



ENGINEERING CONSULTING SERVICES, INC.
Civil - Environmental - Mining - Safety



ECSI

STATEMENT OF QUALIFICATIONS

NELLIS (SMITH) DRAINAGE DESIGN

BOONE COUNTY, WEST VIRGINIA

WV DEPARTMENT OF ENVIRONMENTAL PROTECTION

ABANDONED MINE LANDS & RECLAMATION

REQUEST FOR QUOTATION NO.: DEP 15002

RECEIVED

1628 West Third Ave. ■ Williamson, WV 25661

Phone: 304-235-1885 ■ Fax: 304-235-1887

www.engrservices.com

2010 APR 28 P 12: 15

PURCHASING DIVISION
STATE OF WV



ENGINEERING CONSULTING SERVICES, INC.

CIVIL ■ ENVIRONMENTAL ■ MINING ■ SAFETY

1628 W. THIRD AVENUE

WILLIAMSON, WV 25661

April 27, 2010

Chuck Bowman, Buyer Supervisor
State of West Virginia
Department of Administration
Purchasing Division
P.O. Box 50130
Charleston, WV 25305-0130

RE: RFQ No. DEP15002
Nellis (Smith) Drainage Design
Boone County, WV
Opening 1:30 PM, April 28, 2010

Dear Mr. Bowman:

Engineering Consulting Services, Inc. (ECSI) is pleased to submit this response to the above-referenced solicitation (the "Project").

ECSI has been in the environmental and mining permitting business for 27 years. During its 27 years ECSI has successfully designed over 1,000 mining and reclamation plans and obtained state and federal permits for: mining, reclamation, spoil handling, drainage, spoil storage, hollow fills, roadway construction, revegetation and designs for associated field operations. That experience, along with ECSI's experience with designs for numerous abandoned mine land (AML) and acid mine drainage (AMD) sites, is directly applicable to the Project at hand and is set forth in more detail in the attachments following this introductory letter.

ECSI understands this solicitation is for civil, structural, geological and hydrological engineering services and associated professional skills including site investigation, surveying, the securing of necessary permits and negotiation with landowners for access. ECSI has assembled a professional team to respond to the solicitation and that team is experienced and extraordinarily well-suited for this task.

ECSI fully appreciates that it will be charged with providing complete design documents to address removal of existing drainage channels, design new drainage systems, and provide for reclamation and re-vegetation of all areas constituting the Project. The first step would include a characterization of the Project which may include geotechnical investigation; surveying; mapping; soil and refuse sampling and analysis; identification of any drainage including AMD (at the site); locating and marking all existing utilities, whether public or private; and any other environmental issues that may be present. The project would then proceed through the remaining Tasks including the Preliminary Design and Final Design.

LEXINGTON, KY
859-233-2103 PHONE
859-259-3394 FAX

CORBIN, KY
606-526-6396 PHONE
606-526-6398 FAX

OWENSBORO, KY
270-683-8030 PHONE
270-683-8031 FAX

PIKEVILLE, KY
606-432-2443 PHONE
606-432-2486 FAX

WILLIAMSON, WV
304-235-1885 PHONE
304-235-1887 FAX

Mr. Chuck Bowman
April 27, 2010
Page 2

With ECSI's long experience designing mining, reclamation and remediation plans at active mine sites, as well as AMD and AML sites, it believes it is very well suited for this Project.

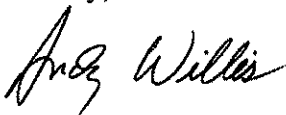
ECSI will service this Project from its Williamson, West Virginia office, with primary support provided by ECSI's Pikeville, Kentucky office personnel. These two offices are only separated by approximately 20 miles and routinely share personnel as project demands dictate. The Williamson office offers seven (7) professional staff personnel and the Pikeville office offers an additional six (6) professional staff members. Specialized staff will be provided by other ECSI offices located in Lexington, Kentucky; Corbin, Kentucky; and Owensboro, Kentucky, as required.

ECSI has a strong interest in undertaking this Project and has the relevant skills and experience to do so. For example, ECSI brings to the table permitting expertise for over 1,000 original mining and reclamation permits, amendments, and revisions. It has obtained state and federal permits for its clients for mining, water discharge, water withdrawal and air pollution plus AML Enhancement Rule projects. It also boasts two very experienced land agents on its staff.

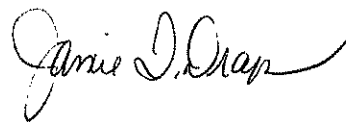
In conclusion, ECSI offers some of the most experienced civil/mining/environmental engineers and geological professionals in the region. As shown on the attached resumes, some of the professionals have in excess of 30 years of experience with the mining and earth moving industries. ECSI also brings AML design experience and, very importantly, successes with its demonstrated work on the sites appearing in the **Relevant Projects** tab. The group also brings to the table very significant experience in negotiation with landowners and the obtaining of any and all associated permits. ECSI has the resources and available manpower to meet the Project deadlines as set forth in the solicitation.

ECSI appreciates the opportunity to respond to this solicitation and is anxious to proceed. We can be reached by email at awillis@engrservices.com and jdraper@engrservices.com.

Sincerely,



Andy Willis, P.E.
Senior Vice President



Jamie Draper, MBA
Marketing Director



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
DEP15002

PAGE
1

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

RFQ COPY

TYPE NAME/ADDRESS HERE

Engineering Consulting Services, Inc
 1628 West Third Ave.
 Williamson, WV 25661

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

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
03/17/2010				

BID OPENING DATE: **04/28/2010** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-29		
<p>NELLIS (SMITH) DRAINAGE DESIGN</p> <p>EXPRESSION OF INTEREST</p> <p>THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES AT THE NELLIS (SMITH) DRAINAGE PROJECT IN BOONE COUNTY, WEST VIRGINIA, PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS.</p> <p>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.</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Andy Keller</i>	TELEPHONE 304-235-1885	DATE 04-26-10
TITLE Vice President	FEIN 611357743	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 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.
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).

Revised 9/09

EXPRESSION OF INTEREST

NELLIS (SMITH) DRAINAGE

Requisition DEP15002

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 the West Virginia Department of Environmental Protection (WVDEP), Office of Abandoned Mine Lands & Reclamation (AML), from qualified firms to provide architectural/engineering services as defined in section two (2) and three (3) and construction monitoring services during the construction phase of the project as defined by the **Scope of Work**. Construction Inspection by the firm will be at the option of WVDEP/AML.

1.2 Project:

The mission or purpose of the project described in sections 2 & 3 is to provide design services for the following:

NELLIS (SMITH) DRAINAGE:

Remove the existing drainage channels.

Create/design diversion channels, ditches, under drains and/or culvert system to transport drainage.

Provide for reclamation and re-vegetation of all areas disturbed during construction.

1.3 Format:

All responses should be submitted in a loose-leaf, three ring binder. The response should be presented in concise format which defines the corporation history and the experience, qualifications, and performance data of the firm's staff as requested by the AML Consultant Qualification Questionnaire (CQQ), Attachment "B" and the AML and Related Project Experience Matrix (RPEM). Attachment "C".

Electronic copies of the above referenced documents Attachment "B" and Attachment "C" are available online for registered vendors at:

<http://www.state.wv.us/admin/purchase/newbul.htm>

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:

Chuck Bowman, Buyer Supervisor
Purchasing Division
P.O. Box 50130
Charleston, WV 25305-0130
Fax: (304) 558-4115
Email: charles.a.bowmanjr@wv.gov

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. Example projects referred to in a firm's EOI's submittal should address projects that are similar in scope to that of the EOI. **Firms must complete the CQQ and RPEM as included in Section 4.2 of this EOI. (Proposals must be no more than 100 pages).**

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 one convenience copy and one copy on CD 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: CB-23
Req #: DEP15002
Opening Date: 04/28/2010
Opening Time: 1:30 pm

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 EOI.....03/18/2010
EOI Opening Date.....04/28/2010

1.17 Mandatory Pre-bid Conference: N/A

1.18 Bond Requirements: N/A

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:

Directions to Nellis (Smith) Drainage:

Follow I-77 to Marmet. At Marmet, follow Route 94 South. Take a right onto County Route 1 towards Ashford. Continue through Ashford to Nellis. In Nellis, the site is located along County Route 1/10.

2.2 Background:

Firms are to be licensed Architectural/Engineering Firms (A/E) and should be familiar with, and have a successful track record of design of similar projects. The anticipated contract will be for "full-service" A/E design. Aspects of the design are to include, but not be limited to, Civil, Structural, Geological and Hydrological.

*The successful A/E will be responsible for **Design** of the following:*

The project site consists of several hundred feet of stream diversion pipes, and a brick structure, installed by Nellis Mining in the 1930's. This structure housed the pump station that pumped the mine water from the Nellis Mines approximately 40-ft below the surface. Local residents are concerned about the potential of flooding and other hazards due to the existing drainage system. The existing stream diversion system is comprised of varying sizes of pipes, and is largely obstructed.

The preferred scope of work will be to: remove the existing drainage channels; create/design diversion channels, ditches, under drains and/or culvert system to transport drainage; provide for reclamation and re-vegetation of all areas disturbed during construction.

Approximate project coordinates: 38-09-35N, 81-44-49W to
38-09-00N, 81-44-35W

Preliminary design documents will be due 90 days from the issuance of the Purchase Order.

PART 3 PROCUREMENT SPECIFICATIONS

3.1 General Requirements:

Firm must submit a completed CQQ (Attachment "B") and RPEM (Attachment "C") as per Section 4.2

3.2 Project Description:

Scope of Work for Nellis (Smith) Drainage:

Remove the existing drainage channels.

Create/design diversion channels, ditches, under drains and/or culvert system to transport drainage.

Provide for reclamation and re-vegetation of all areas disturbed during construction.

3.3 Special Terms and Conditions:

3.3.1 Bid and Performance Bonds:

- 3.3.2 Insurance Requirements:* \$1,000,000 General Liability per Occurrence
- \$2,000,000 Aggregate
- \$1,000,000 Automobile Liability
- \$1,000,000 Professional Liability
- Workers Compensation Certificate Upon Award
- West Virginia Statutory requirements including
- West Virginia Code §23-4-2 (Mandolidis)
- DEP15002 must be listed on Insurance Cert.

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.

The firm will invoice for completed work on an approved WVDEP form.

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 **N/A** 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 and 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 fifty 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.”

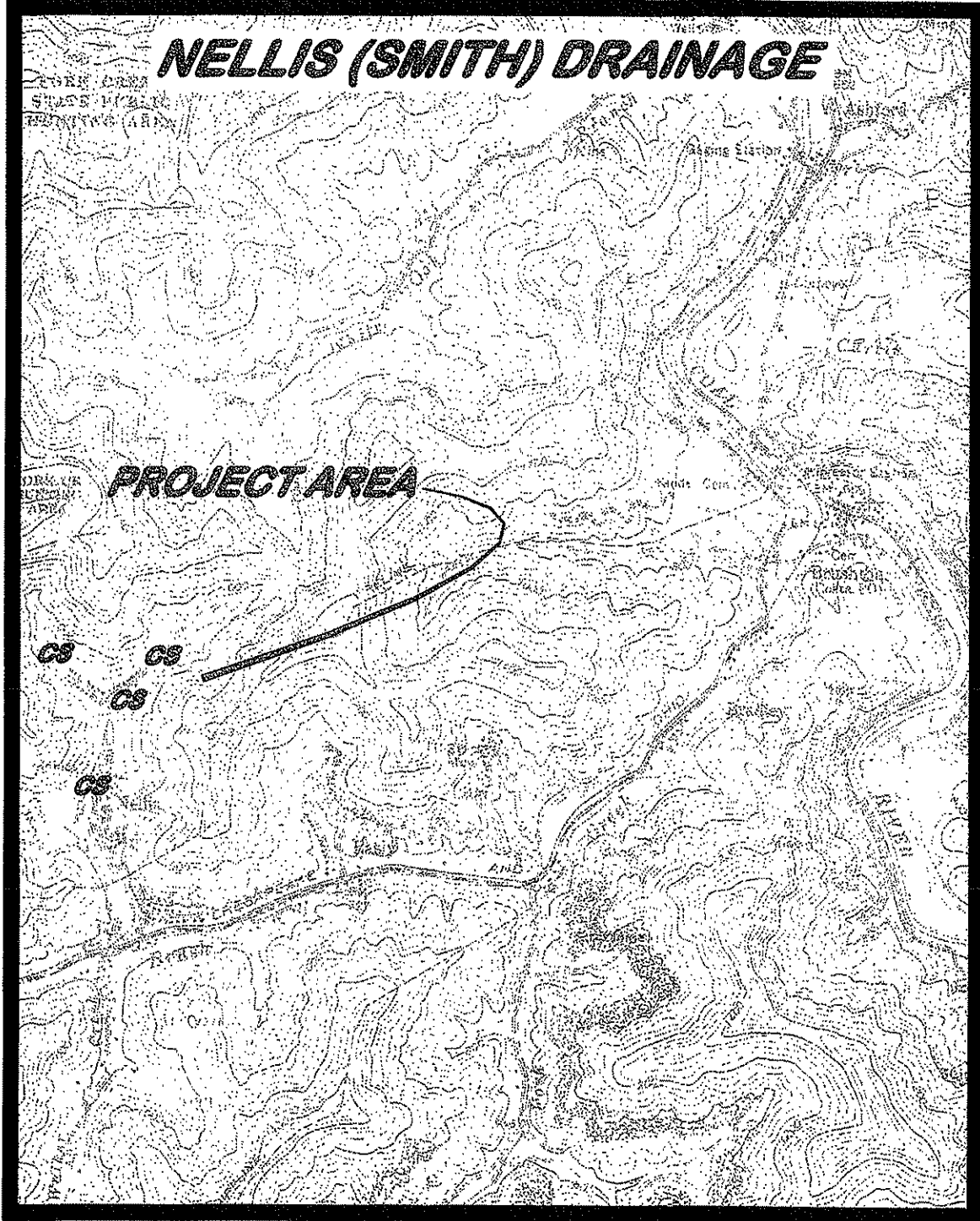
b) The evaluation criteria and assigned point values are as follows:

- A. WV Registered Professional Engineers (Civil or Mining)
In the Primary Office: 20 points
 - B. Reclamation Engineering design experience of the Primary Office’s WVRPE as it relates to the specific project problem Areas: 25 points
 - C. Available WV-AML Design Teams within the Primary office (A Design team should consist of one Project Engineer (Civil or Mining), one CAD person and availability of other support personnel a required by the particular project): 20 points
 - D. The Oral Interview (See Section 4.3 of this EOI): 35 points
- 4.2 (a) AML Consultant Qualification Questionnaire (CQQ) must be completed to be eligible (See Attachment “B”).
- (b) AML and Related Project Experience Matrix (RPEM) must also be completed to be eligible (See Attachment “C”).
- 4.3 Interviews as stated in 4.1 “Evaluation and Award Process” will be conducted with the three firms selected as the most qualified by the WVDEP Selection Committee. The Committee will schedule the interviews.

The format for the interviews will be a 15-30 minute PowerPoint presentation consisting, at a minimum, of the following:

- Corporate/personnel experience as it relates to the project or projects
- Proposed project management plan
- Key personnel available for the proposed work
- Proposed subcontractors (mapping, geotechnical, etc.)
- Product quality control
- Project cost control

PROJECT LOCATION MAP



SCALE: 1"=2000'

BOONE COUNTY

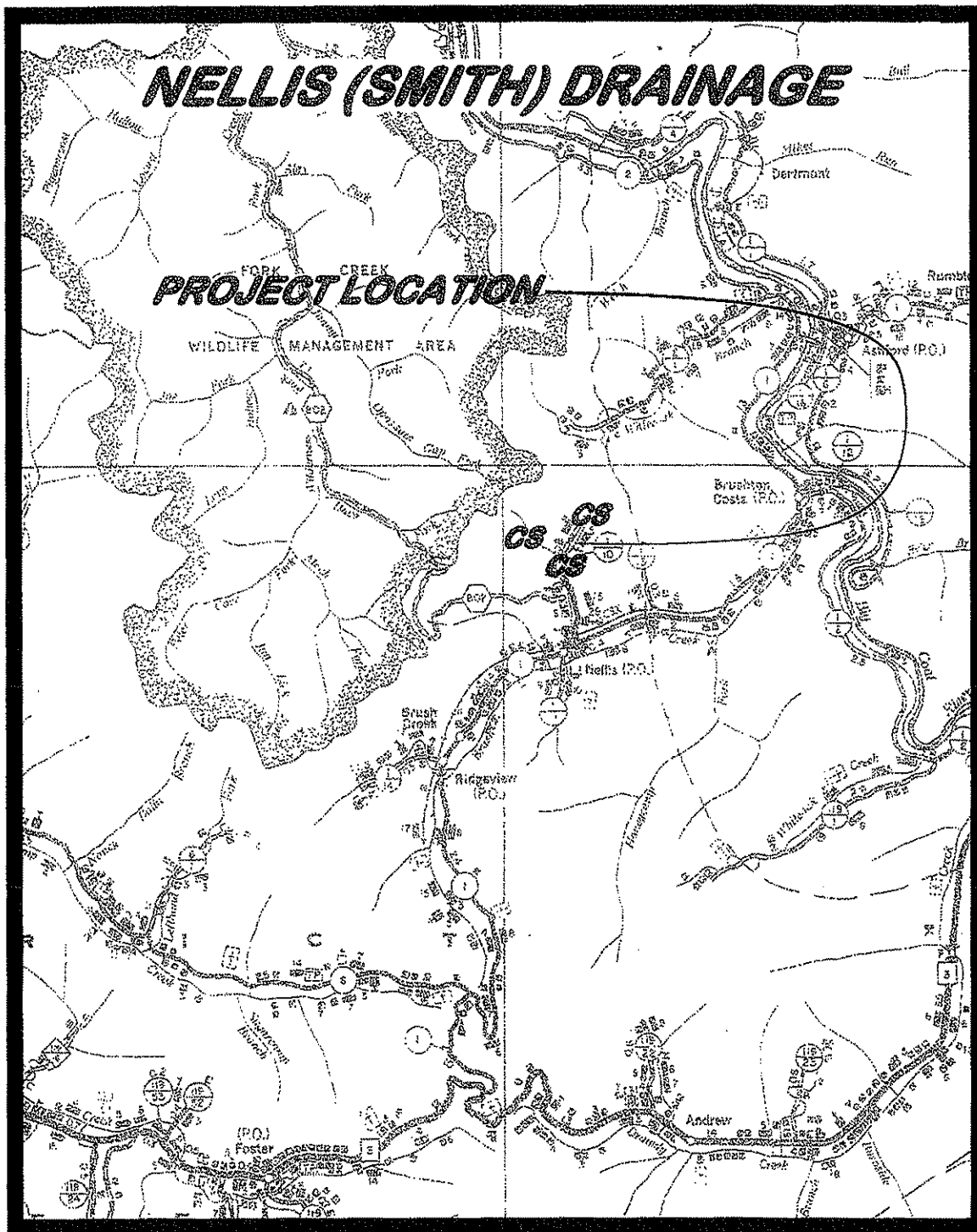
RACINE QUAD.

LATITUDE 38° 09' 31"

LONGITUDE 81° 44' 41"

DASHED LINE IS POTENTIAL PROJECT LIMITS FOR OFF SITE BORROW AND DISPOSAL AREAS.

HIGHWAY LOCATION MAP



1"=1 MILE, BOONE COUNTY HIGHWAY MAP

**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
AML CONSULTANT QUALIFICATION QUESTIONNAIRE**

Attachment "

PROJECT NAME: DEP15002 Nellis (Smith) Drainage Design	DATE (DAY, MONTH, YEAR) 28/04/2010	FEIN 61-1357743
1. FIRM NAME Engineering Consulting Services, Inc.	2. HOME OFFICE BUSINESS ADDRESS 1628 West Third Ave. Williamson, WV 25661	3. FORMER FIRM NAME Tri-State Engineering Mining Consulting Services, Inc. Sammons Surveying, Inc.
4. HOME OFFICE TELEPHONE 304-235-1885	5. ESTABLISHED (YEAR) 2000	6. TYPE OWNERSHIP Corporation 6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) NO
6. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE 1628 West Third Ave., Williamson, WV 25661/304-235-1885/D. Andy Willis, PE, PS/3		
7. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM J. Steven Gardner, PE, PS - President/CEO Joe Zaluski - Executive Vice President Andy Willis, PE, PS - Vice President Jan Amos - Secretary/Treasurer	8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS Douglas K. Mynear, PE, LEED AP - Dir. Environmental & Civil Engineering 859-233-2103; Charles R. Reeves, Jr., PE - Dir. Midwest Region 270-683-8030; Deborah B. Moses, PE, PLS - Dir. Southeast Region 606-526-6396 Karen D. Rose, EIT - Permitting Manager 859-233-2103	
9. PERSONNEL BY DISCIPLINE: Total Company Personnel followed by Primary Office Personnel in Parentheses		
10 (1) ADMINISTRATIVE — ARCHITECTS 3 (1) BIOLOGIST 6 (1) CADD OPERATORS 1 (1) CHEMICAL ENGINEERS 3 CIVIL ENGINEERS — CONSTRUCTION INSPECTORS — DESIGNERS 1 (1) DRAFTSMEN	— ECOLOGISTS — ECONOMISTS — ELECTRICAL ENGINEERS 1 ENVIRONMENTALISTS — ESTIMATORS 2 GEOLOGISTS — HISTORIANS — HYDROLOGISTS — LANDSCAPE ARCHITECTS — MECHANICAL ENGINEERS 2 (1) MINING ENGINEERS — PHOTOGRAMMETRISTS — PLANNERS: URBAN/REGIONAL — SANITARY ENGINEERS — SOILS ENGINEERS — SPECIFICATION WRITERS	— STRUCTURAL ENGINEERS 1 SURVEYORS — TRAFFIC ENGINEERS 1 OTHER 1 ENVIRONMENTAL ENGINEER 5 (2) PROJECT MANAGERS 37 (8) TOTAL PERSONNEL
TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: <u>1</u> *RPES other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.		
10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? <input type="checkbox"/> YES <input type="checkbox"/> NO N/A - Not a Joint Venture		

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

NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____

12. A. Are your firm's personnel experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?

YES

Description and Number of Projects: During its 27-year history, ECSI (and former entity names) has worked on numerous AML/AMD projects throughout the Commonwealth of Kentucky. Some representative projects have included the: (1) Dollar Branch Remediation and Wetlands Design in Harlan County, KY (this project involved 40-acres and 2000-feet of impacted stream and included removal of coal refuse materials from stream banks, bank stabilization, stream restoration, erosion controls, long-term revegetation plan, as well as the design of a wetland treatment system to handle acid drainage from the area); (2) Headwaters AML Enhancement & Coal Fines Recovery in Muhlenberg, KY (this project involved the design for recovery of coal fines from two disposal sites and a reclamation plan to reclaim the disturbed areas, and the development of a long-term passive treatment system for AMD produced at the site); (3) Kentucky Berwind Land Company Environmental Assessment, Cleanup and Remediation, Pike County, KY (this project involved a comprehensive site assessment of a 20,000-acre property containing multiple mining and industrial sites); (4) Roadside Processing AMD Remediation and Reclamation, McCreary County, KY (this project involved development of a reclamation plan to reclaim the site of a former coal processing facility and included an MSHA-class fresh water impoundment for treatment of AMD and several slurry disposal ponds).

NO

B. Are your firm's personnel experienced in Soil Analysis?

YES

Description and Number of Projects: ECSI has two professional geologists on staff and routinely implement these personnel on our mining and reclamation projects. Typical of some of the projects they have completed include: (1) Blue Ridge Recycling & Disposal Facility Wetlands and Drainage System Redesign, Irvine, KY (this project involved the evaluation of an existing wetland drainage system and recommendations for new planting zones to maximize the iron, and other nutrient, removal capabilities of the wetland system); (2) Bent Branch Hydrogeologic Investigation, Pike County, KY (this project involved the investigation of a series of subsidence and groundwater completion claims); (3) AML Assessment, Pike County, KY (this project involved a forensic analysis of a coal refuse area slide that damaged a downslope housing structure). ECSI engineers also routinely perform stability analyses of hollow fills associated with surface mining designs performed on the hundreds of permitting actions completed by ECSI each year.

NO

C. Are your firm's personnel experienced in hydrology and hydraulics?

YES Description and Number of Projects: ECSI has several staff members with experience in hydrology and hydraulics, including groundwater hydrogeology studies. Most of our mining permit projects (which number in the hundreds each year) involve the development of mine site hydrology and design of associated sediment ditches and ponds. ECSI personnel have also been involved in at least 10 stream restoration projects, which involve the initial determination of stream flow parameters to enable proper sizing and location of the restoration channel and its components. ECSI has three employees with level 2 Rosgen stream restoration training, and one employee with level 4 training. Two of ECSI's civil engineers have training and experience in implementing HEC-RAS stream modeling program, HEC-HMS site hydrology program, and several other hydrology/hydraulic software programs.

NO

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

YES Description and Number of Projects: _____

NO ECSI does not have in-house aerial mapping capability and we typically subcontract for this work when needed. We do have the in-house capability of developing base mapping from available GIS database sources, including aerial photography, DEM files and recorded mine maps.

E. Are your firm's personnel experienced in domestic waterline design? (Include any experience in evaluation of aquifer degradation as a result of mining.)

YES Description and Number of Projects: ECSI's lead Civil Engineer has previous experience in domestic waterline design. Included in this experience was the project management for construction inspection of over 15 miles of replacement waterline for Mammoth Cave National Park, KY; utility designs (including water systems) for Blue Licks State Park, KY; Big South Fork Bandy Creek Recreation Area, TN; Ft. Knox Water System Repairs, KY; Settler's Trace Marina, KY; and others. Relating to aquifer degradation, the following projects are representative: (1) Long Fork Hydrogeologic Assessment, Pike County, KY (this project involved a Hydrogeologic investigation of the impact of surface and underground mining on the surrounding groundwater regime); (2) Vulcan Materials Hydrological Impact Assessment, Fayette County, KY (this project involved an evaluation of the rock quarry's operation regarding potential impacts to the underlying Royal Springs Aquifer).

NO

F. Are your firm's personnel experienced in Acid Mine Drainage Evaluation and Abatement Design?

YES Description and Number of Projects: ECSI personnel have experience in AMD evaluation and abatement design. Representative of this experience are: (1) Roadside Processing AMD Remediation and Reclamation, McCreary County, KY (this project involved development of a reclamation plan to reclaim the site of a former coal processing facility and included an MSHA-class fresh water impoundment for treatment of AMD and several slurry disposal ponds); Andalex Resources AMD Remediation & Reclamation, McLean/Ohio Counties, KY (this project involved the redesign of reclamation plans, drainage, stream restoration, oxide drains and wetlands to bring the effluent water quality into applicable state standards; (3) Dollar Branch Remediation and Wetlands Design in Harlan County, KY (this project involved 40-acres and 2000-feet of impacted stream and included removal of coal refuse materials from stream banks, bank stabilization, stream restoration, erosion controls, long-term revegetation plan, as well as the design of a wetland treatment system to handle acid drainage from the area).

NO

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

NAME & TITLE (Last, First, Middle Int.) Gardner, J. Steven President/CEO	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE: 34	YEARS OF AML RELATED DESIGN EXPERIENCE: 34 YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0

Brief Explanation of Responsibilities

Overall management and direction of firm. Specialized experience in environmental assessments, hydrology, environmental remediation, sensitive land-use issues, civil/environmental/mining engineering design, health and safety issues, due diligence studies and forensic investigations.

EDUCATION (Degree, Year, Specialization)

M.S., 1991, Mining Engineering, University of Kentucky
B.S., 1974, Biosystems and Agricultural Engineering, University of Kentucky

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

KYBOELS, SMME, NSPE, KSPE, NCEES, ACEC, KCSA, ASMR, KCA, COA

REGISTRATION (Type, Year, State)

P.E., 1988, #10319, WV; P.S., #1424, WV
P.E., 1979, KY#111187; 1979, TN#13257; 1981, VA#12458; 2007, PA#PE074572; 2009, CO#42921

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

NAME & TITLE (Last, First, Middle Int.) Willis, Dayne A. Project Manager Civil/environmental/Mining Engineer	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE: 23	YEARS OF AML RELATED DESIGN EXPERIENCE: 23 YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0

Brief Explanation of Responsibilities

Project manager for selected projects and manager of ECSI's Williamson, WV and Pikeville, KY offices. Specialized experience in environmental site analysis, stream restoration, environmental permitting, reclamation and remediation, project management, mine planning and design, construction inspection, mine feasibility, coal and aggregates reserve analyses, and MSHA refuse modifications.

EDUCATION (Degree, Year, Specialization)

B.S., 1987, Mining Engineering, Ohio State University

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

ACEC, KCA, WVCA, COA, KCSA, WVCMI

REGISTRATION (Type, Year, State)

P.E., 1994, #12208, WV; P.S., #1492, West Virginia
P.E., 1995, KY#18915; 1999, VA#0402-034017; 1997, OH#E-62112; 2009, MD#37945

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

NAME & TITLE (Last, First, Middle Int.) Rose, Karen D. Manager of Permitting	YEARS OF AML DESIGN EXPERIENCE: 7	YEARS OF AML RELATED DESIGN EXPERIENCE: 7	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0
	YEARS OF EXPERIENCE		

Brief Explanation of Responsibilities

Manager of Permitting, responsible for the coordination of environmental, ownership/control and mine permit applications for ECSI. In this role she acts as a liaison between regulatory personnel and the mining industry. Has extensive experience with 401, 404, and 402 permits as well as SMCRA. Performs background research and site investigations in association with environmental studies and assessments and has extensive experience dealing with landowners in negotiating property access. Completed several courses and seminars related to stability analysis and sediment control designs including REAME.

EDUCATION (Degree, Year, Specialization)

B.S., 2003, Mining Engineering, University of Kentucky
Rosgen I & II Stream Restoration Training

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

ACEC, AIMPE, COA, KCA, SMME

REGISTRATION (Type, Year, State)

E.I.T., 2006, #13020, Kentucky

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

NAME & TITLE (Last, First, Middle Int.) Ross, Julie A. Professional Geologist	YEARS OF AML DESIGN EXPERIENCE: 19	YEARS OF AML RELATED DESIGN EXPERIENCE: 19	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0
	YEARS OF EXPERIENCE		

Brief Explanation of Responsibilities

Project Geologist responsible for planning and conducting field work for geological and hydrological analyses, interpreting data collected, and writing assessment reports. Has planned and conducted field work for geologic and groundwater sampling programs, established drilling programs, correlated geophysical logs, and prepared a variety of maps and cross-sections. Hydrologic experience includes conceptual modeling of ground water flow and implementing ground and surface water monitoring programs based on ground water flow patterns and data collected in the field.

EDUCATION (Degree, Year, Specialization)

B.S., 1981, Geology, University of Kentucky

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

KSPG, SMME, ACEC

REGISTRATION (Type, Year, State)

P.G., #1591, Kentucky
P.G., West Virginia

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

NAME & TITLE (Last, First, Middle Int.) Mynear, Douglas K. Director, Civil & Environmental	YEARS OF AML DESIGN EXPERIENCE: 0	YEARS OF AML RELATED DESIGN EXPERIENCE: 33	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 33
	YEARS OF EXPERIENCE		

Brief Explanation of Responsibilities
 Director of Civil & Environmental Services. Responsible for all civil design and the oversight and coordination of project teams. Specialized experience in hydrological/hydraulic studies, drainage design, site planning/design, highway/roadway design, water distribution, storm and sanitary sewers, wastewater pretreatment, and recreational facility design.

EDUCATION (Degree, Year, Specialization)
 M.S., 1975, Biosystems & Agricultural Engineering (specializing in Hydrology), University of Kentucky
 B.S., 1975, Biosystems & Agricultural Engineering, University of Kentucky

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS
 NSPE, KSPE, ACEC, SAME

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

NAME & TITLE (Last, First, Middle Int.) Harrison, Dale A. Professional Land Surveyor	YEARS OF AML DESIGN EXPERIENCE: 0	YEARS OF AML RELATED DESIGN EXPERIENCE: 25	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0
	YEARS OF EXPERIENCE		

Brief Explanation of Responsibilities
 Serves as Land Surveyor for selected projects, planning and conducting all surveying throughout the life of the project. Senior Engineering Technician and is involved with surveying, mine design and permitting. Licensed Land Surveyor in West Virginia and a licensed Professional Land Surveyor in Kentucky. Has performed topographic, property, boundary, mine and construction surveys since 1978 and GPS surveys since 1998.

EDUCATION (Degree, Year, Specialization)
 Course work at Glenville State College, Glenville, West Virginia

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS
 WVSPS, KAPS

REGISTRATION (Type, Year, State)
 P.S., #996, West Virginia
 P.L.S., #3461, Kentucky

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)	
NAME & TITLE (Last, First, Middle Int.) Wind, Susan M. Professional Wetland Scientist	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: 19 YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0
Brief Explanation of Responsibilities Professional Wetland Scientist and Biologist responsible for water quality and benthic sampling, natural stream design and quality review of permits. Has completed all four (4) levels of Rosgen natural stream restoration training. During her tenure with the Division of Mine Permits for the Commonwealth of Kentucky, she served as an inspector, a permit reviewer, a biologist, and a supervisor. She was responsible for the development of the 401 program for the Division and assisted with the development of aquatic assessment and stream restoration guidelines.	
EDUCATION (Degree, Year, Specialization) M.S., 1996, Biology, Eastern Kentucky University B.S., 1981, Aquatic Biology, Eastern Kentucky University Rosgen I-IV Stream Restoration Training	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ACEC REGISTRATION (Type, Year, State) Professional Wetland Scientist, KY#0001213	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)	
NAME & TITLE (Last, First, Middle Int.) McCloud, Joseph R. Graduate Mining Engineer	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: 2 YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0
Brief Explanation of Responsibilities Project Manager working on environmental and mining permitting and surveying projects throughout Kentucky, Virginia and West Virginia. His prior experience in mining, environmental, and geotechnical engineering includes blast design and monitoring, surveying, environmental monitoring, water and soil testing and analysis, and project inspections.	
EDUCATION (Degree, Year, Specialization) B.S., 2007, Mining & Minerals Engineering, Virginia Polytechnic Institute & State University	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ACEC, SMME REGISTRATION (Type, Year, State) E.I.T., 2007, #0420057747, Virginia	

14. FRC DE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN ; PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE A DESIGN SERVICES

- Topcon Hiper Plus - Real Time Kinematic Global Positioning System (GPS-RTK) capable of sub-centimeter accuracy for static (control) surveys, and a 1-1.5 cm accuracy for RTK surveys
- Topcon GR-3 GPS, with integrated digital radios and Glonass
- Topcon GTS-605 Series / 5 second accuracy Total Station with Onboard Data Collection
- Topcon Series Prismless Total Station with Onboard Data Collection
- Carl Zeiss Ni 2 Level with Accessories
- Magnetic Locator
- Underground surveying required health and safety gear
- AutoCad Map 2010
- Carlson Civil Suite 2009
- REAME 2008 - Stability Analysis of Earth Slopes Software
- SEDCAD 4 - Sediment Analysis Software
- RIVERMorph - Stream Restoration Design Software
- HydroCAD - Stormwater Modeling Software
- Topcon GPS Processing Software
- GPS Trackmaker

15. CUI IT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATE ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Licking River Cumulative Impacts Assessment, Licking River Watershed, KY	Stites & Harbison, PLLC 2300 Lexington Financial Center Lexington, KY 40508	Prime consultant on multi-county HUC-8 watershed cumulative environmental impacts assessment	N/A \$550K study fee	90%
Lebanon Quarry Stream Relocation/Restoration Lebanon, KY	Nally & Haydon, LLC 40 Lucknow Court Bardstown, KY 40004	Design of approximate 1-mile of stream relocation/restoration within quarry permit operation	\$40K design fee	75%
Phase 1 Environmental Assessment, Frankfort, KY	Kentucky State University 400 East Main Street Frankfort, KY 40601	Perform a Phase 1 Assessment of 1-acre project site of new aquatic tanks building	\$5K study fee	90%
Various WV, KY and OH mine design and permit projects through the Central Appalachian Coalfields	Varies	Preparation of mine permits for state and US Army Corps of Engineer approval	Approximately \$2M combined fee per year	Ongoing activity
North Point Detention Basin Repairs, Lexington, KY	Lexington-Fayette Urban Co. Government 101 East Vine Street Lexington, KY 40507	Hydrologic-Hydraulic analysis and design of repairs for detention basin outfall structure	\$50K	99%
TOTAL NUMBER OF PROJECTS: 199 projects (including approx. 180± permitting projects)			TOTAL ESTIMATED CONSTRUCTION COSTS: Approx \$5M in construction costs, not including permit preparation or study projects.	

17. C LETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIR

AS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Middle Fork Kentucky River Cumulative Impacts Assessment, Middle Fork Kentucky HUC-8 Watershed, Kentucky	Jackson-Kelly, PLLC 175 East Main Street Lexington, KY 40502	N/A: Study	2009	N/A
Maryland Avenue Phase 1 Environmental Assessment, Frankfort, KY	Kentucky State University 400 East Main Street Frankfort, KY 40601	N/A: Study	2009	N/A
Portal 31 Exhibition Mine, Lynch, KY	Southeast Education Foundation 700 College Road Cumberland, KY 40823	\$2.3M	2009	Yes
Phase 1 Environmental Assessment, Clark-Elkhorn Coal Loading/Handling Facility, Pike County, KY	Cobalt Blue, LLC c/o Jones, Walters, Turne & Shelton, PLLC 151 N. Eagle Creek Dr, Ste. 310, Lexington, KY 40509	N/A: Study	2008	N/A
Renewable Resources Inventory in Kentucky, KY Statewide	Dept. for Energy Development & Independence Frankfort, KY 40601	N/A: Study	2008	N/A
Environmental Management Plans, Kentucky, Indiana and Ohio	Hanson Aggregates North America 2300 Gateway Center Blvd. Morrisville, NC 27560	N/A:	2008	N/A
Vulcan Materials Hydrological Impact Assessment, Fayette County, KY	Wyatt, Tarrant & Combs 250 West Main St., Ste. 1600 Lexington, KY 40507	N/A: Study	2008	N/A
Lyme Timber Company Phase 1 Environmental Site Assessments (39 in WV; 20 in KY)	Lyme Timber Co. c/o Stites & Harbison, PLLC 230 W. Main Street Lexington, KY 40507	N/A: Study	2007	N/A

17. C LETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIR

AS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Slats Lucas Quarry Permits & Ecological Restoration Project, Pickneyville, KY	Warren Paving, Inc. 526 Elks Lane Road Hattiesburg, MS 39403	\$81K (fee)	2007	No
Kentucky's FutureGen Proposal, Western KY	KY Office of Energy Policy Frankfort, KY 40601	N/A: Kentucky site not selected	2006	No
Blue Gem Stream Restoration, Whitley County, KY	Blue Gem Mining Company 108 S. David Lane Knoxville, TN 37922	Unknown	2005	Yes
AMD Remediation & Reclamation Plan, McCreary County, KY	Roadside Processing 750 Town Mountain Road Pikeville, KY 41501	\$136K (fee)	2005	Yes
Andalex Resources AMD Remediation & Reclamation, McLean/Ohio counties, KY	Wyatt, Tarrant & Combs 250 West Main St., Ste 1600 Lexington, KY 40507	\$7K (fee)	2005	Yes

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)						
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH	PHASE
Gateway Community College New Classroom Building Civil Engineering Services, Boone County, Kentucky	KY Finance & Administration Cabinet Frankfort, KY 40601	\$310K	2009	Yes	Omni Architects	
Lost River Wetland Design, Bowling Green, KY	City of Bowling Green 1001 College Street Bowling Green, KY 42101	\$393K	2007	Yes	DDS Engineering	
Kentucky State University Master Plan	Kentucky State University 400 East Main Street Frankfort, KY 40601	N/A: Study	2006	N/A	Barnette Bagley Architects, PSC	
Upper Laurel Creek Stream Mitigation, Construction Surveys, Lawrence County, KY	MACTEC Engineering & Consulting 2456 Fortune Drive Lexington, KY 40509	N/A: Construction Surveys	2008	Yes	MACTEC Engineering & Consulting	
19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.						
Pertinent personnel resumes and project description sheets have been provided in tabs "Resumes" and "Relevant Projects".						
20. The foregoing is a statement of facts.						

Dayne A. Willis

Signature: _____ Title: Vice President
 Printed Name: Dayne A. Willis, PE, LS

Date: April 26, 2010

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 exceed 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: Engineering Consulting Services, Inc.

Authorized Signature: *Douglas Myneer* Date: 04-26-10

State of Kentucky

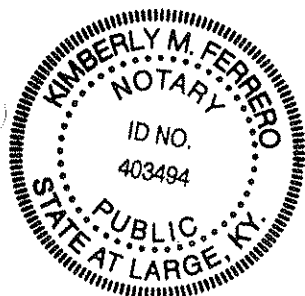
County of Fayette, to-wit:

Taken, subscribed, and sworn to before me this 26 day of April, 2010.

My Commission expires September 26, 2013.

AFFIX SEAL HERE

NOTARY PUBLIC *Kimberly M. Ferrero*



J. STEVEN GARDNER, PE
President/CEO

Mr. Gardner, a licensed Professional Engineer, graduate Mining Engineer and Agricultural Engineer serves as Principal-in-Charge overseeing projects from inception to completion. His consulting practice focuses on sensitive land use issues, reclamation liability, environmental, health and safety issues, mining and quarry operations, due diligence studies, and industrial heritage projects. He served as Principal-in-Charge for the following projects:

Portal 31 Project Mine

Lynch, Kentucky

ECSI has worked on this project since 1998 preparing plans for Arch to donate abandoned mine facilities to Harlan County and the Kentucky Coal Mining Museum. Services provided during the first phase included all permits, an Environmental Assessment, an inspection, assessment and survey of the underground mine, ventilation and safety plans, and inspection of all buildings on site. ECSI has completed the second phase of the project, designing the rehabilitation of the underground portion of the tour.

American International Group, Inc.

Kentucky, Indiana, West Virginia, Illinois, Tennessee

ECSI was hired to review the \$220 million in outstanding bonds that were put at risk by Horizon Natural Resources' pending bankruptcy. Category I involved benchmarking worst-case reclamation costs and recommendation of alternatives to mitigate the environmental impact of nearly 200 mine sites in five (5) states within a four (4) month time period. Category II involved an analysis of the assets associated with the various mine sites including the reserves, equipment, and infrastructure as well as the potential impact of union legacy costs, suretyship, and use of collateral on future reclamation and mining efforts. Category III involved monitoring and reporting on ongoing reclamation and mining activities.

Maran Coal Corporation Feasibility Assessment

Lawrence and Martin Counties, Kentucky

ECSI was retained by Maran Coal Corporation to perform a feasibility assessment of selected properties in Lawrence and Martin Counties to determine the mineability of the coal remaining on these properties.

Auxier Open Dump Cleanup, Remediation & Stream Channel Restoration

Waste Management, Inc. - Floyd County, KY

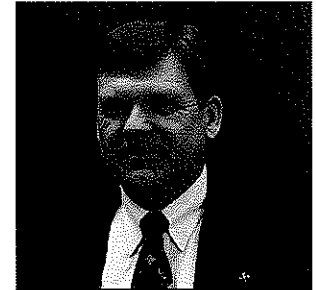
As a subcontractor to Enviro-Pro, Inc., ECSI provided engineering and surveying assistance for the cleanup of the largest, illegal, open dump in the state of Kentucky. Waste Management, Inc. funded this project in cooperation with the Kentucky Natural Resources and Environmental Protection Chapter and the CSX Railroad. The project involved stream channel restoration, removal of garbage from forested areas with minimal disturbance and final revegetation.

Refuge Chamber Review and Certification

Strata Products (USA), Inc.

In response to recent mine accidents, West Virginia determined that emergency shelters/chambers i.e. refuge chambers should be available in underground mines in order to increase miners' safety and odds for survival in the case of a catastrophic mine incident that eliminates all avenues of escape from the mine or leaves miners physically unable to escape. ECSI was retained by Strata Products (USA), Inc. to provide engineering review and certification of Strata refuge chambers as required by the state of West Virginia. Strata and ECSI submitted the first refuge chamber design to be accepted. This project involved:

- Strata's steel chamber and inflatable fresh air bay refuge chamber designs in order to determine if the designs meet the West Virginia requirements.
- Creating a report that described ECSI's review methodology, calculations, and relevant Strata design materials. The report was submitted to West Virginia as the formal request for certification.
- Presenting the refuge chamber information and answering questions alongside Strata to the West Virginia Office of Miner's Health, Safety and Training and its reviewers.



Licenses

Professional Engineer:
KY #11187, TN #13257,
WV #10319, VA #12458,
PA #PE074572, CO #42921
NCEES #32398

Professional Surveyor:
WV #1424

Education

- Master of Science, Mining Engineering - University of Kentucky
- Bachelor of Science, Agricultural Engineering - University of Kentucky
- Environmental Systems Certificate - University of Kentucky

Professional Affiliations

- Kentucky Board of Licensure for Professional Engineers & Land Surveyors - Appointment
- Co-Editor - *Coal Mining Reference Book, Fifth Edition*

Associations

- Society of Mining, Metallurgy & Exploration
- National Society of Professional Engineers
- Kentucky Society of Professional Engineers
- National Council of Examiners for Engineering & Surveying
- American Council of Engineering Companies of Kentucky
- Kentucky Crushed Stone Association
- American Society of Mining Reclamation
- Kentucky Coal Association
- Coal Operators Association

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DAYNE A. WILLIS, PE

Senior Vice President, Appalachian Regional Offices

Mr. Willis, a licensed engineer, serves as Project Manager for selected projects. His areas of expertise include project management, mine planning and design, environmental permitting, construction inspection, mine reclamation, mine feasibility, coal and aggregates reserve analysis, environmental site analysis, and MSHA refuse modifications. He served as Project Manager on the following projects:

Maran Coal Corporation Feasibility Assessment

Lawrence and Martin Counties, Kentucky

ECSI was retained by Maran Coal Corporation to perform a feasibility assessment of selected properties in Lawrence and Martin Counties, Kentucky, to determine the mineability of the coal remaining on the properties.

Frontier Insurance Co. Reclamation and Liability Assessments

Utah, West Virginia, Kentucky

Reclamation cost and liability assessments for Frontier Insurance Company. Assessed reclamation liabilities on mining permits. Project encompassed approximately 60 sites in Utah, West Virginia and Kentucky.

Georgia Pacific Properties Environmental Assessments

West Virginia

This project was a preliminary environmental inspection of several thousand acres of property as part of Arch's pre-bid assessment. This was a "fast-track" report which involved sending several teams of professionals on ATV's into mountainous terrain with few passable roads. The report was prepared "on-line" on a hidden website to allow client personnel in multiple locations to review the results simultaneously.

American International Group, Inc. Reclamation and Asset Assessments

Kentucky, Indiana, West Virginia, Illinois, Tennessee

Reviewed the \$220 million in outstanding bonds that were put at risk by Horizon Natural Resources' pending bankruptcy. Category I involved benchmarking worst-case reclamation costs and recommendation of alternatives to mitigate the environmental impact of nearly 200 mine sites in five (5) states within a four (4) month time period. Category II involved an analysis of the assets associated with the various mine sites including the reserves, equipment, and infrastructure as well as the potential impact of union legacy costs, suretyship, and use of collateral on future reclamation and mining efforts. Category III involved monitoring and reporting on ongoing reclamation and mining activities.

Horsepen Creek Stream Restoration

Hampden Coal

Gilbert, WV

This project involved survey work and the design for the installation and eventual removal of two 120 inch diameter culverts following mining and the restoration of the stream channel and its riparian zone. It also included documentation included in a 401 Water Quality Certification application and a U.S. Army Corps of Engineers Section 404 Individual Permit application.

Bent Branch Hydrogeologic Investigation

McCoy Elkhorn Coal Corporation

Kimper, KY

ECSI was retained to investigate a series of subsidence and groundwater depletion claims for McCoy Elkhorn Coal Corporation's (MECC) Smith Fork Mine No. 1 in Pike County, Kentucky. Claims of subsidence damage to homes and groundwater well damage were received from residences and/or rental properties located on Bent Branch of Johns Creek, which is adjacent to mining conducted by MECC.



Licenses

Professional Engineer:

KY #18915, OH #E-62112,
WV #12208, VA #0402-034017,
MD #37945

Professional Surveyor:

WV #1492

Education

- Bachelor of Science, Mining Engineering - Ohio State University

Certifications

- Certified MSHA Impoundment Instructor #M86730288

Training

- HEC-RAS
- Coal Refuse Disposal Facility Seminar: Simplified Seismic Design - Geo/Environmental Associates, Inc.

Associations

- American Council of Engineering Companies of Kentucky
- Kentucky Coal Association
- West Virginia Coal Association
- Coal Operators Association
- Kentucky Crushed Stone
- Tug Valley Mining Institute
- West Virginia Coal Mining Institute

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DOUGLAS K. MYNEAR, PE, LEED AP
Director, Civil & Environmental Engineering Services

Mr. Myneer is a civil engineer experienced in hydrological/hydraulic studies, drainage design, site planning/design, highway/roadway design, water distribution, storm and sanitary sewers, wastewater pretreatment, and recreational facility design. Prior to joining ECSI Mr. Myneer served as a Supervising Civil Engineer for Parsons Brinckerhoff for over thirty years.

Mr. Myneer serves as ECSI's Director of Civil Engineering Services. He is responsible for all civil design and the oversight and coordination of project teams. His relevant prior experience includes:

West Glendover Drainage Improvements

Lexington-Fayette Urban County Government - Lexington, KY

Mr. Myneer served as Project Manager to study and design improvements to mitigate flooding in an established neighborhood. Constructed improvements included a wetland detention basin combined with native vegetation plantings to reduce runoff. Constructed improvements were located in Lexington-Fayette Urban County Government-University of Kentucky Arboretum and State Botanical Garden and involved significant stakeholder involvement throughout study, design and construction phases.

CTS Operations Center Site Planning & Design

City of Charlottesville - Charlottesville, VA

Mr. Myneer served as task leader for site design of a new 6-acre transit operations facility. Development included administrative, maintenance, washing, fueling and parking operations for city buses. One unique aspect of the project included site/drainage design provisions to meet LEED green-building certification requirements.

LexTran Facilities Improvement Site Planning & Design

Transit Authority of Lexington- Lexington, KY

This project included a LexTran administrative, operations and maintenance facility improvement study and Phase 1 - Fuel & Wash Building Design. In addition to serving as project manager, Mr. Myneer performed all site and utility design of Phase 1.

Mammoth Cave Fuel Island Relocation

National Park Service - Mammoth Cave, KY

Project Manager for this relocation of fueling and bus-parking facilities at Mammoth Cave National Park. Design included the relocation of 3 alternative fuel tanks, new automated fuel management and dispenser equipment, parking for 10 tour busses and 20 employee vehicles, and spill containment for fueling system.

Residential & Contained Landfills Site Planning & Design

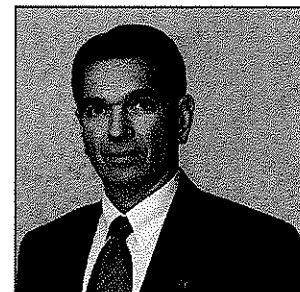
Alcan Aluminum - Sebree, KY

Mr. Myneer served as project engineer responsible for the design of new landfill facilities for the aluminum plant. Design work included access roads, liner design, and closure provisions.

Mammoth Cave Stormwater Pollution Control

National Park Service - Mammoth Cave, KY

Project Manager for the design of oil/grit separation and filtration systems for the control of pollution from stormwater runoff of all major parking areas within Mammoth Cave National Park.



Licenses

Professional Engineer:
KY #11760, WV #9438

LEED Accredited Professional:
U.S. Green Building Council

Education

- Master of Science, Agricultural Engineering/Urban Hydrology - University of Kentucky
- Bachelor of Science, Agricultural Engineering - University of Kentucky

Training

- LEED Training Workshop - U.S. Green Building Council
- How to Write and Implement a SWPPP to Meet NPDES Requirements - International Erosion Control Association
- Stormwater and Urban Water Systems Modeling Conference - Computational Hydraulics International
- XP-SWMM Training

Associations

- American Council of Engineering Companies of Kentucky
- National Society of Professional Engineers
- Bluegrass Chapter of Professional Engineers
- American Society of Civil Engineers
- Society of American Military Engineers

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KAREN ROSE, EIT
Manager of Permitting

Ms. Rose, Manager of Permitting, is responsible for the coordination of environmental, ownership/control and mine permit applications for ECSI. In this role she acts as a liaison between regulatory personnel and the mining industry. Ms. Rose has completed several courses and seminars related to stability analysis and sediment control designs. She performs background research and site investigations in association with environmental studies and assessments. Ms. Rose also coordinates cost proposals. Her relevant projects include:

Cumulative Impact Assessment (CIA)

ICG - Middle Fork of the Kentucky River

This project involves the development of cumulative impact assessment protocols and CIA report for a client in preparation for a U.S. Army Corps of Engineers 404 Permit. The CIA includes taking a cross-section of impacts within a HUC8 watershed (360,000 acres), collecting and analyzing macroinvertebrate sampling and surface water monitoring. ECSI led a team of engineers, biologists, and geologists in developing sampling protocols, data compilation, and analysis. Ms. Rose led a multi-disciplinary team on this large project.

Sediment Control Analysis/Design

A & G Coal Corp. - Black Mountain, KY

This project involved sediment control analysis and design for a proposed surface mine in an Outstanding Resources Watershed. Ms. Rose completed site studies, surveys, and designs of experimental sediment control structures to decrease/prevent any impact to the biological community from the mining activity.

Reclamation and Liability Assessments

Frontier Insurance Company

Utah, West Virginia, Kentucky

Reclamation cost and liability assessments for Frontier Insurance Company. Assessed reclamation liabilities on mining permits. Project encompassed approximately 60 sites in Utah, West Virginia and Kentucky. Ms. Rose completed permit research, made site visits, and assessed liabilities on number of the sites.

Georgia Pacific Properties Environmental Assessments

West Virginia

This project was a preliminary environmental inspection of several thousand acres of property as part of Arch's pre-bid assessment. This was a "fast-track" report which involved sending several teams of professionals on ATVs into mountainous terrain with few passable roads. The report was prepared "on-line" on a hidden website to allow client personnel in multiple locations to review the results simultaneously. Ms. Rose was involved in several of the site observations and reported any environmental concerns.

Incised Slurry Cell Design

Martin County Coal

Wolf Creek - Inez, KY

Provided engineering design and permitting for incised slurry cells in order to sustain their operation since the closure of their impoundment in 2000. This project included the critical timing of the construction of the cells so operations could continue uninterrupted. Ms. Rose designed the slurry cells and completed the DNR permit application for approval.

Dollar Branch Refuse Area & Wetlands Design

Cumberland Surety Insurance Co. - Harlan County, KY

This project included stream bank remediation and wetlands design for a 40 +/- acre area with 2,000 feet of stream. Refuse material was removed, banks stabilized, and erosion controls put in a place to facilitate a long-term re-vegetation plan. Ms. Rose served as part of the design team for this project.

Remediation, Reclamation, Wetlands Redesign, and Stream Channel Stabilization

Wyatt Tarrant & Combs Attorneys - McLean and Ohio Counties, Kentucky

ECSI has been hired for the final reclamation of a property in Western Kentucky. This project involves redesign of drainage plans including stream channels and stabilization, design of anoxic drains and wetlands, aeration construction management, surveying, and monitoring. Ms. Rose provided DNR permitting services, drainage plans and mapping services.



Licenses

- Engineering in Training:
KY#13020

Certifications

- Rosgen Level II - River Morphology & Applications
- Rosgen Level I - Fluvial Geomorphology for Engineers

Education

- Bachelor of Science, Mining Engineering - University of Kentucky

Associations

- American Council of Engineering Companies of Kentucky
- Society of Mining, Metallurgy and Exploration
- American Institute of Mining, Metallurgical, and Petroleum Engineers
- Coal Operators and Associates, Inc.
- Kentucky Mining Institute
- Womens Mining Coalition
- Kentucky Coal Association- Environmental Committee Member

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JULIE A. ROSS, PG

Professional Geologist/Hydrogeologist

Ms. Ross serves as Project Geologist throughout the life of selected projects. She is responsible for planning and conducting field work for geological and hydrological analyses, interpreting data collected, and writing any assessment reports. Ms. Ross has over 20 years of experience working as a geologist in Kentucky which includes a stint with the Kentucky Geological Survey. She has planned and conducted field work for geologic and groundwater sampling programs, established drilling programs, correlated geophysical logs, and prepared a variety of maps and cross-sections.

Ms. Ross's hydrologic experience includes conceptual modeling of ground water flow and implementing ground and surface water monitoring programs based on ground water flow patterns and data collected in the field. Ms. Ross's relevant projects include:

Bent Branch Hydrogeologic Investigation

Kimper, Kentucky

Investigation into a series of subsidence and groundwater depletion claims for McCoy Elkhorn Coal Corporation's (MECC) Smith Fork Mine No. 1 in Pike County, Kentucky. Ms. Ross examined groundwater data and conducted a geology review to determine flow.

Auxier Open Dump Cleanup, Remediation & Stream Channel Restoration

Waste Management, Inc. - Floyd County, KY

As a subcontractor to Enviro-Pro, Inc., ECSI provided engineering and surveying assistance for the cleanup of the largest, illegal, open dump in the state of Kentucky. Waste Management, Inc. funded this project cooperation with the Kentucky Natural Resources and Environmental Protection Chapter and the CSX Railroad. The project involved stream channel restoration, removal of garbage from forested areas with minimal disturbance and final revegetation. Ms. Ross designed the revegetation plan for the project.

Remediation, Reclamation, Wetlands Redesign, and Stream Channel Stabilization

Wyatt Tarrant & Combs Attorneys - McLean and Ohio Counties, Kentucky

ECSI has been hired for the final reclamation of a property in Western Kentucky. This project involved redesign of drainage plans including stream channels and stabilization, design of anoxic drains and wetlands, aeration construction management, surveying, and monitoring. Ms. Ross provided the stream channel plan.

Hydrogeologic Assessment

Long Fork of Shelby Creek - Pike County, Kentucky

ECSI was hired to conduct a hydrogeologic investigation of the impact of the surface excavation and underground mining conducted by Premier Elkhorn Coal Co. on the surrounding ground-water regime. Ms. Ross reviewed groundwater data and conducted a geology review to determine flow.

ASTM Certified Phase I Environmental Assessments

Stites & Harbison Law Firm - Kentucky and West Virginia

ECSI was contracted to perform ASTM certified/standard Phase I Environmental Assessment of over 50 tracts located across eastern Kentucky and West Virginia totaling over 15,000 acres. ECSI performed extensive background research of each individual tract in order to identify past, current or future environmental impacts from multiple sources including: mining, gas & oil wells, farming, waste dumps, etc. Additionally, ECSI performed aerial reconnaissance prior to performing actual field work. ECSI noted potential operational advantages and/or hindrances which could affect the economic viability of the properties. Ms. Ross conducted research of the sites as well as participated in aerial reconnaissance, field work, and report compilation.

Sink Hole Study

Scott County, Kentucky

Ms. Ross conducted a geological sinkhole study on property that was being developed for residential construction in order to determine no-building zones.



Licenses

- Professional Geologist: KY#1591, WV#1591

Education

- Bachelor of Science, Geology- University of Kentucky

Training

- Indiana Bat Habitat

Associations

- Kentucky Society of Professional Geologists
- Society of Mining, Metallurgy and Exploration
- American Council of Engineering Companies of Kentucky

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SUSAN WIND
Biologist
Professional Wetland Scientist

Ms. Wind is a Professional Wetland Scientist and Biologist. During her tenure with the Division of Mine Permits for the Commonwealth of Kentucky, she served as an inspector, a permit reviewer, a biologist, and a supervisor. She was responsible for the development of the 401 program for the Division and assisted with the development of aquatic assessment and stream restoration guidelines.

Her relevant experience includes:

Wetland Enhancements

T & T Energy -

This project involved a pond restoration, wetland enhancements, and 404 compensatory mitigation. The pond on-site is 680' and the wetland restoration off-site is 3/4 acre.

Elk Creek Slide Removal

Ikerd Mining - London, KY

This project involved the uncovering of a 133' ephemeral stream and its stabilization. It also included the rehabilitation of a 700' intermittent stream in Clay County, Kentucky.

While working for the Department for Natural Resources, Ms. Wind was involved in the following projects:

AMD Guidelines Committee

Worked in conjunction with OSM to form a guideline for DNR reviewers that included analysis of geologic material and water sample data.

Re-Mining Initiative Work Group

Performed site visits and took water samples at pre-law mine sites to develop a plan for coal operators to reap benefits of modified bond rates for re-mining and reclaiming abandoned mine sites.

Biological Assessments

Black Mountain - performed botanical surveys

Pine Mountain - performed aquatic sampling and identification to family level to assess the stream's abilities

Sloane's Valley - complete RBP sheets, aquatic sampling and provided a stream summary for the Cabinet Secretary

Aquatic Assessment and Stream Restoration Guidelines

Based on DOW mitigation requirements, Ms. Wind was fundamental in creating a guideline for DNR reviewers.

Division of Abandoned Mine Land Stream Projects

Pruden-Fonde - site visit to a perennial stream to assess riparian vegetation and native species and assist with project plan development.

Jellico Creek - site visit to a perennial stream to assess riparian vegetation and native species and assist with project plan development.

Indiana Bat Guidelines (2000)

Assisted Richard Wahrer with research on bat habitats and food preferences in order to develop Department guidelines.

EPA Aquatic Sampling in East Kentucky Coalfields

Assisted EPA representative in aquatic sampling and obtaining right of entry.



Licenses & Certifications

- Professional Wetland Scientist: KY #0001213
- Rosgen Level IV - River Restoration & Natural Channel Design
- Rosgen Level III - River Assessment & Monitoring
- Rosgen Level II - River Morphology & Applications
- Rosgen Level 1 - Applied Fluvial Geomorphology
- Office of Surface Mining Wetlands Instructor

Education

- Master of Science, Biology (Aquatic Biology emphasis) - Eastern Kentucky University
- Bachelor of Science, Biology - Eastern Kentucky University

Training

- Completed 130+ hours of Stream Restoration Training including: Understanding the Geomorphology & Ecology of Stream Systems - Ohio State University
- Streambank & Channel Stabilization - USACOE Research & Development Center in Louisville
- Stream Geomorphic Assessment & Restoration on a Watershed Scale - U of L Stream Institute
- An Approach to Assessing Stream Functions-Eastern KY Coalfield High Gradient Headwater Streams - USACOE, Louisville, KY
- Certified Management Fundamentals

Professional Committees

- AMD Guidelines
- Aquatic Assessment & Stream Restoration Development for OSM
- Indiana Bat Guidelines
- CRRS SMIS Development
- 401 Program Development for Division of Mine Permits

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DALE HARRISON, PLS, PS
Professional Land Surveyor

Mr. Harrison serves as Land Surveyor for selected projects, planning and conducting all surveying throughout the life of the project. He also serves as Senior Engineering Technician and is involved with surveying, mine design and permitting. He is a licensed Professional Land Surveyor in Kentucky and a licensed Land Surveyor in West Virginia. Mr. Harrison has been performing topographic, property & boundary, and mine & construction surveys since 1978 and GPS surveys more recently. Mr. Harrison's relevant projects include:

ALTA Surveys

Pulaski County, KY

ECSI performed three farm surveys to ALTA standards in a quarry acquisition in Pulaski County for Hanson Midwest Aggregates, Inc.

ASTM Certified Phase I Environmental Assessments

Stites & Harbison Law Firm
Kentucky and West Virginia

ECSI was contracted to perform ASTM certified/standard Phase I Environmental Assessment of over 50 tracts located across eastern Kentucky and West Virginia totaling over 15,000 acres. This project involved the expertise of environmental engineers, scientists, geologists and other field personnel. ECSI performed extensive background research of each individual tract in order to identify past, current or future environmental impacts from multiple sources including: mining, gas & oil wells, farming, waste dumps, etc. Additionally, ECSI performed aerial reconnaissance prior to performing actual field work. In addition to the environmental assessment, ECSI noted potential operational advantages and/or hindrances which could potentially affect the economic viability of the properties.

Auxier Open Dump Cleanup and Remediation

Floyd County, Kentucky

\$1 million project with ECSI providing engineering and surveying assistance for the cleanup of the largest, illegal, open dump in the state of Kentucky. The project included stream channel restoration, removal of garbage from forested areas with minimal disturbance and final revegetation, and negotiation of access with private property owners and the CSX Railroad.

Calvin Slurry Impoundment Expansion

Lee County, WV

This project involved the removal of an in-stream sediment control pond and road crossing culvert and the restoration of the stream channel and its riparian zone. Construction methods and post-restoration monitoring are covered in these plans.

Donaldson Branch Stream Restoration

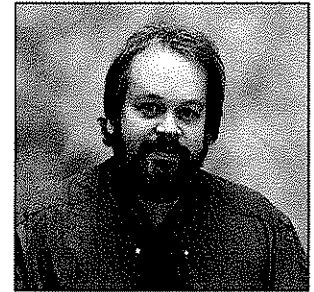
Hampden Coal
Gilbert, WV

This project involved design for the removal of the sediment control structure and freshwater pond, the restoration of the stream channel and its riparian zone, documentation included in a 401 Water Quality Certification application, and a U.S. Army Corps of Engineers Section 404 Nationwide Permit 21 application.

Horsepen Creek Stream Restoration

Hampden Coal
Gilbert, WV

This project involved survey work and the design for the installation and eventual removal of two 120 inch diameter culverts following mining and the restoration of the stream channel and its riparian zone. It also included documentation included in a 401 Water Quality Certification application and a U.S. Army Corps of Engineers Section 404 Individual Permit application.



Education

- Coursework at Glenville State College, Glenville WV

Training

- Geology, Underground, Surface - Carlson Modules

Registrations

- KY: Professional Land Surveyor #3461
- WV: Professional Land Surveyor #996

Certifications

- EPA Method 9 Visible Emission Certified

Associations

- Kentucky Association of Professional Surveyors
- West Virginia Society of Professional Surveyors
- American Council of Engineering Companies of Kentucky

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JOSEPH R. MCCLLOUD, EIT
Project Manager

Mr. McCloud serves as Project Manager for ECSI working on environmental and mining permitting and surveying projects throughout Kentucky, Virginia and West Virginia. His prior experience in mining, environmental, and geotechnical engineering includes blast design and monitoring, surveying, environmental monitoring, water and soil testing and analysis, and project inspections. Mr. McCloud's relevant experience includes:

Dam Remediation

Colane Corporation - Logan County, WV

Mr. McCloud serves as Project Manager for this project involving 3 ponds, originally built for railroads in the early 1900s, that had become full of sediment. The Department for Environmental Protection had cited the structures as High Hazard and required coverage under the Dam Control Act. ECSI conducted several site visits and surveys and prepared remediation plans. The plans are currently under review.

Coal Reserve Analysis

McDowell County, WV

Mr. McCloud served as Project Manager for this project involving the mapping and coal reserve calculations for five land parcels owned by L.E.A.D. Coal and Land Company. In-place coal resources were estimated based on available geologic and mapping data (including underground works mapping through the West Virginia Geologic Survey), prior permit applications, core drillings, and site visits.

Hollow Fill Investigation

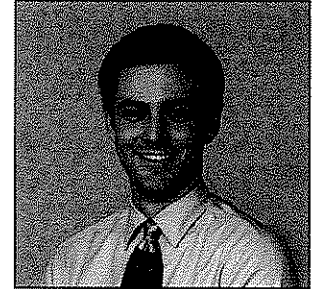
Cambrian Coal Corporation - Pike County, KY

Mr. McCloud served as Field Manager for this investigation of reclaimed hollow fills and associated diversion channels for definable bed and bank and jurisdictional waters. The investigation report is used in determining if the site can be reused for disposal of excess spoil from adjoining permits.

Underground Surveying

Tyrone Quarry - Lawrenceburg, KY

Mr. McCloud serves as part of the survey team for this annual survey of a limestone mine.



Licenses

- Engineering in Training:
VA#0420057747

Education

- Bachelor of Science, Mining and Minerals Engineering - Virginia Polytechnic Institute and State University

Certifications

- ACI Strength and Field Testing Technician
- Construction, Embankment and Base Testing Technician
- MARTCP - soils and aggregates

Associations

- American Council of Engineering Companies of Kentucky
- Society of Mining, Metallurgy & Exploration
- Burkhart Mining Society

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Reclamation Liability Audit

ECSI partnered with Environmental Resources Management Consulting Company, LLC to review the \$220 million in outstanding bonds put at risk by Horizon Natural Resources' then pending bankruptcy.

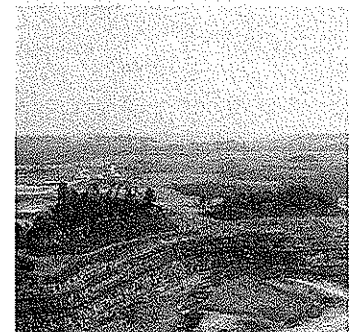
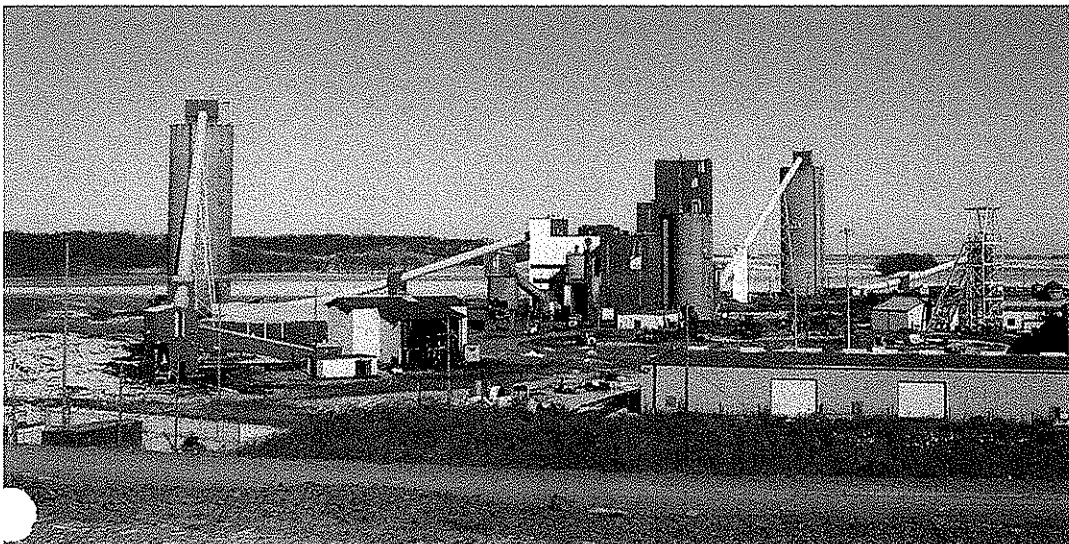
Category I involved benchmarking worst-case reclamation costs and recommendation of alternatives to mitigate the environmental impact of nearly 200 mine sites in five (5) states within a four (4) month time period. Assessments included site visits and analysis of potential environmental impact of the result of mining activity.

Category II involved an analysis of the assets associated with the various mine sites including an analysis of the reserves, equipment, and infrastructure on site as well as the potential impact of union legacy costs, suretyship, and use of collateral on future reclamation and mining efforts.

Category III involved monitoring and reporting ongoing reclamation and mining activities.

Project Facts

- Location: Illinois, Indiana, Kentucky, Tennessee and West Virginia
- Client:
American International Group, Inc. (AIG)
175 Water Street, 25th Floor
New York, NY 10038
- Client Contact: Brian Murtagh
- Status: Completed
- Background: ECSI was hired to perform Reclamation Liability Audits on AIG holdings in Illinois, Indiana, Kentucky Tennessee and West Virginia. This was an indepth look into the existing bonds and permits and required extensive fieldwork to visit each site.
- ECSI's Role:
ECSI calculated worst-case reclamation costs and made recommendations for alternatives to mitigate environmental impacts to nearly 200 mine sites in five states. ECSI also monitored ongoing reclamation and mining activities.
- Key ECSI Personnel:
Steve Gardner, PE
Andy Willis, PE
Karen Rose, EIT
Julie Ross, PG
Kim Ferrero
Eric King



RECLAMATION LIABILITY AUDIT
Illinois, Kentucky, Indiana, Tennessee, West Virginia

340 South Broadway, Suite 200
Lexington, KY 40508

Phone: 859.233.2103

Fax: 859.259.3394

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Bent Branch Hydrogeologic Investigation

ECSI was retained to investigate a series of subsidence and groundwater depletion claims for McCoy Elkhorn Coal Corporation's (MECC) Smith Fork Mine No. 1 in Pike County, Kentucky.

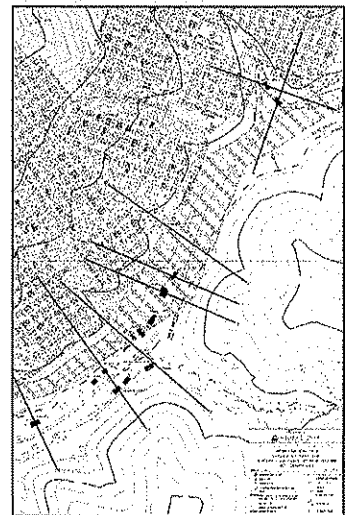
Claims of subsidence damage to homes and groundwater well damage were received from residences and/or rental properties located on Bent Branch of Johns Creek, which is adjacent to mining conducted by MECC.

Project Facts

- Location: Kimber, KY
- Client: McCoy Elkhorn Coal Company
- Client Contact: Randall Taylor
- Status: Completed
- Background:
ECSI was retained to investigate subsidence and groundwater depletion claims.
- ECSI's Role:
ECSI provided investigative and survey services to the client including civil and environmental engineering and geological services.
- Key ECSI Personnel:
Steve Gardner, PE
Andy Willis, PE
Julie Ross, PG

BENT BRANCH HYDROGEOLOGIC INVESTIGATION

McCoy Elkhorn Coal Company



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Lexington, KY 40508

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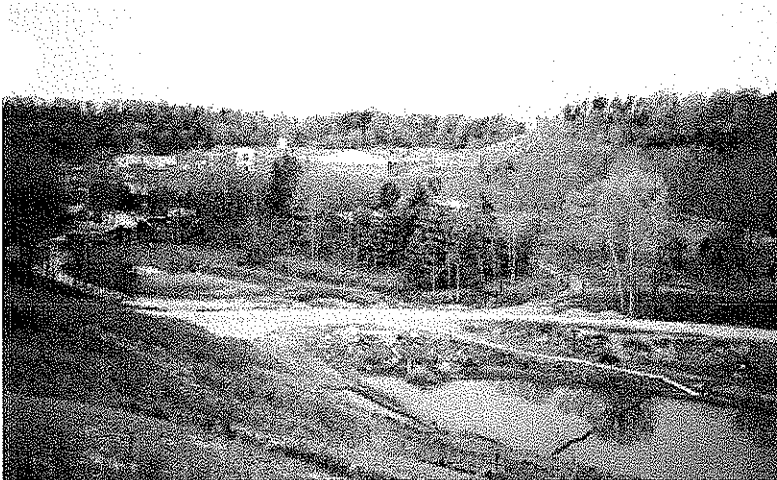
Blue Ridge Recycling & Disposal Facility Wetlands and Drainage System Redesign

The Blue Ridge Landfill owned by Waste Management Inc. had a wetland drainage system designed to treat acidic water generated by contact with New Albany Shale, an oil shale that contributes acidity to natural drainage throughout the area. The original wetlands were not functioning as designed, with iron concentrations ranging as high as 80 mg/l, 20 times the KPDES discharge limit of 4.0 mg/l.

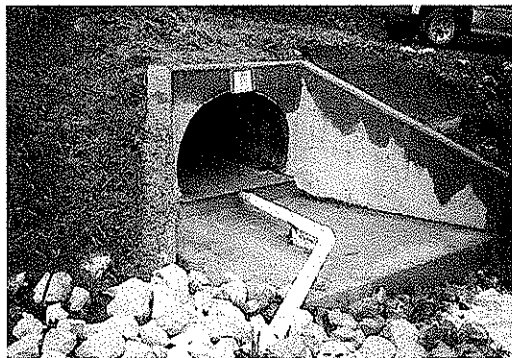
Waste Management, Inc. retained ECSI to evaluate the wetland system and make recommendations necessary to bring the area into compliance. ECSI redesigned the drainage system to slow flows before release into the wetlands. Several hundred feet of stream channels, drainage structures and wetlands were reconstructed to improve overall function and reduce the flow of iron and other harmful agents. With the additional construction, new cattail planting zones and a soft rush planting zone, iron levels and other parameters were reduced below the discharge limits.

Project Facts

- Location: Irvine, Kentucky
- Client:
Waste Management, Inc.
Junction 552 at Hopper Road
London, KY 40741
- Client Contact: Mr. Bruce Crouch
- Status: Completed
- Background:
ECSI was hired to eliminate an acid drainage problem.
- ECSI's Role:
ECSI provided civil and environmental engineering and geological services in the redesign of the landfill's drainage system, wetlands and stream channels.
- Key ECSI Personnel:
Steve Gardner, PE
Julie Ross, PG
Karen Rose, EIT



Outlet pipe before remediation



Drainage after remediation showing headwall and erosion control

BLUE RIDGE RECYCLING & DISPOSAL FACILITY
London, Kentucky

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Lexington, KY 40508

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Fax: 859.259.3394

www.engrservices.com

.ML Assessment

In 2008, after heavy rains, an abandoned coal refuse area (circa early 1900's) slid from a hollow, knocking a house off its foundation. OSM performed an emergency cleanup and stabilization of the immediate area.

ECSI was retained in the subsequent litigation filed by the homeowner against the property owner of the refuse area. ECSI conducted an extensive investigation of the slide and determined that logging activities undercut the toe area of the refuse and changed drainage patterns upstream resulting in the slide.

Project Facts

- Location: Pike County, Kentucky
- Client:
Woodward, Hobson & Fulton
(now Dinsmore & Shohl, LLP)
250 W. Main Street, Suite 1400
Lexington, KY 40507
- Client Contact: Robert Lyons
- Status: Completed
- Background:
ECSI was hired by counsel for the insurance carrier of the property owner to provide expert engineering services during the course of a lawsuit.
- ECSI's Role:
ECSI provided civil, environmental, and mining engineering services and expert testimony.
- Key ECSI Personnel:
Steve Gardner, PE
Andy Willis, PE
Deborah Moses, PE, PLS
Dale Harrison, PLS, PS
Gabe Shepherd
Jacob Shepherd
Scott Blackburn



AML ASSESSMENT
Pike County, Kentucky

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Dollar Branch Remediation & Wetlands Design

Dollar Branch Coal Corporation filed bankruptcy and abandoned a coal preparation plant and refuse disposal area in Harlan County. ECSI was retained by the insurance company holding surety bonds on the site to evaluate the feasibility of reclamation.

The coal refuse area had encroached on the stream adjoining the site and was discharging highly-acidic water. The area consisted of approximately 40 acres and 2,000 feet of impacted stream. The site was a high-profile area near the Pine Mountain Settlement School and its remediation involved several regulatory agencies. At the time of cleanup, this was considered the worst AMD site in the state.

ECSI's design plans involved removal of coal refuse materials from the stream banks, bank stabilization and stream restoration, erosion controls, and a long-term revegetation plan, as well as design of a wetland treatment system to handle the acid drainage from the area. The design plans were subject to a multi-federal and state agency review and negotiation.

ECSI personnel worked hand-in-hand with the client and regulatory agencies to accomplish the goal of final reclamation of this sensitive area. Negotiations were also necessary with landowners to satisfy their concerns and with the nearby school, which intended to use the area in its environmental education program.

The project was completed on time and very successfully cleaned up the worst AMD site in the state at that time.



Site before remediation

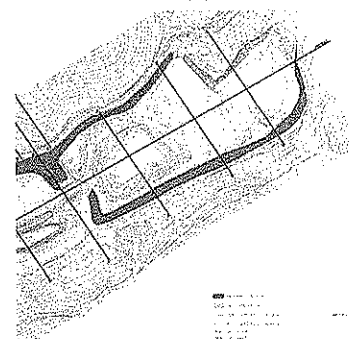
Project Facts

- Location: Cumberland, Kentucky
- Client:
Cumberland Surety Insurance Co.
367 West Short Street
Lexington, KY 40507
- Client Contact: Bill Adams
- Status: Completed
- Background:
ECSI was hired to evaluate the feasibility of the remediation of an abandoned coal refuse disposal site.
- ECSI's Role:
ECSI provided civil, environmental, and mining engineering, geological services, and surveying services during the remediation of this property.
- Key ECSI Personnel:
Steve Gardner, PE
Julie Ross, PG
Karen Rose, EIT
Eric King



Site after remediation

DOLLAR BRANCH AMD REMEDIATION
Cumberland, KY



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Lexington, KY 40508

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Last Fork Little Sandy Stream Mitigation

ECSI were subcontracted by Enviro-Pro, Inc. to provide pre- and post-construction surveys, and to act as construction inspector during the construction of this 1.4 mile stream mitigation project. Initially, ECSI conducted pre-design surveys of the entire 10-acre stream valley project area and provided that information to Mactec Engineering and Consulting for use in the design process.

Once the designs were completed, ECSI provided center-line stakeout of the stream structures to be constructed and provided on-site assistance to the construction contractor with the layout and placement of these structures. ECSI's assigned construction inspector was additionally responsible for management and scheduling of the equipment operators and general labor personnel with respect to daily tasks including new channel construction, shaping of the old channel, building instream structures and reclaiming any excess spoil. Tasks were scheduled for proper sequencing of equipment operators while guiding them with stakeout stream channel locations, providing cut and fill stakes, and instream structure locations.

In addition, ECSI performed as-built structure surveys as the job progressed and established horizontal control points for future monitoring of the stream. These as-built surveys were then used to compare the actual construction to the initial survey in the calculation of cut and fill volumes.

Overall length of the stream is 7,242 feet.

Project Facts

- Location: Glenwood, Lawrence County, Kentucky
- Client:
Enviro-Pro, Inc.
40 Judge Drive
Eastern, KY 41622
- Client Contact: Doug Gilkerson
- Status: Substantially complete
- Background:
ECSI was hired to provide pre-design, and pre- and post construction surveys and to calculate volume of material handled.
- ECSI's Role:
ECSI provided civil, environmental, and construction supervision services.
- Key ECSI Personnel:
Andy Willis, PE
Karen Rose, EIT
Dale Harrison, PLS, PS
Gabe Shepherd
Jacob Shepherd



EAST FORK LITTLE SANDY STREAM MITIGATION
Lawrence County, Kentucky

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AML Enhancement and Coal Fines Recovery

River Queen is a former coal mining and processing facility initially developed before SMCRA, but much of the site came under SMCRA jurisdiction later. It is located on the Wendell H. Ford Regional Training Center within Muhlenberg County.

ECSI was contracted to develop an AML Enhancement Plan for the recovery of coal fines from two disposal sites and a reclamation plan to reclaim the disturbed areas. Visual signs of degraded water quality have been observed in the water draining from these two coal refuse disposal sites. The drainages from these areas flow into small streams that eventually flow into Cypress Creek which flows into Cypress Swamp and then drains into the Green River.

In addition, ECSI has been requested to modify and permit certain SMCRA permits to recover and process additional coal fines in conjunction with EPA slurry injection permits. The coal refuse from the two areas will be dry excavated using mobile equipment to haul the material to a mixing station, add water to create a slurry, and then pump the slurry to the Minuteman Plant to recover the coal. The Minuteman Plant will use a wet process to remove the ash and dirt from the coal refuse slurry and recover the fine coal.

As coal refuse removal operations are completed in an area that is not to be redisturbed, the area will be scarified and graded and the required cover material will be redistributed. Redistribution of topsoil may be necessary as directed by DAML to achieve the post project reclamation goals.

An additional charge for ECSI was to develop long-term passive treatment systems for the AMD produced at the site.

Government agencies involved with this project include: KyDNR Division of Permits, and KyDOW, and Kentucky Army National Guard.



Site before remediation showing poor vegetation and water quality, rills and gullies

Project Facts

- Location: Muhlenberg County, KY
- Client: Headwaters, Inc.
6601 Highway 181 North
Greenville, KY 42345
- Client Contact: Mark Keller
- Status: Approved
- Background: ECSI was hired to assist in the AML Enhancement plan and DNR permits to recover coal fines from pre-law slurry impoundments.
- ECSI's Role: ECSI provided civil, environmental, and mining engineering services.
- Key ECSI Personnel: Steve Gardner, PE
Charlie Reeves, PE
Karen Rose, EIT
Joshua Bailey

AML ENHANCEMENT & COAL FINES RECOVERY Muhlenberg, KY



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www.engrservices.com

Phase I, II, and III Environmental Assessment Kentland Elkhorn Coal Company

Kentucky Berwind Land Company owns several thousand acres in Pike County, Kentucky. This site was previously leased to and operated by Kentland Elkhorn Coal Company for 40-50 years. During that time numerous mine sites, coal preparation plants, and refuse areas were sited on the property.

Kentland Elkhorn Coal Company relinquished the property and a Phase I Environmental Assessment was conducted to identify the condition of the property at the time of ownership transfer. Numerous problem sites were identified that included chemical containers, barrels, drums, mining equipment, transformers, containers, as well as open illegal household dumps on the property.

The cleanup went from a Phase I straight to a Phase III. One site contained almost 17,000 drums and containers. Enviro-Pro, Inc. removed all problem materials and disposed of them at a waste management site.

Project Facts

- Location: Pike County, KY
- Client: Kentucky Berwind Land Company
- Client Contact: Bob Hunt
- Status: Completed
- Contract Value: \$50,000
- Background:
Kentland Elkhorn Coal Company had several thousand acres of previously mined area that required a Phase I, II, and III Environmental Assessment.
- ECSI's Role:
ECSI provided civil, environmental, and mining engineering, surveying services, and assisted the contractor during cleanup and remediation.
- Key ECSI Personnel:
Steve Gardner, PE
Andy Willis, PE
Julie Ross, PG
Karen Rose, EIT

PHASE I, II, & III ENVIRONMENTAL ASSESSMENT
KENTLAND ELKHORN COAL COMPANY
Kentucky Berwind Land Company

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Lexington, KY 40508

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Long Fork Hydrogeologic Assessment

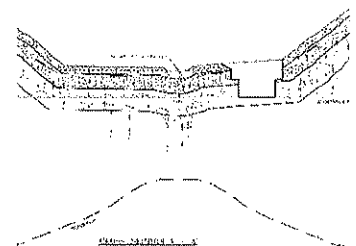
ECSI was hired to conduct a hydrogeologic investigation of the impact of the surface excavation and underground mining on the surrounding groundwater regime by a mining operation on Long Fork of Shelby Creek in Pike County, Kentucky operated by Premier Elkhorn Coal Co. (PECC). Shortly after PECC had constructed a box cut approximately 100 feet below drainage in an area with numerous homes, residents began to complain of problems with their water supply wells.

ECSI completed a report addressing groundwater interruption, draw-down potential, and contamination potential and was then asked to address the potential impact of the projected underground mining and make further recommendations.

Project Facts

- Location: Pike County, KY
- Client: TECO Coal Corporation
- Client Contact: Dave Blankenship
- Status: Completed
- Contract Value: \$45,000
- Background:
TECO Coal constructed a mine portal complex that was alleged to have affected the surrounding groundwater regime. ECSI evaluated the impact of the surface excavations and the underground mining on the surrounding groundwater and identified the impacted area.
- ECSI's Role:
ECSI provided civil, environmental, and mining engineering, and geological services during this hydrogeologic assessment.
- Key ECSI Personnel:
Steve Gardner, PE
Julie Ross, PG
Karen Rose, EIT
Eric King

HYDROGEOLOGIC ASSESSMENT
TECO Coal Corporation



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www.engrservices.com

North Pointe Detention Basin Repairs

This project involved the design services for reconstruction of the failed embankment on a detention basin located in a Lexington residential neighborhood. Failure of the original circa 1995 structure embankment was determined to result from the construction of an inadequately sized emergency spillway. The existing embankment was approximately 9-feet high and contained a 30-inch RCP outfall pipe with headwalls (throttled down with 15-inch orifice plate); however, there was no evidence found that the originally proposed emergency spillway had been constructed per the plans and specifications. ECSI performed hydrologic and hydraulic analyses to ensure that the reconstructed embankment and associated emergency spillway would be capable of passing at least the 100-year, 24-hour design storm.

LFUCG's current standards required that a detention basin be designed to store and discharge flows from the 10-year, 6-hour; 100-year, 6-hour; June 18, 1992 storm; and June 26, 1995 storms at or below the pre-developed conditions. Additionally, the emergency spillway was required to carry the flow from the 100-year, 24-hour storm assuming that the principal spillway was clogged. ECSI's calculations showed that the original basin was not designed to meet these current standards, and reconstructing the basin to meet all of these requirements was not economically or hydraulically prudent. LFUCG's design instructions were to return the embankment to the original design condition, with an added emergency spillway to convey the 100-year, 24-hour storm condition. LFUCG also instructed that the current 15-inch orifice plate over the 30-inch RCP pipe was to be maintained to protect against the risk of any future claims of downstream flooding. ECSI's final design included a 12-foot concrete paved emergency spillway extending across the embankment with additional slope protection provided by interlocking concrete erosion control block placed adjacent to the planned spillway.

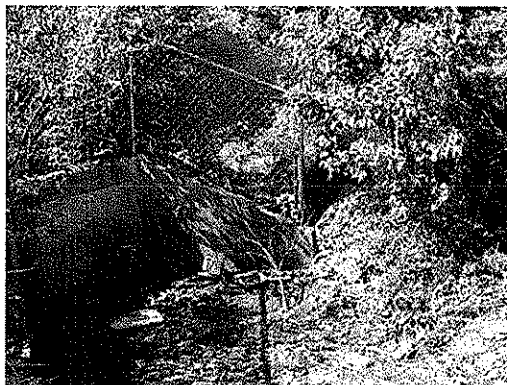
This project involved:

- Field topographic surveys
- Hydrologic and hydraulic analysis using HEC-HMS software
- Design of concrete emergency spillway and erosion control measures
- Construction cost estimating and bidding assistance

Final design plans were submitted in August 2009 and the project was subsequently advertised for construction bids. Three bids received were within the allocated construction amount and construction approval was granted by the Council.

Project Facts

- Location: Lexington, Kentucky
- Client: Lexington-Fayette Urban County Government, Division of Water Quality
- Client Contact: Tim Koch
- Status: Design Completed
- Background:
ECSI was contracted to provide final civil design for repairs to the residential neighborhood detention basin.
- ECSI's Role:
ECSI provided field surveys and civil engineering design services for reconstruction of the North Pointe Detention Basin embankment and to provide an adequately sized emergency spillway to prevent future failures of the structure.
- Key ECSI Personnel:
Steve Gardner, PE
Douglas Mynear, PE
Shannon Reynolds, PE



NORTH POINTE DETENTION BASIN
Lexington - Fayette Urban County Government

340 South Broadway, Suite 200
Lexington, KY 40508

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AMD Remediation and Reclamation

Roadside Processing is a former coal processing facility initially developed before SMCRA, but much of the site later came under SMCRA jurisdiction. The coal and waste produced were highly acidic and toxic.

ECSI was contracted to develop a reclamation plan to reclaim the disturbed area on the site, which included an MSHA-class fresh-water impoundment used for the treatment of acid mine drainage (AMD); and several slurry (fine coal waste) disposal ponds. The three-phase plan included the dismantling of the old plant and support facilities and the installation of wetland berms, an emergency spillway and anoxic limestone drains.

ECSI also developed long-term passive treatment systems for the AMD produced at the site. This site borders the Daniel Boone National Forest and is located near the Big South Fork National River and Recreational Area. Government agencies involved with this project include: Mine Safety and Health Administration, Kentucky Department of Natural Resources Division of Permits, and the Kentucky Department of Environmental Protection Division of Water.

Project Facts

- Location: McCreary County, Kentucky
- Client:
Roadside Processing
750 Town Mountain Road
Pikeville, KY 41501
- Client Contact: Ed Newell
- Status: On going
- Background:
ECSI was hired to develop a reclamation plan to reclaim disturbed areas on a former coal processing facility site.
- ECSI's Role:
ECSI provided civil, environmental, and mining engineering, geological services, and surveying services. ECSI also supervised construction and monitored final performance.
- Key ECSI Personnel:
Steve Gardner, PE
Julie Ross, PG
Karen Rose, EIT



AMD REMEDIATION & RECLAMATION
McCreary County, Kentucky

340 South Broadway, Suite 200
Lexington, KY 40508

Phone: 859.233.2103

Fax: 859.259.3394

www.engrservices.com



Spencer-Adams AML Slides

Spencer – Adams AML slides were located on two abandoned pre-SMCRA auger benches located outside of Whitesburg, Kentucky.

ECSI was contracted to survey the slide areas for pre- and post-construction configurations. In addition ECSI was requested to calculate the volume of material handled in the reclamation process.

Project Facts

- Location: Isom, Letcher County, Kentucky
- Client:
Kentucky Division of AML
2521 Lawrenceburg Road
Frankfort, KY 40601
- Client Contact: David Sorrel
- Status: Completed
- Background:
ECSI was hired to determine pre and post construction configuration of two slide areas in order to calculate volume of material handled.
- ECSI's Role:
ECSI provided civil, environmental, and mining engineering services.
- Key ECSI Personnel:
Andy Willis, PE
Dale Harrison, PLS, PS
Gabe Shepherd
Jacob Shepherd

SPENCER - ADAMS AML SLIDES
Letcher County, KY

340 South Broadway, Suite 200
Lexington, KY 40508

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www.engrservices.com

Mine Seal Design

Recent MSHA regulatory changes require strengthening the blast resistance of mine seals from the previous 20 psi design strength to the present 120 psi blast strength.

Strata Mine Services retained ECSI to design seals under the Emergency Temporary Standard (ETS) and under the final ruling. Strata with the assistance of ECSI received approval of a seal under the ETS. This seal is called the StrataCrete 120 psi Medium Strength Plug Seal. This seal is approved by MSHA until October 20, 2008.

Strata, with the assistance of ECSI has submitted and received approval on September 17, 2008 for this seal with minor revisions under the final ruling. This final ruling seal design includes an installation manual for Operators, Contractors, and MSHA to use to determine the suitability and construction of the StrataCrete 120 psi Medium Strength Plug Seal.

This project involved:

- assembling a team of qualified professionals (both in house and independent contractors) to design and receive approval of the StrataCrete 120 psi Medium Strength Plug Seal.
- working with Strata personnel to design a seal that meets MSHA's requirements and is easy to build.
- testing of materials and designs, discussions with MSHA, research, report writing and final approval by MSHA for the StrataCrete 120 psi Medium Strength Plug Seal.

Project Facts

- Client: Strata Mine Services
- Client Contact: Mr. Mike Fabio
- Status: On-going
- Background:
ECSI was hired by Strata Mine Services to design seals for approval by MSHA under the ETS and the final ruling.
- ECSI's Role:
ECSI assembled a team of qualified engineers and technicians to test, design, and calculate what was necessary to submit and receive certification of a mine seal by MSHA. ECSI is continuing to work closely with Strata in other designs such as reinforced plug seals and high strength concrete plug seals so that Strata will have a seal applicable to most mining situations. Work is also being done to gain approval on a 50 psi seal under the final ruling.
- Key ECSI Personnel:
J. Steven Gardner, PE
Charles Reeves, PE

MINE SEAL DESIGN
Strata Mine Services



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www.engrservices.com

Upper Laurel Creek Stream Mitigation

ECSI was subcontracted to provide surveying services for MACTEC Engineering and Consulting, Inc. Using MACTEC designs ECSI staked out the 2500 linear feet of stream structures to be constructed. Design plans were used to establish vertical control throughout the stream and staked out the longitudinal profile, bankfull, top and bottom edges, riffles, cross vanes, J Hooks, and fords of the main stream and x-weirs for tributaries. In addition, ECSI performed as-built structure surveys and established permanent control points for future monitoring of the stream.

ECSI also provided a volume report of material handled through the construction.

Project Facts

- Location: Blaine Creek Watershed, Lawrence County, Kentucky
- Client: MACTEC Engineering and Consulting, Inc.
4460 Lake Forest Drive, Suite 200
Cincinnati, OH 45242
- Client Contact: Casey Mattingly
- Status: Completed
- Background: ECSI was hired to determine pre- and post-construction configuration of two slide areas in order to calculate volume of material handled.
- ECSI's Role: ECSI was hired to provide pre- and post-construction surveys and to calculate volume of material handled.
- Key ECSI Personnel:
Andy Willis, PE
Karen Rose, EIT
Dale Harrison, PLS, PS
Gabe Shepherd
Jacob Shepherd



UPPER LAUREL CREEK STREAM MITIGATION
Lawrence County, Kentucky

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Lexington, KY 40508

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ENGINEERING CONSULTING SERVICES, INC.
Civil - Environmental - Mining - Safety

HEADQUARTERS

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BRANCH OFFICES

KENTUCKY

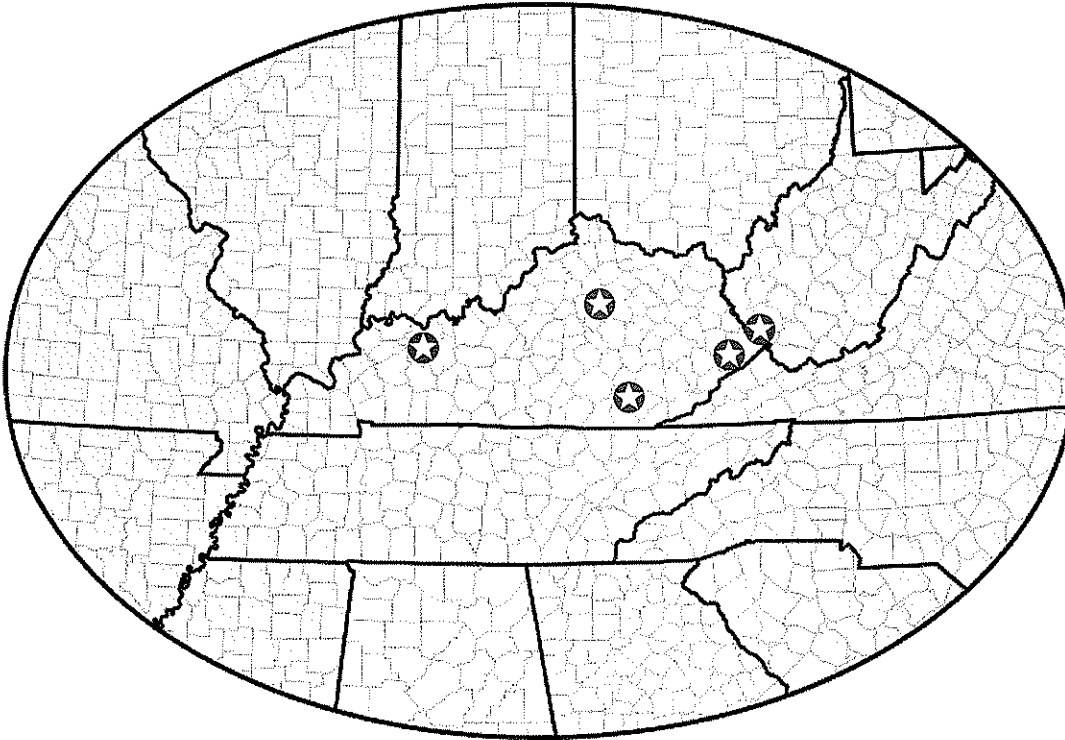
1005 South Main Street
Suite 102
Corbin, KY 40701
Phone: 606.526.6396
Fax: 606.526.6398

719 East 18th Street
Owensboro, KY 42303
Phone: 270.683.8030
Fax: 270.683.8031

308 Hambley Boulevard
Pikeville, KY 41501
Phone: 606.432.2443
Fax: 606.432.2486

WEST VIRGINIA

1628 W. Third Avenue
Williamson, WV 25661
Phone: 304.235.1885
Fax: 304.235.1887



Mission Statement

"With problems there are always opportunities.

We view problems and ECSI's ability to solve them

a major asset. Looking for solutions that create value

and opportunity is our primary mission. "

J. Steven Gardner, P.E.
President & CEO

SISTER COMPANY

Mining Internet Services, Inc.
www.miningusa.com/misi