assistance, hydraulic modeling, permits, design, bidding, negotiations, and construction management.

#### **PHASE II WATER SYSTEM IMPROVEMENTS: WATER LOSS REDUCTION PROJECTS**

Following the water treatment plant project, Thrasher provided all engineering services for a water loss reduction project. The project consisted of replacing or replacing 14,500 linear feet of water line, resulting in the reduction of water loss from over 65% to a recent average of 16%. The project also provided storage for the system and emergency power to the water treatment plant. The new tank storage improved reliability of water service for Rowlesburg and their resale customer, the Town of Tunnelton. The project also provided storage for the system and emergency power to the water treatment plant.



**CLIENT:**  
Town of Rowlesburg

**CONTACT:**  
Mayor Barbara Banister

**ADDRESS:**  
P.O. Box 458, 42 Poplar Street  
Rowlesburg, WV 26425

**PHONE:**  
304-454-2441



## Related Experience

### Hardy County Public Service District Baker Water System

Thrasher has served as the engineer of record for Hardy County Public Service District for over ten years in a multi-phase project to provide potable water throughout rural sections of the county.

#### **SOURCE WATER STUDY, RAW WATER INTAKE AND WATER TREATMENT PLANT**

The Baker / Mathias Water Distribution System, now provides water to the Central region of Hardy County to approximately 518 customers at a total project cost of \$11,150,000 which included a new water treatment plant, adequately sized distribution lines, and associated soft costs.

Thrasher developed a preliminary engineering study providing both surface water and ground water source alternatives. The selected alternative was to utilize the Lost River Site 10 dam, constructed by the Natural Resources Conservation District. This dam is a multi-purpose dam intended for water supply and flood control.

#### **FIVE - PHASE WATER LINE EXTENSION PROJECT**

In evaluating potential areas of water service for the Hardy County PSD, Thrasher and the PSD assessed every county route and mapped rural roads in the central region of the county for total distance, total number of customers, and customer density. Limits of the study area were defined by County lines, WV State line, and South Branch Mountain. Some areas of the PSD receive water from the Town of Moorefield while others are now served by the Hardy County PSD water treatment plant.

#### **TREATMENT PILOT STUDY AND WTP DESIGN AND CONSTRUCTION**

Thrasher conducted a six-week pilot study to treat surface water to determine the effectiveness of chemical addition flocculation and sedimentation followed by membrane ultra filtration for removal of iron manganese and turbidity from the surface water.

**CLIENT:**  
Hardy County Public Service  
District

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## Related Experience

### Grandview Doolin PSD Water System Upgrade

#### **WATER TREATMENT PLANT / WATER STORAGE AND LINE EXTENSIONS**

Following the completion of the extension projects to BPB and McElroy Coal, the Grandview Doolin PSD serves 848 residential customers, 33 commercial customers, and 2 industrial customers in Wetzel County, West Virginia and Southern Marshall County, West Virginia. However, there are still numerous households in the PSD's service area without potable water.

Thrasher and PSD are now working together to extend water to approximately 150 residents, which will increase the customer base to nearly 1100. Residents in the areas of American Ridge, St. Joes Ridge, Procter Creek Road (Rt.89), Fish Creek in Marshall County and along Route 7 East from Wileyville to Long Drain Elementary School will benefit from the project.

#### **WATER TREATMENT PLANT UPGRADES**

To ensure on-going quality service to current customers and new customers gained through the planned extensions, the PSD is working with Thrasher to replace the existing water treatment facility.



Improvements to the facility, which utilizes ground water for its raw water source, will include the installation of a new 350 gpm water treatment plant. The project will be complete in December, 2015.

**CLIENT:**  
Grandview Doolin PSD

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## References

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*Mr. Jason Myers, City Administrator*  
City of Parsons  
304-478-2311

*Mr. Gary Robinson, GM*  
Craigsville Public Service District  
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*Ms. Carolyn Rader, Mayor*  
Ripley  
304-372-3482

*Mr. Terry Largent, Supervisor*  
Town of Bath  
304-702-2700

### *The buzz about Thrasher...*

*"We rely on (Thrasher) to design a plant to function the way it's supposed to and allow us to operate in a cost effective manner. We couldn't be happier with the end result. The quality of the water is great."*

*Logan Moyers, Executive Director  
Hardy County PSD*