

RFQ DNRB11007

EXPRESSION OF INTEREST

TO PROVIDE PROFESSIONAL ENGINEERING SERVICES

FOR

UPPER AND LOWER CACAPON STATE PARK DAMS

SUBMITTED TO:

WVDNR – PARKS AND RECREATION SECTION  
SOUTH CHARLESTON, WEST VIRGINIA

SUBMITTED BY:

CIVIL TECH ENGINEERING INC.  
300A PRESTIGE DRIVE  
HURRICANE, WEST VIRGINIA 25526  
PHONE: 304-757-8094, FAX: 304-757-8095  
civiltech1@frontier.com

DATE-TIME SUBMITTED:

AUGUST 24, 2010 -- 1:30 PM

PHOTO: PARK DAM - CACAPON STATE PARK

RECEIVED

2010 AUG 23 PM 1:57

WV PURCHASING  
DIVISION

CIVIL TECH ENGINEERING, INC.  
300A Prestige Drive  
Hurricane, West Virginia 25526  
Phone: 304-757-8094 Fax: 304-757-8095  
civiltech1@verizon.net

August 24, 2010

Mr. Bradley S. Leslie, PE  
WV Division of Natural Resources  
Parks and Recreation Section  
324 4<sup>th</sup> Avenue  
South Charleston, West Virginia 25303

Subject: **Expression of Interest -- RFQ DNRB11007**  
Upper and Lower Dam Modifications  
Cacapon State Park  
Civil Tech Proposal P10516

Dear Mr. Leslie:

CIVIL TECH ENGINEERING INC. is pleased to present this letter of interest and response to the subject RFQ. Please consider this letter as our formal request to be considered for the project.

As demonstrated by the enclosed "Expression of Interest", we are confident no other West Virginia engineering firm can match our qualifications and experience with dam rehabilitation. As discussed herein, we also have recent and pertinent experience with both Cacapon State Park Dams. Our qualifications and experience is highlighted below:

- **Successful completion of 47 dam rehabilitation and design projects.**
- **55 years combined experience with dam safety, design, and rehabilitation.**
- **2010 Recipient of the WVDEP Environmental Excellence Award – Safe Dams Category.**
- **Responsible for Periodic Inspections of 67 dams in West Virginia including all WVDNR Parks & Recreation and Wildlife Section Dams.**
- **Experience with innovative techniques including the use of Roller Compacted Concrete (RCC).**
- **Experience with dam break and risk assessment.**
- **Complete understanding of dam rehabilitation requirements and regulations.**
- **Strong working relationship with the WVDEP Dam Safety Section.**
- **Practical construction experience.**

Civil Tech has performed all periodic inspections of Cacapon State Park Dams since 1998. Our engineers are very familiar with the history of these dams, and deficiencies which will need to be corrected to obtain a Certificate of Approval from the WVDEP Dam Safety Section. Based on experience with these dams and 47 other dams successfully rehabilitated/repared in West Virginia, we believe Civil Tech is uniquely qualified to provide engineering services for this project.

We look forward to meeting with you and the selection committee to discuss our qualifications, experience, and an approach to the project.

Very truly yours,

CIVIL TECH ENGINEERING INC.



Mark E. Pennington MS, PE  
Principal Engineer

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

# Request for Quotation

RFQ NUMBER  
 DNRB11007

PAGE  
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF  
 FRANK WHITTAKER  
 304-558-2316

RFQ COPY

TYPE NAME/ADDRESS HERE

Civil Tech Engineering Inc.  
 300A Prestige Drive  
 Hurricane, WV 25526

DIVISION OF NATURAL RESOURCES  
 PARKS & RECREATION SECTION  
 324 4TH AVENUE  
 SOUTH CHARLESTON, WV  
 25303-1228 304-558-3397

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
07/23/2010				

BID OPENING DATE: 08/24/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		906-00-00-001		
<p>AE SERVICES</p> <p>EXPRESSION OF INTEREST (EOI)</p> <p>THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF NATURAL RESOURCES IS SOLICITING EXPRESSIONS OF INTEREST FOR ENGINEERING SERVICES TO PREPARE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS TO BRING CACAPON UPPER AND LOWER DAMS, AT CACAPON STATE PARK, INTO COMPLIANCE WITH DAM SAFETY REGULATIONS PER THE ATTACHED.</p> <p>TECHNICAL QUESTIONS CONCERNING THIS PROJECT MUST BE SUBMITTED IN WRITING TO FRANK WHITTAKER IN THE WV STATE PURCHASING DIVISION VIA MAIL AT THE ADDRESS SHOWN IN THE BODY OF THIS EOI, VIA FAX AT 304-558-4115, OR VIA EMAIL AT FRANK.M.WHITTAKER@WV.GOV. DEADLINE FOR ALL TECHNICAL QUESTIONS IS 08/03/2010 AT THE CLOSE OF BUSINESS. ALL TECHNICAL QUESTIONS RECEIVED WILL BE ANSWERED BY ADDENDUM AFTER THE DEADLINE HAS LAPSED.</p> <p>QUESTIONS CONCERNING THE ACTUAL PROCESS BY WHICH A FIRM MAY SUBMIT AN EXPRESSION OF INTEREST TO THE STATE OF WEST VIRGINIA ARE NOT CONSIDERED TO BE TECHNICAL QUESTIONS AND MAY BE SUBMITTED AT ANY TIME PRIOR TO THE BID OPENING AND IN ANY FORMAT.</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE: TELEPHONE: 304-757-8094 DATE: 8/24/10

FILE: President FEIN: 550757403 ADDRESS CHANGES TO BE NOTED ABOVE

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

## GENERAL TERMS & CONDITIONS REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
5. Payment may only be made after the delivery and acceptance of goods or services.
6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at [www.state.wv.us/admin/purchase/vrc/hipaa.htm](http://www.state.wv.us/admin/purchase/vrc/hipaa.htm) and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

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

### INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



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

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 DNRB11007

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 2

ADDRESS CORRESPONDENCE TO ATTENTION OF  
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 304-558-2316

RFQ COPY

TYPE NAME/ADDRESS HERE

**Civil Tech Engineering Inc.**  
 300A Prestige Drive  
 Hurricane, WV 25526

DIVISION OF NATURAL RESOURCES  
 PARKS & RECREATION SECTION

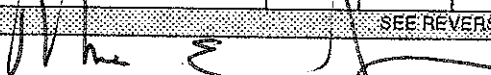
324 4TH AVENUE  
 SOUTH CHARLESTON, WV  
 25303-1228 304-558-3397

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
07/23/2010				

BID OPENING DATE: 08/24/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
EXHIBIT 10						
REQUISITION NO.: .....						
ADDENDUM ACKNOWLEDGEMENT						
I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.						
ADDENDUM NO.'S:						
NO. 1 ..... RECEIVED ADDENDUM #1 DATED 8/10/10						
NO. 2 .....						
NO. 3 .....						
NO. 4 .....						
NO. 5 .....						
I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF PROPOSALS.						
VENDOR MUST CLEARLY 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.						
						SIGNATURE

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE:  TELEPHONE: 304-757-8094 DATE: 8/24/10

TITLE: President FEIN: 550757403 ADDRESS CHANGES TO BE NOTED ABOVE

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



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

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VENDOR

Civil Tech Engineering Inc.  
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SHIP TO

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------	----------	-----	---------	-------------	------------	--------

Civil Tech Engineering Inc.

COMPANY

8/24/10

DATE

NOTE: THIS ADDENDUM ACKNOWLEDGEMENT SHOULD BE SUBMITTED WITH THE PROPOSAL.

REV. 09/21/2009

BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.

NOTICE

A SIGNED EOI MUST BE SUBMITTED TO:

DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 BUILDING 15  
 2019 WASHINGTON STREET, EAST  
 CHARLESTON, WV 25305-0130

THE EOI SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE EOI MAY NOT BE CONSIDERED:

SEALED EOI

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE 	TELEPHONE 304-757-8094	DATE 8/24/10
TITLE President	FEIN 550757403	ADDRESS CHANGES TO BE NOTED ABOVE

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 Department of Administration  
 Purchasing Division  
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 FRANK WHITTAKER  
 304-558-2316

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VENDOR

**Civil Tech Engineering Inc.**  
**300A Prestige Drive**  
**Hurricane, WV 25526**

SHIP TO

**DIVISION OF NATURAL RESOURCES**  
**PARKS & RECREATION SECTION**  
**324 4TH AVENUE**  
**SOUTH CHARLESTON, WV**  
**25303-1228 304-558-3397**

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LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
				44		
				DNRB11007		
				08/24/2010		
				1:30 PM		
BUYER: EOI. NO.: BID OPENING DATE: EOI OPENING TIME: PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR PROPOSAL: 304-757-8095 ----- CONTACT PERSON (PLEASE PRINT CLEARLY): Mark Pennington ----- ***** THIS IS THE END OF RFQ DNRB11007 ***** TOTAL:						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE: TELEPHONE: 304-757-8094 DATE: 8/24/10  
 TITLE: President FEIN: 550757403 ADDRESS CHANGES TO BE NOTED ABOVE

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



Revised July 26, 2007

EXPRESSION OF INTEREST  
Cacapon Resort State Park Dams  
Engineering Investigation and Certificate of Approval  
DNR# 211007

**Part 1 GENERAL INFORMATION**

**1.1 Purpose:**

The Acquisition and Contract Administration Section of the Purchasing Division "State" is soliciting Expression(s) of Interest (EOI) for West Virginia Division of Natural Resources, Parks and Recreation Section, "Agency", from qualified firms to provide architectural/engineering services as defined in section two (2) and three (3).

**1.2 Project:**

The mission or purpose of the project described in sections 2 & 3 is to provide professional engineering services pursuant to the following objectives:

Provide necessary professional engineering services to prepare construction documents and specifications and other related services to bring Cacapon Resort State Park Upper and Lower Dams, into compliance with current Dam Safety regulations and upon completion, prepare an application for a "Certificate of Approval" from that agency.

**1.3 Format: N/A**

**1.4 Inquiries:**

Additional information inquiries regarding this EOI must be submitted in writing to the State Buyer with the exception of questions regarding proposal submission, which may be oral. The deadline for written inquiries is identified in the Schedule of Events, Section 1.16. All inquiries of specification clarification must be addressed to:

Frank Whittaker, Senior Buyer  
Finance and Administration, Purchasing Division  
2019 Washington Street, East  
Charleston, WV 25305  
Phone: 304-558-2316 ext 218

The firm, or anyone on the firm's behalf, is not permitted to make any contact whatsoever with any member of the evaluation committee. Violation may result in rejection of the EOI. The State Buyer named above is the sole contact for any and all inquiries after this EOI has been released.

**1.5 Vendor Registration:**

Firms participating in this process should complete and file a *Vendor Registration and Disclosure Statement* (Form WV-1) and remit the registration fee. Firm is not required to be a registered vendor in order to submit an EOI, but the **successful firm must register and pay the fee prior to the issuance of an actual contract.**

**1.6 Oral Statements and Commitments:**

Firm must clearly understand that any verbal representations made or assumed to be made during any oral discussions held between firm's representatives and any State personnel are **not binding.** Only the information issued in writing and added to the Expression of Interest specifications file by an official written addendum is binding.

**1.7 Economy of Preparation:**

EOI's should be prepared simply and economically, providing a straightforward, concise description of firm's abilities to satisfy the requirements of the EOI. Emphasis should be placed on completeness and clarity of content.

**1.8 Labeling of the Sections:** The response sections should be labeled for ease of evaluation.

**1.9 Submission:**

1.9.1 State law requires that the original expression shall be submitted to the Purchasing Division. All copies to the Purchasing Division must be submitted **prior** to the date and time stipulated as the opening date. All expressions will be date and time stamped on the Purchasing Division official time clock to verify time and date of receipt.

1.9.2 Firms mailing expressions should allow sufficient time for mail delivery to ensure timely arrival. The Purchasing Division **CANNOT** waive or excuse late receipt of an expression which is delayed and late for any reason according West Virginia State Code §5A-3-11. Any EOI received after the bid opening time and date will be immediately disqualified in accordance with State law and the Legislative Rule 148-CSR-1.

**Submit:**

One original plus (3) convenience copies to:  
Purchasing Division  
2019 Washington Street, East  
P.O. Box 50130  
Charleston, WV 25305-0130

The outside of the envelope or package(s) should be clearly marked:

Buyer:  
Req#: DNR211007  
Opening Date:  
Opening Time:

**1.10 Rejection of Expressions:**

The State shall select the best value solution according to §5G-1-3 of the West Virginia State Code. However, the State reserves the right to accept or reject any or all expressions and to reserve the right to withdraw this Expression of Interest at any time and for any reason. Submission of, or receipt by the State of Expressions confers no rights upon the firm nor obligates the State in any manner.

**1.11 Incurring Costs:**

The State and any of its employees or officers shall not be held liable for any expenses incurred by any firm responding to this EOI for expenses to prepare, deliver, or to attend the short-list interviews.

**1.12 Addenda:**

If it becomes necessary to revise any part of this EOI, an official written addendum will be issued by the State to all potential firms of record.

**1.13 Independent Price Determination:**

A contract will not be considered for award if the negotiated price was not arrived at independently without collusion, consultation, communication, or agreement as to any matter relating to prices with any competitor.

**1.14 Price Quotations:** No "price" or "fee" quotation is requested or permitted in the response.

**1.15 Public Record:**

1.15.1 *Submissions are Public Record.*

All documents submitted to the State Purchasing Division related to purchase

orders/contracts are considered public records. All EOI's submitted by firms shall become public information and are available for inspection during normal official business hours in the Purchasing Division Records and Distribution center after the expressions have been opened.

**1.15.2 *Written Release of Information.***

All public information may be released with or without a Freedom of Information request, however, only a written request will be acted upon with duplication fees paid in advance. Duplication fees shall apply to all requests for copies of any document. Currently the fees are \$0.50/page, or a minimum of \$10.00 per request, whichever is greater.

**1.15.3 *Risk of Disclosure.***

The only exemptions to disclosure of information are listed in West Virginia Code §29B-1-4. Primarily, only trade secrets as submitted by a firm are the only exemption to public disclosure. The submission of any information to the State by a firm puts the risk of disclosure on the firm. The submission of any information to the State by a vendor puts the risk of disclosure on the vendor. The State does not guarantee non-disclosure of any information to the public.

**1.16 Schedule of Events:**

Release of the EOI	
Firm's Written Questions Submission Deadline. .	
Addendum Issued	
Expressions of Interest Opening Oate	
Estimated Date for Interviews	TBD

**1.17 Mandatory Prebid Conference: Not Applicable**

**1.18 Bond Requirements: Not Applicable**

**1.19 Purchasing Affidavit:**

West Virginia State Code §5A-3-10a (3) (d) requires that all firms submit an Affidavit regarding any debt owed to the State and licensing and confidentiality certifications. The Affidavit **must** be signed and submitted prior to award. It is preferred that the Affidavit be submitted with the EOI.

## **PART 2 OPERATING ENVIRONMENT**

### **2.1 Location:** Agency is located at the following address:

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

Facilities where work will be performed:

Cacapon Resort State Park  
818 Cacapon Lodge Drive  
Berkeley Springs, WV 25411-3300

### **2.2 Background:**

The Division of Natural Resources owns impoundment dams located in the aforementioned state park.

The Division of Natural Resources desires to bring these dams into compliance with the current State Dam Safety Code. Professional services will be necessary to effectively plan and monitor the construction necessary to obtain compliance.

The funding source for this project will require that all engineering and subsequent construction be completed within three years.

## **PART 3 PROCUREMENT SPECIFICATIONS**

### **3.1 General Requirements:**

Provide described services in accordance with current state Dam Safety Regulations and other applicable state codes or regulations.

### **3.2 Project Description:**

Provide professional engineering services pursuant to the following objectives:

Provide necessary professional engineering services to prepare construction documents and specifications and other related services to bring Cacapon Upper and Lower Dams, at Cacapon Resort State Park, into compliance with current

Dam Safety regulations and upon completion, prepare an application for a "Certificate of Approval" from that agency.

**3.3 Special Terms and Conditions:**

3.3.1 *Bid and Performance Bonds:* N/A

3.3.2 *Insurance Requirements:* \$1,000,000 Professional Liability  
Workers Compensation Certificate upon award

**3.4 General Terms and Conditions:**

By signing and submitting the EOI, the successful firm agrees to be bound by all the terms contained in Section Three (3) of this EOI.

**3.4.1 *Conflict of Interest:***

Firm affirms that it, its officers or members or employees presently have no interest and shall not acquire any interest, direct or indirect which would conflict or compromise in any manner or degree with the performance or its services hereunder. The firm further covenants that in the performance of the contract, the firm shall periodically inquire of its officers, members and employees concerning such interests. Any such interests discovered shall be promptly presented in detail to the Agency.

**3.4.2 *Prohibition Against Gratuities:***

Firm warrants that it has not employed any company or person other than a bona fide employee working solely for the firm or a company regularly employed as its marketing agent to solicit or secure the contract and that it has not paid or agreed to pay any company or person any fee, commission, percentage, brokerage fee, gifts or any other consideration contingent upon or resulting from the award of the contract. For breach or violation of this warranty, the State shall have the right to annul this contract without liability at its discretion, and/or to pursue any other remedies available under this contract or by law.

**3.4.3 *Certifications Related to Lobbying:***

Firm certifies that no federal appropriated funds have been paid or will be paid, by or on behalf of the company or an employee thereof, to any person for purposes of influencing or attempting to influence an officer or employee of any Federal entity, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract,

grant, loan, or cooperative agreement.

If any funds other than federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee or any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the firm shall complete and submit a disclosure form to report the lobbying.

Firm agrees that this language of certification shall be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub recipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this contract was made and entered into.

#### *3.4.4 Vendor Relationship:*

The relationship of the firm to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by the parties to this contract. The firm as an independent contractor is solely liable for the acts and omissions of its employees and agents.

Firm shall be responsible for selecting, supervising and compensating all individuals employed pursuant to the terms of this EOI and resulting contract. Neither the firm nor any employees or contractors of the firm shall be deemed to be employees of the State for any purposes whatsoever.

The Firm shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension or other deferred compensation plans, including but not limited to Workers' Compensation and Social Security obligations, and licensing fees, etc. and the filing of all necessary documents, forms and returns pertinent to all of the foregoing.

The Firm shall hold harmless the State, and shall provide the State and Agency with a defense against all claims including but not limited to the foregoing payments, withholdings, contributions, taxes, social security taxes and employer income tax returns.

The firm shall not assign, convey, transfer or delegate any of its responsibilities

and obligations under this contract to any person, corporation, partnership, association or entity without expressed written consent of the Agency.

**3.4.5 *Indemnification:***

The firm agrees to indemnify, defend and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person or firm performing or supplying services, materials or supplies in connection with the performance of the contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the firm, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use or disposition of any data used under the contract in a manner not authorized by the contract, or by Federal or State statutes or regulations; (3) Any failure of the firm, its officers, employees or subcontractors to observe State and Federal laws, including but not limited to labor and wage laws.

**3.4.6 *Contract Provisions:***

After the most qualified firm is identified, and fee negotiations are concluded, a formal contract document will be executed between the State and the firm. The order of precedence is the contract, the EOI and the firm's response to the EOI.

**3.4.7 *Governing Law:***

This contract shall be governed by the laws of the State of West Virginia. The firm further agrees to comply with the Civil Rights Act of 1964 and all other applicable laws (Federal, State or Local Government) regulations.

**3.4.8 *Compliance with Laws and Regulations:***

The firm shall procure all necessary permits and licenses to comply with all applicable laws, Federal, State or municipal, along with all regulations, and ordinances of any regulating body.

The firm shall pay any applicable sales, use, or personal property taxes arising out of this contract and the transactions contemplated thereby. Any other taxes levied upon this contract, the transaction, or the equipment, or services delivered pursuant here to shall be borne by the contractor. It is clearly understood that the State of West Virginia is exempt from any taxes regarding performance of the scope of work of this contract.

**3.4.9 *Subcontracts/Joint Ventures:***

The State will consider the firm to be the sole point of contact with regard to all contractual matters. The firm may, with the prior written consent of the State,



enter into written subcontracts for performance of work under this contract; however, the firm is totally responsible for payment of all subcontractors.

**3.4.10 *Term of Contract:***

This contract will be effective (date set upon award) and shall extend until the scope of work is complete or for one (1) consecutive twelve (12) month period. The contract may be renewed upon mutual consent for two (2) consecutive years one (1) year periods or until such reasonable time as may be necessary to obtain a new contract or to complete work.

**3.4.11 *Non-Appropriation of Funds:***

If the Agency is not allotted funds in any succeeding fiscal year for the continued use of the service covered by this contract by the West Virginia Legislature, the Agency may terminate the contract at the end of the affected current fiscal period without further charge or penalty. The Agency shall give the firm written notice of such non-allocation of funds as soon as possible after the Agency receives notice. No penalty shall accrue to the Agency in the event this provision is exercised.

**3.4.12 *Contract Termination:***

The State may terminate any contract resulting from this EOI immediately at any time the firm fails to carry out its responsibilities or to make substantial progress under the terms of this EOI and resulting contract. The State shall provide the firm with advance notice of performance conditions, which are endangering the contract's continuation. If after such notice the firm fails to remedy the conditions contained in the notice, within the time contained in the notice, the State shall issue the firm an order to cease and desist all work immediately.

The State shall be obligated only for services rendered and accepted prior to the date of the notice of termination. The contract may also be terminated upon mutual agreement of the parties with thirty (30) days prior notice.

**3.4.13 *Changes:***

If changes to the original contract become necessary, a formal contract change order will be required. Prior to any work being performed, the change must be negotiated and approved by the State, the Agency and the firm. An approved contract change order is defined as one approved by the Purchasing Division and approved as to form by the West Virginia Attorney General's Office prior to the effective date of such amendment. **NO CHANGE SHALL BE IMPLEMENTED BY THE FIRM UNTIL THE FIRM RECEIVES AN APPROVED WRITTEN CHANGE ORDER.**

**3.4.14 *Invoices, Progress Payments, & Retainage:***

The Firm shall submit invoices, in arrears, to the Agency at the address on the face of the purchase order labeled "Invoice To" pursuant to the terms of the contract. Progress payments may be made at the option of the Agency based on percentage of work completed if so defined in the final contract. Any provision for progress payments must also include language for a minimum 10% retainage until the final deliverable is accepted.

If progress payments are permitted, firm is required to identify points in the work plan at which compensation would be appropriate. Progress reports must be submitted to Agency with the invoice detailing progress completed or any deliverables identified. Payment will be made only upon approval of acceptable progress or deliverables as documented in the firm's report. Invoices may not be submitted more than once monthly and State law forbids payment of invoices prior to receipt of services.

**3.4.15 *Liquidated Damages:***

According to West Virginia State Code §5A-3-4(8), firm agrees that liquidated damages shall be imposed at the rate of \$100 per workday, for failure to provide deliverables at the agreed upon date identified in the final contract. This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue to any other additional remedy to which the State or Agency may have legal cause for action including further damages against the firm.

**3.4.16 *Record Retention (Access & Confidentiality):***

Firm shall comply with all applicable Federal and State of West Virginia rules and regulations, and requirements governing the maintenance of documentation to verify any cost of services or commodities rendered under this contract by the firm. The firm shall maintain such records a minimum of five (5) years and make available all records to Agency personnel at firm's location during normal business hours upon written request by Agency within 10 days after receipt of the request.

Firm shall have access to private and confidential data maintained by Agency to the extent required for firm to carry out the duties and responsibilities defined in this contract. Firm agrees to maintain confidentiality and security of the data made available and shall indemnify and hold harmless the State and Agency against any and all claims brought by any party attributed to actions of breach of confidentiality by the firm, subcontractors, or individuals permitted access by the firm.

## PART 4 EVALUATION & AWARD

### 4.1 Evaluation & Award Process:

- a) Expressions of Interest will be evaluated and awarded in accordance with **§5G-1-3 "Contracts for architectural and engineering services; selection process where total project costs are estimated to cost two hundred fifth thousand dollars or more."**

"In the procurement of architectural and engineering services for projects estimated to cost two hundred and fifty thousand dollars or more the director of purchasing shall encourage such firms engaged in the lawful practice of the profession to submit an expression of interest, which shall include a statement of qualifications, and performance data and may include anticipated concepts and proposed methods of approach to the project. All such jobs shall be announced by public notice published as a Class II legal advertisement in compliance with the provisions of article three [§59-3-1et seq.] A committee comprised of three to five representatives of the agency initiating the request shall evaluate the statements of qualifications and performance data and other material submitted by the interested firms and select three firms which in their opinion are the best qualified to perform the desired service. Interviews with each firm selected shall be conducted and the committee shall conduct discussions regarding anticipated concepts and the proposed methods of approach to the assignment. The committee shall then rank in order of preference no less than three professional firms deemed to be the most highly qualified to provide the services required, and shall commence scope of service and price negotiations with the highest qualified professional firm for architectural or engineering services or both. Should the agency be unable to negotiate a satisfactory contract with the professional firm considered to be the most qualified, at a fee determined to be fair and reasonable, price negotiations with the firm of second choice shall commence. Failing accord with the second most qualified professional firm, the committee shall undertake price negotiations with the third most qualified professional firm. Should the agency be unable to negotiate a satisfactory contract with any of the selected professional firms, it shall select additional professional firms in order of their competence and qualifications and it shall continue negotiations in accordance with this section until an agreement is reached."

b) The evaluation criteria and assigned point values are as follows:

Scoring Criteria

Category	Points
1. History and credentials of firm	40
2. History of completing similar projects	40
3. Oral Interview	20

RFQ No. \_\_\_\_\_

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

**West Virginia Code §5A-3-10a states:** No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

**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.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

**EXCEPTION:** The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this 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.

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

**WITNESS THE FOLLOWING SIGNATURE**

Vendor's Name: Civil Tech Engineering Inc.

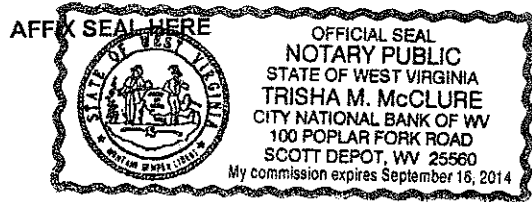
Authorized Signature: [Signature] Date: 8/19/10

State of WV

County of Putnam, to-wit:

Taken, subscribed, and sworn to before me this 19<sup>th</sup> day of August, 2010

My Commission expires Sept-16, 2014.



NOTARY PUBLIC [Signature]



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

# Request for Quotation

RFQ NUMBER  
**DNRB11007**

PAGE  
**1**

ADDRESS CORRESPONDENCE TO ATTENTION OF  
**FRANK WHITTAKER**  
**304-558-2316**

RFQ COPY

TYPE NAME/ADDRESS HERE

VENDOR

**Civil Tech Engineering Inc.**  
**300A Prestige Drive**  
**Hurricane, WV 25526**

SHIP TO

**DIVISION OF NATURAL RESOURCES**  
**PARKS & RECREATION SECTION**  
**324 4TH AVENUE**  
**SOUTH CHARLESTON, WV**  
**25303-1228 304-558-3397**

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
08/10/2010				

BID OPENING DATE: **08/24/2010** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
***** ADDENDUM NO. 1 *****						
THIS ADDENDUM IS ISSUED TO PROVIDE THE ATTACHED TECHNICAL QUESTION, AGENCY RESPONSE AND INSPECTION REPORTS.						
THE BID OPENING DATE AND TIME HAVE NOT CHANGED.						
***** END ADDENDUM NO. 1 *****						
0001	1	LS		906-00-00-001		
AE ERVICES						
***** THIS IS THE END OF RFQ DNRB11007 ***** TOTAL:						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE 	TELEPHONE <b>304-757-8094</b>	DATE <b>8/24/10</b>
TITLE <b>President</b>	FEIN <b>550767403</b>	ADDRESS CHANGES TO BE NOTED ABOVE

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

**GENERAL TERMS & CONDITIONS**  
**REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)**

1. Awards will be made in the best interest of the State of West Virginia.
  2. The State may accept or reject in part, or in whole, any bid.
  3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
  4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
  5. Payment may only be made after the delivery and acceptance of goods or services.
  6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
  7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
  8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
  9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
  10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
  11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
  12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
  13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at [www.state.wv.us/admin/purchase/vro/hipaa.htm](http://www.state.wv.us/admin/purchase/vro/hipaa.htm) and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
  14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
  15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
  16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.
- I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or Fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

**INSTRUCTIONS TO BIDDERS**

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).

## ADDENDUM #1

### EXPRESSION OF INTEREST Cacapon Resort State Park Dams Engineering Investigation and Certificate of Approval

The following information is offered as addendum #1 to the above referenced EOI.

The following question was received prior to the deadline for technical questions:

"Are there any available reports identifying the components or features of the dams not in compliance with current dam safety regulations that we can review prior to sending our Expression of Interest?"

In response the attached recent inspection reports are provided for review.



**PERIODIC DAM INSPECTION (2009)  
CACAPON STATE PARK LAKE DAM  
(INDIAN RUN DAM - LOWER)  
ID # 06503  
MORGAN COUNTY, WEST VIRGINIA**

CIVIL TECH PROJECT NO. 09145

SUBMITTED TO:  
WEST VIRGINIA DIVISION OF NATURAL RESOURCES  
PARKS AND RECREATION  
CHARLESTON, WEST VIRGINIA

SUBMITTED BY:  
CIVIL TECH ENGINEERING, INC.  
HURRICANE, WEST VIRGINIA

OCTOBER 2009

**CIVIL TECH ENGINEERING, INC.**  
300A Prestige Drive  
Hurricane, West Virginia 25526  
Phone: 304-757-8094 Fax: 304-757-8095

October 23, 2009

Mr. Bradley S. Leslie, PE  
WVDNR - Parks and Recreation  
Capitol Complex, Building 3, Room 714  
1900 Kanawha Blvd., East  
Charleston, West Virginia 25305-0662

**Subject: Periodic Dam Safety Inspection (2009)**  
Lower (Indian Run) Cacapon Park Dam - ID #06503  
Morgan County, West Virginia  
Civil Tech Project No. 09145

Dear Mr. Leslie:

As authorized, we have completed the subject inspection. The inspection was performed on October 19, 2009. The attendees at the meeting included:

- ▶ Conrad Baston – WVDEP, Dam Safety Section
- ▶ Mark Pennington - Civil Tech Engineering (writer)

Provided herein is a general description of the dam and appurtenances, observations made during the inspection, and our conclusions and recommendations. Based on available information, the dam does not have a certificate of approval and has been assigned a Class 1 Hazard Rating by the WVDEP Dam Safety Section. Copies of past inspection reports were reviewed prior to performing the current inspection to familiarize ourselves with any problems or concerns which have been noted at the dam in the past. Our company inspected this dam on October 8, 1998, October 29, 2002, and October 4, 2007. The reader is referred to Civil Tech reports dated October 16, 1998, November 4, 2002, and October 12, 2007 for additional information concerning the results of those inspections.

Cacapon Park Dam Inspection – Indian Run (2009)  
Civil Tech Project No. 09145  
October 23, 2009

1. The dam is visually estimated to be about 20 to 25 ft. tall with a downstream slope of 2:1 (H:V), or steeper.
2. Grass cover was well mowed and appears to be adequate.
3. Several large tree stumps were present on the downstream slope where trees had been removed in the past. These stumps have generally rotted and are no longer visible. However, depressions in the ground surface can be seen where the stumps were located. These areas should be monitored for seepage in the future. A prominent hole resulting from stump rot is visible in the left groin near the dam crest and can be seen in Photo 3.
4. An animal burrow was observed on the left side of the dam near the toe and left groin area during our inspection performed in 1998. See Figure 1. This burrow was not visible during the 2002 inspection and was observed to be inactive during the recent 2007 inspection. The burrow was not present at the time of this inspection.
5. Similar to our past inspections, no seepage was noted on the slope or at the toe of the dam. Based on our review of past inspection reports, a wet area has been noted to be present downstream of the toe of the dam on the left side as shown on Figure 1. This area was dry during our recent inspection as well as the inspections performed in 2007, 2005, and 1998. However, standing water was present in this area during our 2002 inspection. The reader will note, it was raining during that inspection and this area is poorly drained. Since the area is currently dry and was dry in 2007, 2005, and 1998, it is our opinion the source of this water is surface runoff and poor drainage, not seepage from the dam.

Upstream: The upstream embankment slope was uniformly grass covered and showed no signs of slope instability. See Photograph Nos. 5 and 6 for views of the upstream embankment slope. The following was noted:

1. The upstream slope visually appears to be constructed at a 3:1 (H:V) slope or flatter.
2. The slope is protected with rip-rap extending about 2 to 4 ft. above normal pool. The rip rap appears to be in acceptable condition and no erosion was observed along the pool

Cacapon Park Dam Inspection -- Indian Run (2009)  
Civil Tech Project No. 09145  
October 23, 2009

out appear were replaced at that time. However, some of the spillway stones were observed to be missing and erosion of the sandstone bedrock is progressing in this area. See Figure 1 and Photo No.s 15 and 16. As discussed with Mr. Ambrose, the missing stones should be replaced and the bedrock erosion filled with concrete as maintenance. Failure to make these repairs timely could allow the spillway to wash out again and result in the loss of the pool.

3. A stone guide wall is present on the left side of the spillway (left facing downstream). See Photo No.s 10 and 13. As can be seen, this wall extends downstream and upstream of the spillway control section and supports the embankment along the left side of the spillway structure. The wall has been constructed with a cutoff wall which extends perpendicularly from the structure into the crest of the embankment. This cut off wall can be seen on Photo No. 12 and may be the exposed end of a stone masonry core wall in the dam. However, this cannot be confirmed based on our visual inspection. No seepage was observed around the wall during this or past inspections. Also, similar to past inspections, the guide wall appears to be in relatively good condition and did not exhibit evidence of damage, tilt, or distortion due to scour or earth pressure. However, as shown in Photograph No. 13, the wall does exhibit some loose mortar and vegetative growth. All loose mortar should be chipped out and replaced. All vegetation should be removed. As shown in Photo No. 14, the upstream portion of the wall also appears to have been reinforced with concrete placed around the original stone structure. No information is available concerning this possible repair.
4. As shown on Photo Nos. 10, 12, and 13, a new wooden fence was added along the edge of the left spillway guide wall prior to our 2007 inspection. This restricts access to the steep drop off over the wall and is an improvement for pedestrian safety. Also, the vertical chambers previously open at the top of the left guidewall at the dam crest have been covered with concrete. See Photo No. 12.

#### Drain Pipe

The dam has been constructed with a 2 x 2 ft. concrete box culvert which we believe may serve as a drain pipe for the lake. This box culvert can be seen on Figure 1 and Photo No.11. The following was noted:

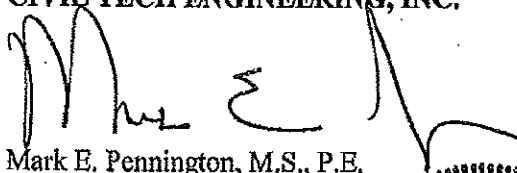
Cacapon Park Dam Inspection – Indian Run (2009)  
Civil Tech Project No. 09145  
October 23, 2009

At present, the dam does not have a certificate of approval from Dam Safety. We recommend a complete engineering evaluation be performed for this structure. A hazard analysis should also be performed to determine the appropriate hazard class for the dam, and any modifications necessary to insure the structure meets current Dam Safety regulations for the hazard classification determined to be appropriate.

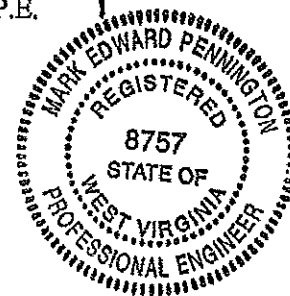
We trust this report satisfies your needs at this time. Attached is an inspection verification statement as required by the WVDEP Dam Safety Section. If you have any questions or comments, or if we can be of any further assistance, please feel free to contact us. Two copies of this report have been forwarded to the WVDEP, Dam Safety Section.

Very truly yours,

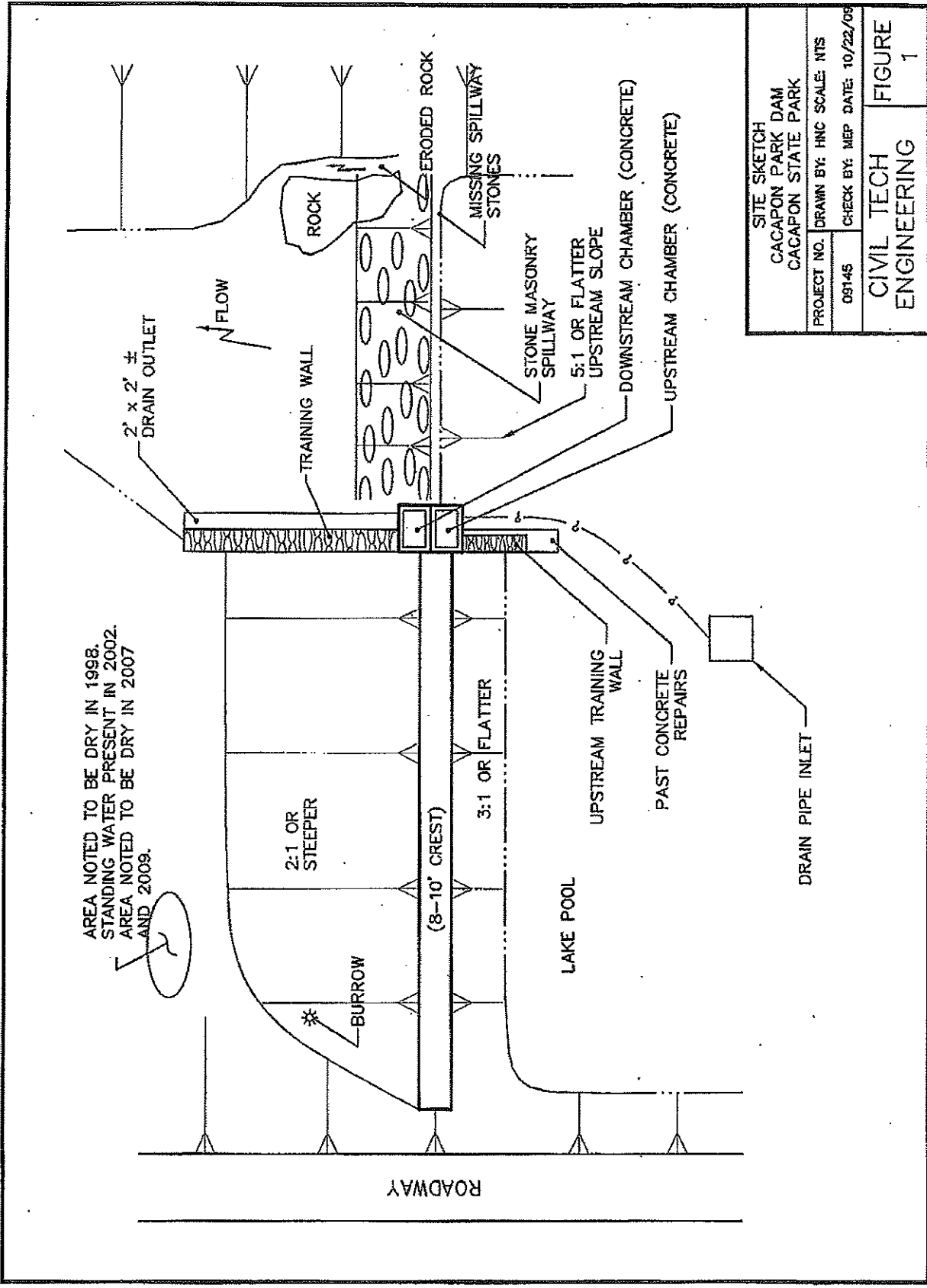
**CIVIL TECH ENGINEERING, INC.**



Mark E. Pennington, M.S., P.E.  
Principal Engineer



cc: Mr. Conrad Baston WVDEP-Dam Safety with two copies of this report.



SITE SKETCH CACAPON PARK DAM CACAPON STATE PARK	
PROJECT NO. 09145	DRAWN BY: HNC SCALE: NTS
CHECK BY: MEP DATE: 10/22/09	
CIVIL TECH ENGINEERING	FIGURE 1

10/22/09 10:00 AM C:\Users\hnc\Documents\09145\09145.dwg



Photo No. 1: Dam crest facing right.



Photo No. 4: Downstream slope facing left.



Photo No. 2: Dam crest facing left.



Photo No. 5: Upstream slope facing right.



Photo No. 3: Downstream slope facing right.



Photo No. 6: Upstream slope facing left.

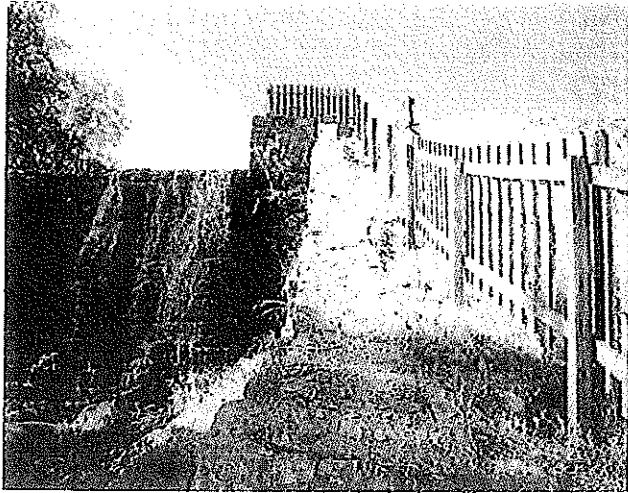


Photo No. 13: Left spillway guidewall facing upstream.

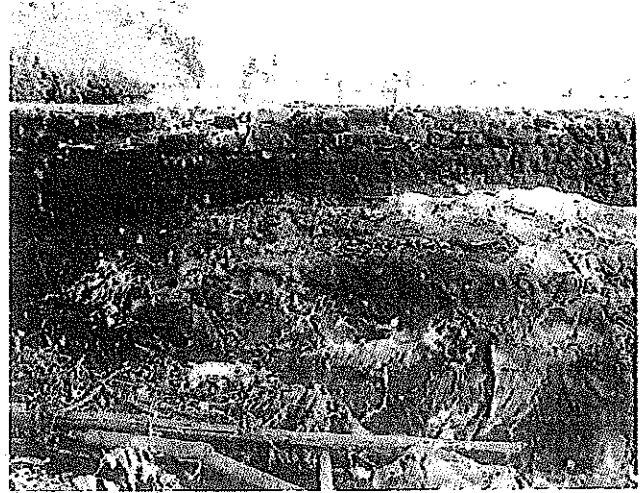


Photo No. 16: Missing spillway stones.

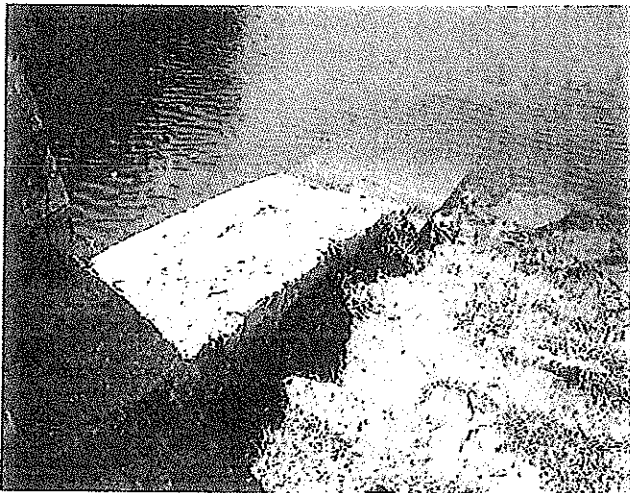


Photo No. 14: Left spillway guidewall.

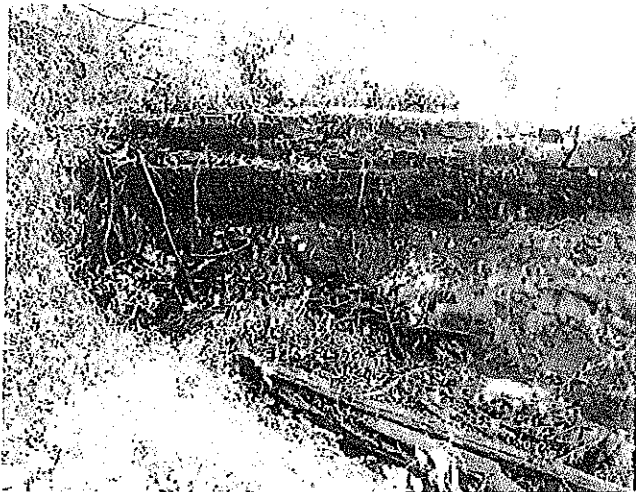


Photo No. 15: Erosion area and missing spillway stones.



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Cacapon Reservoir (Upper) Dam Inspection (2009)  
Civil Tech Project No. 09144  
October 23, 2009

### General Description of the Dam

The dam is located in Cacapon State Park in Morgan County, West Virginia. The structure impounds Indian Creek, which is a tributary of Sleepy Creek. The dam serves as a water supply reservoir for the park and golf course, and is constructed in series with the Cacapon Park Dam (Indian Run Dam) which is located about 1 mile downstream. The dam is an earthen structure which is reported to have been constructed with a clay core. The dam is about 36 ft. tall and 550 ft. long. There is approximately 8 ft. of freeboard between the normal pool and dam crest elevation. An earth lined emergency spillway is located within the left abutment of the dam (left facing downstream). There is about 4 ft. of freeboard between the emergency spillway crest and the dam crest. Normal pool is maintained by a double chamber concrete riser located within the reservoir upstream of the dam. The upstream chamber of the riser serves as a wet well intake for the water supply pumping system. The pumps for the system are mounted on the top of the riser. Water enters the wet well by openings in the top of the riser (when the lake is at normal pool) and by what is believed to be a gated opening in the back wall of the structure. The downstream chamber of the riser drains into a 42 inch diameter corrugated metal pipe that extends through the dam and outlets at the downstream toe in a concrete outlet structure. Flow into the principal spillway outlet pipe is controlled by a wall which separates the downstream and upstream riser chambers and also serves as a weir. A drain gate is located in the bottom of the center weir wall of the riser. Both the wet well gate and the drain gate are operated from the top of the riser. The riser can be accessed by a bridge which spans between the top of the structure and the dam.

### Dam Inspection Observations

The following observations were made during our joint inspection with WVDEP personnel performed on October 19, 2009. At the time of our inspection, it was sunny and cool. The lake pool level was about 5 ft. below normal due to dry weather, leakage, and pumping from the reservoir for water supply purposes. The reader will recall the pool was about 8 ft. below normal during our 2007 inspection. Prior to the inspection, we discussed the performance of the dam with Tom Ambrose, Park Superintendent. Mr. Ambrose reported the performance of the dam since our last inspection had been normal.

Cacapon Reservoir (Upper) Dam Inspection (2009)  
Civil Tech Project No. 09144  
October 23, 2009

more below normal pool. To confirm this, Park personnel should record the lake level along with seepage observations monthly during routine inspections. Considering the relatively high location of the seepage on the embankment slope, we recommend the seepage be monitored closely for increased flow, muddy flow, etc. especially during higher pool levels. If a high pool level should occur, the owner should observe the seepage rate and condition of the flow on a daily basis while the reservoir is returning to normal and for a period of time after the lake level returns to normal. The seeps should also be monitored closely during storm events which produce an elevated pool. Notes should be made following each inspection along with observations concerning weather and pool level. Should the seepage increase in magnitude or become muddy, this may be an indication of a serious problem. Should this occur, the owner should respond in accordance with the Monitoring and Emergency Action Plan and should contact appropriate authorities including the WVDEP Dam Safety Section immediately.

5. The left groin of the dam is protected with rip-rap which was reportedly constructed to protect the dam from erosion caused by emergency spillway operation.

Upstream: The upstream embankment slope is reportedly constructed at an approximate 3:1 (H:V) slope. See Photo No.s 6 thru 8. The following was noted:

1. The slope was uniformly grass covered above the normal pool level and showed no signs of slope instability.
2. The pool level was about 5 ft. below normal at the time of our inspection.
3. There is minor erosion occurring at the normal pool line due to wave action particularly on the right side of the dam. See Photo No. 8. However, this erosion does not appear to have progressed significantly since 2002, is minor, and not a concern at present. The owner should consider installing rip rap in this area in the future to avoid additional and more serious erosion.

Dam Crest: The dam crest is relatively uniform with no apparent signs of subsidence or significant erosion. See Photo No.s 9 and 10. The following was noted:

Cacapon Reservoir (Upper) Dam Inspection (2009)  
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October 23, 2009

structure. See Photo No.s 13 thru 19. The following was noted:

1. The riser is a double chambered structure with a center weir wall. The rear chamber appears to serve as a wet well for the pump intake. The front chamber serves as the principal spillway pipe outlet.
2. A walk bridge is provided for access to the riser which spans between the dam crest to the top of the riser structure. Access to the riser bridge was not restricted during our 1998 inspection. However, prior to our 2002 inspection, a fence and gate were added to the bridge to restrict access. See Photo No. 13. There is no safety rail around the top of the riser structure which could be hazardous. The gate was locked at the time of our inspection. Therefore, we were not able to access the top of the riser for inspection.
3. A trash rack is provided around the openings to the riser. The portion of the riser which was exposed above the pool level appeared to be in good condition with no cracking, spalling, or other obvious deterioration of the concrete. The trash rack, pumps, piping, and drain gate operators have been painted since our last inspection. However, the bent bar located along the downstream side of the riser has not been repaired. See Photograph No. 14.
4. The drain gate for the riser is located in the base of the weir wall. According to Park personnel, the stem operator for the drain gate is broken and the gate is not operable.
5. The 42 inch drain pipe terminates at the toe of the dam in a concrete outlet structure. The structure appears to be in good condition and there was no evidence of spalling, cracking, or deterioration. See Photo No.s 15 thru 17.
6. The outlet of the 42 inch CMP was not restricted to access during our 1998 inspection. The bar screen shown on Photo No. 16 was provided prior to our 2002 inspection and has been screwed to the concrete structure to prevent unauthorized access. However, this bar screen also prevented our entry to examine the interior of the pipe on the date of this inspection. Similar to our past inspections, flow was exiting the pipe on this date even though there was no flow entering the pipe at the riser (the lake level was below the normal pool inlet level). The flow at the pipe outlet was visually estimated to be about 1/2

Cacapon Reservoir (Upper) Dam Inspection (2009)  
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monitored closely for any changes in the magnitude of flow or color. We understand this seepage has been present during past inspections and has not changed significantly since that time. Therefore, this old seepage is considered normal and routine periodic monitoring should be sufficient. **However, as recommended during our 2002 inspection, the seepage observed on the downstream face of the dam is a more serious concern and should be monitored closely.** We are concerned that potential serious conditions could result in the future if this seepage should increase in magnitude or become muddy. Specific recommendations for monitoring are provided herein. However, the actual monitoring schedule and requirements will be dictated by the WVDEP Dam Safety Section. Should seepage flow increase or become muddy, appropriate action should be taken in accordance with the Monitoring and Emergency Action Plan and appropriate authorities including the WVDEP Dam Safety Section should be contacted immediately.

3. The leakage occurring within the 42 inch diameter principal spillway pipe is a serious concern which could lead to significant damage to the dam and possible dam failure. We suggest plans be implemented as soon as possible to investigate and repair the pipe. In the interim, the pipe should be monitored closely for excessive flow when the pool level is below normal. The flow should be examined to determine if it is muddy which could indicate piping of soil fines from the dam embankment is occurring. Also, the dam embankment should be monitored for any holes or depressions especially along the alignment of the pipe, and the lake should be monitored for swirls or vortexes forming in the vicinity of the pipe alignment. If any of these conditions are noted, appropriate action should be taken in accordance with the Monitoring and Emergency Action Plan and appropriate authorities including the WVDEP Dam Safety Section should be contacted immediately.
4. The condition of the drain gate and repairs needed to restore the function of the unit should be evaluated by divers.

Items which were noted and should be treated as maintenance/monitoring are as follows:

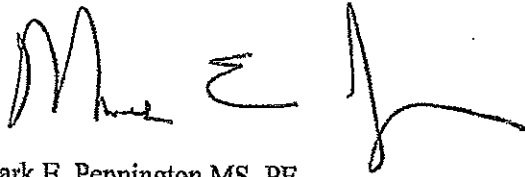
1. A safety rail should be provided around the top of the riser.

Cacapon Reservoir (Upper) Dam Inspection (2009)  
Civil Tech Project No. 09144  
October 23, 2009

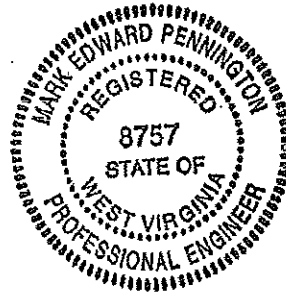
**ENGINEER'S VERIFICATION STATEMENT**

I hereby verify that I conducted a visual inspection of the Cacapon Reservoir Dam (ID# 06502) and its appurtenances on October 19, 2009. The attached report documents: 1) the current conditions observed; 2) any maintenance items necessary to prolong safe functioning of the dam; 3) any conditions observed during the inspection which indicate the dam has a serious problem\* and; 4) any conditions that will not allow proper operation of the dam during normal or maximum reservoir water level conditions.

\*as defined in Section 2.47 of the Dam Safety Rules



Mark E. Pennington MS, PE  
Registered Professional Engineer No. 8757



Date 10-23-09

Engineer's Seal

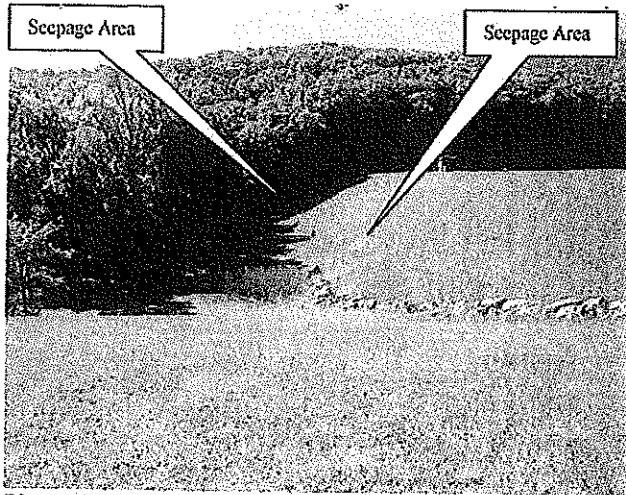


Photo No. 1: Downstream slope facing right.



Photo No. 4: Right groin seepage area.



Photo No. 2: Downstream slope facing left.

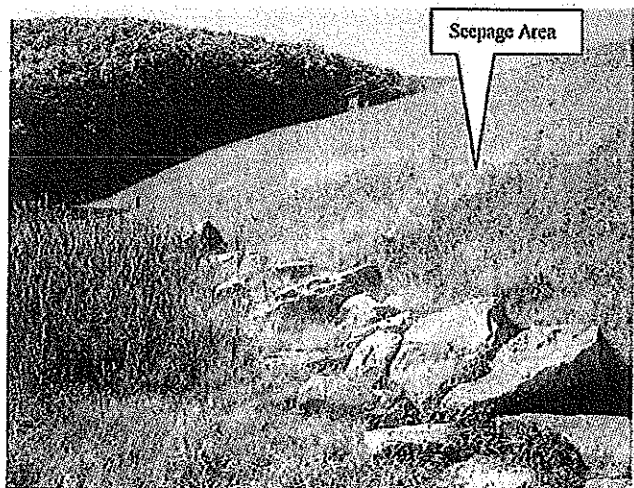


Photo No. 5: Seepage area on the downstream slope near the left groin.

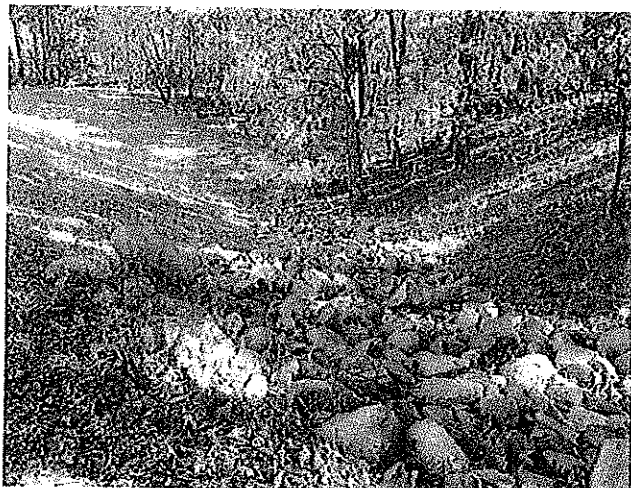


Photo No. 3: New rip rap placed in the right groin where bare soil had been present at the time of our last inspection.



Photo No. 6: Upstream slope facing left.



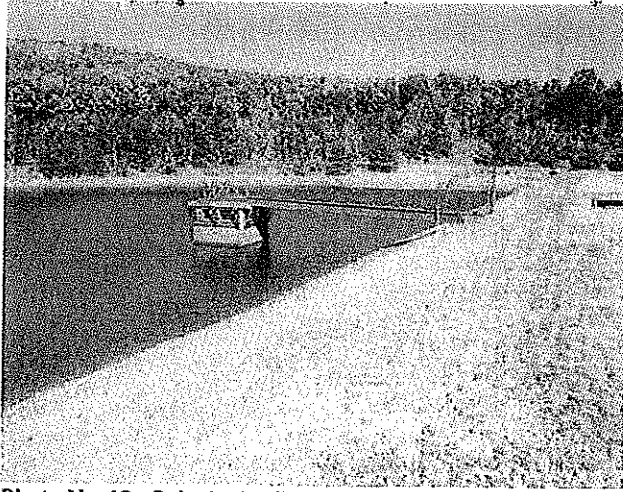


Photo No. 13: Principal spillway riser.

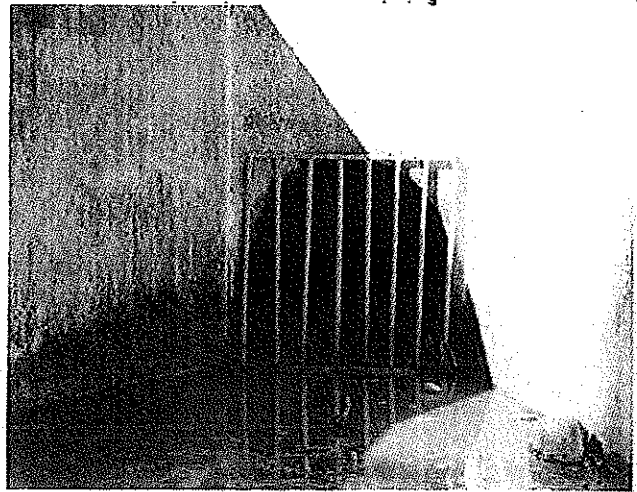


Photo No. 16: 42" CMP drain pipe outlet. Note small flow.

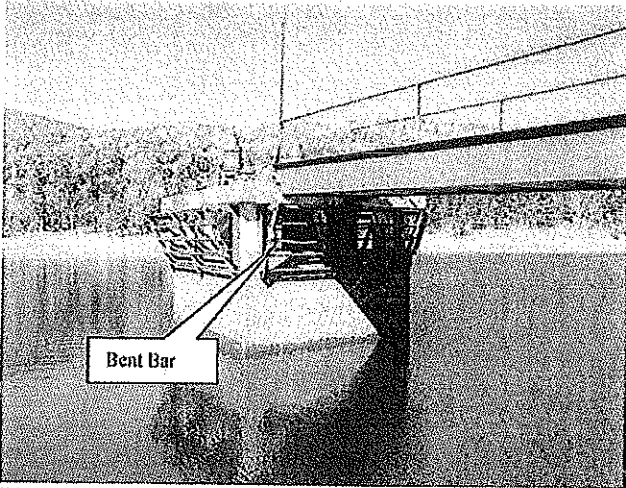


Photo No. 14: Riser.

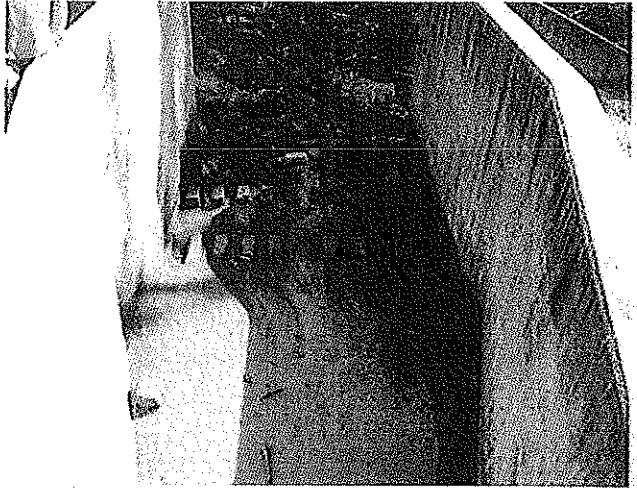


Photo No. 17: Principal spillway stilling basin and stream channel.

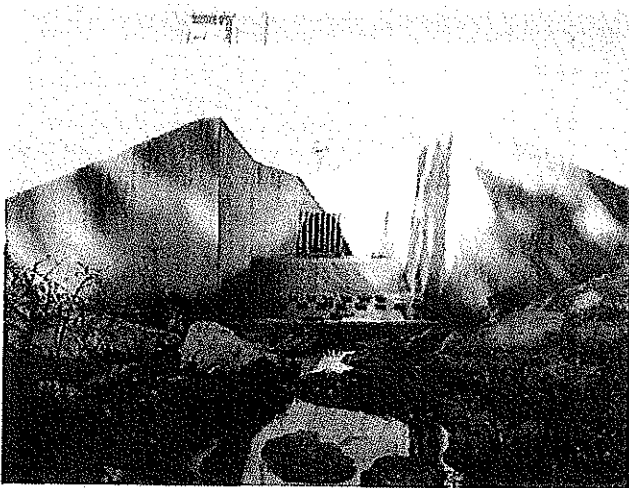


Photo No. 15: Principal spillway outlet structure.

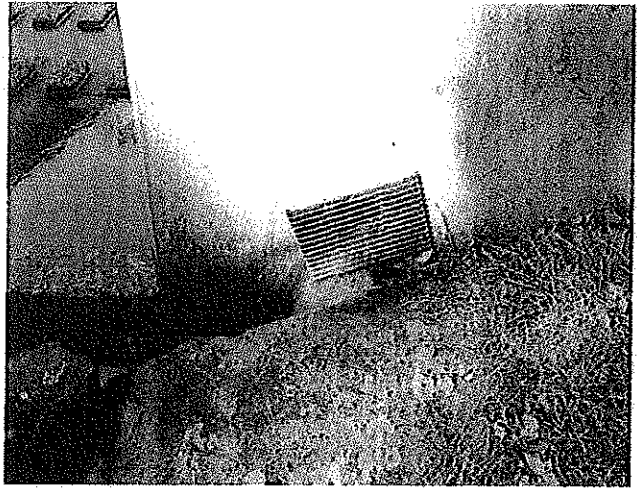


Photo No. 18: Left underdrain outlet.



## **SECTION 1 - DESCRIPTION OF FIRMS EXPERIENCE**

**A. Recent Dam Modification Experience:** Civil Tech's dam experience since the company was founded in 1996 has included:

➤ Thirty six (36) Dam Modification and Repair Projects ranging in cost from \$ 50,000 to \$ 1,200,000. Civil Tech Dam Projects are listed below.

1. Rollins Dam Principal Spillway Repair, Evans, WV
2. Seneca Dam Modification, Pocahontas Co., WV
3. Teter Creek Dam Modification, Barbour Co. WV
4. Wells Lock and Dam Repair, Elizabeth, WV
5. Handley Dam Modification, Handley WMA, Pocahontas Co., WV
6. Anawalt Flood Damage Repair, Anawalt, McDowell Co., WV
7. Old Pond 11 Modification, McClintic WMA, Mason Co., WV
8. Burches Run Breach Plan, Moundsville, WV
9. Edwards Run Dam Repair, Cacapon Bridge, WV
10. Culloden PSD Dam Modification, Culloden, WV
11. Belington Water Supply Dam Modification, Belington, WV
12. Cedar Lakes Dam No.s 1 and 2 Dam Break and Flood Damage Repair, Ripley, WV
13. Joyce Lake Dam Modification, Clarksburg, WV
14. Tailings Pond No. 2 Modification, FMC Corporation, Bessemer City, NC
15. City of Thomas Dam Modification, Thomas, WV
16. Fly Ash Dam Modification, FMC Peroxide Plant, So. Charleston, WV
17. Dickenson Dam Break and Modification, FMC Sportsman's Club, Hurricane, WV
18. Brood Pond Dam Break and Modification, FMC Sportsman's Club, Hurricane, WV
19. Winterplace Ski Resort Dam Modification, Ghent, WV
20. Rock Fill Dam No. 2 Flood Damage Repair, Beckley Water Company, Beckley, WV
21. Wilson Big Hollow Dam, Hampshire County, WV
22. Moncove Dam Modifications, Monroe County, WV
23. Burches Run Height Reduction, Marshall County, WV
24. Bailey Dam Modification, Monongalia County, WV
25. Lemley Dam Modifications, Monongalia County, WV
26. Deegan Dam Modification, Bridgeport, WV
27. Hinkle Dam Modification, Bridgeport, WV
28. Winterplace Reservoir Enlargement, Ghent, WV
29. Stony River Dam Breach, Mt. Storm WV (Construction 2008)
30. Flip Bucket Stabilization, Mt. Storm Lake Dam, Mt. Storm, WV (Construction 2008)
31. Mill Run Dam Modification, Mt. Storm, WV (Construction 2009)
32. White Dam Modification, Sissonville, WV (Construction Slated for 2010)
33. Jimmy Lewis Dam Drain Pipe Repair, Pinnacle Rock State Park (Construction 2010)
34. Temperature and Flow Monitoring Weir, Stony River, Mt. Storm Power Plant (2009).
35. Long Branch Dam Modification, Pipestem State Park (Construction Slated for 2011).
36. Berwind Dam Modification, Berwind WMA (Construction Slated for 2011)

- Certificates of approval have been applied for and obtained on 25 projects.
- Our projects include; new dams, rehabilitation, flood damage repair, and emergency repair.
- Routine Inspections are performed on 67 dams in WV.
- 10 to 20 Safety Inspections are performed per year.
- **Civil Tech also has recent and pertinent experience with the Upper and Lower Dams a Cacapon State Park. Our company has performed all periodic inspections required by the WVDEP Dam Safety Section since 1998. We believe our experience provides an unsurpassed understanding of the dam history, deficiencies, and measures likely to be required to improve the safety of the dams and obtain a certificate of approval from Dam Safety.**

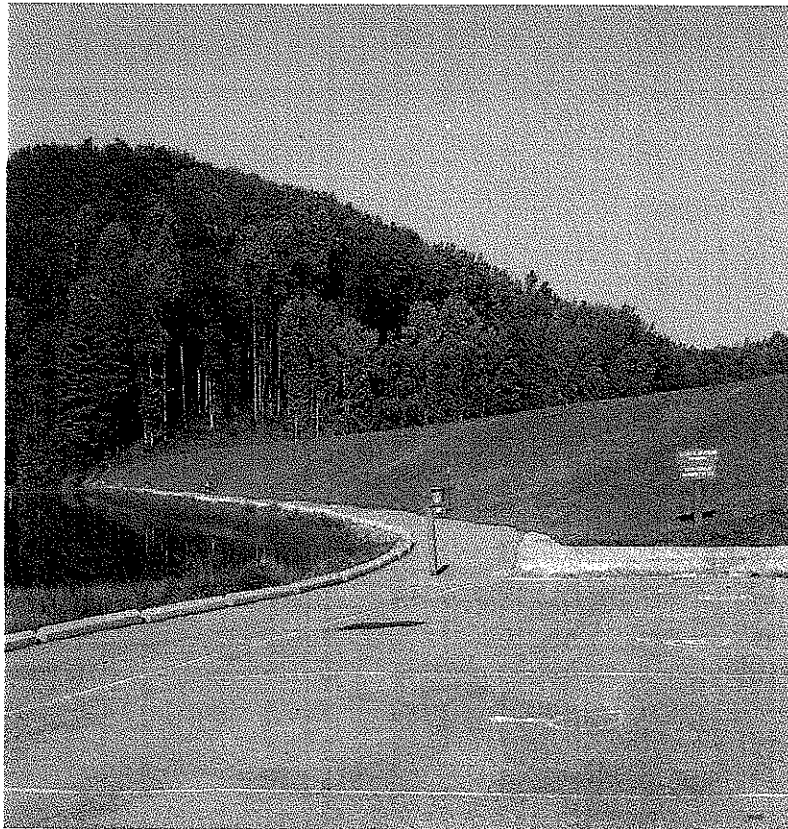
**B. Past Dam Modification Experience:** Prior to forming Civil Tech in 1996, our principals were responsible for:

- 11 Dam Modification Projects throughout West Virginia. These dams are listed below.
  1. Jimmy Lewis Dam, Mercer Co., WV
  2. Plum Orchard Dam, Fayette Co., WV
  3. Boley Dam, Babcock State Park
  4. Anawalt Dam, Anawalt, WV
  5. Warden Lake Dam, Hardy Co., WV
  6. Burches Run Dam, Moundsville, WV
  7. Castlemans Run Dam, Wheeling, WV
  8. No. 1 Impoundment, Union Carbide
  9. No. 2 Impoundment, Union Carbide
  10. No. 3, Impoundment, Union Carbide
  11. Mill Creek Dam, Columbia Gas
- Certificates of Approval were obtained for all projects.
- Numerous Safety Inspections were also performed.

- C. Dam Break and Risk Assessment:** Our engineers have experience with dam break and risk assessment necessary to reduce the hazard rating and the associated design storm. Where feasible, this technique can result in reduced measures necessary to bring a dam into compliance with the regulations and substantial cost savings.
- D. Innovative Rehabilitation Techniques:** Civil Tech specializes in the use of innovative techniques including the use of Roller Compacted Concrete (RCC) in dam rehabilitation. RCC used as dam overtopping protection provides an economical alternative to spillway improvement using excavation techniques in steep terrain and, the use of RCC is readily accepted by Dam Safety. We believe we are the only West Virginia firm with multiple project experience using RCC in dam rehabilitation.
- E. Access and Facility Improvements:** Our dam rehabilitation projects have resulted in facility improvements including:
- Access For Fishermen.
  - Boat Launching Ramps.
  - Access Roads.
  - Parking Facilities.
  - Walkways
  - Handicap Access.
  - Toilet facilities.
- F. Maintenance of Facility:** Our personnel are sensitive to the park setting and make every effort to complete our projects with minimal disruption of the facility. Our designs are practical and “planned to fit the site.”
- G.** Representative photographs and sample drawings illustrating our Dam Rehabilitation experience are included herein.



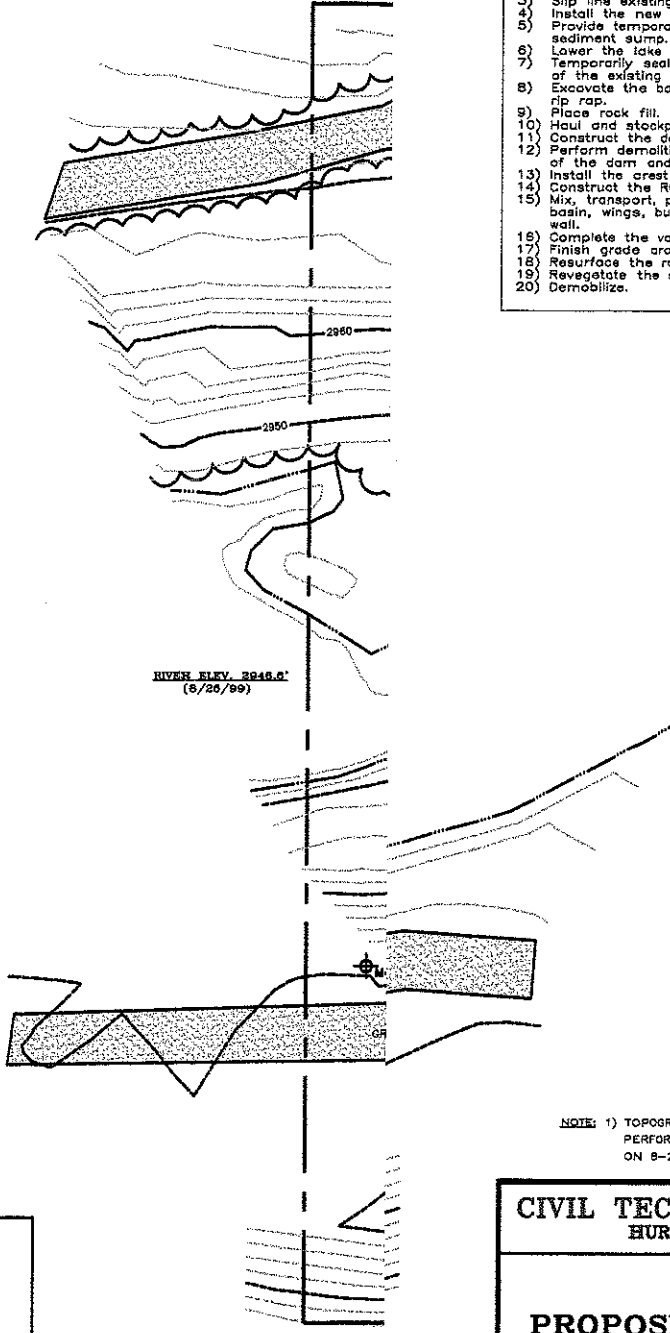
**THOMAS DAM MODIFICATION, THOMAS, WV**



**TETER CREEK DAM MODIFICATION, BARBOUR CO., WV**

SURVEY DATA			
MONUMENTS	NORTHING	EASTING	ELEVATION
BM	10039.890	10000.831	2966.000
M-1	10009.988	10173.578	2968.092
M-2	10007.946	9859.062	2969.721

NOTE: BENCH MARK IS A "X" IN THE PARAPET BESIDE CRACK.  
MONUMENTS ARE 3/8" REBAR SET IN CONCRETE.



--LEGEND--	
	WATER SURFACE
	EXISTING CONTOUR
	RCC SURFACE
	FINISH CONTOUR
	CONSTRUCTION LIMITS
	RIP RAP
	SURVEY MONUMENT
	EXISTING DAM
	DRY HYDRANT
	SEWER MANHOLE
	TREE LINE

REVISIONS		
DATE	BY	DESCRIPTION

- CONSTRUCTION SEQUENCE**
- 1) Mobilize equipment, materials, and labor force to the site.
  - 2) Install erosion and sediment control measures. See Drawing Number 99159-4 for details.
  - 3) Slip line existing drain pipe with new HDPE pipe.
  - 4) Install the new drain valve and manhole base.
  - 5) Provide temporary piping from the new valve to the sediment sump.
  - 6) Lower the lake level as required but no more than 10 feet.
  - 7) Temporarily seal the upstream face of the dam in the area of the existing leaks by parging.
  - 8) Excavate the base of the buttress, stilling basin, wings, and rip rap.
  - 9) Place rock fill.
  - 10) Haul and stockpile aggregate for the RCC.
  - 11) Construct the downstream cut off wall.
  - 12) Perform demolition as required to remove necessary parts of the dam and install the crest seal.
  - 13) Install the crest seal.
  - 14) Construct the RCC test pad.
  - 15) Mix, transport, place, and compact the RCC in the stilling basin, wings, buttress, and the abutment apron and cut off wall.
  - 16) Complete the valve and manhole.
  - 17) Finish grade around the new dam structure.
  - 18) Resurface the roadway.
  - 19) Revegetate the site.
  - 20) Demobilize.

NOTE: 1) TOPOGRAPHIC MAPPING BASED ON FIELD SURVEY PERFORMED BY CML TECH ENGINEERING INC. ON 8-26-99, 8-27-99, 9-23, AND 9-24-99.

<b>CIVIL TECH ENGINEERING, INC.</b> HURRICANE, WEST VIRGINIA		
<b>SITE PLAN</b> <b>PROPOSED MODIFICATIONS</b>		
<b>THOMAS DAM MODIFICATIONS</b> <b>THOMAS, WV</b>		
DRAWING NO.: 99159-8	DATE: JANUARY, 2000	SCALE: 1" = 50'
REVISED: BY:	CHECKED:	DRAWN BY: CDA CHECKED BY: MEP

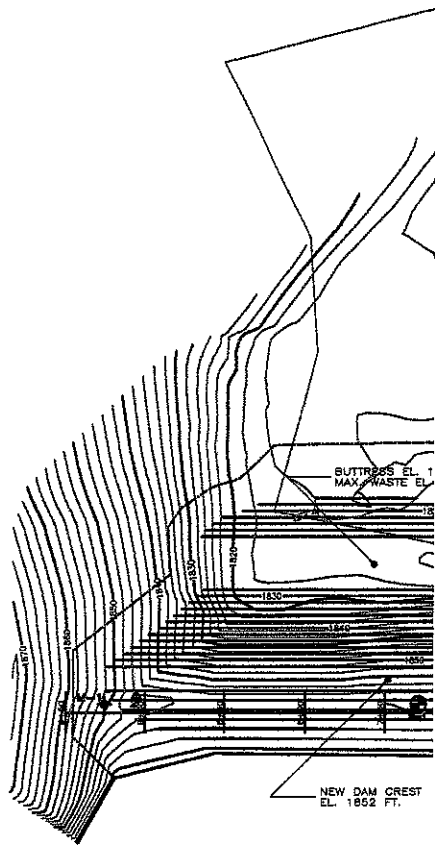
**REVISIONS**

DATE	BY	DESCRIPTION
2/22/00	RKM BDJ	ADDED PLUNGE POOL, RCC ON BEGINNING OF SPILLWAY, AND ADDED WETLAND.
3/16/00	BDJ	REMOVED BERM AND RIGHT CUT OFF WALL, AND ADDED RIP RAP.

**SURVEY DATA**

CONTROL POINT	EASTING	NORTHING	ELEVATION
1	10000.000	10000.000	1846.990
2	9231.321	10000.084	1846.407
3	9519.782	9997.425	1846.647
4	10146.893	10005.343	1862.302
5	9877.703	10434.459	1826.188
6	10008.915	10375.984	1835.135
7	9767.961	10382.644	1828.185
M-1	9211.162	9995.140	1850.663
M-2	9940.742	9687.215	1844.266

NOTE: MONUMENTS ARE 1/2" REBAR



**-LEGEND-**

	WATER SURFACE
	FENCE
	EXISTING CONTOUR
	FINISH GRADE
	CONSTRUCTION LIMITS
	EXISTING WETLAND LIMITS
	WOOD BOLLARD FENCE
	CONTROL POINT
	SURVEY MONUMENT
	BORING LOCATION
	HAND AUGERING LOCATION
	RIP RAP
	GROUTED RIP RAP
	RCC
	BASESTONE

- NOTES:**
- 1) REFER TO DRAWING NO. 98114-4 FOR PARKING LAYOUT, WALKWAY, AND BOAT RAMP INFORMATION.
  - 2) SEE DRAWING NO. 98114-7 FOR SECTIONS A-A AND B-B.
  - 3) E&S MEASURES SHOWN ON DRAWING NO. 98114-3.
  - 4) SEE DRAWING NO. 98114-20 FOR SECTION C-C

**CIVIL TECH ENGINEERING, INC.**  
ST. ALBANS, WEST VIRGINIA

**SITE PLAN  
PROPOSED MODIFICATIONS**

**TETER CREEK LAKE DAM  
BARBOUR COUNTY, WEST VIRGINIA**

DRAWING NO.: 98114-7	SCALE: 1" = 120'
DATE: APRIL 8, 1999	DRAWN BY: JCH, RKM CHECKED BY: MEP



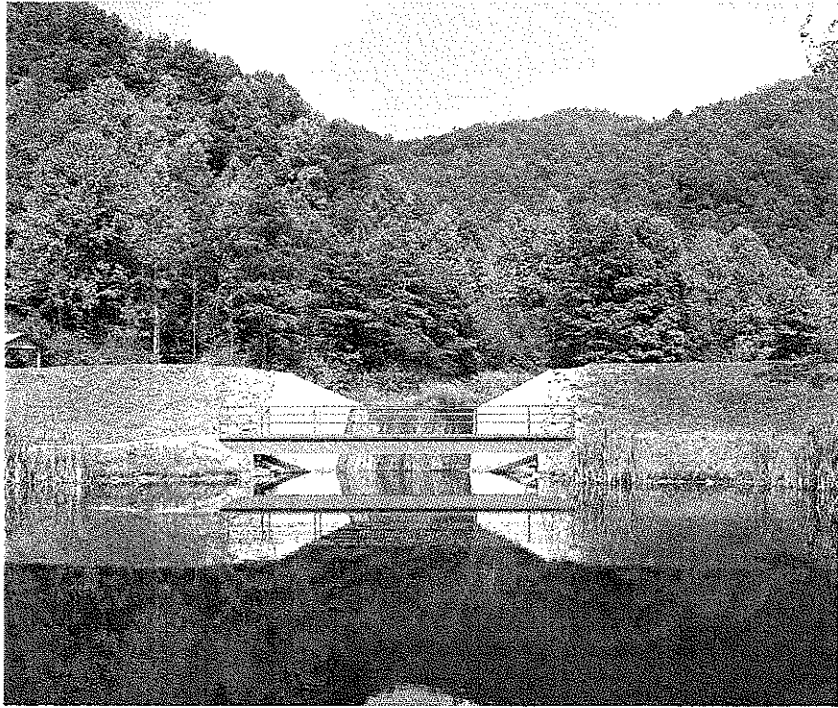
BELINGTON DAM MODIFICATION, BELINGTON, WV



WILSON DAM MODIFICATION, HAMPSHIRE CO., WV



CIVIL TECH ENGINEERING INC. *"Attention to Detail"*



**OLD ANAWALT DAM FLOOD DAMAGE REPAIR, MCDOWELL CO., WV**



**BAILEY DAM MODIFICATION, MONONGALIA CO., WV**



CIVIL TECH ENGINEERING INC. "Attention to Detail"



**LEMLEY DAM MODIFICATION, MONONGALIA CO., WV**



**MONCOVE DAM MODIFICATION, MONROE CO., WV**



SENECA DAM MODIFICATION, POCAHONTAS CO., WV



PLUM ORCHARD DAM MODIFICATION, FAYETTE CO., WV

### REVISIONS

DATE	BY	DESCRIPTION

### CONTROL POINT SUMMARY

CONTROL POINT NO.	NORTING	EASTING	ELEVATION (FT.)
NO. 1 (HUB&TACK)	10000.00	10000.00	2848.10
NO. 2 (HUB&TACK)	10192.80	10000.00	2853.01
NO. 3 (3/8"REBAR)	10110.45	9985.29	2846.60
NO. 4 (3/8"REBAR)	9879.14	9986.92	2847.55
NO. 5 (HUB&TACK)	9983.93	9909.21	2826.47
NO. 6 (HUB&TACK)	10124.14	9780.02	2843.32
NO. 7 (HUB&TACK)	9888.81	9874.29	2851.31
NO. 8 (HUB&TACK)	10015.62	9726.86	2830.93
NO. 9 (HUB&TACK)	10146.44	9680.52	2834.30
NO. 10 (HUB&TACK)	10202.83	9603.05	2845.61
NO. 11 (HUB&TACK)	9938.87	9746.80	2835.78

CONTROL POINT 10

CONTROL POINT 9

CONTROL POINT 8

CONTROL POINT 11

CABIN #3  
FLOOR ELEV.  
2833.2'

DWP OUTLET  
PIPE

#### LEGEND

- ▲ CONTROL POINT - HUB & TACK
- CONTROL POINT - 3/8" REBAR
- ==== PIPE
- EDGE OF ROAD/PARKING
- - - DITCH LINE AND EDGE OF RESERVOIR
- ▣▣▣▣ RIP-RAP
- ⊖ TREE LINE

60

**CIVIL TECH ENGINEERING, INC.**  
HURRICANE, WEST VIRGINIA

### SITE PLAN

**SENECA LAKE DAM**  
POCAHONTAS COUNTY, WV

DRAWING NO.:  
97183-B

DATE: OCTOBER, 1987

SCALE: 1" = 60'

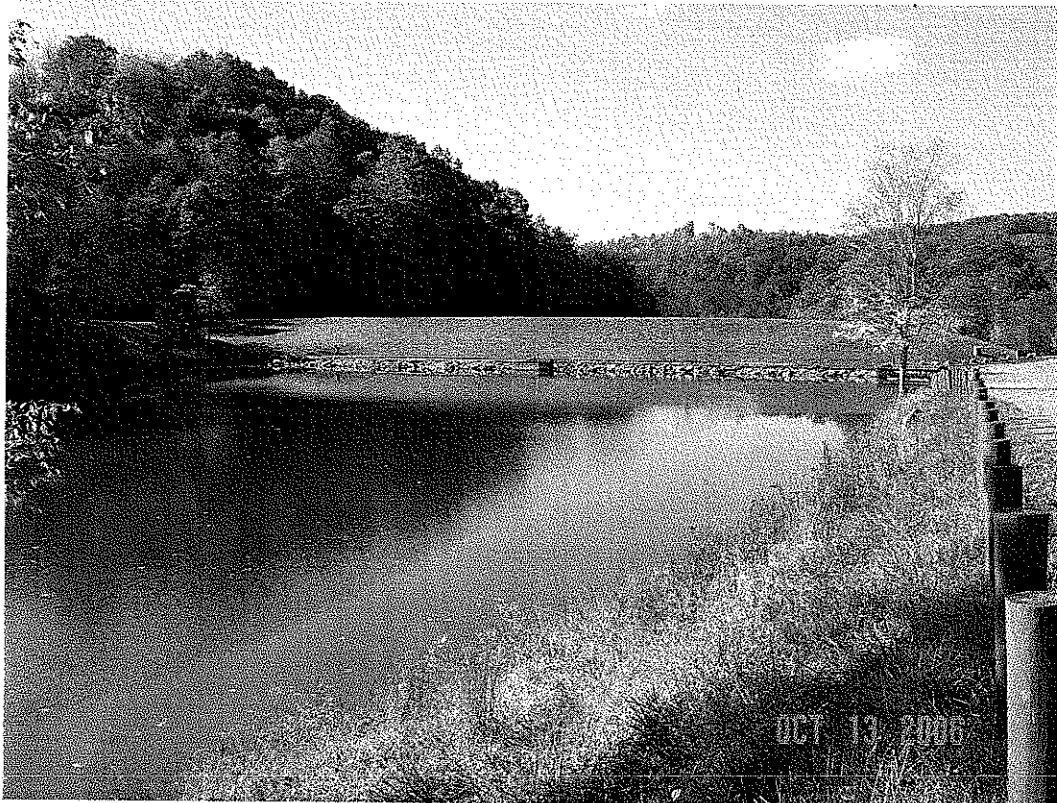
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BY:

CHECKED:

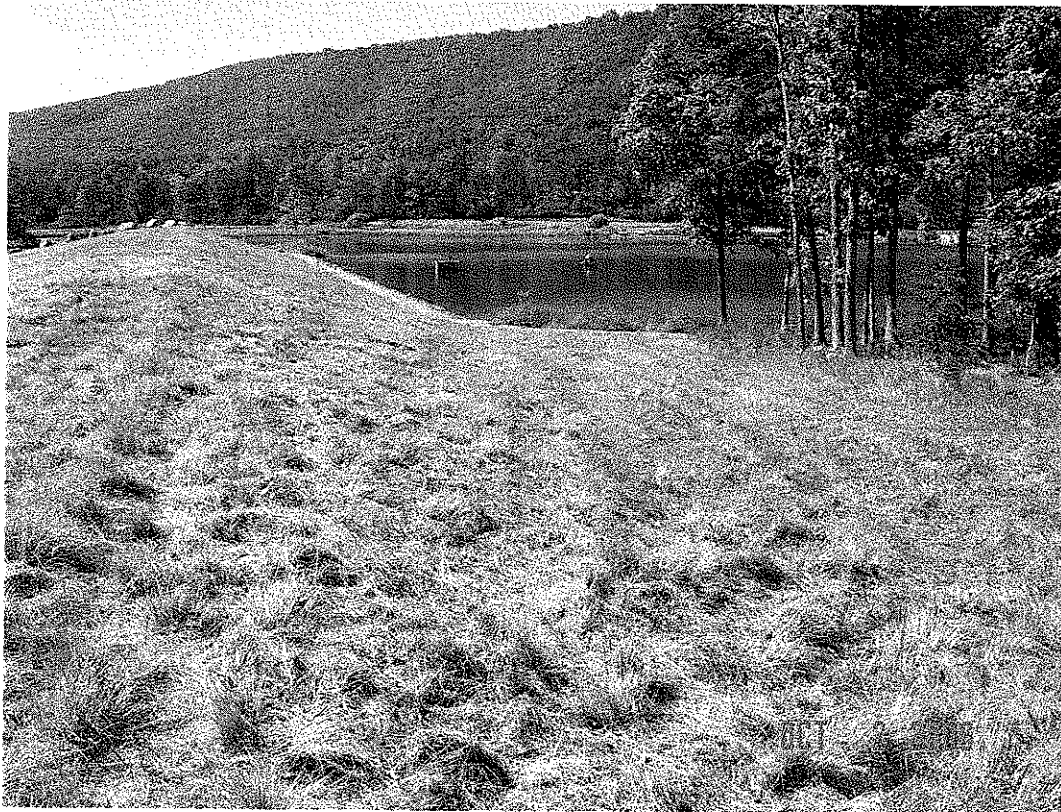
DRAWN BY: JEP  
CHECKED BY: MEP



CIVIL TECH ENGINEERING INC. "Attention to Detail"



JIMMY LEWIS DAM MODIFICATION, MERCER CO., WV



WARDEN LAKE DAM MODIFICATION, HARDY CO., WV

## **SECTION 2 - EXPERIENCE OBTAINING CERTIFICATES OF APPROVAL**

- **Civil Tech has a 100% success rate obtaining certificates of approval from the WVDEP Dam Safety Section.**
- **Certificates of Approval have been obtained by Civil Tech on 25 Dam Modification/Repair projects since 1996. In addition, our principals were responsible for obtaining certificates of approval for 11 other dams while working for our former employer bringing the total number to 36.**
- Our dam safety experience with certificates of approval includes; new dam construction, rehabilitation projects necessary to bring existing dams into compliance with current Dam Safety regulations, flood damage repairs, reservoir enlargement (water supply) and emergency repairs.
- Civil Tech has applied for, and obtained certificates of approval on the following dams:
  1. Belington Water Supply Dam, City of Belington, WV
  2. Cedar Lakes Dam No.s 1 and 2, Ripley, WV
  3. Joyce Lake Dam, Clarksburg, WV
  4. Tailings Pond No. 2, Bessemer City, NC
  5. Rollins Dam, Evans, WV
  6. Seneca Dam, Pocahontas Co., WV
  7. Teter Creek Dam, Barbour Co., WV
  8. City of Thomas Dam, City of Thomas, WV
  9. Wells Lock and Dam, Elizabeth, WV
  10. Handley WMA Dam, Pocahontas Co. WV
  11. Anawalt Flood Damage Repair, Anawalt, WV
  12. Old Pond 11, McClintic WMA
  13. Winterplace Dam Modifications, Raleigh County, WV
  14. Wilson Big Hollow Dam, Hampshire County, WV
  15. Burches Run Dam Height Reduction, Marshall County, WV
  16. Moncove Dam Modifications, Monroe County, WV
  17. Deegan Dam Modification, Bridgeport, WV
  18. Hinkle Dam Modification, Bridgeport, WV
  19. Stony River Dam Breach, Mt. Storm, WV
  20. Mt. Storm Lake Dam Flip Bucket Stabilization, Mt. Storm, WV
  21. White Dam Modification, Sissonville, WV
  22. Bailey Dam Modification, Core, WV
  23. Lemley Dam Modification, Core, WV
  24. Winterplace Reservoir Enlargement, Raleigh County, WV
  25. Jimmy Lewis Drain Pipe Repair, Pinnacle Rock State Park.
  26. Long Branch Dam, Pipestem State Park

➤ Our principals were responsible for obtaining certificates of approval for the following dams while working for our former employer:

1. Jimmy Lewis Dam Modification, Pinnacle Rock State Park
2. Plum Orchard Dam Modification, Fayette Co. WV
3. Boley Dam Modification, Babcock State Park
4. Anawalt Dam Design, Anawalt, WV
5. Warden Lake Dam, Wardensville, WV
6. Burches Run Dam, Moundsville, WV
7. Castleman's Run Dam, Brooke Co. WV
8. No. 1 Impoundment, Sistersville, WV
9. No. 2 Impoundment, Sistersville, WV
10. No. 3 Impoundment, Sistersville, WV
11. Mill Creek Dam, Kanawha Co. WV

### **SECTION 3 - HISTORY WORKING WITH WVDEP DAM SAFETY SECTION**

The principals of our firm have a strong working relationship with the WVDEP Dam safety section which we have developed over the last 30 years. We have worked closely with all members of the Dam Safety Section on projects throughout the state. This vast experience allows our company to work closely with the agency as a project team, and develop plans and specifications which are practical and require very little, if any changes after Dam Safety completes its review. Our approach to working with the Dam Safety Section is summarized below:

- **Initial Meeting/Discussion:** New projects are discussed with Dam Safety prior to beginning work in order to develop an understanding of the history of the dam, the agency's concerns, and to develop a scope of work necessary to gain approval of the project considered.
- **File Review:** A complete review of records maintained by the Owner and Dam Safety is conducted by our engineer.
- **Ongoing Review and Consultation:** Results of investigation and engineering analysis are submitted to Dam Safety as they are developed in order to expedite the review process. This piece meal submittal procedure minimizes costly changes and delays once the project plans are complete and ready for formal submission to the agency for review.
- **Regular Meetings with the Owner and Dam Safety:** Regular meetings are conducted throughout the design process to discuss findings, consult with Dam Safety's Engineers, and obtain direction.

This approach has served us well. The last 15 to 20 projects submitted to Dam Safety have been reviewed and approved without significant changes to the plans and specifications. These projects have all been successfully completed and included complete surveying and mapping, engineering analysis, permit preparation, plans, specifications, narrative, contract administration, construction monitoring, certification, and as-built drawings.

**As recognition for our dedication to the dam safety field and our excellent work, Civil Tech received the 2010 WVDEP Environmental Excellence Award – Safe Dam Category. 2010 was the first year this award has been offered and Civil Tech was the first recipient after being nominated by members of the Dam Safety Section.**

## **SECTION 4 - KEY PERSONNEL AND DESIGN TEAM**

**Key Personnel:** Mark E. Pennington MS, PE, PLS  
Jennifer E. Pennington PE, PLS

**Staff:** Mark E. Pennington PE - Principal in Charge  
Jennifer E. Pennington PE - Principal in Charge  
Tom Brown PE – Senior Engineer  
Tom DiBacco Jr. - Project Engineer - Environmental  
Robert Kessler - Senior Geologist  
Charles Arthur Jr. – Senior Designer -- CADD/Survey/Inspection  
H. Neal Craig – Designer -- CADD/Survey/Inspection  
Hayward Phillips - Construction Manager (design review and construction monitoring)  
William Ford – Inspector  
John Esch – Inspector  
Jody Flanagan – Inspector  
Kenny Lowmiller - Inspector

Resumes for key personnel and staff follow this section of the submittal.

**Design Team:** The design team will consist of assigned staff listed below:

Project Manager - Mark Pennington MS, PE (The construction contract will also be administered by Mr. Pennington.)

Project Engineers - Jennifer Pennington, PE, Tom Brown, PE

Lead Designer -- CADD Design - Charles Arthur Jr.

CADD Design - H. Neal Craig

Construction Manager - Hayward Phillips

Survey Crew - To be assigned

Inspector - To be assigned

**This is the same design team responsible for all of our past dam rehabilitation projects. Our team knows how to put together a successful dam rehabilitation project and, to stay on schedule and within budget.**



**RESUME OF MARK E. PENNINGTON**  
**PRINCIPAL ENGINEER**  
**08 - 24 - 10**

**EDUCATION:**

B.S.C.E. - Civil Engineering - 1977 - West Virginia University  
M.S.C.E. - Civil Engineering - 1985 - West Virginia College of Graduate Studies

**PROFESSIONAL REGISTRATION:**

Registered Professional Engineer - West Virginia, Ohio, Kentucky, and North Carolina  
Professional Surveyor - West Virginia

**EMPLOYMENT HISTORY:**

Principal Engineer President	-	<b>CIVIL TECH ENGINEERING, INC.</b> March 1, 1996 to Present
Chief Engineer Vice President	-	<b>Heeter Construction, Inc.</b> , Spencer, WV February 1996 to April 1997
Principal Engineer Vice President	-	<b>Triad Engineering, Inc.</b> , St. Albans, WV September 1980 to February 1996
Staff Engineer	-	<b>American Electric Power Service Corporation</b> -Civil Engineering Laboratory - May 1977 thru July 1978 -Ash Utilization & Research - August 1978 to Sept. 1980

**PERTINENT EXPERIENCE:**

**General:** Mr. Pennington is one of the founding principals and president of Civil Tech Engineering Inc. In this capacity, he is responsible for overall management of the company, business development, proposal preparation, and the direction/technical review of all engineering work produced by the company.

Prior to establishing Civil Tech Engineering, Mr. Pennington served as Branch Manager of the St. Albans Office of Triad Engineering, Inc. In this capacity, he supervised and coordinated all projects performed by the St. Albans Office and managed over 60 employees including; engineers, geologists, technicians, designers, draftsmen, environmental, surveyors, drillers, marketing, and clerical personnel. Mr. Pennington's areas of expertise include: general civil design, dam design/rehabilitation/safety, geotechnical engineering, hazardous and municipal waste design/permitting, hydraulics, hydrology, groundwater studies, laboratory testing, surveying and mapping, drilling, construction inspection/testing, and construction project/contract administration. Mr. Pennington also reviewed and approved mine permits for the Logan Office of Triad Engineering.

Mr. Pennington has provided and directed engineering services on over 1500 projects since forming Civil Tech Engineering, Inc. These projects have been performed for clients including: Dominion

## Resume of Mark Pennington Continued

Generation, WVDEP- AML, BRIM, Steel of West Virginia, FMC, WVDNR, Dominion Generation, Huntington Area Development Authority, City of Belington, Culloden PSD, City of South Charleston, City of Thomas, Cedar Lakes Conference Center, Middleport Terminals, Contractors, Architects, Private Home Owners, and insurance companies. Mr. Pennington has been responsible for a wide range of engineering projects and services including:

- Dam Inspection, Design, and Rehabilitation
- Abandoned Mine Land Projects
- Foundation Investigations for Industrial, Commercial, and Residential Structures
- Civil Design for Residential/Commercial Projects.
- Damage Investigation/Evaluation of Commercial/Residential Structures.
- Mine Subsidence Claims
- Municipal Landfill Design/Permitting
- Municipal Sewage Design and Permitting
- Hazardous Waste Landfill Design/Permitting
- Groundwater Contamination Studies
- Stormwater Design and Control
- Erosion and Sediment Control Design and Permitting
- Surveying and Mapping
- Construction Quality Control
- Construction Contract Administration

**Insurance and BRIM Investigation:** During Mr. Pennington's 30 year career, he has provided professional engineering services to insurance companies including State Farm, Nationwide, St. Paul, Westfield, Travelers, Allstate, Prudential, and Hartford. Since 2002, Mr. Pennington has also investigated numerous mine subsidence claims for BRIM. Services provided have included examination/evaluation of damage to various structures including:

- Light Commercial Buildings
- Residential Houses
- Manufactured Houses
- Small Bridges
- Retaining/Basement Walls
- Pavements/parking lot surfaces
- Chimneys/fireplaces
- Municipal Concerns

Mr. Pennington is experienced in the assessment of damage caused by wind, flood, snow, erosion, fire, leaking utility lines, earth movement (problem clay soils, settlement, landslides, etc.), vehicle impact, structural defects/failure, and manufacturing defects (related to housing), blasting and subsidence related to mining.

## Resume of Mark Pennington Continued

**Civil Design, Municipal Sewage and Water Service:** Mr. Pennington is the design engineer currently working on a \$ 3,000,000 sanitary sewer/storm water segregation project for the City of Thomas, West Virginia. He routinely assists the city of Thomas with the evaluation of storm water problems and has been responsible for the design and construction of a \$ 750,000 storm water improvement project which was completed in 2006. Mr. Pennington's past experience with general civil engineering includes; utility and roadway infrastructure, site grading, storm water, and permitting. Projects have included large commercial and private projects such as Southridge Centre (100 acres), First Church of God (10 acres), Ridgeline Developments (100 acres), Dudley Farms (50 acres), and recent 2 acre developments for hotel sites in Mineral Wells, and Weirton, West Virginia.

**Dam Safety:** Mr. Pennington is qualified in the field of dam safety, rehabilitation, and design. He is responsible for performing over 67 annual safety inspections for various dams and clients throughout West Virginia and surrounding states. Mr. Pennington has been responsible for the design of over 47 dam design and rehabilitation projects. His areas of expertise include the use of Roller Compacted Concrete (RCC) in the rehabilitation of dams. Mr. Pennington made a presentation at the ASCE fall technical conference in 1994 discussing the use of RCC as overtopping protection at the Anawalt Lake Dam. A partial list of typical dam design and rehabilitation projects for which Mr. Pennington has been responsible include:

1. Rollins Dam Principal Spillway Repair, Evans, WV
2. Seneca Dam Modification, Pocahontas Co., WV
3. Teter Creek Dam Modification, Barbour Co. WV
4. Wells Lock and Dam Repair, Elizabeth, WV
5. Handley Dam Modification, Handley WMA, Pocahontas Co., WV
6. Anawalt Flood Damage Repair, Anawalt, McDowell Co., WV
7. Old Pond 11 Modification, McClintic WMA, Mason Co., WV
8. Burches Run Breach Plan, Moundsville, WV
9. Edwards Run Dam Repair, Cacapon Bridge, WV
10. Culloden PSD Dam Modification, Culloden, WV
11. Belington Water Supply Dam Modification, Belington, WV
12. Cedar Lakes Dam No.s 1 and 2 Dam Break and Flood Damage Repair, Ripley, WV
13. Joyce Lake Dam Modification, Clarksburg, WV
14. Tailings Pond No. 2 Modification, FMC Corporation, Bessemer City, NC
15. City of Thomas Dam Modification, Thomas, WV
16. Fly Ash Dam Modification, FMC Peroxide Plant, So. Charleston, WV
17. Dickenson Dam Break and Modification, FMC Sportsman's Club, Hurricane, WV
18. Brood Pond Dam Break and Modification, FMC Sportsman's Club, Hurricane, WV
19. Winterplace Ski Resort Dam Modification, Ghent, WV
20. Rock Fill Dam No. 2 Flood Damage Repair, Beckley Water Company, Beckley, WV
21. Wilson Big Hollow Dam, Hampshire County, WV
22. Moncove Dam Modifications, Monroe County, WV
23. Burches Run Height Reduction, Marshall County, WV
24. Bailey Dam Modification, Monongalia County, WV
25. Lemley Dam Modifications, Monongalia County, WV
26. Deegan Dam Modification, Bridgeport, WV

## Resume of Mark Pennington Continued

27. Hinkle Dam Modification, Bridgeport, WV
28. Winterplace Reservoir Enlargement, Ghent, WV
29. Stony River Dam Breach, Mt. Storm WV (Construction 2008)
30. Flip Bucket Stabilization, Mt. Storm Lake Dam, Mt. Storm, WV (Construction 2008)
31. Mill Run Dam Modification, Mt. Storm, WV (Construction 2009)
32. White Dam Modification, Sissonville, WV (Construction Slated for 2010)
33. Jimmy Lewis Dam Drain Pipe Repair, Pinnacle Rock State Park (Construction 2010)
34. Temperature and Flow Monitoring Weir, Stony River, Mt. Storm Power Plant (2009).
35. Long Branch Dam Modification, Pipestem State Park (Construction Slated for 2011).
36. Berwind Dam Modification, Berwind WMA (Construction Slated for 2011)

**Construction:** Mr. Pennington provided engineering and construction management services to Heeter Construction of Spencer, West Virginia in 1996 and 1997. He assisted Heeter with bidding, project management, and any technical problems requiring engineering expertise. During 1996 and early 1997 while with Heeter Construction, he served as the assistant project manager for the construction of a 10 million dollar flood control levee designed by the US Army Corps of Engineers for the City of Moorefield, West Virginia. Mr. Pennington continues to provide bidding and construction consultation as well as value engineering proposals, waste site design, and other engineering services for Heeter Construction.

**US Army Corps of Engineers:** While with Triad Engineering, Mr. Pennington managed the indefinite delivery geotechnical contract with the Huntington District Corps of Engineers for 3 years. During this time, he was responsible for the design of Charleston Haddad Riverfront Park, certification of Pond 16 (a small dam designed by the COE at McClintic WMA), landslide investigations, seepage/stability analysis for flood levees, and numerous re-analysis investigations for dams including Dillon and Beech City Dams in the State of Ohio.

**Mine Permitting/Surveying:** While employed by Triad Engineering, Mr. Pennington was responsible for review and approval of mine permitting and surveying operations conducted in the Logan, West Virginia Office of Triad.

**AML Experience:** Mr. Pennington was responsible for the recent completion of the Thomas (Sunrise Sanitation) Mine Drain Project located in the City of Thomas, Tucker County, West Virginia. He recently completed the design of an emergency project for AML involving a mine blowout which was threatening an existing commercial structure in Thomas, West Virginia. He is currently the engineer of record for six other AML projects involving portals, mine drainage, and Highwall reclamation. He was also responsible for all AML work produced by the St. Albans office of Triad Engineering prior to resigning from the company in early 1996. His work included proposal preparation, planning, direction, management, and performance of all engineering activity associated with Triad's AML contract. Mr. Pennington was responsible for the successful completion of approximately 137 projects during the period from 1990 to 1996. His expertise includes the abatement of mine related problems associated with subsidence, blasting, landslides, mine drainage, refuse fires, mine fires, mine shafts, drainage, impoundments, and groundwater/surface water pollution. Prior to working with the WVDEP - AML, he worked with the Office of Surface Mining on similar projects. Mr. Pennington has 20 years of pertinent experience with the abatement of mine related problems.

**RESUME OF JENNIFER E. PENNINGTON**  
**PRINCIPAL ENGINEER**

10-01-08

**EDUCATION**

BSCE - Civil Engineering - 1988 - University of Kentucky

**CERTIFICATION/REGISTRATION**

Registered Professional Engineer - West Virginia  
Licensed Land Surveyor - West Virginia

**EMPLOYMENT HISTORY**

<b>Principal Engineer</b>	Civil Tech Engineering, Inc., St. Albans, WV March 1996 to Present
<b>Senior Engineer</b>	Triad Engineering, Inc., St. Albans, WV, 1988 to 1996

**PERTINENT EXPERIENCE**

Ms. Pennington has served as a team member and project manager on numerous civil design and geotechnical projects involving subsurface investigation, geotechnical analysis, and dam design. Specifically, she was responsible for all dam design and rehabilitation projects, and projects performed for the Huntington District Corps of Engineers (HDCOE) while employed by Triad Engineering during 1988-1996. Work performed on these projects and current projects for which she is responsible at Civil Tech Engineering include:

- Geotechnical Investigation and Analysis
- Civil Design
- Hydrologic/hydraulic analysis using HEC-1, HEC-2, and Dams2 Computer Programs
- Stability Analysis using UTEXAS2, PCStable5, and HDCOE Hand Check Methods
- Seepage Analysis using graphical flow net and HDCOE mathematical methods
- Preparation of Project Narratives, Design Drawings, Specifications, Construction Schedules, Erosion and Sediment Control Plans, and Construction Cost Estimates.

Since the company was formed, Civil Tech Engineering has performed numerous dam safety inspections, dam breach analysis and risk assessments, geotechnical studies, and dam rehabilitation design projects. Ms. Pennington has been responsible for project management on these and many other large scale projects including design and extensive geotechnical/foundation investigations. She is proficient in organizing and maintaining scheduling during the course of long term projects and can work independently with no supervision. She has complete familiarity with all of the above mentioned in house computer programs as well as Word, Excel, AutoCad, Eagle Point, Flowmaster, and Hydrocad. She recently provided design engineering services for the Thomas (Sunrise Sanitation) Mine Drain Project.

Ms. Pennington is responsible for technical review of all work produced by Civil Tech. In this capacity, she reviews and approves all work produced by the company including civil design, dam safety projects, insurance investigation reports and all reports produced for BRIM in association with mine subsidence claims.

**RESUME OF H. THOMAS BROWN**  
**PROJECT ENGINEER**  
4-22-09

**EDUCATION**

BSCE – Civil Engineering – 1982 – West Virginia University

**CERTIFICATION/REGISTRATION**

Registered Professional Engineer – West Virginia  
Professional Surveyor – West Virginia

**EMPLOYMENT HISTORY**

<b>Project Engineer</b>	Civil Tech Engineering Inc. January 2009 to Present
<b>Director of Community and Public Works</b>	City of Bridgeport, WV 2004 to Present
<b>Office Manager/Chief Estimator</b>	Harmon Construction/WV Paving 1991-2004
<b>Project Engineer</b>	Advanced Surveys Inc. 1987-1991
<b>Estimator</b>	Tribble Construction, Inc. 1986-1987
<b>Estimator</b>	Driggs Corporation 1986-1986
<b>Chief Estimator</b>	Maryaco, Inc. 1985-1986
<b>Manager</b>	CMX Industrial Ceramics 1984-1985
<b>Estimator</b>	Hopke Company, Inc. 1983-1984
<b>Technician</b>	Soil Conservation Service 1981-1983

## **PROFESSIONAL EXPERIENCE**

Mr. Brown has nearly 30 years experience in the construction industry as an estimator, superintendent, and owner's representative. He has also been responsible for engineering design involving dams, utility infrastructure, storm drainage, roadways, parking lots, walls, earthwork, etc. In 2001 he served as project manager for the Teter Creek Dam Modification while employed by West Virginia Paving. The Teter Creek project involved approximately 20,000 of earth construction, drain pipe repair, and 3000 cy of roller compacted concrete. As director of community and public works for the City of Bridgeport, his responsibilities include managing city departments, GIS, public works, public utilities, community development, and Parks & Recreation. As a project engineer for Civil Tech, Mr. Brown's responsibilities include construction contract management, engineering design, and preparation of construction specifications and cost estimates. He is currently administering the construction contract for the Thomas Sewer-Stormwater Segregation project located in the City of Thomas. He was most recently responsible for preparation of specifications for the Thomas Mine Drain Blowout Project for AML.

**RESUME OF CHARLES D. ARTHUR, Jr.**  
**SENIOR DESIGNER**  
**10 - 01 - 08**

**EDUCATION:**

- June 2000      **Benjamin Franklin Career and Technical Education Center**      Dunbar, WV  
*Computer-aided Drafting/1080 hours*  
Honor roll in computer drafting, experience with MicroStation 95/SE, AutoCAD 2000, Windows 98 SE, 3D drawings, mechanical/architecture drawings, isometric/oblique drawings and orthographic projections
- June 1997      **Benjamin Franklin Career and Technical Education Center**      Dunbar, WV  
*Welding/1,320 hours*  
Honors included a second place finish in the State Welding Competition, Elkins, WV, April 1997 sponsored by the Vocational Industrial Clubs of America, Certificate of Recognition and experience with SMAW, GMAW, GTAW and TB
- Dec 1993      **Richmond Technical Center**      Richmond, VA  
*Welding/72 hours*  
Honor roll in welding, experience with SMAW, GMAW, GTAW and TB
- June 1990      **Dunbar High School**      Dunbar, WV  
*Diploma*

**EMPLOYMENT HISTORY**

- June 2000 to Present      **Civil Tech Engineering, Inc.**      Hurricane, WV  
*Senior Designer*  
Responsible for preparation of design drawings using Autocad 2000 and 2004, design modeling using Eagle Point 99 software, survey party chief, and evaluation of mine maps and subsidence.
- July 1999 to June 2000      **Custom Upholstery**      St. Albans, WV  
*Helper/Deliverer Part Time*  
Experience keeping track of shop inventory and related sales, tearing down furniture to be upholstered and transporting furniture
- Aug 1997 to June 1999      **American Commercial Barge Line**      Jeffersonville, IN  
*Deck Hand*  
Experience rigging barges together, making locks, chipping, grinding, painting, working in close quarters and maintaining tug boats/chemical barges
- Jan 1995 to Aug 1997 and      **Pizza Hut Inc.**      South Charleston, WV  
*Shift Manager*



## RESUME OF CHARLES D. ARTHUR, Jr. Continued

July 1989 to June 1993 Experience updating customer data, completing close of daily receipts, insuring that paperwork balances, operating computerized cash register and possessing exemplary customer and employee relations

June 1993 to Dec 1994 **First Choice Equipment** Ashland, VA  
*Mechanic*  
Experience maintaining tractor-trailers, various welding jobs, paint preparation and painting

### PERTINENT EXPERIENCE:

Since joining Civil Tech in 2000, Mr. Arthur has been responsible for preparation of design drawings using Autocad for a variety of civil engineering, AML, mine subsidence claims, and dam modification projects. A partial list of projects follows:

- Thomas Sunrise Sanitation Mine Drain
- Old Pond 11 Dam Rehabilitation
- Anawalt Flood Damage Repair
- Teter Creek Dam Modification
- Wells Lock and Dam Repair
- Wilson Big Hollow Dam
- Winterplace Dam Modification 1 and 2.
- Cedar Lakes Dam No. 2 Flood Damage Repair
- Bailey and Lemley Dam Modifications
- Deegan and Hinkle Dam Modifications
- Thomas Storm Water Improvements
- Thomas Sewer/Storm Water Segregation Project
- Amish Exchange
- Mine Subsidence and Insurance Investigations
- Landslide corrections
- Geotechnical Investigations

Mr. Arthur also serves as survey crew chief for property and topographic mapping projects for Civil Tech Engineering. During his employment he has also provided construction inspection and testing services for civil and dam modification projects and has inspected subsurface investigation projects for geotechnical projects.

Mr. Arthur is also certified by the State of West Virginia as a pre-blast inspector.

**JOHN C. HILDRETH**  
**PROJECT ENGINEER**

10-01-08

**EDUCATION:**

B.S.C.E. - Civil Engineering - 1997 - West Virginia University  
M.S.C.E. - Civil Engineering - 1999 - West Virginia University  
Phd - Virginia Polytechnical Institute - 2003 - Vecellio Construction Engineering Management Program

**EMPLOYMENT HISTORY:**

<b>Project Engineer</b>	CIVIL TECH ENGINEERING, INC., Hurricane, WV 1996 to Present
<b>Project Engineer</b>	Boyles and Hildreth, Spencer, WV, 2003 to 2004
<b>Research Professor</b>	Virginia Polytechnical Institute 2004 to 2008
<b>Professor</b>	University of North Carolina 2008 to present
<b>Teaching Assistant</b>	West Virginia University, 1997 to 1999
<b>Project Mgr./Estimator</b>	Heeter Construction, Inc., Spencer, WV, 1995 to 1997
<b>Designer/CADD Operator</b>	Blake and August Environmental, Inc., Morgantown, WV 1994-1995
<b>Designer/Draftsman</b>	Boyles and Hildreth Consulting Engineers, Spencer, WV 1992-1995

**PERTINENT EXPERIENCE**

**Civil Tech Engineering, Inc.:** Responsible for engineering design of various civil projects. Involved in the production aspects of finished engineering plans and specifications for construction from field surveying to preliminary and final design. Provided contract administration on Dam Modification projects. Projects responsible for:

- Seneca Lake Dam Modifications - WVDNR Parks Recreation
- Dickenson Lake and Brood Pond Dam Modifications - FMC Sportsman's Club
- Teter Creek Lake Dam Modifications - WVDNR Wildlife Section
- First Church of God Site Development - First Church of God, Charleston, WV
- Old Pond 11 Dam Modification Construction - WVDNR Wildlife Section
- Moncove Dam Rehabilitation - WVDNR Parks and Recreation Section

**Teaching Assistant - West Virginia University:** Responsible for conducting three hour laboratory associated with civil engineering materials classes.

**Heeter Construction, Inc.:**

- Responsible for preparation and submission of construction bids to local, state, and federal agencies.
- Field office manager for USACOE flood control project in Moorefield, WV
- Identified change orders and prepared, submitted, and negotiated costs with the Owner.
- Projects entailing management duties included:
  - Moorefield Local Flood Protection Project - USACOE
  - US Route 220 Moorefield Bridge Replacement Project - WVDOT

## Resume of John Hildreth Continued

**Blake and August Environmental, Inc.:** Produced finished drawings from field notes and lab reports supplementing environmental site assessment reports.

**Boyles and Hildreth Consulting Engineers, Inc.:** Produced finished engineering plans of construction from raw survey data and site assessments. Projects included:

- US Route 19 Water System Extension - City of Spencer
- Williamstown Water Plant Improvements - City of Williamstown
- Ripley Wastewater Collection System Improvements - City of Ripley
- Jackson County Airport Improvements - Jackson County Airport Authority
- Ripley Water Treatment Plant – Jackson County, WV

**RESUME OF ROBERT R. KESSLER**  
**GEOLOGIST**  
**10 - 01 - 08**

**EDUCATION:**

B.S. - Geology - 1965 - Ohio University  
Post Graduate Work - 1965 to 1966 - Geology - Ohio University  
B.S. - Mathematics - 1980 - University of Charleston

**CERTIFICATIONS:**

Certified Aggregate Inspector - WVDOH  
Certified Concrete Inspector - WVDOH  
Certificate of Completion - Wetland Training - WVDOH  
Certificate of Completion - Techniques for Pavement Rehabilitation - WVDOH  
Certificate of Completion - Aerial Photo Interpretation - WVDOH  
Certificate of Completion - Alkali Silica Reactivity in Concrete - FHWA

**EMPLOYMENT HISTORY:**

Geologist - Civil Tech Engineering, Inc. 1996 – present  
Responsible for all geologic studies/investigations.  
Typical projects include mining subsidence investigations,  
Teter Creek Dam, Thomas Dam, Old Pond 11 Dam, and  
Seneca Dam.

Geologist - Aggregate Group, West Virginia Division of Highways  
Group Leader - August 1998 to Present, Materials Control Division  
  
Division Reorganization

Geologist - All Materials Testing Sections & Roadway Analysis  
Testing Group Leader - West Virginia Division of Highways  
April 1992 to August 1998, Materials Control Division  
  
Division Reorganization

Geologist - West Virginia Department of Transportation  
Technical Advisor - January 1986 to April 1992, Materials Control Division  
  
Division Reorganization

Geologist - Aggregate Section, West Virginia Department of Highways  
Assistant Director - May 1984 to January 1986, Materials Control Division

## RESUME OF ROBERT KESSLER CONTINUED

- Geologist - Aggregate Section, West Virginia State Road Commission  
Section Leader May 1969 to May 1984, Materials Control Division
- Geologist - Aggregate Section, West Virginia State Road Commission  
July 1966 to May 1969, Materials Control Division

### PERTINENT EXPERIENCE

Mr. Kessler has performed geologic study on eleven mine subsidence claims investigated by Civil Tech for BRIM since 1996. Geologic investigation has included review of available mining maps and the county geologic reports providing important information concerning mining history and geologic formations and mine subsidence potential.

In addition to his duties reviewing mine subsidence claims, Mr. Kessler has also been responsible for the geologic study and investigation for over 40 dam rehabilitation projects in West Virginia.

Mr. Kessler has an intimate knowledge of geologic formations in the state of West Virginia and has recently authored and published a book on the geology of the Kanawha Valley.

## RESUME OF H. THOMAS DIBACCO

### ENVIRONMENTAL ENGINEER

#### EDUCATION:

B.S. Environmental Engineering-2000-Kennedy Western University.  
Electronic Systems-DeVRY Institute of Technology  
Fairmont State College-1961-1963

#### CERTIFICATION/REGISTRATION:

Class 1 Public Water Supply Operator  
Supervisory Development Program  
Radiation Safety  
FCC General License  
Visual Emissions EPA Method 9

#### EMPLOYMENT HISTORY:

Virginia Power  
Environmental Compliance Coordinator Mt. Storm Power Station, North Branch Power Station  
1966 to June 2000.

Civil Tech Engineering, Inc.  
Hurricane, West Virginia  
Project Manager July 2000 to present.

#### PROFESSIONAL EXPERIENCE:

Air pollution permits PSD Title 5  
Water pollution control NPDES  
Hazardous waste management  
Lake management  
Dam safety inspections  
Consultant wind energy development  
Advisor wind energy program James Madison University  
Biological studies with Ohio State University  
Engineering and development of ash storage facilities and haul roads

Environmental awareness training  
Ground water monitoring  
Environmental audits.  
Wastewater treatment (1500gpd to 150,000gpd)  
Storm water sampling  
Spill prevention control and countermeasures  
Solid waste management  
Environmental inspections with WV Office of Air Quality, EPA, WVDEP.  
Project Manager Thomas Dam Modifications  
Project Manager Teter Creek Lake Dam Modifications

**PERTINENT EXPERIENCE:** Mr. DiBacco has worked extensively with water and wastewater treatment systems at Mt. Storm Power Station, the North Branch Power Station, and the City of Thomas. As Environmental Compliance Coordinator at both the Mt. Storm Power Station and the North Branch Power Station Mr. DiBacco has considerable experience in all areas of Environmental Regulations. He is also experienced in dam safety requirements. Mr. DiBacco was Project Manager for the Thomas Dam Modifications and is currently working on Teter Creek Lake Dam Modification Project for Civil Tech Engineering, Inc.

**HAYWARD PHILLIPS**  
**CONSTRUCTION MANAGER**

**EMPLOYMENT HISTORY:**

**Construction Manager/Inspection** 1999 to present - Civil Tech Engineering, Inc., Projects include Thomas, Teter Creek, Wilson Big Hollow Dam, and Belington Dams

**County Supervisor** 1989 - 1994 - WVDOT Division of Highways, Tucker County

**Construction Superintendent** 1983 - 1989 - Coaltrain Corporation, Highway Construction, Surface mine superintendent

1974 - 1983 - Harman Construction Company, Superintendent, Highway and Bridge Construction

1964 - 1974 - R.H. Armstrong, Inc., Highway Construction, Dam Construction, and Paving

1960 - 1964 - Harley E. Calvin Company, Highway Construction

**Equipment Operator** 1947 - 1960 - Robert T. Main Company, Harman Construction, Keeley Construction Company, Sam Polino Company

**Tucker County Development Authority** Mr. Phillips is an active member of the Tucker County Development Authority and provides technical assistance for various municipal projects for the Town of Parsons.



## **SECTION 5 - SUBCONSULTANTS**

All work will be performed in-house with the exception of drilling and soils laboratory testing services. We will use Triad Engineering of Morgantown, West Virginia for drilling and laboratory testing services. Should underwater video or investigation be required, we will utilize Underwater Services of Poca, West Virginia. The total cost of subcontracts should range between 5 and 10%. No other subcontracts are anticipated.

## **SECTION 6 - QUALITY CONTROL PROCEDURES**

Our policy is to perform all engineering services under the direct supervision of a registered professional engineer who is a principal of the firm. All engineering work on this project will be performed with in-house personnel and equipment. This approach will allow us to closely control schedule, cost, and quality. This philosophy has served us well since the company was founded over 14 years ago and has allowed us to successfully complete nearly 1500 projects involving surveying and mapping, civil site design, environmental permitting, geotechnical, structural damage assessment, construction monitoring and testing, and construction contract administration. We will not sacrifice quality for any reason. All work performed by Civil Tech goes through the following 3 step quality control procedure before it is accepted for submission to the Owner and Dam Safety:

1. **Technical and Scope Review by the Project Manager (principal of firm and registered professional engineer):** This review assures technical accuracy and that the design complies with standard practice, regulations, and meets the needs of the Owner.
2. **Practicality Review by the Construction Manager:** This review assures the design is practical and buildable.
3. **Owners Review:** The Owner will be given the opportunity to review design and construction documents before submission to Dam Safety.

## **SECTION 7 - DEADLINES AND PROJECT COMPLETION**

Civil Tech has a history of completing dam safety and rehabilitation projects on time and within budget. Because of our experience and knowledge with the Dam Safety regulations and dam design, we can typically complete the design of dam rehabilitation projects within 8 months or less. Many of our dam related projects have been fast tracked due to funding and time constraints. The Thomas Dam Project completed in 2000 for the City of Thomas is a one example of our capability to complete dam related projects in a quick, timely, and cost effective manner. A discussion of the Thomas Project and others is provided below.

**Thomas Dam Project:** In 1999, the City of Thomas was faced with a deficient, unsafe dam located in the environmentally sensitive North Fork of the Blackwater River. Funding constraints imposed by HUD through the WV Development Office required the design and construction of this project be completed before December 31, 2000 or funding would be lost. We were selected for the Thomas Project in the summer of 1999 and a contract was signed with the city on September 1 of that year. Civil Tech completed the design by the end of 1999 (4 months), and filed the permit application with Dam Safety by February 1 of 2000. Because we had worked closely with Dam Safety, the permit application was reviewed and a certificate of approval to proceed with construction was issued for the project before March 1, 2000 (6 months after startup). The project was advertised and bid in accordance with HUD procedures and a contract was awarded. Construction began in 2000 and was completed by October 30, 2000 in accordance with the funding deadline. The project was also completed under budget.

**Winterplace Dam:** In August of 2002, our company was selected by Winterplace Ski Resort to expand their water supply dam. Since adequate water supply for snow making is critical to their resort, Winterplace had to have this modification complete and the dam filled and in service before ski season of 2003. To accomplish this, the design had to be completed and submitted to dam safety so that construction could begin by March 1, 2003. We were awarded this project on August 23, 2002 and agreed to complete the design and submit the design to Dam Safety by December 15, 2002. The dam safety permit application along with plans and specifications were completed on time and within budget. The project was approved by Dam Safety and bid in February of 2003 in time for the construction season.

**WVDNR:** We have performed many projects for Parks & Recreation and Wildlife Resources Sections of the WVDNR. All of these projects have been completed within budget and time constraints. We understand funding requirements will mandate the Cacapon Dam Modifications be completed within 3 years. If selected for this project, we will work closely with Dam Safety to meet this deadline.

References who can speak about our ability to meet project deadlines are listed below:

1. Bradley S. Leslie, PE 304-558-2764  
WVDNR Parks & Recreation Section
2. Dennis Kincer, PE, 304-558-2771  
Wildlife Resources Section - WVDNR
3. Mayor Matt Quattro, 304-463-4360  
City of Thomas, WV
4. Terry Pfeiffer, 304-787-3221 ext 104  
Winterplace Ski Resort

**SECTION 8 - DAM SAFETY CLIENT AND REFERENCE LIST**

**West Virginia Division of Natural Resources**

Parks and Recreation Section  
Building 3, Room 719  
1900 Kanawha Boulevard, East  
Charleston, West Virginia 25305-0662

Contact: Mr. Bradley S. Leslie PE  
Phone: 304-558-2764

**West Virginia Division of Natural Resources**

Wildlife Resources Section  
Capitol Complex  
Building 3, Room 816  
Charleston, West Virginia 25305

Contact: Mr. Dennis Kincer PE  
Phone: 304-558-2771

**City of Thomas**

P.O. Box 248  
Thomas, West Virginia 26292

Contact: Mayor Matt Quattro  
Phone: 304-463-4360

**New Winterplace LLC**

c/o Bright Enterprises  
P.O. Box 460  
Summersville, West Virginia 26651

Contact: Terry Pfeiffer  
Phone: 304-787-3221 ext 104

**Dominion Generation**

Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Contact: Mr. John Cima, PE, Manager Engineering - BOP Systems  
Phone: 804-273-3045

**Beckley Water Company**

P.O. Drawer U  
Beckley, West Virginia 25801

Contact: Mr. Mathew Stanley Vice President  
Phone: 304-255-5121 ext 104

**City of Belington**

Post Office Box 926  
Belington, West Virginia 26250

Contact: Mr. Don Harris  
Phone: 304-823-1611

**FMC Corporation - Spring Hill Peroxide Plant**

3200 McCorkle Avenue  
South Charleston, WV 25303

Contact: Robert Peters  
Phone: 304-746-1523

**NewPage Corporation**

300 Pratt Street  
Luke, MD 21540

Contact: Sterlin Rebuck, PE  
Phone: 301- 359-3311 Ext 3587

**City of Bridgeport**

City of Bridgeport  
515 West Main Street  
Bridgeport, WV 26330

Contact: Mr. Tom Brown, PE – City Engineer  
Phone: 304-842-8204

**FMC Employees Sportsman's Club**

500 North Poplar Fork  
Winfield, WV 25213

Contact: Mr. John Esch  
Phone: 304-757-7339

**Mt. Top PSD**

Mt. Top PSD  
P.O. Box 236  
Mt. Storm, WV 26739

Contact: Ms. Diane Junkins  
Phone: 304-693-7667