

EXPRESSION OF INTEREST



WEST VIRGINIA
ACQUISITIONS AND CONTRACT ADMINISTRATION SECTION
PURCHASING DIVISION
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ENVIRONMENTAL REMEDIATION

ENGINEERING SERVICES

10/17/17 10:45:03
WV Purchasing Division

SITE CHARACTERIZATION STUDY, LEACHATE MANAGEMENT
AND CLOSURE CAP WITH QA/QC FOR

WEBSTER COUNTY LANDFILL DEP 1800000002

Buyer: Brittany E. Ingraham	Req No.: DEP1800000002
Opening Date: 10-17-2017	Opening Time: 1:30 PM

SUBMITTED BY

MSES consultants, inc.

609 West Main Street
Clarksburg, West Virginia





October 17, 2017
Proposal No.: PR-17-048

Ms. Brittany E. Ingraham
Buyer
State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Charleston, West Virginia 25305-0130

**EXPRESSION OF INTEREST
SITE CHARACTERIZATION STUDY
LEACHATE MANAGEMENT AND CLOSURE CAP WITH QA/QC
FOR
WEBSTER COUNTY LANDFILL
DEP 1800000002**

Dear Ms. Ingraham:

MSES consultants, inc. (MSES) is pleased to submit this Expression of Interest for the professional architectural and engineering services being solicited by DEP 1700000002 for the site characterization study, leachate management, closure cap design, and closure cap QA/QC for the Webster County Landfill. This submittal includes the following:

- Completed and signed Form ID: WV-PRC-CEOI-001 consisting of three (3) pages for EO: Webster County Landfill Closure Cap Design.
- Completed and signed Certification Page for the Webster County Landfill Closure Cap Design (page 45).
- Completed and signed Addendum Acknowledgement Form for Solicitation No.: DEP 1800000002 acknowledging no Addenda.
- Completed, signed and notarized West Virginia Ethics Commission, "Disclosure of Interested Parties to Contracts", (2 pages).
- Completed, signed, and notarized Purchasing Affidavit.
- Completed "West Virginia Department of Environmental Protection, Consultant Qualification Questionnaire".

Environmental *Engineering* *Energy* *Air*
Safety *Land Services* *Waste Management* *Water* *Industrial Hygiene*

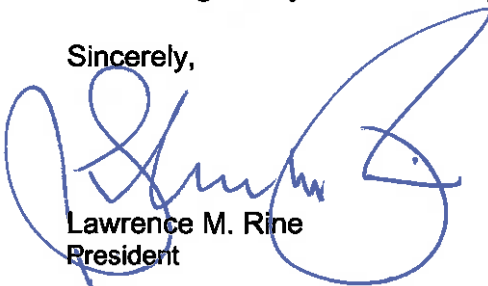
Supplemental information of Questionnaire Item 19, which includes an overview of MSES with information describing our qualifications, experience, management and staffing capabilities, and related prior experience. Also, this supplemental information includes a summary of MSES' experience with the West Virginia Landfill's Design, Closure, and QA/QC.

MSES has extensive experience in landfill site characterization studies, leachate management, closure design and QA/QC services for existing and planned landfills. This submittal demonstrates MSES is well qualified to provide these services for Webster County's Landfill. Our dedicated staff of full-time in-house professionals have the capabilities and experience to fully realize the Department of Environmental Protection's project goals in a technically-sound, highly-professional, and cost-effective manner. In summary, the MSES Team provides:

- (1) substantial experience on similar projects
- (2) strong performance record on similar projects
- (3) comprehensive in-house expertise
- (4) regional presence, knowledge, and experience
- (5) full-qualified and experienced project personnel
- (6) clear understanding of goals and requirements of the West Virginia Department of Environmental Protection
- (7) familiarity with applicable solid waste regulations and other federal, state, and local codes and policies
- (8) knowledge of West Virginia Landfills
- (9) sincere interest in teaming with the West Virginia Department of Environmental Protection and the Webster County Landfill staff.

We thank you for the opportunity to submit this Expression of Interest and look forward to working with you on this important, upcoming assignment.

Sincerely,



Lawrence M. Rine
President

LMR/jlb



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

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

Proc Folder: 364606

Doc Description: EOI: Webster County Landfill Closure Cap Design

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2017-09-14	2017-10-17 13:30:00	CEOI 0313 DEP1800000002	1

BID RECEIVING LOCATION

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

VENDOR

Vendor Name, Address and Telephone Number:

MSES Consultants, Inc.
 609 West Main Street
 Clarksburg, WV 26301

FOR INFORMATION CONTACT THE BUYER

Brittany E Ingraham
 (304) 558-2157
 brittany.e.ingraham@wv.gov

Lawrence M. Rine, MSES Consultants, Inc.

Signature X 

FEIN # 55-0637279

DATE 10/16/2017

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

ADDITIONAL INFORMATION:

Expression of Interest

The West Virginia Purchasing Division is soliciting Expression(s) of Interest for the Agency, The Department of Environmental Protection, from qualified firms to provide architectural/engineering services to provide necessary engineering, and other related professional services to design and specify for construction as well as provide construction contract administration, for Webster County Landfill Closure Cap Design, per the bid requirements, specifications, terms and conditions as attached hereto.

*Online submissions of Expressions of Interest are Prohibited.

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTECTION OFFICE OF ENVIRONMENTAL REMEDIATION 601 57TH ST SE CHARLESTON WV25304 US		ENVIRONMENTAL PROTECTION 601 57TH ST CHARLESTON WV 25304 US	

Line	Comm Ln Desc	Qty	Unit Issue
1	EOI: Webster County Landfill		

Comm Code	Manufacturer	Specification	Model #
81100000			

Extended Description :

Site Characterization Study, Leachate Management and Closure Cap Design, Construction QA/QC for the Webster County Landfill per the attached specifications, bid requirements, and terms and conditions, incorporated here by reference and made a part hereof.

DEP1800000002	Document Phase Draft	Document Description EOI: Webster County Landfill Closure Cap Design	Page 3
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ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

 (Name, Title)
 Lawrence M. Rine, President

 (Printed Name and Title)
 609 West Main Street, Clarksburg, WV 26301

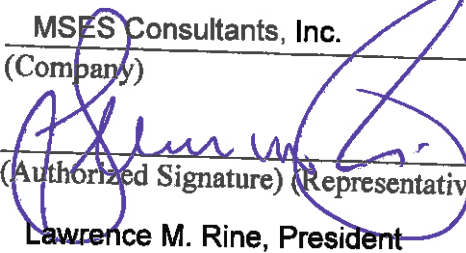
 (Address)
 304.669.9642 / 304.622.0981

 (Phone Number) / (Fax Number)
 larry@msesinc.com

 (email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

MSES Consultants, Inc.

 (Company)


 (Authorized Signature) (Representative Name, Title) Lawrence M. Rine, President

 Lawrence M. Rine, President

 (Printed Name and Title of Authorized Representative)

 10/16/2017

 (Date)

 304.669.9642 / 304.622-0981

 (Phone Number) (Fax Number)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: DEP180000002

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

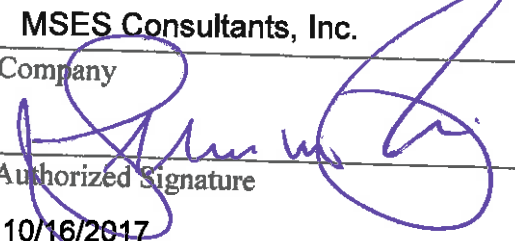
Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

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

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

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

MSES Consultants, Inc.

 Company


 Authorized Signature
 10/16/2017

 Date

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

No Addendum issued for this solicitation.

West Virginia Ethics Commission



Disclosure of Interested Parties to Contracts

Pursuant to W. Va. Code § 6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of \$100,000 or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

For purposes of complying with these requirements, the following definitions apply:

"Business entity" means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership or corporation.

"Interested party" or "Interested parties" means:

- (1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors;
- (2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract. (This subdivision does not apply to a publicly traded company); and
- (3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency. (This subdivision does not apply to persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.)

"State agency" means a board, commission, office, department or other agency in the executive, judicial or legislative branch of state government, including publicly funded institutions of higher education: Provided, that for purposes of W. Va. Code § 6D-1-2, the West Virginia Investment Management Board shall not be deemed a state agency nor subject to the requirements of that provision.

The contracting business entity must complete this form and submit it to the contracting state agency prior to contract award and to complete another form within 30 days of contract completion or termination.

This form was created by the State of West Virginia Ethics Commission, 210 Brooks Street, Suite 300, Charleston, WV 25301-1804. Telephone: (304)558-0664; fax: (304)558-2169; e-mail: ethics@wv.gov; website: www.ethics.wv.gov.

West Virginia Ethics Commission

Disclosure of Interested Parties to Contracts

Contracting business entity: MSES Consultants, INc.

Address: 609 West Main Street, Clarksburg, West Virginia 26301

Contracting business entity's authorized agent: Lawrence M. Rine

Address: 609 West Main Street, Clarksburg, West Virginia 26301

Number or title of contract: Lawrence M. Rine, President

Type or description of contract: Engineering and Environmental Services

Governmental agency awarding contract: Office of Environmental Protection

Names of each Interested Party to the contract known or reasonably anticipated by the contracting business entity (attach additional pages if necessary):

None - MSES Consultants, Inc. is the only provider.

Signature:

[Handwritten signature]

Date Signed: 10/16/2017

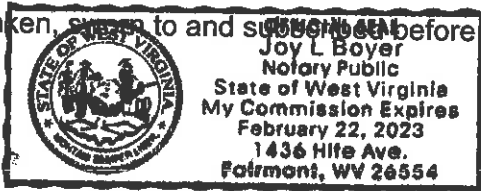
Check here if this is a Supplemental Disclosure.

Verification

State of West Virginia, County of Marion

I, Joy L. Boyer, the authorized agent of the contracting business entity listed above, being duly sworn, acknowledges that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this 16th day of October, 2017.



Joy L. Boyer
Notary Public's Signature

To be completed by State Agency:

Date Received by State Agency:

Date submitted to Ethics Commission:

Governmental agency submitting Disclosure:

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

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

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

DEFINITIONS:

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

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

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

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

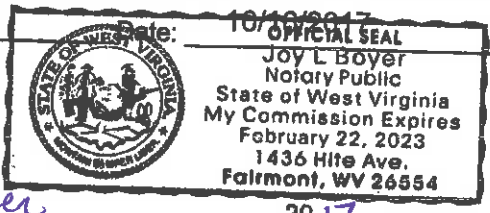
WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: MSES Consultants, Inc.

Authorized Signature: [Signature]

State of West Virginia

County of Marion, to-wit:



Taken, subscribed, and sworn to before me this 16th day of October, 2017.

My Commission expires Feb 22, 2023, 2023

AFFIX SEAL HERE

NOTARY PUBLIC Joy L. Boyer
Purchasing Affidavit (Revised 07/07/2017)

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

PROJECT NAME Webster County Landfill Closure Cap Design		DATE (DAY, MONTH, YEAR) October 16, 2017		FEIN 55-0637279	
1. FIRM NAME MSES Consultants, Inc.		2. HOME OFFICE BUSINESS ADDRESS 609 West Main Street Clarksburg, WV 26301		3. FORMER FIRM NAME Same Name Since 1976	
4. HOME OFFICE TELEPHONE 304.624.9700		5. ESTABLISHED (YEAR) 1976		6. TYPE OWNERSHIP INDIVIDUAL, CORPORATION, PARTNERSHIP, JOINT-VENTURE <input type="checkbox"/> CORPORATION	
6A. WV REGISTERED DBE (DISAVANTAGED BUSINESS ENTERPRISE) YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>					
7. PRIMARY OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. (name particular type) PERSONNEL EACH OFFICE MSES Consultants, Inc., 609 West Main Street, Clarksburg, WV 26301; 304.624.9700 (office) Lawrence M. Rine, President and John J. Keeling, PE, CIH, LRS, Senior Project Principal 7a. LIST OF OFFICES: Corporate Office: MSES Consultants, Inc., 609 West Main Street, Clarksburg, WV 26301; 304.624.9700 (office) John J. Keeling, BSCE, PE, CIH, CSP, LRS. Fairmont Office: MSES Architects, 1000 Green River Drive, Fairmont, WV 26554; 304.366.9700 (office) Jeffrey Wise, BSME.					
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM Lawrence M. Rine, Project Principal John J. Keeling, PE, Project Principal			8a. NAME, TITLE, & TELEPHONE NUMBER-OTHER PRINCIPALS Joan W. Rine, Secretary – Treasurer 304.624.9700		
9. NUMBER OF PERSONNEL BY DISPLINE (Bold Lettering Indicates Minimum Design Team Members) Detailed information On Team To Be Included					
<u>4</u> ADMINISTRATIVE	<u>3</u> ECOLOGISTS	<u>1</u> LANDSCAPE ARCHITECTS	<u>2</u> STRUCTURAL ENGINEERS		
<u>1</u> ARCHITECTS	<u>2</u> ECONOMISTS	<u>3</u> MECHANICAL ENGINEERS	<u>2</u> SURVEYORS		
<u>6</u> BIOLOGIST	<u>2</u> ELECTRICAL ENGINEERS	<u>2</u> MINING ENGINEERS			
<u>4</u> CADD OPERATORS	<u>4</u> ENVIRONMENTALISTS	<u>0</u> PHOTOGRAMMETRISTS	<u>0</u> OTHER		
<u>2</u> CHEMICAL ENGINEERS	<u>*</u> ESTIMATORS	<u>1</u> PLANNERS: URBAN/REGIONAL			
<u>4</u> CIVIL ENGINEERS	<u>2</u> GEOLOGISTS	<u>1</u> SANITARY ENGINEERS	<u>63</u> TOTAL PERSONNEL		
<u>2</u> CONSTRUCTION INSPECTORS	<u>3</u> HISTORIANS	<u>1</u> SOILS ENGINEERS			
<u>10</u> DESIGNERS	<u>1</u> HYDROLOGISTS	<u>*</u> SPECIFICATION WRITERS			
<u>**</u> DRAFTSMEN					
** See CADD Operators					
* The duties of Estimator and Specification Writers are part of the Design Engineers duties.					
TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: <u>10</u>					
* RPEs other than Civil must provide supporting documentation that qualifies them to supervise and perform this type of work.					

10. If submittal is by joint venture, list participating firms & outline specific areas of responsibility (including administrative, technical, & financial) for each firm. Each participating firm must complete a "Consultant Confidential Qualification Questionnaire". THIS IS NOT A JOINT VENTURE SUBMITTAL		
10a. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? <input type="checkbox"/> YES <input type="checkbox"/> NO		
11. OUTSIDE KEY CONSULTANTS/ SUB-CONSULTANTS ANTICIPATED TO BE USED.		
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO
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NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO

MSES Consultants, Inc. is a total services provider and will employ no outside consultants or sub-contractors. All services required for the Webster County Landfill Closure Cap Design will be from MSES' in-house full-time staff of professionals.

12. A. Is your firm experienced in (Solid Waste Landfill Closure Design)?

YES Description and Number of Projects:

Many of the MSES staff members to be assigned to this project have been a project team for solid waste projects throughout West Virginia since 1984. The team to be assigned has experience in new landfill siting, planning, design, permitting, and management. Landfill closure experience consists of closure design planning, gas venting, leachate collection/conveyance/treatment, cap maintenance, and land area beneficial reuse. Most of the staff are SWANA- Certified Landfill Managers, Geosynthetic Accreditation Institute-Certified Clay and Geosynthetic Liner Professionals, Certified Monitoring Well Designers/Drillers, Registered Professional Engineers, and Professional Land Surveyors. The number of solid waste management landfill projects exceeds 80; the number of hazardous waste landfill designs and closures exceeds 28. For more detailed explanations and concise landfill project descriptions, refer to the supplemental information provided by Item 19 of this questionnaire.

NO

B. Is your firm experienced in Solid Waste landfill site characterization assessment and evaluation?

YES Description and Number of Projects:

The Project Team to be assigned to this project has extensive experience in solid waste landfill site characterizations, assessments, and evaluations. Most of this Team, as noted above, has worked together since 1984. Experience includes solid waste, C&D, and hazardous and non-hazardous landfill site characterizations, assessments, and evaluations. The Project Team to be assigned is experienced in ASTM Phase I, II, and III Environmental Site Assessments, as well as landfill gas investigations, surface water and groundwater assessments, and leachate collection/storage/treatment. The number of solid waste management landfill projects exceeds 80; the number of hazardous waste landfill designs and closures exceeds 28. For more detailed explanations and concise landfill project descriptions refer to the supplemental information provided by Item 19 of this questionnaire.

NO

C. Is your firm experienced in landfill closure construction inspection?

YES Description and Number of Projects:

Most of the Project Team to be assigned to this landfill closure project has worked as a team since 1984. In addition to the various projects and experience outlined above, unique closure projects have involved the adapted reuse of short paper fibers (SPF) as a cap medium. MSES, in association with BFI (Republic Services Inc.), developed SPF solid waste closure cap methods and techniques that are now accepted as both impermeable cap and growth layer media for abandoned landfills, coal waste areas (gob piles), flyash areas, etc. This technique is now being used in New Jersey, Pennsylvania, Virginia, Maryland, and West Virginia. In addition, MSES has been awarded a U.S. Department of Energy (USDOE) contract to study the capture and conditioning of landfill gas for use as fuel for boilers and generators. Also being studied is the feasibility of providing pipeline quality gas for interconnects with local gas distributors. MSES' Mr.

Charles H. "Sam" Muncy, Jr., P.E., P.S., has been invited to present MSES' landfill gas capture projects and findings at various USDOE conferences. For more detailed explanations and project descriptions refer to the supplemental information provided by Item 19 of this questionnaire.

NO

D. Is your firm experienced in Aerial Photography and the Development of Contour Mapping?

YES Description and Number of Projects:

Many of MSES' landfill projects, whether siting a new landfill or developing closures for abandoned and/or active landfills, begin with an accurate contour map. MSES typically maps more than 100,000 acres annually throughout the mid-Atlantic states. This mapping consists of areas as small as 5 acres, to tracts as large as 38,200 acres. For more detailed explanations and concise project descriptions refer to the supplemental information provided by Item 19 of this questionnaire.

NO

E. Is your firm experienced in evaluating ground water contamination, such as may be associated with landfills?

YES Description and Number of Projects:

MSES personnel have been extensively involved in groundwater evaluations, contamination studies, and groundwater rehabilitation projects for numerous projects, including abandoned landfills, the siting of new landfills, and landfill closure projects. MSES has performed similar groundwater evaluation programs for hazardous waste sites and provided groundwater remediation programs to address problems associated with identified groundwater contamination. MSES' staff has been involved with the West Virginia oil and gas industry for land application of coalbed methane waters, groundwater assessments for Brownfields projects, and groundwater characterizations and remediation programs for numerous manufacturing clients throughout West Virginia and the mid-Atlantic states. Four of the MSES Project Team Members to be assigned to the project are West Virginia Certified Groundwater Monitoring Well Designers/Drillers.

NO

F. Is your firm experienced in Landfill Closure cost estimating?

YES Description and Number of Projects:

The staff members to be assigned to this landfill closure project are intimately familiar with proper closure techniques that not only protect the environment and the safety, health, and well-being of the general public, but do so in a cost-effective manner. The MSES project staff is very cognizant of providing realistic costing for closure activities for various types of landfills and closure cap methods. MSES prides itself on providing accurate and realistic closure costs.

NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)

NAME& TITLE (Last, first, Middle Int.)	YEARS OR EXPERIENCE		
Keeling, John, J. PE, CIH, QEP, CSP, LRS Principal and Project Manager	YEARS OF EXPEIRENCE WITH MSES: 28	YEARS OF EXPEIRENCE WITH OTHER FIRMS: 15	YEARS OF LANDFILL EXPEIRENCE: 32

Brief Explanation of Responsibilities:

Mr. Keeling has managed design teams for multiple projects referenced in page 42 though 47 of this document. Many of the projects were in progress simultaneously requiring delegation of duties by Mr. Keeling to the MSES staff.

EDUCATION (DEGREE, YEAR, SPECIALIZATION)

To assist the reviewer of the questionnaire, a brief one-page professional vita is proved at the end of this page for John J. Keeling.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:	REGISTRATION (Type, Year, State)
-------------------------------------------	----------------------------------

13a. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPEIRENCE		
Keeling, John, J. PE, CIH, QEP, CSP, LRS Principal and Project Manager	YEARS OF EXPEIRCENE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OF EXPEIRENCE (name type):

Brief Explanation of Responsibilities:

Mr. Keeling will be the Project Principal and Senior Project Manager for this Landfill Closure Project. He will be responsible to the WVDEP for schedules, quality of work, reports, and budgets.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is proved at the end of this page for John J. Keeling.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

13b. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE QA/QC (Furnish complete data but keep to essentials)			
NAME & TITLE (last, first, middle int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPERIENCE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OR EXPEIRENCE (name type):
Keeling, John, J. PE, CIH, QEP, CSP, LRS Principal and Project Manager			
Brief Explanation of Responsibilities: <u>Mr. Keeling maintains intimate knowledge with project lead engineers to provide continuity of project design and management.</u>			
EDUCATION (Degree, Year, Specialization) To assist the reviewer of the questionnaire, a brief one-page professional vita is proved at the end of this page for John J. Keeling.			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	

John J. Keeling, P.E., C.I.H., C.S.P., Q.E.P., L.R.S.

Principal and Project Manager

Years of Experience with MSES: 28 Years of Experience with Other Firms: 15

Education

B. S. Civil Engineering, University of Kentucky, 1974

Professional Registrations/Certifications

Registered Professional Engineer - West Virginia, Kentucky, and Pennsylvania

Certified Industrial Hygienist - American Board of Industrial Hygiene

Certified Safety Professional - Board of Certified Safety Professionals

Qualified Environmental Professional - Institute of Professional Environmental Practice

Licensed Remediation Specialist - West Virginia, New York, and Ohio

Certified Visible Emissions Observer - USEPA

Licensed Asbestos Inspector/Management Planner/Clearance Air Monitor - WVBOH and Ohio BOH

Underground Storage Tank Closure Specialist/Installer - WVDEP

Certified Monitoring Well Designer and Installer - WVDEP

Professional Organizations

American Society of Safety Engineers

American Industrial Hygiene Association

Air and Waste Management Association

Harrison County SARA Title III Local Emergency Planning Committee - Chairman

West Virginia Chapter of Air and Waste Management Association - Vice Chairperson

Experience Summary

- | | |
|--------------------------------------------------------------|--------------------------------------------------------------|
| <input type="checkbox"/> Job Costing | <input type="checkbox"/> Air Emission Regulatory Compliance |
| <input type="checkbox"/> Management | <input type="checkbox"/> NPDES Permitting |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Waste Management/Minimization |
| <input type="checkbox"/> Risk Assessment/Analysis | <input type="checkbox"/> Hazardous Waste Management |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Air Emission Modeling |
| <input type="checkbox"/> Economic Feasibility | <input type="checkbox"/> Asbestos Assessment |
| <input type="checkbox"/> Phase I/II Investigation | <input type="checkbox"/> Lead Base Paint Assessment |
| <input type="checkbox"/> Remediation (Design and Permitting) | <input type="checkbox"/> NORM Assessment |
| <input type="checkbox"/> RCRA Waste Units | <input type="checkbox"/> Brownfields Specialist |
| <input type="checkbox"/> Drilling Programs | <input type="checkbox"/> Health & Safety |
| <input type="checkbox"/> Bioremediation | <input type="checkbox"/> Noise Assessment |
| <input type="checkbox"/> Geographic and Hydrologic Studies | <input type="checkbox"/> Hydrologic and Hydraulic Analysis |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> SARA Title III |
| <input type="checkbox"/> Air Permitting | <input type="checkbox"/> Specification Development |
| <input type="checkbox"/> Indoor Air Quality | <input type="checkbox"/> Earth Sciences |
| <input type="checkbox"/> Code Compliance | <input type="checkbox"/> Environmental/Architectural Support |
| <input type="checkbox"/> E-911 Systems | <input type="checkbox"/> GIS Systems |
| <input type="checkbox"/> HEC - RAS & SEDCAD Modeling | <input type="checkbox"/> Flood Routing/Flood Plain Analysis |
| <input type="checkbox"/> Impoundments | <input type="checkbox"/> Impoundments |
| Siting · Design · Construction | Earth · Lined · Concrete |
| <input type="checkbox"/> SPCC Plan | <input type="checkbox"/> Spill Response |
| <input type="checkbox"/> E&S Plan and Stormwater | <input type="checkbox"/> Hydrostatic Test Waters |
| | Permitting · Compliance |

MSES



13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)

NAME& TITLE (Last, first, Middle Int.) Muncy, Jr. Charles "Sam", H BS, MS, PE, PS Senior Project Engineer	YEARS OR EXPERIENCE		
	YEARS OF EXPEIRENCE WITH MSES: 27	YEARS OF EXPEIRENCE WITH OTHER FIRMS: 16	YEARS OF LANDFILL EXPEIRENCE: 32

Brief Explanation of Responsibilities:

Mr. Muncy has performed landfill design projects since the Emergency Legislative Rule was passed in 1988. Projects are too numerous to list here. For a listing of projects Mr. Muncy has been involved with, please refer to pages 42 through 47 of this document for the landfill and earthwork related projects.

EDUCATION (DEGREE, YEAR, SPECIALIZATION)

 To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Charles H. "Sam" Muncy, Jr.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:	REGISTRATION (Type, Year, State)
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13a. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Muncy, Jr. Charles "Sam", H BS, MS, PE, PS Senior Project Engineer	YEARS OF EXPEIRENCE		
	YEARS OF EXPEIRCENE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OF EXPEIRENCE (name type):

Brief Explanation of Responsibilities:

Mr. Muncy will be the Senior Project Engineer, and will be directly involved in all aspects of this Landfill Closure Project. He will be assigned full time to this project, and will be part and the lead of the design Team, responsible for site characterization, leachate collection, and supervision of design activities, to ensure timely, accurate, and usable information. Mr. Muncy will assist Mr. Keeling in the overall management of the project and completion of a Final Report of Construction.

EDUCATION (Degree, Year, Specialization)

 To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Charles H. "Sam" Muncy, Jr.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
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13b. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE QA/QC (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type):	YEARS OF EXPERIENCE (name type):	YEARS OF EXPERIENCE (name type):
Muncy, Jr. Charles "Sam", H BS, MS, PE, PS Senior Project Engineer			

Brief Explanation of Responsibilities:

Mr. Muncy has been the chief QA/QC officer and certifying professional engineer for over 30 separate West Virginia landfill liner construction, closure cap construction, leachate collection and leachate management systems installation projects since 1990.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Charles H. "Sam" Muncy, Jr.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

13c. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)
Muncy, Jr. Charles "Sam", H BS, MS, PE, PS Senior Project Engineer			

Brief Explanation of Responsibilities

Mr. Muncy had designed and been the engineer of record for over 10 million cubic yards of heavy earth work excavation and fill. The largest single project was excavation and fill totaling over 1 million cubic yards for major expansion of the Meadowfill Landfill. Mr. Muncy has been responsible for multiple earth work projects from site reconnaissance for drilling, subsurface drilling, strata identification, soil excavation and processing for linear systems, closure cap systems, and structured fills.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Charles H. "Sam" Muncy, Jr.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
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PROFESSIONAL VITAE

Charles H. "Sam" Muncy, Jr., P.S., P.E., MSCE

Senior Project Manager

Years of Experience with MSES: 26 Years of Experience with Other Firms: 16

Education

- B. S. Civil Engineering, West Virginia University, 1974
- M. S. Civil Engineering, West Virginia University, 1983

Professional Registrations/Certifications

- Registered Professional Engineer - West Virginia, Pennsylvania, Florida, North Carolina, Ohio, and Virginia
- Professional Surveyor - West Virginia
- Certified Compaction Technician - West Virginia Department of Highways
- Radiation Safety Officer - NRC
- Licensed Remediation Specialist - New York, Ohio, West Virginia
- Certified Monitoring Well Designer and Installer - WVDEP
- Certified Landfill Manager - SWANA
- Geosynthetic Accreditation Institute - Clay & Geo Synthetic Liners
- Florida Real Estate License
- Operator Qualification - USDOT

Professional Organizations

- American Society of Civil Engineers
- Solid Waste Association of North America
- Barbour County, WV Solid Waste Authority - Past Member
- Gundle Liner Seminars and Workshops

Past Work History

- Joyce Engineering
- Harman Construction, Inc.
- Southern Ohio Coal Company
- American Electric Power Service Corporation
- Mountain State Surveying

Experience Summary

- | | |
|-------------------------------------------------------------|-------------------------------------------------------------|
| <input type="checkbox"/> Project Management | <input type="checkbox"/> Risk Assessment/Analysis |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Phase I & II Investigation |
| <input type="checkbox"/> Remediation (Design & Permitting) | <input type="checkbox"/> RCRA Waste Units |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Data Base Systems |
| <input type="checkbox"/> Computer Modeling (H&H Studies) | <input type="checkbox"/> Life Safety Codes |
| <input type="checkbox"/> Specification Development | <input type="checkbox"/> Job Costing |
| <input type="checkbox"/> Property Evaluation | <input type="checkbox"/> Site Surveys |
| <input type="checkbox"/> Mapping | <input type="checkbox"/> QA/QC Inspection & Compliance |
| <input type="checkbox"/> Economic Feasibility Investigation | <input type="checkbox"/> Structural |
| <input type="checkbox"/> Soils Engineering | <input type="checkbox"/> Earth Sciences |
| <input type="checkbox"/> Storm Routing Studies | <input type="checkbox"/> Geographic and Hydrologic Analysis |
| <input type="checkbox"/> Spill Response | <input type="checkbox"/> Groundwater Protection Plans |
| <input type="checkbox"/> SPCC Plans | <input type="checkbox"/> Land Planning |
| <input type="checkbox"/> Site Development | <input type="checkbox"/> Subsurface Investigation |
| <input type="checkbox"/> Roadway/Highway | <input type="checkbox"/> NPDES Permitting |
| <input type="checkbox"/> Bioremediation | <input type="checkbox"/> Stormwater Management |
| <input type="checkbox"/> Erosion & Sediment Planning | <input type="checkbox"/> Civil/Architectural Support |
| <input type="checkbox"/> Waste Management/Minimization | <input type="checkbox"/> Structural/Architectural Support |
| <input type="checkbox"/> Code Compliance | <input type="checkbox"/> HEC-RAS Computer Modeling |
| <input type="checkbox"/> SEDCAD Computer Modeling | <input type="checkbox"/> GPS/GIS Surveys and Mapping |
| <input type="checkbox"/> Hydrologic and Hydraulic Analysis | <input type="checkbox"/> Impoundment Inspections |
| <input type="checkbox"/> Impoundments\ Designs | <input type="checkbox"/> Liner · Leak Detection · Stability |
| Freshwater · Waste · Leachate · Slurry | |
| <input type="checkbox"/> UST · AST Tanks | |
| Siting · Permitting · Inspections · Registration | |



MSES

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)

NAME& TITLE (Last, first, Middle Int.) Monahan, Catherine R. BS, MS Geologist/Hydrogeologist	YEARS OR EXPERIENCE		
	YEARS OF EXPEIRENCE WITH MSES: 24	YEARS OF EXPEIRENCE WITH OTHER FIRMS: 3	YEARS OF LANDFILL EXPEIRENCE: 24

Brief Explanation of Responsibilities:

Ms. Monahan has performed geological characterizations for multiple projects listed on pager 42 through 47 of this document either as a team leader or a team member.

EDUCATION (DEGREE, YEAR, SPECIALIZATION)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Catherine R. Monahan.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:	REGISTRATION (Type, Year, State)
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13a. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Monahan, Catherine R. BS, MS Geologist/Hydrogeologist	YEARS OF EXPEIRENCE		
	YEARS OF EXPEIRCENE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OF EXPEIRENCE (name type):

Brief Explanation of Responsibilities:

Ms. Monahan will be responsible for the characterization of geological and hydrogeological conditions within the landfill disposal area and its immediately surrounding area. She will be part of the team that will be examining groundwater occurrence and quality, leachate movement, quality, and management, and impacts, if any, to groundwater, and will integrate her findings into the site characterization reports and planning for the closure of the landfill.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Catherine R. Monahan.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
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13b. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE QA/QC (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPERIENCE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OR EXPEIRENCE (name type):
Monahan, Catherine R. BS, MS Geologist/Hydrogeologist			

Brief Explanation of Responsibilities:

Ms. Monahan has been the responsible geologist to verify soil types and characteristics for use in landfill cell construction closure design. She has completed soil reports, field designated stockpile and soil processing for liner soils, top soils, and structural fill and performed QA/QC of soil placement and correlation with laboratory soils data.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Catherine R. Monahan.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

13c. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES REponsible FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)
Monahan, Catherine R. BS, MS Geologist/Hydrogeologist			

Brief Explanation of Responsibilities

Ms. Monahan has designed and observed surface test pits initial soils identification for depths up to 20 feet and conducted field logging of anger and coring subsurface exploration to depths over 500 feet. As a team member she has identified borrow sites and provided fence diagrams necessary for quantity calculations.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Catherine R. Monahan.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

Catherine R Monahan

Geologist/Hydrogeologist

Years of Experience with MSES: 24 Years of Experience with Other Firms: 3

Education

B. S. Geology, Stockton State College, 1988

M. S. Geology, University of Massachusetts at Amherst, 1991

Professional Registrations/Certifications

Certified Monitoring Well Designer and Installer - WVDEP

Wetland Delineation Training - U. S. Army Corps of Engineers Training Program

Professional Organizations

American Geophysical Union

National Ground Water Association

Association of Ground Water Scientists and Engineers

Past Work History

University of Massachusetts at Amherst - Research Assistant

Experience Summary

- | | |
|------------------------------------------------------------|------------------------------------------------------|
| <input type="checkbox"/> Project Management | <input type="checkbox"/> Risk Assessment/Analysis |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Phase I & II Investigation |
| <input type="checkbox"/> Remediation (Design & Permitting) | <input type="checkbox"/> RCRA Waste Units |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Data Base Systems |
| <input type="checkbox"/> Computer Modeling | <input type="checkbox"/> Specification Development |
| <input type="checkbox"/> Species Identification | <input type="checkbox"/> Job Costing |
| <input type="checkbox"/> Property Evaluation | <input type="checkbox"/> Site Surveys |
| <input type="checkbox"/> Mapping | <input type="checkbox"/> Wetlands |
| <input type="checkbox"/> Economic Feasibility | <input type="checkbox"/> Soils Engineering |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Site Development |
| <input type="checkbox"/> Computer Programming | <input type="checkbox"/> Brownfields Specialist |
| <input type="checkbox"/> Stormwater Modeling | <input type="checkbox"/> Evapotranspiration Modeling |
| <input type="checkbox"/> Groundwater Modeling/Monitoring | <input type="checkbox"/> Subsurface Investigation |
| <input type="checkbox"/> Bioremediation | <input type="checkbox"/> NPDES Permitting |
| <input type="checkbox"/> Foundations | <input type="checkbox"/> Code Compliance |
| <input type="checkbox"/> E&S Planning | <input type="checkbox"/> Stormwater Management |
| <input type="checkbox"/> Flood Routing | <input type="checkbox"/> HEC - RAS Computer Modeling |

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)

NAME& TITLE (Last, first, Middle Int.)	YEARS OR EXPERIENCE		
	YEARS OF EXPEIRENCE WITH MSES:	YEARS OF EXPEIRENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPEIRENCE:
Hickman, Susan M. BS Biology BS Chemistry Senior Biologist/ Environmental Scientist	8	11	11

Brief Explanation of Responsibilities:

Ms. Hickman has analyzed surface water data and identified source causes of monitoring limit exceedences. She has identified sources of stressed vegetation and designed restoration processes using mechanical and chemical treatment.

EDUCATION (DEGREE, YEAR, SPECIALIZATION)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Susan M. Hickman.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:	REGISTRATION (Type, Year, State)
-------------------------------------------	----------------------------------

13a. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPEIRCENE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OF EXPEIRENCE (name type):
Hickman, Susan M. BS Biology BS Chemistry Senior Biologist/ Environmental Scientist			

Brief Explanation of Responsibilities:

Ms. Hickman will be the Project Team member involved in the environmental and ecological reviews not only within the landfill area but also in potential wetlands and borrow areas. In addition, MS. Hickman will assist in the characterization of surface water, leachate, and vegetation conditions at the landfill. As a Team member, her information will be combined with the other member' findings to develop a Final Closure Plan.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Susan M. Hickman.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

13b. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE QA/QC (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPERIENCE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OR EXPEIRENCE (name type):
Hickman, Susan M. BS Biology BS Chemistry Senior Biologist/ Environmental Scientist			

Brief Explanation of Responsibilities:

EDUCATION (Degree, Year, Specialization)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

13c. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES REPONSIBLE FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)
Hickman, Susan M. BS Biology BS Chemistry Senior Biologist/ Environmental Scientist			

Brief Explanation of Responsibilities

Ms. Hickman has designed segmented soils excavation and placed encapsulate soils that would be detrimental and use desirable soil for vegetation covers and has verified soils placement by sampling and visual observations.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Susan M. Hickman.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

Susan M. Hickman

Senior Biologist/Environmental Scientist

Years of Experience with MSES: 8

Years of Experience with Other Firms: 11

Education

B. S. Biology, Fairmont State University, 1994

B. S. (Minor) Chemistry, Fairmont State University, 1994

Professional Registrations/Certifications

Stream Habitat Measurements Techniques - National Conservation Training USFAW

Permit Scientific Collection - WVDNR

Wetlands Delineation Training - U. S. Army Corps of Engineers Training Program

Professional Organizations

National Groundwater Association

National Conservation Center and Training, NCTC

Past Work History

Sturm Environmental Services - Director of Laboratory Services

Experience Summary

- | | |
|----------------------------------------------------------|-------------------------------------------------------------------------|
| <input type="checkbox"/> Aquatic Sampling/Identification | <input type="checkbox"/> Benthic - Sampling, Processing, Identification |
| <input type="checkbox"/> NPDES Permitting | <input type="checkbox"/> Risk Assessment/Analysis |
| <input type="checkbox"/> Microbiological | <input type="checkbox"/> Regulatory Interaction |
| <input type="checkbox"/> Phase I/II Investigations | <input type="checkbox"/> Database Systems |
| <input type="checkbox"/> Bioassays | <input type="checkbox"/> Data Processing |
| <input type="checkbox"/> Species/Habitat Identification | <input type="checkbox"/> Computer Modeling |
| <input type="checkbox"/> Bioremediation | <input type="checkbox"/> Waste Impacts |
| <input type="checkbox"/> Natural Sciences | <input type="checkbox"/> Information/Aquatic Surveys |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> QA/QC Programs |
| <input type="checkbox"/> Brownfields | <input type="checkbox"/> Modeling |
| <input type="checkbox"/> NACE Internal Corrosion | <input type="checkbox"/> Mold and Fungi |

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)			
NAME& TITLE (Last, first, Middle Int.)	YEARS OR EXPERIENCE		
	YEARS OF EXPEIRENCE WITH MSES:	YEARS OF EXPEIRENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPEIRENCE:
Steele, Lori BS Meteorologist	23	12	28
Brief Explanation of Responsibilities: <u>Ms. Steele has designed soil processing, landfill gas recovery, and leachate management operations to minimize fugitive dust and meet air pollution limits. She has designed active and passive methane monitoring for landfills to manage gas generation and identify escape sources.</u>			
EDUCATION (DEGREE, YEAR, SPECIALIZATION) To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Lori Steele.			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:		REGISTRATION (Type, Year, State)	
13a.PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPEIRCENE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OF EXPEIRENCE (name type):
Steele, Lori BS Meteorologist			
Brief Explanation of Responsibilities: <u>Ms. Steele will be responsible for the characterization of air and fugitive emissions associated with the closure and closure construction. She will also assist in the proper handling and air permitting needed for gas venting for the construction of the landfill closure and the post-closure air/gas venting systems.</u>			
EDUCATION (Degree, Year, Specialization) To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Lori Steele.			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	

13b. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE QA/QC (Furnish complete data but keep to essentials)			
NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type):	YEARS OF EXPERIENCE (name type):	YEARS OF EXPERIENCE (name type):
Steele, Lori BS Meteorologist			
Brief Explanation of Responsibilities: <u>Ms. Steele tracks air emissions inventory for MSES client landfills and tabulates landfill gas loadings to determine annual air pollution control fees for landfill operations. Ms. Steele maintains data on West Virginia SLEIS inventory.</u>			
EDUCATION (Degree, Year, Specialization) To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Lori Steele.			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
13c. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS (Furnish complete data but keep to essentials)			
NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)
Steele, Lori BS Meteorologist			
Brief Explanation of Responsibilities <u>Ms. Steele designs operating conditions and procedures to manage and control fugitive dust emissions by large scale soil excavation and processing projects.</u>			
EDUCATION (Degree, Year, Specialization) To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Lori Steele.			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	

Lori Steele

Meteorologist

Years of Experience with MSES: 24 **Years of Experience with Other Firms:** 12

Education

B. S., Meteorology, Pennsylvania State University, 1980

Professional Registrations/Certifications

Certified Visible Emissions Observer - USEPA

Professional Organizations

Air and Waste Management Association
West Virginia Chapter of the Air and Waste Management Association
American Meteorological Society

Past Work History

CH2M Hill

Experience Summary

- | | |
|-------------------------------------------------------|-------------------------------------------------------------|
| <input type="checkbox"/> Job Costing | <input type="checkbox"/> Data Base Systems |
| <input type="checkbox"/> Risk Assessment/Analysis | <input type="checkbox"/> Computer Modeling |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Air Emission Regulatory Compliance |
| <input type="checkbox"/> Economic Feasibility | <input type="checkbox"/> Waste Management/Minimization |
| <input type="checkbox"/> Phase I/II Investigation | <input type="checkbox"/> Air Emission Modeling |
| <input type="checkbox"/> RCRA Waste Units | <input type="checkbox"/> Brownfields Specialist |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Health & Safety |
| <input type="checkbox"/> Air Permitting | <input type="checkbox"/> Certified Emission Statement |
| <input type="checkbox"/> Precipitation Modeling | <input type="checkbox"/> Modeling/Storm Predicting |

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)			
NAME& TITLE (Last, first, Middle Int.)	YEARS OR EXPERIENCE		
	YEARS OF EXPEIRENCE WITH MSES:	YEARS OF EXPEIRENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPEIRENCE:
Kidd, Rodney D. BS Project Engineer	31	12	33
Brief Explanation of Responsibilities: <u>Mr. Kidd has performed civil and environmental design duties for the projects listed in pages 42 through 47 of this document.</u>			
EDUCATION (DEGREE, YEAR, SPECIALIZATION) To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Rodney D. Kidd.			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:		REGISTRATION (Type, Year, State)	
13a. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPEIRCENE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OF EXPEIRENCE (name type):
Kidd, Rodney D. BS Project Engineer			
Brief Explanation of Responsibilities: <u>Mr. Kidd's civil engineering background in similar landfill closure projects will be utilized to develop access roads, stable slope design and leachate collection systems (piping, manholes, collection laterals, etc.).</u>			
EDUCATION (Degree, Year, Specialization) To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Rodney D. Kidd.			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	

13b. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE QA/QC (Furnish complete data but keep to essentials)			
NAME & TITLE (last, first, middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPERIENCE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OR EXPEIRENCE (name type):
Kidd, Rodney D. BS Project Engineer			
Brief Explanation of Responsibilities:			
<u>Mr. Kidd has performed field QA/QC of construction projects and office record keeping of QA/QC programs. He is experienced in client, owner, and regulatory relations. He is experienced in both extrusion and wedge field welding techniques, nuclear density measurements, and permeability window interpretation.</u>			
EDUCATION (Degree, Year, Specialization)			
To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Rodney D. Kidd.			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
13c. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES REPONSIBLE FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS (Furnish complete data but keep to essentials)			
NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)
Kidd, Rodney D. BS Project Engineer			
Brief Explanation of Responsibilities			
<u>Mr. Kidd has performed grading design on a wide variety of civil engineering projects involving building pad, landfill base grading, and Erosion/Sediment Control discharge and storage structures.</u>			
EDUCATION (Degree, Year, Specialization)			
To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Rodney D. Kidd.			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	

Rodney D. Kidd

Project Engineer

Years of Experience with MSES: 30 **Years of Experience with Other Firms:** 12

Education

B. S. Civil Engineering, West Virginia University, 1974

Professional Registrations/Certifications

Certified Compaction Technician - West Virginia Department of Highways
Certified Concrete Technician - West Virginia Department of Highways

Professional Organizations

American Society of Testing Materials
American Water Well Association
National Ground Water Association
Current Chairman - City of Bridgeport Planning and Zoning Commission

Past Work History

Union Carbide Corporation

Experience Summary

- | | |
|------------------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> Project Management | <input type="checkbox"/> Regulatory Interaction |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Data Base Systems |
| <input type="checkbox"/> Life Safety Codes | <input type="checkbox"/> Specification Development |
| <input type="checkbox"/> Job Costing | <input type="checkbox"/> Property Evaluation |
| <input type="checkbox"/> QA/QC Inspection & Compliance | <input type="checkbox"/> Economic Feasibility |
| <input type="checkbox"/> Soils Engineering | <input type="checkbox"/> Earth Sciences |
| <input type="checkbox"/> Flood Routing | <input type="checkbox"/> Stormwater Routing |
| <input type="checkbox"/> Geographic and Hydrologic Studies | <input type="checkbox"/> Foundations |
| <input type="checkbox"/> Land Planning | <input type="checkbox"/> Site Development |
| <input type="checkbox"/> Municipal Engineering | <input type="checkbox"/> Hydrologic & Hydraulic Analysis |
| <input type="checkbox"/> Site Utilities | <input type="checkbox"/> Plumbing System/Design |
| <input type="checkbox"/> Firewater Systems | <input type="checkbox"/> Roadway/Highway |
| <input type="checkbox"/> Subsurface Investigation | <input type="checkbox"/> Water/Wastewater Systems |
| <input type="checkbox"/> Stormwater Management | <input type="checkbox"/> Erosion and Sediment Planning |
| <input type="checkbox"/> Code Compliance | <input type="checkbox"/> Civil/Architectural Support |

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)

NAME& TITLE (Last, first, Middle Int.)	YEARS OR EXPERIENCE		
	YEARS OF EXPEIRENCE WITH MSES:	YEARS OF EXPEIRENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPEIRENCE:
Tennant, Rex B. II BS, BS Environmental Chemist/ Programmer	21	24	24

Brief Explanation of Responsibilities:
Mr. Tennant throughout his experience with MSES has been involved with the projects listed on pages 42 through 47 of this document. His primary tasks have been sampling program management, sampling protocol maintenance and development, interpretation of chemical analysis, information technology support, and instrument calibration.

EDUCATION (DEGREE, YEAR, SPECIALIZATION)
 To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Rex B. Tennant II.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:	REGISTRATION (Type, Year, State)
-------------------------------------------	----------------------------------

13a. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPEIRCENE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OF EXPEIRENCE (name type):
Tennant, Rex B. II BS, BS Environmental Chemist/ Programmer			

Brief Explanation of Responsibilities:
Mr. Tennant's chemistry and laboratory analytical background will be utilized in developing prudent and decisive sampling programs for methane, soils, groundwater, leachate, and other media encountered within the landfill area. In addition, Mr. Tennant will provide the review and interpretation of sampling and analytical results for the project. His information will be utilized in designing the closure cap and the leachate collection and pre-treatment systems.

EDUCATION (Degree, Year, Specialization)
 To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Rex B. Tennant II.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

13b. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE QA/QC (Furnish complete data but keep to essentials)			
NAME & TITLE (last, first, middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPERIENCE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OR EXPEIRENCE (name type):
Tennant, Rex B. II BS, BS Environmental Chemist/ Programmer			
Brief Explanation of Responsibilities:			
<u>Mr. Tennant oversees soils and liquid sample collection, preservation, and preparation. Protocols for sample collection and Laboratory ASIM standards are supported and checked by Mr. Tennant.</u>			
EDUCATION (Degree, Year, Specialization)			
To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Rex B. Tennant II.			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
13c. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES REPONSIBLE FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS (Furnish complete data but keep to essentials)			
NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)
Brief Explanation of Responsibilities			
EDUCATION (Degree, Year, Specialization)			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	

Rex B Tennant, II

Environmental Chemist/Programmer

Years of Experience with MSES: 21 **Years of Experience with Other Firms:** 24

Education

B. S., Chemistry, West Virginia University, 1972

B. S., Computer Science, Salem College (now Salem-Teikyo University), 1986

Professional Organizations

American Chemical Society

Past Work History

Sturm Environmental Services - Chemist, Lab Manager, Lab Director, Vice President

U. S. Army Environmental Hygiene Agency - Chemist

Southern Ohio Coal Company - Environmental Technician

U. S. Army Environmental Hygiene Agency - Lab Technician

Experience Summary

- | | |
|--------------------------------------------------------------|-----------------------------------------------------|
| <input type="checkbox"/> Management | <input type="checkbox"/> Computer Modeling |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Computer Programming |
| <input type="checkbox"/> Phase I/II Investigation | <input type="checkbox"/> NPDES Permitting |
| <input type="checkbox"/> Remediation (Design and Permitting) | <input type="checkbox"/> Hazardous Waste Management |
| <input type="checkbox"/> RCRA Waste Units | <input type="checkbox"/> Air Emission Modeling |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Brownfields Specialist |
| <input type="checkbox"/> Data Base Systems | <input type="checkbox"/> CAD/Intergraph/CAM |
| <input type="checkbox"/> Stormwater | <input type="checkbox"/> Indoor Air Quality |
| <input type="checkbox"/> Risk Assessment/Analysis | <input type="checkbox"/> SARA Title III |
| <input type="checkbox"/> Water/Wastewater Treatment | <input type="checkbox"/> Lead Base Paint Assessment |
| <input type="checkbox"/> Data Processing | <input type="checkbox"/> Data Management |
| <input type="checkbox"/> Training | <input type="checkbox"/> GIS Support |
| <input type="checkbox"/> Mold and Fungi | <input type="checkbox"/> NACE Internal Corrosion |

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)

NAME& TITLE (Last, first, Middle Int.)	YEARS OR EXPERIENCE		
	YEARS OF EXPEIRENCE WITH MSES:	YEARS OF EXPEIRENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPEIRENCE:
Trembly, Daniel L. AS Land Surveying Field Coordinator Field Survey and Mapping	6	23	27

Brief Explanation of Responsibilities:
Mr. Trembly is responsible for management of MSES survey crews, survey equipment, and compiler programming. All MSES design projects that involve field measurements for existing conditions or final conditions are planned and reviewed by Mr. Trembly. MSES has assigned Mr. Trembly to training for licensing as a drone pilot and as such he will perform large area and linear drone surveys.

EDUCATION (DEGREE, YEAR, SPECIALIZATION)
 To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Daniel L. Trembly.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:	REGISTRATION (Type, Year, State)
-------------------------------------------	----------------------------------

13a. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPEIRCENE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OF EXPEIRENCE (name type):
Trembly, Daniel L. AS Land Surveying Field Coordinator Field Survey and Mapping			

Brief Explanation of Responsibilities:
Mr. Trembly will be the lead surveyor and field mapping coordinator assigned to this Landfill Closure Project. He will be in charge and, along with Mr. Jamison's and his crew members, will perform the on-site surveys for site mapping, layer thickness verification, construction reference stations, through the construction as-built surveys.

EDUCATION (Degree, Year, Specialization)
 To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Daniel L. Trembly.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

13b. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE QA/QC (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPERIENCE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OR EXPEIRENCE (name type):
Trembly, Daniel L. AS Land Surveying Field Coordinator Field Survey and Mapping			

Brief Explanation of Responsibilities:

Mr. Trembly plans QA/QC for physical location and layout of landfill system components. All surveying and mapping equipment is managed and calibrated by Mr. Trembly. All regulatory grade and slope tolerances are tabulated by Mr. Trembly. Non conformance grades and slopes are identified and staked with instruction for correction.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Daniel L. Trembly.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

13c. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES REponsible FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)
Trembly, Daniel L. AS Land Surveying Field Coordinator Field Survey and Mapping			

Brief Explanation of Responsibilities

Mr. Trembly has substantial experience in state of the art surveying instrumentation and computer assisted design programs. Mr. Trembly is capable of performing measurements and topographic surface and subsurface mapping of landfill development by large capacity excavation projects and creating before and after surfaces cross-sections, profiles, and calculations. Calculations of earth work quantities are balanced within grade limitations, bank conditions, and applicable shrink and swell factors.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Daniel L. Trembly.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
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Daniel L. Trembly, P.S.

Field Coordinator / Survey Crew Leader

Years of Experience with MSES: 6 Years of Experience with Other Firms: 24

Education

A. S., Land Surveying, Glenville State College, 1989

Professional Registrations/Certifications

Professional Surveyor - Pennsylvania
Professional Surveyor - West Virginia
Operator Qualification - USDOT
Wirt County, West Virginia - County Surveyor
Certified Compliance Inspector Stormwater - Pending

Professional Organizations

West Virginia Association of Land Surveyors, Member

Past Work History

TNT Surveying, LLC
Board Surveying

Experience Summary

- | | |
|-------------------------------------------------------|--------------------------------------------------------|
| <input type="checkbox"/> Project Management | <input type="checkbox"/> Regulatory Interaction |
| <input type="checkbox"/> Data Base Systems | <input type="checkbox"/> Computer Modeling |
| <input type="checkbox"/> Species Identification | <input type="checkbox"/> Property Evaluation |
| <input type="checkbox"/> Site Surveys | <input type="checkbox"/> Mapping |
| <input type="checkbox"/> Sampling and Data Collection | <input type="checkbox"/> QA/QC Inspection & Compliance |
| <input type="checkbox"/> Specification Development | <input type="checkbox"/> Site Development |
| <input type="checkbox"/> Civil/Architectural Support | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Flood Plain | <input type="checkbox"/> GIS Surveys/Mapping |
| <input type="checkbox"/> GPS Surveys | <input type="checkbox"/> Municipal |
| <input type="checkbox"/> E-911 Surveys | <input type="checkbox"/> As-Built FERC Surveys |
| <input type="checkbox"/> Construction Layout | <input type="checkbox"/> Property Surveys |



13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)

NAME& TITLE (Last, first, Middle Int.)	YEARS OR EXPERIENCE		
	YEARS OF EXPEIRENCE WITH MSES:	YEARS OF EXPEIRENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPEIRENCE:
Cottrill, Sharon R. BS Land Planner	37	4	37

Brief Explanation of Responsibilities:

Ms. Cottrill has been with MSES since inception and has risen to the position of CADD Coordinator. She has an in depth knowledge of Auto CADD and Carlson computer software. Ms. Cottrill has been the drafter, drafting coordinator, and designer on the projects described in pages 42 though 47 of the documents. Her experience covers pin and ink drawings though state of the art plotters and computer systems.

EDUCATION (DEGREE, YEAR, SPECIALIZATION)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Sharon R. Cottrill.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:	REGISTRATION (Type, Year, State)
-------------------------------------------	----------------------------------

13a. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPEIRCENE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OF EXPEIRENCE (name type):
Cottrill, Sharon R. BS Land Planner			

Brief Explanation of Responsibilities:

Ms. Cottrill will be the Project Team member involved in assembling the collected site information to develop readable, usable, and understandable site mapping and construction design drawings and plans. Ms. Cottrill and her staff of seven (7) CADD drafters will be an integral part of this Landfill Closure Project. She will serve as the QAQC review of all drafting documents.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Sharon R. Cottrill.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

13b. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE QA/QC (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPERIENCE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OR EXPEIRENCE (name type):
Cottrill, Sharon R. BS Land Planner			

Brief Explanation of Responsibilities:

Ms. Cottrill will perform in house QA/QC of all plan views, details, and detail specifications for existing and record documents.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Sharon R. Cottrill.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)

13c. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES REPONSIBLE FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)
Cottrill, Sharon R. BS Land Planner			

Brief Explanation of Responsibilities

Ms. Cottrill is capable of creating and checking surface topographic mapping profiles of sections for earth work projects. She is the final review for topographic tie in to existing conditions and tolerances for meeting regulatory grade and slope requirements.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Sharon R. Cottrill.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)

Sharon Reeves Cottrill

Land Planner/Mapping Coordinator

Years of Experience with MSES: 36 **Years of Experience with Other Firms:**

4 Education

B. S. Landscape Architecture, West Virginia University (Cum Laude), 1976

Professional Organizations

West Virginia Society of Landscape Architects

Past Work History

CNG Transmission Corporation

Experience Summary

- | | |
|----------------------------------------------------|-----------------------------------------------------|
| <input type="checkbox"/> Project Management | <input type="checkbox"/> Species Identification |
| <input type="checkbox"/> Data Base Systems | <input type="checkbox"/> Computer Modeling |
| <input type="checkbox"/> CAD/Intergraph/CAM | <input type="checkbox"/> Illustrations |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Job Costing |
| <input type="checkbox"/> Specification Development | <input type="checkbox"/> Mapping |
| <input type="checkbox"/> Land Planning | <input type="checkbox"/> Site Development |
| <input type="checkbox"/> Code Compliance | <input type="checkbox"/> Architectural Support |
| <input type="checkbox"/> Civil Support | <input type="checkbox"/> E-911 Mapping |
| <input type="checkbox"/> GIS Mapping | <input type="checkbox"/> GPS Data Management |
| <input type="checkbox"/> Data Processing | <input type="checkbox"/> 911 Re-addressing |
| <input type="checkbox"/> ArcInfo | <input type="checkbox"/> ArcView |
| <input type="checkbox"/> Flood Routing | <input type="checkbox"/> Flood Plain Mapping |
| <input type="checkbox"/> Watershed Mapping | <input type="checkbox"/> HEC - RAS & SEDCAD Mapping |

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)

NAME& TITLE (Last, first, Middle Int.)	YEARS OR EXPERIENCE		
	YEARS OF EXPEIRENCE WITH MSES:	YEARS OF EXPEIRENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPEIRENCE:
Rine, Lawrence M. BS, BS, MS Principal and Quality Assurance/Quality Control Manager	43	14	43

Brief Explanation of Responsibilities:

At MSES, the accuracy and quality of work are taken very seriously. An MSES senior principal is assigned as the Project QAQC Officer for all of MSES' projects. MR. Rine has performed as MSES' QAQC Officer for many of the landfill projects undertaken by MSES to date. The assigning of a senior corporate officer ensures that the scheduling and the budget dollars needed to accomplish a project are strictly adhered to.

EDUCATION (DEGREE, YEAR, SPECIALIZATION)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Lawrence M. Rine.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:	REGISTRATION (Type, Year, State)
-------------------------------------------	----------------------------------

13a. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPEIRCENE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OF EXPEIRENCE (name type):
Rine, Lawrence M. BS, BS, MS Principal and Quality Assurance/Quality Control Manager			

Brief Explanation of Responsibilities:

At MSES, the accuracy and quality of work are taken very seriously. An MSES senior principal is assigned as the Project QAQC Officer for all of MSES' projects. MR. Rine has performed as MSES' QAQC Officer for many of the landfill projects undertaken by MSES to date. The assigning of a senior corporate officer ensures that the scheduling and the budget dollars needed to accomplish a project are strictly adhered to.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Lawrence M. Rine.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

13b. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE QA/QC (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type):	YEARS OF EXPERIENCE (name type):	YEARS OR EXPERIENCE (name type):
Rine, Lawrence M. BS, BS, MS Principal and Quality Assurance/Quality Control Manager			

Brief Explanation of Responsibilities:

At MSES, the accuracy and quality of work are taken very seriously. An MSES senior principal is assigned as the Project QA/QC Officer for all of MSES' projects. MR. Rine has performed as MSES' QA/QC Officer for many of the landfill projects undertaken by MSES to date. The assigning of a senior corporate officer ensures that the scheduling and the budget dollars needed to accomplish a project are strictly adhered to.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Lawrence M. Rine.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

13c. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)
Rine, Lawrence M. BS, BS, MS Principal and Quality Assurance/Quality Control Manager			

Brief Explanation of Responsibilities

Mr. Rine initiates the conceptual earth work grades and required surface and subsurface investigations to achieve accurate mapping of design grades and calculation of required cut and fill quantities. Mr. Rine is the final QA/QC officer for any project before delivery.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Lawrence M. Rine.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

Lawrence M. Rine

Principal and Quality Assurance/Quality Control Manager

Years of Experience with MSES: 42 **Years of Experience with Other Firms:** 14

Education

- B. S. Mechanical Engineering, West Virginia Institute of Technology 1969
- B. S. Mining Engineering, West Virginia Institute of Technology 1970
- Masters Study, Environmental Engineering, Cornell University 1973

Professional Registrations/Certifications

- Certified Monitoring Well Designer and Installer - WVDEP
- Licensed West Virginia Underground Storage Tank Closure/Installation Specialist
- Class I Certified Public Water Supply Operator, West Virginia
- Class II Certified Wastewater Treatment Plant Operator, West Virginia
- Certified Commercial Applicator, West Virginia and Pennsylvania
- Radiation Safety Officer - NRC
- Certified Asbestos Inspector/Manager/Planner/Clearance Air Monitor - WVBOH
- Licensed Remediation Specialist - WVDEP
- Certified Mineral Appraiser - U. S. Army Corps of Engineers
- Member State School Building Authority - Indoor Air Quality Committee
- Geosynthetic Accreditation Institute - Clay & Geo Synthetic Liners

Professional Organizations

- West Virginia Independent Oil and Gas Association (Environmental Committee Member)
- Virginia Independent Oil and Gas Association (Association's Outstanding Member, 1990)
- Pennsylvania Independent Oil and Gas Association
- National Society of Professional Engineers
- West Virginia Society of Professional Engineers, T. Moore Jackson Chapter
- West Virginia Surface Mine and Reclamation Association

Past Work History

CNG Transmission Corporation

Experience Summary

- | | |
|--------------------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> Job Costing | <input type="checkbox"/> Waste Management/Minimization |
| <input type="checkbox"/> Management | <input type="checkbox"/> Hazardous Waste Management |
| <input type="checkbox"/> Groundwater Modeling/Monitoring | <input type="checkbox"/> Asbestos Assessment |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Lead Base Paint Assessment |
| <input type="checkbox"/> Risk Assessment/Analysis | <input type="checkbox"/> NORM Assessment |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Brownfields Specialist |
| <input type="checkbox"/> Economic Feasibility | <input type="checkbox"/> Mapping |
| <input type="checkbox"/> Phase I/II Investigation | <input type="checkbox"/> Noise Assessment |
| <input type="checkbox"/> Remediation (Design and Permitting) | <input type="checkbox"/> SARA Title III |
| <input type="checkbox"/> RCRA Waste Units | <input type="checkbox"/> Specification Development |
| <input type="checkbox"/> Drilling Programs | <input type="checkbox"/> Environmental Impact Statements |
| <input type="checkbox"/> Bioremediation | <input type="checkbox"/> Data Processing |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Public Mtg. & Proj. Explanation |
| <input type="checkbox"/> Property Evaluations | <input type="checkbox"/> QA/QC Inspection & Compliance |
| <input type="checkbox"/> NPDES Permitting | <input type="checkbox"/> Architectural Support |
| <input type="checkbox"/> Municipal Engineering | <input type="checkbox"/> Radon |
| <input type="checkbox"/> Code Compliance | <input type="checkbox"/> Water/Wastewater Systems |
| <input type="checkbox"/> E-911 Systems | <input type="checkbox"/> GIS Systems/Data Management |
| <input type="checkbox"/> Flood Modeling | <input type="checkbox"/> FEMA Mapping |
| <input type="checkbox"/> Stormwater Management | <input type="checkbox"/> E&S Planning |

MSES



13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)

NAME& TITLE (Last, first, Middle Int.)	YEARS OR EXPERIENCE		
Saas, Louis P., Jr. AS, BS Project Engineer	YEARS OF EXPEIRENCE WITH MSES: 19	YEARS OF EXPEIRENCE WITH OTHER FIRMS: 27	YEARS OF LANDFILL EXPEIRENCE: 22

Brief Explanation of Responsibilities:

Mr. Saas has a diverse background in construction document preparation and the oversight of construction activities. He will be part of the MSES Team who will assure that the selected contractor is accomplishing the construction of the closure cap within the design parameters accepted by MSES and the WVDEP.

EDUCATION (DEGREE, YEAR, SPECIALIZATION)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Louis P. Saas, Jr.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:	REGISTRATION (Type, Year, State)
-------------------------------------------	----------------------------------

13a. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPEIRENCE		
Saas, Louis P., Jr. AS, BS Project Engineer	YEARS OF EXPEIRCENE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OF EXPEIRENCE (name type):

Brief Explanation of Responsibilities:

Mr. Saas has a diverse background in construction document preparation and the oversight of construction activities. He will be part of the MSES Team who will assure that the selected contractor is accomplishing the construction of the closure cap within the design parameters accepted by MSES and the WVDEP.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Louis P. Saas, Jr.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
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13b. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE QA/QC (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPERIENCE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OR EXPEIRENCE (name type):
Saas, Louis P., Jr. AS, BS Project Engineer			

Brief Explanation of Responsibilities:

Mr. Saas has a diverse background in construction document preparation and the oversight of construction activities. He will be part of the MSES Team who will assure that the selected contractor is accomplishing the construction of the closure cap within the design parameters accepted by MSES and the WVDEP.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Louis P. Saas, Jr.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

13c. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES REPONSIBLE FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)

Brief Explanation of Responsibilities

EDUCATION (Degree, Year, Specialization)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

Louis P. Saas, Jr.

Project Engineer

Years of Experience with MSES: 19 Years of Experience with Other Firms:

27 Education

B. S. Electrical Engineering - West Virginia Institute of Technology - 1971
A. S. Electronic Engineering- (International Correspondence School (ICS) - 1989

Professional Registrations/Certifications

Master Electrician's License - State of West Virginia

Professional Organizations

Institute of Electrical Electronic Engineers (IEEE)

Past Work History

Equitable Gas Co./Equitrans, L.P.

Experience Summary

- | | |
|--------------------------------------------------------------|--------------------------------------------------------------|
| <input type="checkbox"/> Project Management | <input type="checkbox"/> Regulatory Interaction |
| <input type="checkbox"/> Brownfields | <input type="checkbox"/> Noise Assessment |
| <input type="checkbox"/> Database Systems | <input type="checkbox"/> Waste Management/Minimization |
| <input type="checkbox"/> Computer Modeling | <input type="checkbox"/> Life Safety Codes |
| <input type="checkbox"/> RCRA Waste Units | <input type="checkbox"/> Risk Assessment/Analysis |
| <input type="checkbox"/> Remediation (Design and Permitting) | <input type="checkbox"/> Job Costing |
| <input type="checkbox"/> Economic Feasibility | <input type="checkbox"/> Property Evaluation |
| <input type="checkbox"/> Design (Stations, M&R, Pipeline) | <input type="checkbox"/> Specification Development |
| <input type="checkbox"/> Code Compliance | <input type="checkbox"/> QA/QC Compliance |
| <input type="checkbox"/> Training Programs | <input type="checkbox"/> Sampling Programs |
| <input type="checkbox"/> Gas System | <input type="checkbox"/> AC Mitigation Design/Testing |
| <input type="checkbox"/> Cathodic Protection Design/Testing | <input type="checkbox"/> Environmental/Architectural Support |

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)

NAME& TITLE (Last, first, Middle Int.)	YEARS OR EXPERIENCE		
Fleming, Terry L. BS Forestry Sciences Construction QA/QC	YEARS OF EXPEIRENCE WITH MSES: 8	YEARS OF EXPEIRENCE WITH OTHER FIRMS: 30	YEARS OF LANDFILL EXPEIRENCE: 32

Brief Explanation of Responsibilities:

Mr. Fleming performs field management of projects to insure the design is correctly interpreted by the contractor and acts as the liaison between the design engineer and the contractor.

EDUCATION (DEGREE, YEAR, SPECIALIZATION)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Terry L. Fleming.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:	REGISTRATION (Type, Year, State)
-------------------------------------------	----------------------------------

13a. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
Fleming, Terry L. BS Forestry Sciences Construction QA/QC	YEARS OF EXPERIENCE (name type):	YEARS OF EXPERIENCE (name type):	YEARS OF EXPERIENCE (name type):

Brief Explanation of Responsibilities:

Mr. Fleming will perform initial field investigations of land cover, soil types, and erosion features. He will then work with design engineers to specify Erosion/Sediment Control structures and materials. Based on soil reports, Mr. Fleming will recommend a seeding design to insure complete reclamation of borrow areas and final vegetative cover of the landfill cap system and Erosion and Sediment Control Plan.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Terry L. Fleming.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

13b. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE QA/QC (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPERIENCE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OR EXPEIRENCE (name type):
Fleming, Terry L. BS Forestry Sciences Construction QA/QC			

Brief Explanation of Responsibilities:

Mr. Fleming has an extensive background in construction monitoring and construction QAOC. He will be part of the day-to-day on-site construction monitoring, to ensure compliance with the design drawings, standards, specifications, and conditions set forth in the landfill closure cap contract.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Terry L. Fleming.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
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13c. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES REPONSIBLE FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)
Fleming, Terry L. BS Forestry Sciences Construction QA/QC			

Brief Explanation of Responsibilities

Mr. Fleming has an extensive history of large scale surface mining and landfill excavation projects. His background also is in reclamation and design of seeding mixtures, soil additives, seed bed preparation, and application rates to achieve rapid and uniform vegetation cover.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Terry L. Fleming.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
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Terry L. Fleming, R.P.F.

Forester/Environmental Scientist

Years of Experience with MSES: 8 Years of Experience with Other Firms: 30

Education

B. S. Forestry Sciences, West Virginia University, 1955

Professional Registrations/Certifications

Registered Professional Forester - West Virginia and Pennsylvania
Certified Drainage Inspector - West Virginia Department of Environmental Protection
Certified Compaction Technician - West Virginia Department of Highways
40 Hour OSHA Health and Safety Training
Wetlands Delineation Training - U. S. Army Corps of Engineers Training Program
Certified Compliance Inspector Stormwater – Pending
Operator Qualification - USDOT

Professional Organizations

American Society of Professional Foresters
Soil Conservation Society of America

Past Work History

West Virginia Department of Environmental Protection - Supervisor Mine Reclamation
Northern Division
West Virginia Division of Natural Resources - Reclamation Permit Review Team
West Virginia Division of Natural Resources - Reclamation Inspector
West Virginia Division of Natural Resources - Water Inspector

Experience Summary

- | | |
|------------------------------------------------------------------|------------------------------------------------------------------------------|
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Phase I and II Investigation |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Database Systems |
| <input type="checkbox"/> Environmental Inspections | <input type="checkbox"/> In-Field Clay Liner Testing |
| <input type="checkbox"/> Stormwater Management | <input type="checkbox"/> In-Field LLDPE & HDPE Liner Testing |
| <input type="checkbox"/> Specification Development | <input type="checkbox"/> Sampling and Data Collection |
| <input type="checkbox"/> QA/QC Inspection & Compliance | <input type="checkbox"/> Subsurface Investigation |
| <input type="checkbox"/> Bioremediation | <input type="checkbox"/> Code Compliance |
| <input type="checkbox"/> Computer Modeling | <input type="checkbox"/> GPS Survey/GIS Mapping |
| <input type="checkbox"/> Soil Compaction Testing - Nuclear Gauge | <input type="checkbox"/> NPDES Permitting |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Erosion & Sediment Planning |
| <input type="checkbox"/> Wetlands | <input type="checkbox"/> Forestry Surveys |
| <input type="checkbox"/> Habitat Surveys | <input type="checkbox"/> Forestry Impact Assessments |
| <input type="checkbox"/> Reclamation Planning | <input type="checkbox"/> Impoundment Inspections
Coal Slurry · Freshwater |
| <input type="checkbox"/> FERC E&S Programs | <input type="checkbox"/> Construction Stormwater |
| <input type="checkbox"/> FERC Inspection | <input type="checkbox"/> Spill Response |

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)

NAME& TITLE (Last, first, Middle Int.)	YEARS OR EXPERIENCE		
	YEARS OF EXPEIRENCE WITH MSES:	YEARS OF EXPEIRENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPEIRENCE:
Arnold, Daniel T. BA Chemistry BA Mathematics MS Environmental Legal Studies	6	23	10

Brief Explanation of Responsibilities:
Mr. Arnold coordinates inter office staff across all technical and administrative disciplines for MSES. His background is in management of projects requiring multiple personnel specialties and planning task assignments.

EDUCATION (DEGREE, YEAR, SPECIALIZATION)
 To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Daniel T. Arnold.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:	REGISTRATION (Type, Year, State)
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13a. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPEIRCENE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OF EXPEIRENCE (name type):
Arnold, Daniel T. BA Chemistry BA Mathematics MS Environmental Legal Studies			

Brief Explanation of Responsibilities:
Mr. Arnold has many years of NPDES Permitting and earth sciences experience for many diversified new and closure projects. He will be assigned permitting Team Leader, to assure that permitting is within the guidelines set forth by the landfill closure cap construction design, plans, specifications, and contract.

EDUCATION (Degree, Year, Specialization)
 To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Daniel T. Arnold.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
------------------------------------------	----------------------------------

13b. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE QA/QC (Furnish complete data but keep to essentials)			
NAME & TITLE (last, first, middle Int.)	YEARS OF EXPEIRENCE		
Arnold, Daniel T. BA Chemistry BA Mathematics MS Environmental Legal Studies	YEARS OF EXPERIENCE (name type):	YEARS OF EXPERIENCE (name type):	YEARS OR EXPERIENCE (name type):
Brief Explanation of Responsibilities: <u>Mr. Arnold maintains monitoring and testing apparatus, updates personnel training for sampling of analysis protocol, and tabulates laboratory and field analysis data to insure compliance of materials to project specification and regulatory requirements.</u>			
EDUCATION (Degree, Year, Specialization) To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Daniel T. Arnold.			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
13c. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES REPONSIBLE FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS (Furnish complete data but keep to essentials)			
NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)
Brief Explanation of Responsibilities			
EDUCATION (Degree, Year, Specialization)			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	

Daniel T. Arnold

Senior Environmental Scientist

Years of Experience with MSES: 6 Years of Experience with Other Firms: 23

Education

- B. A. Chemistry, Glenville State College, 1989
- B. A. Mathematics, Glenville State College, 1989
- M. S. Environmental Legal Studies, West Virginia University, 2012

Professional Organizations

American Chemical Society

Past Work History

- Sturm Environmental Services - Chemist, Lab Manager
- West Virginia Department of Environmental Protection - Manager Lab Certification Program

Experience Summary

- | | |
|--------------------------------------------------------------|--------------------------------------------------------------|
| <input type="checkbox"/> Job Costing | <input type="checkbox"/> SPCC PLans |
| <input type="checkbox"/> Management | <input type="checkbox"/> Waste Management/Minimization |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Hazardous Waste Management |
| <input type="checkbox"/> Risk Assessment/Analysis | <input type="checkbox"/> Brownfields Specialist |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Health & Safety |
| <input type="checkbox"/> Economic Feasibility | <input type="checkbox"/> Hydrologic and Hydraulic Analysis |
| <input type="checkbox"/> Phase I/II Investigation | <input type="checkbox"/> Groundwater Protection Plans |
| <input type="checkbox"/> SARA Title III | <input type="checkbox"/> Remediation (Design and Permitting) |
| <input type="checkbox"/> Specification Development | <input type="checkbox"/> RCRA Waste Units |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Bioremediation |
| <input type="checkbox"/> Environmental/Architectural Support | <input type="checkbox"/> Geographic and Hydrologic Studies |
| <input type="checkbox"/> GIS Systems | <input type="checkbox"/> Sampling/Laboratory Programs |
| <input type="checkbox"/> Flood Routing/Flood Plain Analysis | <input type="checkbox"/> Indoor Air Quality |
| <input type="checkbox"/> HEC - RAS & SEDCAD Modeling | <input type="checkbox"/> Code Compliance |
| <input type="checkbox"/> Stormwater Management | <input type="checkbox"/> E-911 Systems |
| <input type="checkbox"/> SWPPP and CIS Programs | <input type="checkbox"/> POTW Design/Operation |
| <input type="checkbox"/> Training Programs | <input type="checkbox"/> Water/Sewer Collection Systems |
| <input type="checkbox"/> I&I Programs and Studies | <input type="checkbox"/> Rate Cases Water/Sewer |
| <input type="checkbox"/> Municipal Engineering | <input type="checkbox"/> Laboratory/Sampling Programs |
| <input type="checkbox"/> NPDES Modeling | <input type="checkbox"/> NPDES Permitting |
| <input type="checkbox"/> NORM Assessment | <input type="checkbox"/> Spill Response |
| <input type="checkbox"/> E & S Plans | <input type="checkbox"/> UST · AST Tanks |
- Construction · Permitting · Monitoring Siting · Permitting · Inspections · Registration

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)			
NAME& TITLE (Last, first, Middle Int.)	YEARS OR EXPERIENCE		
	YEARS OF EXPEIRENCE WITH MSES:	YEARS OF EXPEIRENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPEIRENCE:
Richmond, Luke V. BS Chemistry Senior Environmental Specialist	7	22	24
Brief Explanation of Responsibilities: <u>Mr. Richmond performs as a liaison between owner, contractor, engineers, and regulating agencies to insure projects are completed within the requirements of regulations, necessary design constraints, and to meet the intended outcome of MSES projects.</u>			
EDUCATION (DEGREE, YEAR, SPECIALIZATION) To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Luke V. Richmond.			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:		REGISTRATION (Type, Year, State)	
13a. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPEIRENCE		
	YEARS OF EXPEIRCENE (name type):	YEARS OF EXPEIRENCE (name type):	YEARS OF EXPEIRENCE (name type):
Richmond, Luke V. BS Chemistry Senior Environmental Specialist			
Brief Explanation of Responsibilities: <u>Mr. Richmond has an extensive background in groundwater, surface and stormwater protection and management. He will be part of the Team that develops E&S Plans for the closure and be the team leader for the development and submittal of the WVDEP construction stormwater permitting for the landfill closure and any off-site borrow areas.</u>			
EDUCATION (Degree, Year, Specialization) To assist the reviewer of the questionnaire, a brief one-page professional vita is provided at the end of this page for Luke V. Richmond.			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	

13b. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE QA/QC (Furnish complete data but keep to essentials)			
NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type):	YEARS OF EXPERIENCE (name type):	YEARS OR EXPERIENCE (name type):
Brief Explanation of Responsibilities:			
EDUCATION (Degree, Year, Specialization)			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
13c. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS (Furnish complete data but keep to essentials)			
NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)	YEARS OF EXPERIENCE (name type)
Brief Explanation of Responsibilities			
EDUCATION (Degree, Year, Specialization)			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	

Luke V. Richmond

Senior Projects Manager

Years of Experience with MSES: 7 **Years of Experience with Other Firms:** 22

Education

B. S. Chemistry, Marshall University, 1989

Professional Registrations/Certifications

Class IV Wastewater Treatment Works Operator #WV4154
WV Department of Health and Human Resources
Certified Preparer of SWPPP Certificate No. 3360 - Stormwater USA
Certified Compliance Inspector Stormwater No. 3360 - Stormwater USA
West Virginia Real Estate License
Operator Qualification - USDOT

Professional Organizations

West Virginia Municipal Water Quality Association
West Virginia Water Environment Association
Water Environment Federation (WEF)
POTW Advisor Committee with ORSANCO (Ohio River Water & Sanitation Commission)

Past Work History

The City of Beckley Sanitary Board
The City of Huntington Sanitary Board
West Virginia Department of Education

Experience Summary

- | | |
|--------------------------------------------------------------|--------------------------------------------------------------|
| <input type="checkbox"/> Job Costing | <input type="checkbox"/> NPDES Permitting |
| <input type="checkbox"/> Management | <input type="checkbox"/> Waste Management/Minimization |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Hazardous Waste Management |
| <input type="checkbox"/> Risk Assessment/Analysis | <input type="checkbox"/> Brownfields Specialist |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Health & Safety |
| <input type="checkbox"/> Economic Feasibility | <input type="checkbox"/> Hydrologic and Hydraulic Analysis |
| <input type="checkbox"/> Phase I/II Investigation | <input type="checkbox"/> SARA Title III |
| <input type="checkbox"/> Remediation (Design and Permitting) | <input type="checkbox"/> Specification Development |
| <input type="checkbox"/> RCRA Waste Units | <input type="checkbox"/> Earth Sciences |
| <input type="checkbox"/> Bioremediation | <input type="checkbox"/> Environmental/Architectural Support |
| <input type="checkbox"/> Geographic and Hydrologic Studies | <input type="checkbox"/> GIS Systems |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Flood Routing/Flood Plain Analysis |
| <input type="checkbox"/> Indoor Air Quality | <input type="checkbox"/> HEC - RAS & SEDCAD Modeling |
| <input type="checkbox"/> Code Compliance | <input type="checkbox"/> Stormwater Management |
| <input type="checkbox"/> E-911 Systems | <input type="checkbox"/> SWPPP and CIS Programs |
| <input type="checkbox"/> POTW Design/Operation | <input type="checkbox"/> Training Programs |
| <input type="checkbox"/> Water/Sewer Collection Systems | <input type="checkbox"/> I&I Programs and Studies |
| <input type="checkbox"/> Rate Cases Water/Sewer | <input type="checkbox"/> Municipal Engineering |
| <input type="checkbox"/> SPCC Plans | <input type="checkbox"/> GPP Plans |
| <input type="checkbox"/> Spill Response | <input type="checkbox"/> FERC E & S Assessment |
| <input type="checkbox"/> SHPO | <input type="checkbox"/> Hydrostatic Test |



14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE THIS PROJECT (name project)
WEBSTER COUNTY LANDFILL CLOSURE CAP DESIGN DEP 1800000002
EaglePoint 2015 Q3 Civil Design Software
Carlson Software Civil Design and SURVCADD 2015
SEDCAD4
HELP 3
SMI- Data Collection and Transfer
TRAVERSEPC – Data COGO
SURVCADD – Data Transfer, COGO Procedures, Civil Tools, Volume Tools
SOLO OFFICE – GPS Transfer and Correction
AUTOCADD 2015 and 2016
ARCINFO
AUTOCAD MAY 3D 2016
ARCVIEW GIS
ARCVIEW 3D, Spacial, Streetmap, Network, TASC Tracking Analysis, and Geoprocessing Extensions
Visual MODFLOW/MODPATH/MT3D/RT3D/WINPEST Groundwater Modeling Software
WINLOG Boring and Well Log Software

A detailed listing of software and equipment is provided by the following supplemental information.

SOFTWARE & EQUIPMENT

- SEVIEW v. 7.1.14, Environmental Software Consultants contaminant fate and transport computer program, featuring a vadose zone model (SESOIL) that links directly to an internal AT123D (Analytical Transient 1-, 2-, and 3-Dimensional) groundwater model.
- U.S. Fish & Wildlife Service National Wetlands Inventory (NWI) Mapper
- U.S.D.A. Natural Resources Conservation Service WebSoilSurvey online interactive mapping application, Soil Survey Geographic (SSURGO) database, and published County Soil Survey Reports
- United States Geological Survey (USGS) 7.5' Topographic Quadrangle Maps
- West Virginia Geological and Economic Survey, Coal Bed Mapping Project, interactive mapping application of coal beds, mapping of existing and mined resources, structure contours, isopach mapping, etc.
- West Virginia Department of Environmental Protection, TAGIS Mine Data Explorer application
- Mini-Rae Photoionization meter
- Hand held Four-gas monitors
- Topcon Hiper V RTK GPS receivers
- Sokkia GRS2 RTK GPS receivers
- Topcon Total Stations
- Leica Total Stations
- Carlson Surveyor+ Data Collectors
- Civil 3D
- ARCGIS 10.3
- Visual MODFLOW/MODPATH/MT3D/WINPEST Groundwater Modeling Software
- WINLOG Boring and well log software
- PIPEBLAST
- GAS Chromatograph

- Three (3)- BIZHUB C452 Photo Copiers
- Two (2)- HPT7100 Color Plotters
- OCE TDS 450 Wide Frame Color Scanner
- 70+ personnel computers most having 8 GB and 64 bit operating systems with Microsoft Office Suite
- SLEIS (State and local emission Inventory System)
- LandGEM
- GLY CALC
- TRIME (Toxic release Inventory)
- HEC RAS 4.1.0
- HEC HMS 3.5
- SigmaStat 3.5 for statistical analysis of data.
- Fultz submersible variable speed pump for purging and low flow sampling
- Two single speed submersible pumps for purging
- Various bailers
- AMS soil sampling kits with augers and drive points
- Water level meters 100' and 300'
- pH meters
- Conductivity meter
- Dissolved Oxygen meter
- ORP meter
- Turbidity meter
- Flow-through cell

Additional software and equipment listed by Additional Information Section 19.

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD ASSOCIATED WITH OR RELATING TO LANDFILL CLOSURE OR CONSTRUCTION.				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Municipal Solid Waste Phase 7 New Disposal Cell Construction Meadowfill Landfill	Meadowfill Landfill, Inc. RR2 Box 68 Bridgeport, WV 26330	Design and Construction Certification	\$2,500,000	100%
Municipal Solid Waste Phase 4B New Disposal Cell Construction S&S Landfill	S&S Grading, Inc. RR5 Box 559 Clarksburg, WV 26301	Design and Construction Certification	\$2,200,000	100%
Major Permit Modification 75 Acre Expansion Meadowfill Landfill	Meadowfill Landfill, Inc. RR2 Box 68 Bridgeport, WV 26330	Design	\$125,000	100%
Major Permit Modification 40 Acre Expansion S&S Landfill	S&S Grading, Inc. RR5 Box 559 Clarksburg, WV 26301	Design	\$75,000	100%
Municipal Solid Waste Landfill Closure 14 Acre Cap Meadowfill Landfill	Meadowfill Landfill, Inc. RR2 Box 68 Bridgeport, WV 26330	Design and Construction Certification	\$3,200,000	Design and Construction 100%
New C&D Landfill Clarksburg, WV	City of Clarksburg 222 West Main Street Clarksburg, WV 26301	Design and Construction Certification	\$25,000	100%
Jessie Run Refuse Area Cap Jane Lew, WV	Allied Waste, Inc. 2 12 th Street Fairmont, WV 26554	Design and Construction Certification	\$600,000	100%
Hazardous Waste Cullet Pile On-site In-Situ Closure Williamstown, WV	Fenton Art Glass Company 700 Elizabeth Street Williamstown, WV 26187	Design, Construction, Permitting, Groundwater Characterization, 30 Years Monitoring	\$3,280,000	100% Complete (Groundwater Monitoring Ongoing)

Closure of Industrial Solid Waste and Sludge Landfill Wellsburg, WV	Banner Fibreboard Company 22 nd and Commerce Street Wellsburg, WV 26070	Design, Construction, Permitting, and Groundwater Characterization	\$500,000	Design 100% Construction began, firm now in Ch. 7 Bankruptcy.
TOTAL NUMBER OF PROJECTS: # <u>9</u>		TOTAL ESTIMATED CONSTRUCTION COSTS: <u>\$12,505,000</u>		

The projects listed by Section 15 are only those projects that are current or within the last three years. The MSES staff has experience in all types of landfills ranging from siting, design, permitting, and closure. MSES' landfill experience began in 1977 and continues today. Landfills range from hazardous waste landfills, municipal solid waste landfills, municipal C&D landfills, and industrial waste landfills.

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD ASSOCIATED WITH OR RELATING TO LANDFILL CLOSURE OR CONSTRUCTION.				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
WVDEP-LCAP City of Clarksburg Landfill Closure Project Clarksburg, Harrison County, WV	City of Clarksburg 222 West Main Street Clarksburg, WV 26301	Close Design, Site and Waste Characterization Mapping, Additional Property Survey, Design, Plans, Drawings, Permitting, Leachate Collection, and Bidding	\$4,400,000	Design, Permitting, Bid Packets 100% Construction 0% Contract to belet 2017
Sabic Innovations Plastics Industrial Waste Landfill West Hollow Landfill Five Individual Projects Expansion to Closure Wood County, Washington, WV	Sabic Innovation Plastics 9226 Dupont Road Washington, WV 26181 Attn: Allen White Site Manager	Expansion of Existing Landfill, Correct Deficiencies in Surface/ Stormwater System, Stabilize Past Landfill Closures, Closure of Current Cell, Design, Plans, Drawings, Specifications, Bidding, Award, Construction Monitoring, Final Report	\$3,100,000 Total Five Projects	All Completed 100% Except Closure of Current Cell Contractor Selected
Meadowfill Landfill, Inc. Meadowfill Landfill Capture and Reuse Harrison County, WV	Meadowfill Landfill, Inc. Bridgeport Facility 200 Ragos Lane Washington, PA 15301 Attn: Adam Findley PA/WV Engineering Manager	Subsurface Investigation, Gas Well/Vent/Capture System, Gas Gathering System, Reuse Pipeline and Equipment Selection, Design, Plans, Drawings, Specifications, Bidding, Award, Construction Monitoring	\$2,800,000	100%
Meadowfill Landfill, Inc. Meadowfill Landfill Expanded Leachate Management System Harrison County, WV	Meadowfill Landfill, Inc. Bridgeport Facility 200 Ragos Lane Washington, PA 15301 Attn: Adam Findley PA/WV Engineering Manager	Subsurface Investigation, Mappings, Drainage Design, Plans, Drawings, Specification, Bidding, Award, Construction Monitoring, Final Report and Landfill Permit Modification	\$4,400,000	100%

S&S Grading, Inc. S&S Landfill Upgrade Landfill Leachate Management System in the Connections with GHCPD Harrison County, WV	S&S Grading, Inc. Clarksburg Facility 200 Ragos Lane Washington, PA 15301 Attn: Adam Finley PA/WV Engineering Manager	WVDEP Permitting, PSD Permitting, System Design, Plans, Drawings, Specifications, Bidding, Award, Construction Monitoring, and Final Report.	\$1,090,000	100%
S&S Grading, Inc. S&S Landfill Two Closure Projects, Old Abandoned MSW Landfill, Phase I Cell Closure, Permit Modifications Harrison County, WV	S&S Grading, Inc. Clarksburg Facility 200 Ragos Lane Washington, PA 15301 Attn: Adam Finley PA/WV Engineering Manager	Closure Design, WVDEP Approvals, Design, Plans, Drawings, Specifications, Bidding, Award, Construction Monitoring, and Final Report	\$1,700,000	100%
Taylor Warehouse Services, Jerry Run Industrial Landfill, Liner Cap Repair and Final Closure, Relocation of Second Industrial Landfill and Closure Taylor County, WV	Taylor Warehouse Services Jerry Run Plant PO Box 148 Davisville, WV 26142 Attn: Danney Wilfong, Owner	Landfill Limits Investigation, Subsurface Investigation, Permitting, Closure/Relocation Designs, Plans, Drawings, Specifications, Construction Monitoring, and Reporting with As- Built Drawings.	\$1,800,000	100%
Enrout Properties, LP Morgantown Industrial Park, Hazardous Waste Disposal Areas, Closure Cap and Contaminated Soil Removal Morgantown, Monongalia County, WV	Enrout Properties, LP Adrian Enterprises, LLC 466 Christy Street, Suite 2 Morgantown, WV 26505 Attn: Kevin Adrian Operations Manager and Partner	Site Investigation, Subsurface Investigation, Waste and Site Characterization, Permitting, Design, Plans, Drawings, Specifications, Bidding, Awards, Construction Monitoring, Final Report USEPA Region III	\$1,600,000	100%
TOTAL NUMBER OF PROJECTS:		TOTAL ESTIMATED CONSTRUCTION COSTS:		
# <u>12</u>		<u>\$18,390,000</u>		

The projects listed by Section 15 are only those projects that are current or within the last three years. The MSES staff has experience in all types of landfills ranging from siting, design, permitting, and closure. MSES' landfill experience began in 1977 and continues today. Landfills range from hazardous waste landfills, municipal solid waste landfills, municipal C&D landfills, and industrial waste landfills.

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD (List 5 to 7)				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Dola Reclamation Coal Refuse Area Cap Using SPF Dola, WV Phase II	Republic Services, Inc. 2 12 th Street Fairmont, WV 26554	\$2,000,000	2011	YES
Martinka Reclamation Coal Refuse Area Cap Fairmont, WV Phase II	Republic Services, Inc. 2 12 th Street Fairmont, WV 26554	\$1,000,000	2010	YES
Municipal Solid Waste Phase 6B &7A New Disposal Cell Construction Meadowfill Landfill	Meadowfill Landfill, Inc. RR2 Box 68 Bridgeport, WV 26330	\$4,800,000	2012	YES
Municipal Solid Waste Phase 7B New Disposal Area Meadowfill Landfill	Meadowfill Landfill, Inc. RR2 Box 68 Bridgeport, WV 26330	\$2,500,000	2011	YES
Municipal Solid Waste Phase 8A &9A New Disposal Cell Construction Meadowfill Landfill	Meadowfill Landfill, Inc. RR2 Box 68 Bridgeport, WV 26330	\$2,500,000	2012	YES
Municipal Solid Waste Phase 6A New Disposal Cell Construction S&S Landfill	S&S Grading, Inc. RR5 Box 559 Clarksburg, WV 26301	\$2,000,000	2013	YES
Municipal Solid Waste Phase 4A New Disposal Cell Construction S&S Landfill	S&S Grading, Inc. RR5 Box 559 Clarksburg, WV 26301	\$2,000,000	2012	YES

Municipal Solid Waste Phase 4B New Disposal Cell Construction S&S Landfill	S&S Grading, Inc. RR5 Box 559 Clarksburg, WV 26301	\$2,000,000	2011	YES
Landfill Closure Cap Design	Elkins-Randolph County Landfill Elkins, WV	\$400,000	2017	Closure Design Phase

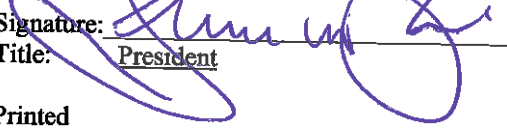
18. COMPLETED WORK WITHIN LAST 5 YEARS IN WHICH YOUR FIRM HAS BEEN A SUBCONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK WHICH YOUR FIRM WAS RESPONSIBLE) LIST 5 TO 7.

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
MSES Consultants, Inc. is the prime consultant for all of its landfill projects, and does not use sub-consultants. All services are from MSES' full-time in-house staff.					

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the WV Department of Environmental Protection.

The following provides additional information and description of resources supporting MSES Consultants, Inc.'s Landfill Designs, Closures, Cost Estimating, and Construction QA/QC.

20. The foregoing is a statement of facts

Signature: 
Title: President
Printed Name: Lawrence M. Rine

Date: October 16, 2017

EXPRESSION OF INTEREST

DEP 1800000002

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
LANDFILL CLOSURE CONSULTANT QUALIFICATION QUESTIONNAIRE
WEBSTER COUNTY LANDFILL CLOSURE CAP DESIGN

QUESTIONNAIRE ITEM 19 SUPPLEMENTAL INFORMATION



MSES consultants, inc.

Clarksburg, West Virginia

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- 1** INTRODUCTION
- 2** QUALIFICATIONS AND TECHNICAL EXPERTISE
- 3** MANAGEMENT AND STAFFING CAPABILITIES
- 4** SUPPORT SERVICES
- 5** RELATED PRIOR EXPERIENCE
- 6** CONFIRMATIONS

1. Introduction

MSES CONSULTANTS, INC. - THE FIRM

MSES Consultants, Inc. is a multi-disciplinary engineering, solid waste management, design, environmental, and project management firm, headquartered in Clarksburg, West Virginia, with offices in Huntington, and Fairmont, West Virginia. We have amassed 41 years of successful project experience, serving private and public clients since our initial founding as a small, 3-person environmental consulting firm in 1976. MSES expanded rapidly to become a provider of total engineering, solid waste management, design, and environmental services by the year 1978, and we have seen our ranks swell, with a current professional staff of 63, including 2 Registered Architects, 10 Registered Engineers, 2 Registered Structural Engineers, 2 Certified Industrial Hygienists, Fire Safety Specialist, Life Safety Specialist, ADA Compliance Specialist, 2 Professional Land Surveyors, and a diverse roster of professionals, scientists, biologist, geologist, hydrogeologists, technicians, and support personnel.

MSES Consultants, Inc. has completed more than 23,982 assignments to date. We have been heavily focused on the specific needs of the waste industry since our founding in 1976, and many of our projects have involved studies, designs, inspections, geotechnical investigations, assessments and reviews, environmental sampling and analysis, synthetic liner systems, groundwater/hydrogeologic programs and modeling, stormwater management, sanitary, stormwater and leachate system design, utility analysis, property evaluations and appraisals for existing and proposed landfill sites, and landfill closures throughout West Virginia and the eastern and mid-Atlantic regions of the United States. MSES has become sought after by many public and private clients for the permitting, design, construction of new facilities, upgrades, and closures of landfills, both solid and hazardous waste, due to the breadth of our technical and professional services, the efficiency of our operations, and our unique status as a **single-source consultant** for all services required to successfully complete our client's projects.

MSES CONSULTANTS, INC. AND WASTE MANAGEMENT

Since its inception in 1976, MSES Consultants, Inc. has developed and maintained an intimate connection with many private and public waste management entities within West Virginia. One of the unique factors that has prompted our knowledge of and responsiveness to the needs of the waste industry is the presence of former Public Service District, City Engineer, West Virginia and Kentucky Department of Transportation, electric company, and natural gas company employees among our ranks of seasoned professionals.

In addition to our familiarity with waste management engineering needs, MSES has benefitted from the national and international expertise of various professionals among our ranks who have worked for such diverse entities as CH2M Hill, ERM Midwest, Union Carbide Corporation, Westinghouse, GE Companies, and West Virginia University. These key employees contribute a wealth of knowledge and a breadth of experience that can often be difficult to match.

In addition to employee experience, another factor for MSES' continued success is the unusual

degree of longevity and company loyalty among our personnel. Our many long-term and repeat clients are appreciative of the continuity that this affords, and are refreshed with the degree of familiarity and prior knowledge with which each subsequent project is met. It is this unique combination of knowledgeable, experienced, talented, and devoted principals and employees that has brought MSES Consultants to the forefront as a provider of total engineering, environmental, planning, and management services for the solid waste industry.

DEPTH OF PERSONNEL

MSES Consultants, Inc. maintains a staff of highly-trained and experienced personnel, including all of the technical disciplines necessary to fully staff projects of all sizes and types. Our personnel demonstrate the education and experience required to accommodate the engineering and planning needs for the site characterization study; leachate characterization and management; landfill closure cap design; and permitting for Webster County Landfill Closure Cap Design

Our staff's stable employment record enables the firm to assemble project teams that have worked together before, and that possess a good knowledge of how individual strengths fit together to form an effective team. The firm is able to assemble teams composed of individuals whose capabilities are tested and well known to our establishment. We assign senior staff to management roles on all our projects.

The multi-disciplinary depth of our staff is reflected by the Professional Staff Chart, found on Page 1-4, while a listing of current and pending professional registrations is provided by the chart located on Page 1-5. The depth of our staff in each category permits performance of large assignments, as well as simultaneous performance of many jobs that do not require full-time commitment of individuals. Our experience and diverse staffing capabilities allow us to draw upon specialized personnel to facilitate unique project requirements.

The wide variety of services that MSES Consultants, Inc. provides makes it possible for clients to establish a working relationship with us as a single-source consultant. We are organized to ensure that all clients are provided with a high level of personal and professional attention.

MSES CONSULTANTS, INC. AND WEBSTER COUNTY LANDFILL CLOSURE CAP DESIGN

MSES is a firm that offers a broad range of resources and expertise and our knowledge of the West Virginia Solid Waste Management (solid waste, C&D waste, municipal solid waste, hazardous and non-hazardous wastes) and the Webster County area will be of particular value in accomplishing the Webster County Landfill's closure and cap design goals and objectives.

PROFESSIONAL STAFF

Category	Number of Employees	Education		
		Associate Degrees	Bachelor Degrees	Advanced Degrees
Administrative	4	2	2	—
Project Managers	6	—	5	1
Chemical Engineer	1	—	1	1
Chemist	3	—	1	2
Civil Engineer	5	—	3	2
Structural Engineer	2	—	—	2
Resident Construction Engineer	4	1	3	—
CAD/Design Draftsman	8	—	5	—
CAD/Drafter	9	7	2	—
Environmental Geographer (GIS)	2	—	2	—
Ecologist	4	—	3	1
Forester	2	—	2	—
Meteorologist	1	—	1	—
Electrical Engineer	3	—	3	—
Geologist	2	—	2	—
Hydrologist	1	—	—	1
Architect	3	—	3	2
Architect Designers	6	1	5	—
Landscape Architect	1	—	1	—
Environmental Engineer	3	—	1	2
Mechanical Engineer	2	—	2	—
Mining Engineer	2	—	1	1
Industrial Engineer	1	—	1	—
Sanitary Engineer	2	—	2	—
Soil Engineer	2	—	2	—
Structural Engineer	2	—	1	1
Transportation Engineer	1	—	1	—
Certified Industrial Hygienist	2	—	2	—
Certified Safety Professionals	4	—	2	1
Physical Therapist	1	—	1	—
Audiologist	1	—	—	1
Safety Engineer	2	—	—	2
Land and Right-Of-Way Agents	3	—	3	—
Paralegal	1	—	1	—
Surveyors	2	2	4	—
Economist	1	—	1	1
Forensic Biologist	1	—	1	—
Biologist	4	—	1	2
Botanist	1	—	—	1
Wildlife & Fisheries Resources	1	—	1	1
National Resources Management	2	—	1	1
Engineering Technicians	4	2	2	—
Survey Support	6	8	2	—

MSES employs a professional staff of multi-educated, full-time professionals with experience in forty disciplines.

MSES' professionals are supported by the latest in field data collectors, computers and computer software, electronic and satellite survey, computer-aided drafting and design, and our in-house graphic and reproduction center.

PROFESSIONAL REGISTRATIONS

MSES has, since 1976, provided its professional services in seven eastern states surrounding West Virginia. Provided is a listing, by state, of the professional disciplines and type of registration per each state or national registry:

Discipline	MSES Staff Members Per State								National
	WV	NY	PA	MD	VA	TN	KY	OH	
Surveyor	2	Pending	3	Pending	0	2	3	3	
Architects	2	--	3	3	3	--	--	3	
Engineers									
Civil	4	1	2	1	3	0	3	3	
Electrical	2	1	2	1	2	1	1	2	
Mechanical	2	1	2	1	2	1	1	2	
Environmental	2	1	1	1	1	1	1	1	
Structural	2	0	2	0	1	0	1	0	
Safety	1	0	1	1	1	0	1	1	
Mining	1	0	1	1	1	0	1	1	
Geologist	--	--	--	--	1	--	--	--	
Forester	1	--	1	--	1	--	--	1	
Asbestos									
Inspectors	4	--	0	0	1	0	0	1	
Samplers	4	--	0	0	1	0	0	1	
Planner	4	--	0	0	1	0	0	1	
Manager	4	--	0	0	1	0	0	1	
Lead Risk Assessor	1	--	--	--	--	--	--	--	
Licensed Remediation Specialist	1	2	--	--	--	--	--	4	
Underground Storage Tank									
Inspector	4	0	0	0	0	0	0	0	
Designer/Installer	2	0	0	0	0	0	0	0	
Cathodic	3	0	3	3	3	3	3	3	
Geosynthetic Institute	--	--	--	--	--	--	--	--	3
HDPE & Clay Liners									
Certified Monitor Well	5	--	2	0	--	--	0	--	
Designer/Driller									
Certified Safety Professional	--	--	--	--	--	--	--	--	4
Certified Industrial Hygienist	--	--	--	--	--	--	--	--	2
Radiation Safety Officers	--	--	--	--	--	--	--	--	6
LEEDAPs	--	--	--	--	--	--	--	--	4
NACE Certified									
Corrosion Technician	--	--	--	--	--	--	--	--	2
Sr. Corrosion Technologist	--	--	--	--	--	--	--	--	1
Internal Corrosion Technician	--	--	--	--	--	--	--	--	5
Stormwater									
CPSWPPP Certified	--	--	--	--	--	--	--	--	1
CCIS Certified	--	--	--	--	--	--	--	--	1
Real Estate									
Licensed Realtor	2	0	0	0	0	0	0	0	

The term "pending" displayed under a given state indicates that members of MSES' staff have tested for the particular registration but results are not known. The symbol "--" displayed under a given state indicates that state has no registration program for the particular discipline.

2. Qualifications and Technical Expertise

OVERALL CAPABILITIES

MSES Consultants, Inc. is one of the largest West Virginia-owned and diversified consulting engineering, environmental, solid waste, and planning firms in the State. For over 41 years we have provided quality services to a wide range of public and private clients, with waste management (solid and hazardous waste) representing a significant portion of our past and present assignments.

Due to the many factors discussed previously, MSES is intimate with all aspects of landfill siting, closure, closure caps, feasibility studies, engineering design, and construction QA/QC, from site selection, subsurface investigations, hydrogeologic characterizations, environmental assessments, mapping and design to permitting disposal cell development, and closure planning, design and permitting. . In addition, we are keenly aware of the many challenges and problems that may be inherent to these processes. The benefits of our experience and diligence are perhaps most effectively demonstrated by our large number of long term clients. For many, we have provided continuing services for multiple projects for more than 30 years.

In addition to our work within the State of West Virginia, MSES also has extensive experience throughout much of the eastern United States, having completed ambitious projects in states such as New York, Pennsylvania, Ohio, Maryland, Virginia, Kentucky, and Tennessee. Many among our staff maintain professional registrations in these states, where applicable, which are representative of a variety of disciplines (i.e., environmental services, engineering, surveying, remediation specialization, geology, etc.).

SUPPORT FACILITIES

In order for a team to be effective, it must be supported by modern and extensive equipment, laboratory accommodations, and data processing resources. As a full service organization, MSES possesses the facilities necessary to support all aspects of its projects, from the collection of field and survey data, through the performance of physical/chemical sample collection and analysis, to the reduction, analysis, and final presentation of project data. State-of-the-art software is also used for complex modeling and data presentation, and the development of company-specific training modules and visual productions.

Field Equipment and Support Facilities

The firm maintains a large fleet of vehicles, and an extensive inventory of equipment for field sampling and other activities. These facilities are unique among consulting engineers and are integral to MSES, as our personnel perform the field sampling activities for all our projects.

Among MSES' field support equipment are numerous four-wheel drive vehicles, to ensure site access, and a flat-bottomed boat, for water column profiling and the collection of surface waters and sediment samples. MSES utilizes a portable hydraulically-powered drilling apparatus for subsurface sampling at sites with restrictive access and for areas known to be underlain by unconsolidated materials. We are also supported by a full array of automated and computer-compatible sampling devices, for the monitoring of leachate collection systems' inflow and infiltration (I&I) and the collection of stormwater samples, industrial discharges, air quality monitoring data, volatile to semi-volatile organics levels, and industrial hygiene related samples.

For those sites whose conditions mandate the use of heavier, more complex subsurface equipment, MSES maintains established relationships with various drilling companies throughout the eastern and mid-Atlantic regions of the country. However, even when these subcontractors are utilized, they work under the direction of MSES soils/geology supervisory professionals, who are responsible for sample collection, visual and physical classification of materials encountered, data reduction and interpretation, and preparation of computerized boring logs and field reporting.

Laboratories

MSES Consultants, Inc. maintains an in-house laboratory for corrosion needs and wet chemistry methods in the physicochemical analysis of soils, surface water, groundwater samples, and leachate samples. Additional samples may be analyzed by laboratory facilities with whom MSES has maintained established, long-term relationships, and which demonstrate special emphasis on the needs of the waste industry. Conversely, an alternate, contract-specified analytical laboratory may be utilized at the request of the client.

Surveying/Global Positioning Equipment

We utilize the most modern electronic devices for surveying activities, with an accuracy up to the first and second order. Survey data are logged in the field via state-of-the-art electronic equipment and downloaded into office computers and data plotters. In addition, we utilize global positioning equipment for certain categories of surveying. These devices are also electronically linked through special software to our plotting and design equipment.

Aerial Photography

All field survey and mapping techniques are performed by MSES personnel, with the only exception being aerial photography, when needed. MSES utilizes the services of two (2) firms for these particular projects with whom we have maintained professional rapport since the early 1980s.

Data Processing/Automated Drafting

MSES has a large number of Computer-Aided Design and Drafting (CADD) systems. We now have over 38 CADD units of various types and configurations in use daily on our projects. We utilize both AutoCADD and the more powerful Intergraph CADD units for design and data reduction and presentation. In addition, we have an in-house networked system of computers and processing equipment, with a fully networked array of programs to assemble and download data and manage tables, databases and spreadsheets. We are versed in Geographic Information Systems (GIS) methods, with expertise in ARC/Info and Small Worlds.

PROJECT TEAM CLIENT REFERENCES

United States Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029
Mr. Tom Stolle
Region III Brownfields Program Manager
215/814-3129

United States Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029
Mr. Joe Nowak
Region III Brownfields Project Manager
215/814-3301

West Virginia Department of Environmental Protection
Office of Water and Waste Management
601 57th Street
Charleston, WV 25304
Mr. Joseph M. Hickman
Environmental Resources Program Manager
304/926-0499

West Virginia Department of Environmental Protection
Office of Water and Waste Management
Solid Waste Management Section
601 57th Street
Charleston, WV 25304
Mr. Sudhir D. Patel
Permitting Supervisor
304/926-0499

West Virginia Department of Environmental Protection
Division of Mining and Reclamation
254 Industrial Drive
Oak Hill, WV 25901
Mr. Richard L. Pino
Technical Analyst
304/465-1911

West Virginia Department of Environmental Protection
Office of Water and Waste Management
Landfill Closure Assistance Program
2031 Pleasant Valley Road
Fairmont, WV 26554
Mr. Paul Benedum
Project Manager
304/368-3960

**West Virginia Department of
Environmental Protection**
Division of Water and Waste Management
601 57th Street
Charleston, WV 25304
Mr. David L. Johnston
Permitting
304/926-0499

**West Virginia Department of
Environmental Protection**
Division of Air Quality
601 57th Street
Charleston, WV 25304
Ms. Beverly McKeone
New Source Review Permitting
304/926-0499

**U. S. District Court
Northern District of WV**
P. O. Box 791
Wheeling, WV 26003
The Honorable Frederick P. Stamp, Jr.
Federal District Judge
304/233-1120

Harrison County Solid Waste Authority
373 Wonder Bar Road
Clarksburg, WV 26301
Mr. Richard Barnett
Executive Director
304/326-0086

Cytec Industries, Inc.
1 Heilman Avenue
Belmont, WV 26134
Mr. John Pitner
Special Projects Engineer
304/665-2422

Banner Fibreboard
22nd and Commerce Streets
Wellsburg, WV 26070-0390
Mr. Dick Laughlin
Past - President
304/737-3711

City of Clarksburg
222 West Main Street
Clarksburg, WV 26301
Mr. Martin Howe
City Manager
304/624-1677

The Fenton Art Glass Company
700 Elizabeth Avenue
Williamstown, WV 26187
Mr. George Fenton
President
304/375-6122

City of Wellsburg
200 Main Street
Wellsburg, WV 26070
Mr. Patrick Comiskey
City Manager
304/737-2104

City of Clarksburg
222 West Main Street
Clarksburg, WV 26301
Mr. Anthony Bellotte
Assistant City Manager
304/624-1611

Dominion Transmission, Inc.
445 West Main Street
Clarksburg, WV 26301
Mr. Mark L. Reeser
Environmental Services Manager
304/627-3880

Harrison County Commission
301 West Main Street
Clarksburg, WV 26301
Mr. Ron Watson
Commission President
304/624-8500

Waste Management of WV, Inc.
7 Spring Street
Charleston, WV 25302
Mr. Craig Arnold
Environmental Protection Manager
304/720-7617

Steptoe and Johnson
Chase Tower, Eighth Floor
P. O. Box 1588
Charleston, WV 25326-1588
Mr. Robert Pollitt
Senior Environmental Attorney
304/353-8137

Steptoe & Johnson
Chase Tower, Eighth Floor
Charleston, WV 25322
Mr. David Flannery
Environmental Department Chairman
304/340-1017

**Morgantown Industrial Park
Associates, L.L.C.**
1000 Dupont Road
Morgantown, WV 25305
Mr. Don Kuhns
Manager
304/292-9453

**Waste Management, Inc.
West Virginia and Pennsylvania Region**
200 Rangus Lane
Washington, PA 15301
Mr. Adam Finley
Regional Operations Manager
681/456-6984

**Waste Management, Inc.
West Virginia Landfills**
510 East Dry Run Road
Parkersburg, WV 26102
Mr. Doug Hall
Operations Manager
800/428-8152

Novelis Corporation
Fairmont, WV 26554
Mr. Paul Zanussi
Safety & Environmental Manager
304/367-5200

Bowles Rice
600 Quarrier Street
Charleston, WV 25301
Mr. David Yaussy
Partner
Environmental Attorney
304/347-1169

Steptoe & Johnson
P. O. Box 2190
Clarksburg, WV 26302
Mr. W. Henry Lawrence
Senior Environmental Attorney
304/624-8186

**Enrout Properties, LLC
Adrian Enterprises, LLC**
466 Christy Street, Suite 2
Morgantown, WV 26505
Mr. Kevin Adrian
Partner
304/599-3285

Sabic Innovations Plastics
9226 Dupont Road
Washington, WV 26181
Mr. Allen White
Environmental Manager
304/863-7737

Kroger Mid-Atlantic
P. O. Box 14002
Roanoke, VA 24038-4002
Mr. Fenton Childers
Regional Real Estate Manager
540/563-3652

Qualifications and Technical Expertise

Regional Economic Development Partnership

1100 Main Street, 3rd Floor

Wheeling, WV 26003

Mr. Craig O'Leary

Program Director

304/232-7722

Antero Resources

535 White Oaks Boulevard

Bridgeport, WV 26330-4649

Mr. Jason Ware

Safety Coordinator

304/842-4094

3. Management and Staffing Capabilities

“TEAMING” WITH THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

MSES believes in the “Expanded Team” approach. We think that quality projects result from well-planned designs and continuous coordination between our staff (the Project Team) and the West Virginia Department of Environmental Protection (WVDEP) and the Webster County Landfill staff and County Staff. We accomplish this by:

- Involving the WVDEP and Webster County Landfill staff in the planning of the project and in all work development meetings.
- Developing a Project Management Plan that will explicitly include all Team members in information exchange and in milestone product preparation.
- Setting standards for detail and production based explicitly on the needs of the WVDEP and Webster County and the closure cap design and permitting of City’s Municipal Solid Waste Landfill.

PROJECT TEAM

The well-qualified and experienced individuals assigned to the MSES Team for this project are described below. The general qualifications and roles of key project management personnel are outlined below, and a description of key personnel by category is included at the end of this section.

Project Management

Given MSES’ experience with projects of this type, the expertise and direction of three (3) principals/senior personnel are anticipated to ensure the scheduling and dedication of MSES’ resources for the activities expected in conjunction with this proposal: Mr. John J. Keeling, PE, CIH, CSP, QEP, LRS, Principal-In-Charge; Mr. C. H. “Sam” Muncy, Jr., PS, PE, Senior Project Engineer; and Mr. L. M. Rine, BSME, QA/QC Officer.

Mr. John J. Keeling, PE, CSP, QEP - As Principal-In-Charge, Mr. Keeling will be the primary director of the Project Team. Mr. Keeling will coordinate project activities of the contributing staff, directly perform certain portions of the work, and coordinate project findings and results. He has forty-one (41) years of professional experience in the private and public sectors, and an extensive background in all aspects of environmental engineering and compliance, safety and industrial hygiene, waste management, hydrogeology, and permitting issues. Mr. Keeling is a registered Professional Engineer in numerous states, a Certified Industrial Hygienist, a Certified Safety Professional, a Qualified Environmental Professional, and a Licensed Remediation Specialist for the State of West Virginia. He will be directly involved in the majority of the activities foreseen with this landfill closure project.

Project Management (continued)

Mr. C. H. “Sam” Muncy, Jr., BSCE, MSCE, PS, PE - Mr. Muncy will serve as Senior Project Engineer for the various tasks foreseen for this project. His expertise as a licensed land surveyor, multi-state registered Professional Engineer, Certified Landfill Manager (SWANA), and a Geosynthetic Accreditation Institute, certified in both clay and geosynthetic liners, his forty-one (41) years of experience, and his extensive involvement with the waste management industry are unparalleled on both a local and regional basis. Mr. Muncy’s knowledge of landfill engineering design, permitting, and applicable requirements, as well as his rapport with agency personnel, would greatly facilitate the feasibility study and master planning for the landfill closure cap design and permitting development. Mr. Muncy will coordinate master planning activities, and will directly perform the majority of those anticipated for the final report and associated tasks. He will also serve as the primary liaison between the WVDEP and City of Wheeling Landfill staff and the MSES Project Team, and will be the day-to-day contact for prompt, knowledgeable, immediate response to client requests or concerns.

Quality Assurance Review - Lawrence M. Rine, BSME, MSES Principal, will provide project oversight to the project activities. Mr. Rine is one of MSES’ most experienced staff professionals, with over forty-five (45) years of experience. Mr. Rine’s knowledge of landfill engineering and waste management afford him the unique background and expertise to serve as the QA/QC Principal for the City of Wheeling Landfill closure cap design and permitting. Mr. Rine is Geosynthetic Accreditation Institute, certified in both clay and synthetic liners, Certified Monitoring Well Designer and Installer, and Waste Manager.

Key Personnel Listing

The feasibility studies and master planning for the City of Wheeling Landfill closure cap design and permitting development will require the efforts of a diverse group of professionals. A comprehensive listing of these individuals would prove unwieldy; therefore, the names and titles of project-specific key personnel from among MSES’ 63-person professional staff are provided by the Key Personnel Listing table following this page. Found at the close of this section are brief one-page resumes, which highlight the education, experience, and expertise of various key individuals that may be assigned to this project.

KEY PERSONNEL LISTING

Team Member	Discipline	Total Years Experience	Site Studies and Data Collection	Cap Design and Permitting
Management Team				
John J. Keeling, PE, CIH, CSP	Managing Principal	43	•	•
C. H. "Sam" Muncy, PS, PE	Senior Project Manager	43	•	•
Feasibility Study and Master Planning				
Catherine R. Monahan, MSGS	Geologist/Hydrogeologist	27	•	•
Susan Hickman	Biologist	13	•	•
Lori L. Steele, BS	Meteorologist/Air	37	•	•
Rodney D. Kidd, BSCE	Civil Engineer/Infrastructure	43	•	•
Rex B. Tennant, II, BSCE	Environmental Chemist	45	•	•
Daniel L. Trembly, AS, PS	Field Coordinator	29	•	•
Sharon R. Cottrill, BSLA	Drafting Coordinator	36	•	•
Daniel t. Arnold, BS, MSL	Permitting	27	•	•
Luke V. Richmond, CPSW PPP	Construction Stormwater	28	•	•
QA/QC				
Lawrence M. Rine, BSME	Managing Principal	49	•	•
Louis P. Saas, BSEE	QA/QC Engineer	46	•	•
Terry Fleming	Construction Inspector	38	•	•

Although not specifically listed by the table, additional experienced support staff professionals and technicians may be used as required to satisfy the project schedule.

MEMBERSHIPS AND AFFILIATIONS

As listed by the following, members of MSES' professional staff actively participate in various public, professional, and service organizations and committees. For example, **Mr. Lawrence M. Rine**, Principal and President, was appointed to the West Virginia State School Building Authority's Indoor Air Quality Committee; **Mr. John J. Keeling**, Principal and Vice President, serves as Chairman of the Harrison County Local Emergency Planning Committee and City of Clarksburg City Engineer; **Mr. Jason Rine** Corrosion Engineer, assumes a leading role with the Western Pennsylvania and West Virginia Corrosion Control Committees; and MSES has been sworn in as the City Engineer and Public Works Director for the City of Clarksburg, West Virginia.

In addition, **Mr. C. H. "Sam" Muncy**, Senior Project Engineer, serves regularly as guest lecturer for West Virginia University/School of Engineering coursework related to waste management, landfills, and their costs. He also instructs compost facility operator certification training courses, and is a past member of the Barbour County Solid Waste Authority. Of special note, **Mr. Muncy** and MSES Principal and President **Mr. Lawrence Rine** were appointed by Judge Frederick P. Stamp, Jr. of the U. S. District Court, Northern District of WV,

Management and Staffing Capabilities

to serve as Special Master in the civil action between a citizens' environmental group and an inactive solid waste facility in Braxton County, West Virginia. Their findings were presented to the Court and were used as a basis for the proper closure of the facility under the Landfill Closure Assistance Program (LCAP). Mr. Muncy and Mr. Rine both are still Special Masters assisting the U. S. District Court in landfill matters.

The involvement of our employees with these associations, as well as our project experience with Towns, Cities, and County, State and Federal agencies, has allowed MSES to remain abreast of changes in agency policies and the regulatory climate. In addition, these memberships allow for direct lines of communication with the various agencies, their staff, and the public at large, with MSES acting as a sounding board for new regulations and ideas, as well as offering our input regarding policy changes prior to their enactment. Many of these agencies have come to rely on MSES' multi-disciplinary expertise, and we welcome the opportunity to share the benefit of our knowledge and dedication with these groups.

Quality Control

Quality control results primarily from the attention to quality given by each team member. Quality is a continuous, day-in and day-out attitude of the MSES staff, more so than a program. However, our attention to quality has also been developed in a program as follows:

Our Continuous Quality Improvement (CQI) Program

MSES has a firm-wide CQI program that all employees participate in every week. It develops effective problem identification and solving skills that apply to all of our projects. This program is monitored by managers throughout the firm to be sure that we are constantly improving our technical and management skills.

Our Continuous Quality Improvement (CQI) Program (continued)

Even more important, our CQI program engenders an attitude in all of the staff to look for ways and ideas to improve the quality and effectiveness on every assignment.

Project Management and Quality Assurance Plans

Every project includes a specific project management and quality assurance plan. This assures that our projects meet our standards for correct and effective projects.

Our Standards for Successful Projects

MSES has a stellar reputation among owners, regulators, and contractors for all phases of environmental compliance, for the development of corrective solutions and effective, complete, quality designs that can be executed with confidence. This reputation is the culmination of over 40 years of successful projects, founded upon our extensive environmental monitoring and compliance experience, our knowledge of jurisdictional protocol and applicable regulations, and our ability to develop corrective solutions, which not only satisfy regulatory requirements, but manage to do so in a cost-effective manner. We are proud of our accomplishments in the engineering and environmental arenas, and our ever-growing roster of satisfied repeat clients attests to our continued commitment to quality, dedication, and service.

MSES consultants, inc.

*Professional Vitae
Questionnaire Item 19*

PROFESSIONAL VITAE

John J. Keeling, P.E., C.I.H., C.S.P., Q.E.P., L.R.S.

Principal and Project Manager

Years of Experience with MSES: 28 Years of Experience with Other Firms: 15

Education

B. S. Civil Engineering, University of Kentucky, 1974

Professional Registrations/Certifications

Registered Professional Engineer - West Virginia, Kentucky, and Pennsylvania
Certified Industrial Hygienist - American Board of Industrial Hygiene
Certified Safety Professional - Board of Certified Safety Professionals
Qualified Environmental Professional - Institute of Professional Environmental Practice
Licensed Remediation Specialist - West Virginia, New York, and Ohio
Certified Visible Emissions Observer - USEPA
Licensed Asbestos Inspector/Management Planner/Clearance Air Monitor - WVBOH and Ohio BOH
Underground Storage Tank Closure Specialist/Installer - WVDEP
Certified Monitoring Well Designer and Installer - WVDEP

Professional Organizations

American Society of Safety Engineers
American Industrial Hygiene Association
Air and Waste Management Association
Harrison County SARA Title III Local Emergency Planning Committee - Chairman
West Virginia Chapter of Air and Waste Management Association - Vice Chairperson

Experience Summary

- | | |
|--------------------------------------------------------------|--------------------------------------------------------------|
| <input type="checkbox"/> Job Costing | <input type="checkbox"/> Air Emission Regulatory Compliance |
| <input type="checkbox"/> Management | <input type="checkbox"/> NPDES Permitting |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Waste Management/Minimization |
| <input type="checkbox"/> Risk Assessment/Analysis | <input type="checkbox"/> Hazardous Waste Management |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Air Emission Modeling |
| <input type="checkbox"/> Economic Feasibility | <input type="checkbox"/> Asbestos Assessment |
| <input type="checkbox"/> Phase I/II Investigation | <input type="checkbox"/> Lead Base Paint Assessment |
| <input type="checkbox"/> Remediation (Design and Permitting) | <input type="checkbox"/> NORM Assessment |
| <input type="checkbox"/> RCRA Waste Units | <input type="checkbox"/> Brownfields Specialist |
| <input type="checkbox"/> Drilling Programs | <input type="checkbox"/> Health & Safety |
| <input type="checkbox"/> Bioremediation | <input type="checkbox"/> Noise Assessment |
| <input type="checkbox"/> Geographic and Hydrologic Studies | <input type="checkbox"/> Hydrologic and Hydraulic Analysis |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> SARA Title III |
| <input type="checkbox"/> Air Permitting | <input type="checkbox"/> Specification Development |
| <input type="checkbox"/> Indoor Air Quality | <input type="checkbox"/> Earth Sciences |
| <input type="checkbox"/> Code Compliance | <input type="checkbox"/> Environmental/Architectural Support |
| <input type="checkbox"/> E-911 Systems | <input type="checkbox"/> GIS Systems |
| <input type="checkbox"/> HEC - RAS & SEDCAD Modeling | <input type="checkbox"/> Flood Routing/Flood Plain Analysis |
| <input type="checkbox"/> Impoundments | <input type="checkbox"/> Impoundments |
| Siting · Design · Construction | Earth · Lined · Concrete |
| <input type="checkbox"/> SPCC Plan | <input type="checkbox"/> Spill Response |
| <input type="checkbox"/> E&S Plan and Stormwater | <input type="checkbox"/> Hydrostatic Test Waters |
| | Permitting · Compliance |



PROFESSIONAL VITAE

Charles H. "Sam" Muncy, Jr., P.S., P.E., MSCE

Senior Project Manager

Years of Experience with MSES: 26 Years of Experience with Other Firms: 16

Education

- B. S. Civil Engineering, West Virginia University, 1974
- M. S. Civil Engineering, West Virginia University, 1983

Professional Registrations/Certifications

- Registered Professional Engineer - West Virginia, Pennsylvania, Florida, North Carolina, Ohio, and Virginia
- Professional Surveyor - West Virginia
- Certified Compaction Technician - West Virginia Department of Highways
- Radiation Safety Officer - NRC
- Licensed Remediation Specialist - New York, Ohio, West Virginia
- Certified Monitoring Well Designer and Installer - WVDEP
- Certified Landfill Manager - SWANA
- Geosynthetic Accreditation Institute - Clay & Geo Synthetic Liners
- Florida Real Estate License
- Operator Qualification - USDOT

Professional Organizations

- American Society of Civil Engineers
- Solid Waste Association of North America
- Barbour County, WV Solid Waste Authority – Past Member
- Gundle Liner Seminars and Workshops

Past Work History

- Joyce Engineering
- Harman Construction, Inc.
- Southern Ohio Coal Company
- American Electric Power Service Corporation
- Mountain State Surveying

Experience Summary

- | | |
|---------------------------------------------------------------------------|-------------------------------------------------------------|
| <input type="checkbox"/> Project Management | <input type="checkbox"/> Risk Assessment/Analysis |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Phase I & II Investigation |
| <input type="checkbox"/> Remediation (Design & Permitting) | <input type="checkbox"/> RCRA Waste Units |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Data Base Systems |
| <input type="checkbox"/> Computer Modeling (H&H Studies) | <input type="checkbox"/> Life Safety Codes |
| <input type="checkbox"/> Specification Development | <input type="checkbox"/> Job Costing |
| <input type="checkbox"/> Property Evaluation | <input type="checkbox"/> Site Surveys |
| <input type="checkbox"/> Mapping | <input type="checkbox"/> QA/QC Inspection & Compliance |
| <input type="checkbox"/> Economic Feasibility Investigation | <input type="checkbox"/> Structural |
| <input type="checkbox"/> Soils Engineering | <input type="checkbox"/> Earth Sciences |
| <input type="checkbox"/> Storm Routing Studies | <input type="checkbox"/> Geographic and Hydrologic Analysis |
| <input type="checkbox"/> Spill Response | <input type="checkbox"/> Groundwater Protection Plans |
| <input type="checkbox"/> SPCC Plans | <input type="checkbox"/> Land Planning |
| <input type="checkbox"/> Site Development | <input type="checkbox"/> Subsurface Investigation |
| <input type="checkbox"/> Roadway/Highway | <input type="checkbox"/> NPDES Permitting |
| <input type="checkbox"/> Bioremediation | <input type="checkbox"/> Stormwater Management |
| <input type="checkbox"/> Erosion & Sediment Planning | <input type="checkbox"/> Civil/Architectural Support |
| <input type="checkbox"/> Waste Management/Minimization | <input type="checkbox"/> Structural/Architectural Support |
| <input type="checkbox"/> Code Compliance | <input type="checkbox"/> HEC-RAS Computer Modeling |
| <input type="checkbox"/> SEDCAD Computer Modeling | <input type="checkbox"/> GPS/GIS Surveys and Mapping |
| <input type="checkbox"/> Hydrologic and Hydraulic Analysis | <input type="checkbox"/> Impoundment Inspections |
| <input type="checkbox"/> Impoundments\ Designs | <input type="checkbox"/> Liner · Leak Detection · Stability |
| <input type="checkbox"/> Freshwater · Waste · Leachate · Slurry | |
| <input type="checkbox"/> UST · AST Tanks | |
| <input type="checkbox"/> Siting · Permitting · Inspections · Registration | |



MSES

Catherine R Monahan

Geologist/Hydrogeologist

Years of Experience with MSES: 24 Years of Experience with Other Firms: 3

Education

B. S. Geology, Stockton State College, 1988

M. S. Geology, University of Massachusetts at Amherst, 1991

Professional Registrations/Certifications

Certified Monitoring Well Designer and Installer - WVDEP

Wetland Delineation Training - U. S. Army Corps of Engineers Training Program

Professional Organizations

American Geophysical Union

National Ground Water Association

Association of Ground Water Scientists and Engineers

Past Work History

University of Massachusetts at Amherst - Research Assistant

Experience Summary

- | | |
|------------------------------------------------------------|------------------------------------------------------|
| <input type="checkbox"/> Project Management | <input type="checkbox"/> Risk Assessment/Analysis |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Phase I & II Investigation |
| <input type="checkbox"/> Remediation (Design & Permitting) | <input type="checkbox"/> RCRA Waste Units |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Data Base Systems |
| <input type="checkbox"/> Computer Modeling | <input type="checkbox"/> Specification Development |
| <input type="checkbox"/> Species Identification | <input type="checkbox"/> Job Costing |
| <input type="checkbox"/> Property Evaluation | <input type="checkbox"/> Site Surveys |
| <input type="checkbox"/> Mapping | <input type="checkbox"/> Wetlands |
| <input type="checkbox"/> Economic Feasibility | <input type="checkbox"/> Soils Engineering |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Site Development |
| <input type="checkbox"/> Computer Programming | <input type="checkbox"/> Brownfields Specialist |
| <input type="checkbox"/> Stormwater Modeling | <input type="checkbox"/> Evapotranspiration Modeling |
| <input type="checkbox"/> Groundwater Modeling/Monitoring | <input type="checkbox"/> Subsurface Investigation |
| <input type="checkbox"/> Bioremediation | <input type="checkbox"/> NPDES Permitting |
| <input type="checkbox"/> Foundations | <input type="checkbox"/> Code Compliance |
| <input type="checkbox"/> E&S Planning | <input type="checkbox"/> Stormwater Management |
| <input type="checkbox"/> Flood Routing | <input type="checkbox"/> HEC - RAS Computer Modeling |

Susan M. Hickman

Senior Biologist/Environmental Scientist

Years of Experience with MSES: 8

Years of Experience with Other Firms: 11

Education

B. S. Biology, Fairmont State University, 1994

B. S. (Minor) Chemistry, Fairmont State University, 1994

Professional Registrations/Certifications

Stream Habitat Measurements Techniques - National Conservation Training USFAW

Permit Scientific Collection - WVDNR

Wetlands Delineation Training - U. S. Army Corps of Engineers Training Program

Professional Organizations

National Groundwater Association

National Conservation Center and Training, NCTC

Past Work History

Sturm Environmental Services - Director of Laboratory Services

Experience Summary

- | | |
|----------------------------------------------------------|-------------------------------------------------------------------------|
| <input type="checkbox"/> Aquatic Sampling/Identification | <input type="checkbox"/> Benthic - Sampling, Processing, Identification |
| <input type="checkbox"/> NPDES Permitting | <input type="checkbox"/> Risk Assessment/Analysis |
| <input type="checkbox"/> Microbiological | <input type="checkbox"/> Regulatory Interaction |
| <input type="checkbox"/> Phase I/II Investigations | <input type="checkbox"/> Database Systems |
| <input type="checkbox"/> Bioassays | <input type="checkbox"/> Data Processing |
| <input type="checkbox"/> Species/Habitat Identification | <input type="checkbox"/> Computer Modeling |
| <input type="checkbox"/> Bioremediation | <input type="checkbox"/> Waste Impacts |
| <input type="checkbox"/> Natural Sciences | <input type="checkbox"/> Information/Aquatic Surveys |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> QA/QC Programs |
| <input type="checkbox"/> Brownfields | <input type="checkbox"/> Modeling |
| <input type="checkbox"/> NACE Internal Corrosion | <input type="checkbox"/> Mold and Fungi |

Lori Steele

Meteorologist

Years of Experience with MSES: 24 **Years of Experience with Other Firms:** 12

Education

B. S., Meteorology, Pennsylvania State University, 1980

Professional Registrations/Certifications

Certified Visible Emissions Observer - USEPA

Professional Organizations

Air and Waste Management Association
West Virginia Chapter of the Air and Waste Management Association
American Meteorological Society

Past Work History

CH2M Hill

Experience Summary

- | | |
|-------------------------------------------------------|-------------------------------------------------------------|
| <input type="checkbox"/> Job Costing | <input type="checkbox"/> Data Base Systems |
| <input type="checkbox"/> Risk Assessment/Analysis | <input type="checkbox"/> Computer Modeling |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Air Emission Regulatory Compliance |
| <input type="checkbox"/> Economic Feasibility | <input type="checkbox"/> Waste Management/Minimization |
| <input type="checkbox"/> Phase I/II Investigation | <input type="checkbox"/> Air Emission Modeling |
| <input type="checkbox"/> RCRA Waste Units | <input type="checkbox"/> Brownfields Specialist |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Health & Safety |
| <input type="checkbox"/> Air Permitting | <input type="checkbox"/> Certified Emission Statement |
| <input type="checkbox"/> Precipitation Modeling | <input type="checkbox"/> Modeling/Storm Predicting |

Rodney D. Kidd

Project Engineer

Years of Experience with MSES: 30 **Years of Experience with Other Firms:** 12

Education

B. S. Civil Engineering, West Virginia University, 1974

Professional Registrations/Certifications

Certified Compaction Technician - West Virginia Department of Highways
Certified Concrete Technician - West Virginia Department of Highways

Professional Organizations

American Society of Testing Materials
American Water Well Association
National Ground Water Association
Current Chairman - City of Bridgeport Planning and Zoning Commission

Past Work History

Union Carbide Corporation

Experience Summary

- | | |
|------------------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> Project Management | <input type="checkbox"/> Regulatory Interaction |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Data Base Systems |
| <input type="checkbox"/> Life Safety Codes | <input type="checkbox"/> Specification Development |
| <input type="checkbox"/> Job Costing | <input type="checkbox"/> Property Evaluation |
| <input type="checkbox"/> QA/QC Inspection & Compliance | <input type="checkbox"/> Economic Feasibility |
| <input type="checkbox"/> Soils Engineering | <input type="checkbox"/> Earth Sciences |
| <input type="checkbox"/> Flood Routing | <input type="checkbox"/> Stormwater Routing |
| <input type="checkbox"/> Geographic and Hydrologic Studies | <input type="checkbox"/> Foundations |
| <input type="checkbox"/> Land Planning | <input type="checkbox"/> Site Development |
| <input type="checkbox"/> Municipal Engineering | <input type="checkbox"/> Hydrologic & Hydraulic Analysis |
| <input type="checkbox"/> Site Utilities | <input type="checkbox"/> Plumbing System/Design |
| <input type="checkbox"/> Firewater Systems | <input type="checkbox"/> Roadway/Highway |
| <input type="checkbox"/> Subsurface Investigation | <input type="checkbox"/> Water/Wastewater Systems |
| <input type="checkbox"/> Stormwater Management | <input type="checkbox"/> Erosion and Sediment Planning |
| <input type="checkbox"/> Code Compliance | <input type="checkbox"/> Civil/Architectural Support |

Rex B Tennant, II

Environmental Chemist/Programmer

Years of Experience with MSES: 21 **Years of Experience with Other Firms:** 24

Education

B. S., Chemistry, West Virginia University, 1972

B. S., Computer Science, Salem College (now Salem-Teikyo University), 1986

Professional Organizations

American Chemical Society

Past Work History

Sturm Environmental Services - Chemist, Lab Manager, Lab Director, Vice President

U. S. Army Environmental Hygiene Agency - Chemist

Southern Ohio Coal Company - Environmental Technician

U. S. Army Environmental Hygiene Agency - Lab Technician

Experience Summary

- | | |
|--------------------------------------------------------------|-----------------------------------------------------|
| <input type="checkbox"/> Management | <input type="checkbox"/> Computer Modeling |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Computer Programming |
| <input type="checkbox"/> Phase I/II Investigation | <input type="checkbox"/> NPDES Permitting |
| <input type="checkbox"/> Remediation (Design and Permitting) | <input type="checkbox"/> Hazardous Waste Management |
| <input type="checkbox"/> RCRA Waste Units | <input type="checkbox"/> Air Emission Modeling |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Brownfields Specialist |
| <input type="checkbox"/> Data Base Systems | <input type="checkbox"/> CAD/Intergraph/CAM |
| <input type="checkbox"/> Stormwater | <input type="checkbox"/> Indoor Air Quality |
| <input type="checkbox"/> Risk Assessment/Analysis | <input type="checkbox"/> SARA Title III |
| <input type="checkbox"/> Water/Wastewater Treatment | <input type="checkbox"/> Lead Base Paint Assessment |
| <input type="checkbox"/> Data Processing | <input type="checkbox"/> Data Management |
| <input type="checkbox"/> Training | <input type="checkbox"/> GIS Support |
| <input type="checkbox"/> Mold and Fungi | <input type="checkbox"/> NACE Internal Corrosion |

Daniel L. Trembly, P.S.

Field Coordinator / Survey Crew Leader

Years of Experience with MSES: 6 **Years of Experience with Other Firms:** 24

Education

A. S., Land Surveying, Glenville State College, 1989

Professional Registrations/Certifications

Professional Surveyor - Pennsylvania
Professional Surveyor - West Virginia
Operator Qualification - USDOT
Wirt County, West Virginia - County Surveyor
Certified Compliance Inspector Stormwater - Pending

Professional Organizations

West Virginia Association of Land Surveyors, Member

Past Work History

TNT Surveying, LLC
Board Surveying

Experience Summary

- | | |
|-------------------------------------------------------|--------------------------------------------------------|
| <input type="checkbox"/> Project Management | <input type="checkbox"/> Regulatory Interaction |
| <input type="checkbox"/> Data Base Systems | <input type="checkbox"/> Computer Modeling |
| <input type="checkbox"/> Species Identification | <input type="checkbox"/> Property Evaluation |
| <input type="checkbox"/> Site Surveys | <input type="checkbox"/> Mapping |
| <input type="checkbox"/> Sampling and Data Collection | <input type="checkbox"/> QA/QC Inspection & Compliance |
| <input type="checkbox"/> Specification Development | <input type="checkbox"/> Site Development |
| <input type="checkbox"/> Civil/Architectural Support | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Flood Plain | <input type="checkbox"/> GIS Surveys/Mapping |
| <input type="checkbox"/> GPS Surveys | <input type="checkbox"/> Municipal |
| <input type="checkbox"/> E-911 Surveys | <input type="checkbox"/> As-Built FERC Surveys |
| <input type="checkbox"/> Construction Layout | <input type="checkbox"/> Property Surveys |

Sharon Reeves Cottrill

Land Planner/Mapping Coordinator

Years of Experience with MSES: 36 **Years of Experience with Other Firms:**

4 Education

B. S. Landscape Architecture, West Virginia University (Cum Laude), 1976

Professional Organizations

West Virginia Society of Landscape Architects

Past Work History

CNG Transmission Corporation

Experience Summary

- | | |
|----------------------------------------------------|-----------------------------------------------------|
| <input type="checkbox"/> Project Management | <input type="checkbox"/> Species Identification |
| <input type="checkbox"/> Data Base Systems | <input type="checkbox"/> Computer Modeling |
| <input type="checkbox"/> CAD/Intergraph/CAM | <input type="checkbox"/> Illustrations |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Job Costing |
| <input type="checkbox"/> Specification Development | <input type="checkbox"/> Mapping |
| <input type="checkbox"/> Land Planning | <input type="checkbox"/> Site Development |
| <input type="checkbox"/> Code Compliance | <input type="checkbox"/> Architectural Support |
| <input type="checkbox"/> Civil Support | <input type="checkbox"/> E-911 Mapping |
| <input type="checkbox"/> GIS Mapping | <input type="checkbox"/> GPS Data Management |
| <input type="checkbox"/> Data Processing | <input type="checkbox"/> 911 Re-addressing |
| <input type="checkbox"/> ArcInfo | <input type="checkbox"/> ArcView |
| <input type="checkbox"/> Flood Routing | <input type="checkbox"/> Flood Plain Mapping |
| <input type="checkbox"/> Watershed Mapping | <input type="checkbox"/> HEC - RAS & SEDCAD Mapping |

Lawrence M. Rine

Principal and Quality Assurance/Quality Control Manager

Years of Experience with MSES: 42 Years of Experience with Other Firms: 14

Education

- B. S. Mechanical Engineering, West Virginia Institute of Technology 1969
- B. S. Mining Engineering, West Virginia Institute of Technology 1970
- Masters Study, Environmental Engineering, Cornell University 1973

Professional Registrations/Certifications

- Certified Monitoring Well Designer and Installer - WVDEP
- Licensed West Virginia Underground Storage Tank Closure/Installation Specialist
- Class I Certified Public Water Supply Operator, West Virginia
- Class II Certified Wastewater Treatment Plant Operator, West Virginia
- Certified Commercial Applicator, West Virginia and Pennsylvania
- Radiation Safety Officer - NRC
- Certified Asbestos Inspector/Manager/Planner/Clearance Air Monitor - WVBOH
- Licensed Remediation Specialist - WVDEP
- Certified Mineral Appraiser - U. S. Army Corps of Engineers
- Member State School Building Authority - Indoor Air Quality Committee
- Geosynthetic Accreditation Institute - Clay & Geo Synthetic Liners

Professional Organizations

- West Virginia Independent Oil and Gas Association (Environmental Committee Member)
- Virginia Independent Oil and Gas Association (Association's Outstanding Member, 1990)
- Pennsylvania Independent Oil and Gas Association
- National Society of Professional Engineers
- West Virginia Society of Professional Engineers, T. Moore Jackson Chapter
- West Virginia Surface Mine and Reclamation Association

Past Work History

CNG Transmission Corporation

Experience Summary

- | | |
|--------------------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> Job Costing | <input type="checkbox"/> Waste Management/Minimization |
| <input type="checkbox"/> Management | <input type="checkbox"/> Hazardous Waste Management |
| <input type="checkbox"/> Groundwater Modeling/Monitoring | <input type="checkbox"/> Asbestos Assessment |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Lead Base Paint Assessment |
| <input type="checkbox"/> Risk Assessment/Analysis | <input type="checkbox"/> NORM Assessment |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Brownfields Specialist |
| <input type="checkbox"/> Economic Feasibility | <input type="checkbox"/> Mapping |
| <input type="checkbox"/> Phase I/II Investigation | <input type="checkbox"/> Noise Assessment |
| <input type="checkbox"/> Remediation (Design and Permitting) | <input type="checkbox"/> SARA Title III |
| <input type="checkbox"/> RCRA Waste Units | <input type="checkbox"/> Specification Development |
| <input type="checkbox"/> Drilling Programs | <input type="checkbox"/> Environmental Impact Statements |
| <input type="checkbox"/> Bioremediation | <input type="checkbox"/> Data Processing |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Public Mtg. & Proj. Explanation |
| <input type="checkbox"/> Property Evaluations | <input type="checkbox"/> QA/QC Inspection & Compliance |
| <input type="checkbox"/> NPDES Permitting | <input type="checkbox"/> Architectural Support |
| <input type="checkbox"/> Municipal Engineering | <input type="checkbox"/> Radon |
| <input type="checkbox"/> Code Compliance | <input type="checkbox"/> Water/Wastewater Systems |
| <input type="checkbox"/> E-911 Systems | <input type="checkbox"/> GIS Systems/Data Management |
| <input type="checkbox"/> Flood Modeling | <input type="checkbox"/> FEMA Mapping |
| <input type="checkbox"/> Stormwater Management | <input type="checkbox"/> E&S Planning |

MSES



Louis P. Saas, Jr.

Project Engineer

Years of Experience with MSES: 19 Years of Experience with Other Firms:

27 Education

B. S. Electrical Engineering - West Virginia Institute of Technology - 1971
A. S. Electronic Engineering- (International Correspondence School (ICS) - 1989

Professional Registrations/Certifications

Master Electrician's License - State of West Virginia

Professional Organizations

Institute of Electrical Electronic Engineers (IEEE)

Past Work History

Equitable Gas Co./Equitrans, L.P.

Experience Summary

- | | |
|--------------------------------------------------------------|--------------------------------------------------------------|
| <input type="checkbox"/> Project Management | <input type="checkbox"/> Regulatory Interaction |
| <input type="checkbox"/> Brownfields | <input type="checkbox"/> Noise Assessment |
| <input type="checkbox"/> Database Systems | <input type="checkbox"/> Waste Management/Minimization |
| <input type="checkbox"/> Computer Modeling | <input type="checkbox"/> Life Safety Codes |
| <input type="checkbox"/> RCRA Waste Units | <input type="checkbox"/> Risk Assessment/Analysis |
| <input type="checkbox"/> Remediation (Design and Permitting) | <input type="checkbox"/> Job Costing |
| <input type="checkbox"/> Economic Feasibility | <input type="checkbox"/> Property Evaluation |
| <input type="checkbox"/> Design (Stations, M&R, Pipeline) | <input type="checkbox"/> Specification Development |
| <input type="checkbox"/> Code Compliance | <input type="checkbox"/> QA/QC Compliance |
| <input type="checkbox"/> Training Programs | <input type="checkbox"/> Sampling Programs |
| <input type="checkbox"/> Gas System | <input type="checkbox"/> AC Mitigation Design/Testing |
| <input type="checkbox"/> Cathodic Protection Design/Testing | <input type="checkbox"/> Environmental/Architectural Support |

Terry L. Fleming, R.P.F.

Forester/Environmental Scientist

Years of Experience with MSES: 8 Years of Experience with Other Firms: 30

Education

B. S. Forestry Sciences, West Virginia University, 1955

Professional Registrations/Certifications

Registered Professional Forester - West Virginia and Pennsylvania
Certified Drainage Inspector - West Virginia Department of Environmental Protection
Certified Compaction Technician - West Virginia Department of Highways
40 Hour OSHA Health and Safety Training
Wetlands Delineation Training - U. S. Army Corps of Engineers Training Program
Certified Compliance Inspector Stormwater – Pending
Operator Qualification - USDOT

Professional Organizations

American Society of Professional Foresters
Soil Conservation Society of America

Past Work History

West Virginia Department of Environmental Protection - Supervisor Mine Reclamation
Northern Division
West Virginia Division of Natural Resources - Reclamation Permit Review Team
West Virginia Division of Natural Resources - Reclamation Inspector
West Virginia Division of Natural Resources - Water Inspector

Experience Summary

- | | |
|------------------------------------------------------------------|--------------------------------------------------------------|
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Phase I and II Investigation |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Database Systems |
| <input type="checkbox"/> Environmental Inspections | <input type="checkbox"/> In-Field Clay Liner Testing |
| <input type="checkbox"/> Stormwater Management | <input type="checkbox"/> In-Field LLDPE & HDPE Liner Testing |
| <input type="checkbox"/> Specification Development | <input type="checkbox"/> Sampling and Data Collection |
| <input type="checkbox"/> QA/QC Inspection & Compliance | <input type="checkbox"/> Subsurface Investigation |
| <input type="checkbox"/> Bioremediation | <input type="checkbox"/> Code Compliance |
| <input type="checkbox"/> Computer Modeling | <input type="checkbox"/> GPS Survey/GIS Mapping |
| <input type="checkbox"/> Soil Compaction Testing - Nuclear Gauge | <input type="checkbox"/> NPDES Permitting |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Erosion & Sediment Planning |
| <input type="checkbox"/> Wetlands | <input type="checkbox"/> Forestry Surveys |
| <input type="checkbox"/> Habitat Surveys | <input type="checkbox"/> Forestry Impact Assessments |
| <input type="checkbox"/> Reclamation Planning | <input type="checkbox"/> Impoundment Inspections |
| | Coal Slurry · Freshwater |
| <input type="checkbox"/> FERC E&S Programs | <input type="checkbox"/> Construction Stormwater |
| <input type="checkbox"/> FERC Inspection | <input type="checkbox"/> Spill Response |



Daniel T. Arnold

Senior Environmental Scientist

Years of Experience with MSES: 6 Years of Experience with Other Firms: 23

Education

- B. A. Chemistry, Glenville State College, 1989
- B. A. Mathematics, Glenville State College, 1989
- M. S. Environmental Legal Studies, West Virginia University, 2012

Professional Organizations

American Chemical Society

Past Work History

- Sturm Environmental Services - Chemist, Lab Manager
- West Virginia Department of Environmental Protection - Manager Lab Certification Program

Experience Summary

- | | |
|--------------------------------------------------------------|--------------------------------------------------------------|
| <input type="checkbox"/> Job Costing | <input type="checkbox"/> SPCC PLans |
| <input type="checkbox"/> Management | <input type="checkbox"/> Waste Management/Minimization |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Hazardous Waste Management |
| <input type="checkbox"/> Risk Assessment/Analysis | <input type="checkbox"/> Brownfields Specialist |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Health & Safety |
| <input type="checkbox"/> Economic Feasibility | <input type="checkbox"/> Hydrologic and Hydraulic Analysis |
| <input type="checkbox"/> Phase I/II Investigation | <input type="checkbox"/> Groundwater Protection Plans |
| <input type="checkbox"/> SARA Title III | <input type="checkbox"/> Remediation (Design and Permitting) |
| <input type="checkbox"/> Specification Development | <input type="checkbox"/> RCRA Waste Units |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Bioremediation |
| <input type="checkbox"/> Environmental/Architectural Support | <input type="checkbox"/> Geographic and Hydrologic Studies |
| <input type="checkbox"/> GIS Systems | <input type="checkbox"/> Sampling/Laboratory Programs |
| <input type="checkbox"/> Flood Routing/Flood Plain Analysis | <input type="checkbox"/> Indoor Air Quality |
| <input type="checkbox"/> HEC - RAS & SEDCAD Modeling | <input type="checkbox"/> Code Compliance |
| <input type="checkbox"/> Stormwater Management | <input type="checkbox"/> E-911 Systems |
| <input type="checkbox"/> SWPPP and CIS Programs | <input type="checkbox"/> POTW Design/Operation |
| <input type="checkbox"/> Training Programs | <input type="checkbox"/> Water/Sewer Collection Systems |
| <input type="checkbox"/> I&I Programs and Studies | <input type="checkbox"/> Rate Cases Water/Sewer |
| <input type="checkbox"/> Municipal Engineering | <input type="checkbox"/> Laboratory/Sampling Programs |
| <input type="checkbox"/> NPDES Modeling | <input type="checkbox"/> NPDES Permitting |
| <input type="checkbox"/> NORM Assessment | <input type="checkbox"/> Spill Response |
| <input type="checkbox"/> E & S Plans | <input type="checkbox"/> UST · AST Tanks |
- Construction · Permitting · Monitoring Siting · Permitting · Inspections · Registration



Luke V. Richmond

Senior Projects Manager

Years of Experience with MSES: 7 Years of Experience with Other Firms: 22

Education

B. S. Chemistry, Marshall University, 1989

Professional Registrations/Certifications

Class IV Wastewater Treatment Works Operator [REDACTED]
WV Department of Health and Human Resources
Certified Preparer of SWPPP Certificate No. 3360 - Stormwater USA
Certified Compliance Inspector Stormwater No. 3360 - Stormwater USA
West Virginia Real Estate License
Operator Qualification - USDOT

Professional Organizations

West Virginia Municipal Water Quality Association
West Virginia Water Environment Association
Water Environment Federation (WEF)
POTW Advisor Committee with ORSANCO (Ohio River Water & Sanitation Commission)

Past Work History

The City of Beckley Sanitary Board
The City of Huntington Sanitary Board
West Virginia Department of Education

Experience Summary

- | | |
|--------------------------------------------------------------|--------------------------------------------------------------|
| <input type="checkbox"/> Job Costing | <input type="checkbox"/> NPDES Permitting |
| <input type="checkbox"/> Management | <input type="checkbox"/> Waste Management/Minimization |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Hazardous Waste Management |
| <input type="checkbox"/> Risk Assessment/Analysis | <input type="checkbox"/> Brownfields Specialist |
| <input type="checkbox"/> Regulatory Interaction | <input type="checkbox"/> Health & Safety |
| <input type="checkbox"/> Economic Feasibility | <input type="checkbox"/> Hydrologic and Hydraulic Analysis |
| <input type="checkbox"/> Phase I/II Investigation | <input type="checkbox"/> SARA Title III |
| <input type="checkbox"/> Remediation (Design and Permitting) | <input type="checkbox"/> Specification Development |
| <input type="checkbox"/> RCRA Waste Units | <input type="checkbox"/> Earth Sciences |
| <input type="checkbox"/> Bioremediation | <input type="checkbox"/> Environmental/Architectural Support |
| <input type="checkbox"/> Geographic and Hydrologic Studies | <input type="checkbox"/> GIS Systems |
| <input type="checkbox"/> Sampling/Laboratory Programs | <input type="checkbox"/> Flood Routing/Flood Plain Analysis |
| <input type="checkbox"/> Indoor Air Quality | <input type="checkbox"/> HEC - RAS & SEDCAD Modeling |
| <input type="checkbox"/> Code Compliance | <input type="checkbox"/> Stormwater Management |
| <input type="checkbox"/> E-911 Systems | <input type="checkbox"/> SWPPP and CIS Programs |
| <input type="checkbox"/> POTW Design/Operation | <input type="checkbox"/> Training Programs |
| <input type="checkbox"/> Water/Sewer Collection Systems | <input type="checkbox"/> I&I Programs and Studies |
| <input type="checkbox"/> Rate Cases Water/Sewer | <input type="checkbox"/> Municipal Engineering |
| <input type="checkbox"/> SPCC Plans | <input type="checkbox"/> GPP Plans |
| <input type="checkbox"/> Spill Response | <input type="checkbox"/> FERC E & S Assessment |
| <input type="checkbox"/> SHPO | <input type="checkbox"/> Hydrostatic Test |

MSES



4. Support Services

COMPUTERS/CADD

MSES has successfully integrated the disciplines of engineering, surveying, mapping, and data processing into a very efficient blend of talent. Computer services at MSES began in 1984; since then, the firm has continuously augmented the equipment capabilities and system support staff.

MSES maintains a computer-aided design and drafting (CADD) system, which increases the efficiency of planners, designers, and engineers, and allows greater design flexibility.

MSES has more than thirty (30) years of direct CADD experience with its own in-house CADD system, consisting of both AutoCAD and InterGraph CADD work stations. Our survey equipment, GPS instruments, and hand-held computerized data collectors are integrated to download field information directly into our in-house network system.

The growing in-house library (additional software to those provided by Section 14 Consultants Qualification Questionnaire) of computer programs includes a collection of software for survey and mapping, hydrologic/hydraulic studies, water resources management, water system facility design, treatment plant design, groundwater modeling, geotechnical investigations, air issues, data management, and cost estimating. Frequently used programs include:

EAGLE POINT 2009 - Q3 CIVIL DESIGN	CARLSON - CIVIL DESIGN & SURVEY	SEDCAD4 CAD 2009	STABLE7
WINSTABL	SURFER	HELP3	WINLOG
LANDGEM	AIR4	HEC-1	SCREEN3
TR20	SURVCADD	HEC-2	HY8
TR55	LICONTOUR	HECRAS	MODFLOW
STORMCAD	TRAVERSE PC	KYPIPES	NWS
SEDCAD	SMI	MAPS	HMR52
ARC/INFO	ARC/VIEW	URB-1	ALPHA-4
EXCEL ACCESS	MICROSOFT PRO	QUATTRO APPROACH	LOTUS 1-2-3
ADOBE ACROBAT/ PHOTO DELUXE	MICROSOFT POWERPOINT	MICROSOFT OUTLOOK	AUTOCAD/ AUTOCAD LIGHT
COREL PRESENTATION	DELORME 3D TOPO	BP RISC	COREL CENTRAL
BH LOGGER	LAPLINK	I-STEPS	MGI PHOTOSUITE
PHOTO PLUS	RMP SUBMIT	TANKS	LAWYER 99
QUICKCAD	SNAGIT	TIERII WIN	QUICKEN
GLY-CALC CONVERSIONS	POW-R DESIGNER	LITHONIA VISUAL	SWEETS CD
			TOPO USA

AUTODESK VOLO VIEW	COREL WORDPERFECT	TR SS	TPA SOFTWARE	ATRS 99
MASTERSPEC MECHANICAL/ ELECTRICAL STRUCTURAL/CIVIL	MASTERSPEC OUTLINE ARCHITECTURAL/	WINZIP	MICROSOFT STREETS 98	WEATHER LINK
MASTERSPEC SMALL PROJECT CIVIL	MASTERSPEC STRUCTURAL/ PRO	QUICK BOOKS	CONVERSION PLUS	MICROSOFT WORD
LEICA FLIKIN GPS REDUCTION DEVELOPMENT DESKTOP	AIRBORNE LAND	AUTODESK	MICRO STATION 98	EAGLE POINT
ALBANY TRIANGULATION TERRAMODEL	SPECTRA PRECISION MAPPING	KORK DIGITAL	ERDA IMAGINE	

In addition to engineering software, MSES uses the latest PC-based support tools to manage and enhance its assignments, including project management, spreadsheet, database management, graphic, word processing, and desktop publishing.

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

MSES utilizes Geographic Information Systems (GIS) services for specialized analyses and geographically-oriented database construction. We have the latest versions in-house of full-service GIS programs, including Small Worlds, ArcInfo, and ArcView GIS, and have the distinction of having trained personnel in-house with the knowledge and experience in the design, use, and generation of displays with these applications. Our data management tools have been upgraded with the entire suite of add-on modules (ArcInfo Geocoding and Visual Basic, and ArcView 3D, spatial, Streetmap, network, and TASC tracking analyst and Geoprocessing (re-addressing extensions)).

SURVEY EQUIPMENT

Each MSES survey crew is equipped with an assigned four-wheel drive vehicle that provides access to survey points and survey locations in all terrains at all times of the year. Each crew is equipped with electronic total stations, with integrated data collectors. Each of the stations is certified for first and second order accuracy. In addition, the crews utilize Global Positioning Survey (GPS) equipment, that allows for sub-meter resolution, in two (2) configurations; the first is backpack/ monopole-mounted, and the second is comprised of tripod-mounted dual frequency transmittal and receiving GPS units. These GPS survey units consist of Mobil Mapper CX for each of the six MSES survey crews and six RTK Total Station GPS Sub-Centermeter Units. Each survey crew is also equipped with a laptop computer, which allows for near instantaneous downloading and transmittal of data to MSES' office, for rapid processing and development of associated mapping and other related uses. In addition to this electronic equipment, each survey team is equipped with the support field and office equipment required to keep the crews and their operations running smoothly.

- ❑ **Stormwater and Sediment Control**
 - Pre- and Post-Construction Management
 - Design
 - Permitting
 - Construction Documents, Construction Management, and QA/QC
 - NPDES Sampling, Analysis and Compliance
 - Inspections

- ❑ **Leachate**
 - Evaluations and Volume Determination
 - Collection Systems
 - Treatment
 - Storage
 - Disposal
 - Permitting
 - Sampling, Analysis, and Compliance Monitoring

- ❑ **Planning**
 - Siting Studies
 - Demographics
 - Air Space/Site Utilization
 - Permitting Requirements (Air/Stormwater/Leachate/Landfill/Closure)
 - Public Service Commission (Certificates of Need/Rate Analysis)
 - Costing, Economics

- ❑ **Earth Sciences**
 - Geologic Investigations
 - Soil Surveys
 - Slope Stabilities
 - Sedimentation Evaluations

- ❑ **Environmental**
 - Impact Assessments
 - Investigations (Biological/Chemical/Water Quality/Noise/Air)
 - Site Reviews/Past Activities
 - Delineations-Wetlands; Streams

- ❑ **Water Resources**
 - Surface and Groundwater Hydrology
 - Water Pollution
 - Water Resource Impact Evaluation
 - Wetlands Identification
 - Perennial Stream Evaluations

- **Document Preparation**
 - Landfill (Part I/Part II/Closure/Modifications - Minor and Major)
 - State and Federal Discharge Applications
 - Public Service Commission (Siting Analysis/Demonstration of Need/Economic Analysis)
 - Associated Documents/Plans Required in Support of Permitted Activities

As a reward for MSES' knowledge, responsiveness, and diligence, a great deal of trust has been established between MSES and our clientele. This has resulted in the maintenance of numerous master service/indefinite delivery agreements and contracts for many of our long-term clients, some of which are identified below:

- **City of Clarksburg, City Engineer** - MSES was selected in January 1999 as the Engineer for the City of Clarksburg, West Virginia, with MSES staff members serving as the City's Engineer/Public Works Director. MSES will provide the City with all its engineering, planning, code inspections, environmental, infrastructure, and funding/budget planning needs.
- **Dominion Transmission, Inc. (formerly CNG Transmission Corporation)** - MSES has maintained a master service agreement with this firm since 1990, for the provision of engineering, surveying, mapping, and corrosion surveys.
- **Dominion Hope (formerly Hope Gas, Inc.)** - Since 1992, MSES has retained a master service agreement with Hope Gas, which includes engineering, surveying, mapping, environmental sampling, reviews, assessments, and right-of-way acquisitions.
- **Dominion Peoples (formerly Peoples Natural Gas)** - MSES currently holds a master service agreement with this company for corrosion engineering, corrosion surveys, and internal corrosion sampling and analysis.
- **Columbia Gas Transmission Corporation** - MSES continues to maintain a master service agreement with Columbia for system-wide sampling and analysis of soils and liquids associated with external and internal pipeline corrosion.
- **USDA Natural Resources Conservation Service** - MSES is currently in the fourth year of a five (5) year indefinite delivery contract to conduct county-wide water resources studies throughout the State of West Virginia. These involve compilation and analysis of extensive physical, chemical, geographic, and socio-economic data in order to develop feasible planning documents for the provision of safe, reliable, drinking water supplies and wastewater treatment and collection systems for designated counties throughout the state. The development of the plans relies heavily on

evaluations of surface water and groundwater resources and hydrogeologic investigations and modeling.

- ❑ **United States Department of the Army, Huntington District, Corps of Engineers** - Since 1982 MSES has maintained annual indefinite delivery contracts with the Huntington District of the USACE for Phase I and Phase II environmental screenings and real estate and mineral appraisals.
- ❑ **United States Department of the Army, Pittsburgh District, Corps of Engineers** - Since 1992, MSES has maintained annual indefinite delivery contracts with the Pittsburgh District of the USACE for the same types of activities described above.
- ❑ **United States Postal Service** - In conjunction with this three-year indefinite delivery services contract, MSES has just begun its first year of providing environmental and engineering services for existing and newly-acquired post office sites throughout the States of West Virginia, Virginia, and Kentucky. These services include site selection, surveying, site development planning, permitting, and Phase I and II environmental site reviews.
- ❑ **Dominion Resources, Inc. (formerly CNG Natural Gas Company)** - In July 2014, MSES Consultants, Inc. (MSES) was one (1) of three (3) consultants chosen from an initial pool of fifty-seven (57) environmental companies to provide corporate-wide environmental characterization and site remediation planning throughout (former) CNG Natural Gas Company (CNG)'s operational territory, which extends from the Canadian border to offshore in the Gulf of Mexico and inland areas of Louisiana. MSES was selected for a three-year indefinite delivery contract to assist CNG and its various subsidiaries to conduct site and hydrogeologic evaluations; address their waste storage, treatment, and disposal concerns; identify potential environmental problems and perform reviews and characterizations of these areas; develop clean-up and/or remediation plans; provide interaction with the various State and Federal environmental agencies; coordinate permitting; furnish clean-up/construction quality assurance/quality control oversight and testing; and ensure final site clean-up/program compliance at the conclusion of each project.

RELATED PRIOR EXPERIENCE

To demonstrate our diverse experience in the solid waste industry, MSES has prepared a summary of our related prior experience, highlighted by the following table. Since the Webster County Landfill Closure is located in West Virginia and will entail interaction with West Virginia-based regulatory agencies, we have eliminated from this listing projects located within the eight (8) nearby states of Pennsylvania, Ohio, Maryland, Virginia, New York, Kentucky or Tennessee. The projects listed have been conducted within the last ten (10) years.

In addition to those projects listed in Sections 15 and 17 of the Consultants Qualification Questionnaire, are facilities with whom we have maintained ongoing relationships since the early to mid-1980s. Our public involvement and affiliations with steering committees, regulatory review groups, etc. has allowed MSES to develop a professional and personal rapport with many of the State agencies and their personnel whom will be involved in the reviews and approvals for landfills' planned expansions.

PROJECT NAME	CLIENT	LOCATION	DESCRIPTION
Fayette County Landfill Closure	Fayette County Solid Waste Authority	Fayetteville, WV	Expansion feasibility investigation (33 CSR 40); closure, with documentation for LCAP Program; hydrogeologic investigations and impacts on New River; experimental daily cover systems; leachate evaluation, characterization, collection and treatment.
Fayette County Solid Waste Facilities Siting Plan	Fayette County Solid Waste Authority Fayette County Commission	Fayette County, WV	Developed County-wide solid waste facilities siting plan; public involvement; County approvals; WV Solid Waste Management Board approval
Fayette County Recycling Plan	Fayette County Solid Waste Authority	Fayette County, WV	Prepared County-wide solid waste recycling plan; hauler involvement; public input; WV Solid Waste Management Board approval
Indefinite Delivery Contract	Fayette County Solid Waste Authority	Fayette County, WV	From 1995-1998 provided on-call engineering, environmental, planning, funding, and technical assistance to the FCSWA for the rectification of outstanding Notices of Violation issued by the State
Clarksburg Landfill	City of Clarksburg	Clarksburg, WV	Landfill closure; application for LCAP Program; hydrogeologic investigation; monitoring well installation; quarterly sampling/analysis
Yard Waste Composting Facility	City of Clarksburg	Clarksburg, WV	Siting; planning, design, specifications; Certificate of Need; equipment specifications and selection; permitting; funding applications; facility expansions; stormwater and leachate collection; NPDES permitting; technical advisor to operations personnel

Related Prior Experience

PROJECT NAME	CLIENT	LOCATION	DESCRIPTION
Randolph-Elkins Landfill	City of Elkins	Elkins, WV	Modifications to existing Part I and Part II landfill permit; construction documents; construction management; QA/QC activities; leachate management, from both new and closed MSW landfill areas; annual reporting; existing landfill closure planning
County-Wide Water Resources Evaluations	USDA Natural Resources Conservation Service	Various Counties Throughout WV	Five-year indefinite delivery contract to provide County-wide hydrogeologic evaluations and water contamination solutions for groundwater and surface water systems, primarily focusing on providing safe and accessible drinking water. Counties completed to date include McDowell, Randolph, Wetzel, Fayette, Grant, and Pendleton; Hardy County to be completed in 2001.
Northwestern Landfill	Waste Management, Inc.	Parkersburg, WV	Compilation of Part I application information for two (2) permit expansion areas, including detailed mapping; geologic mapping; hydrogeologic investigations; perennial stream and wetlands determinations; compliance issues; and regulatory interaction.
Mingo County Landfill	Mingo County Solid Waste Authority/ Mingo County Redevelopment Authority	Williamson, WV	Siting; Part I and Part II development; Certificate of Need, technical assistance, public meetings; recycling center as part of landfill development; technical assistance to County Waste Authority
Meadowfill Landfill	Waste Management, Inc.	Bridgeport, WV	GPP, SPCC Plan, Subtitle D Operating Record, Title V air permit application, annual landfill gas certified emissions statements, gas venting program in new MSW area, and annual reporting since 1992
Meadowfill Landfill	Waste Management, Inc.	Bridgeport, WV	Geological investigations, consisting of test pitting, reviews of existing subsurface information, and surficial geologic mapping for borrow and construction materials.
Northwestern Landfill	Waste Management, Inc.	Parkersburg, WV	Preparation of 1997 - Present construction budgets; Title V air permit; evaluation and preliminary design for pumping of leachate to Parkersburg Sanitation Board; 1998 site aerial photography
Meadowfill Landfill	Waste Management, Inc.	Bridgeport, WV	Landfill's Engineer-of-Record since 1988, beginning with initial siting and planning of new MSW area and separate C&D area; hydrogeologic investigations; Part I and Part II completion and submittals; Certificate of Need; Harrison County Solid Waste Authority approvals; public awareness meetings; old MSW landfill closure; construction planning, construction documents, support and QA/QC; site surveys and mapping; day-to-day technical assistance and monthly OSHA safety training and related services

Related Prior Experience

PROJECT NAME	CLIENT	LOCATION	DESCRIPTION
Tucker County Landfill	Tucker County Solid Waste Authority	Thomas, WV	Overlay of new liner system over existing landfill material; Part I and Part II development; Certificate of Need; Construction documents, construction management, and construction QA/QC; leachate collection system; hydrogeologic and geologic evaluations of expansion area; permitting; closure of old MSW area; recycling/baler building; composting facility pilot program for fish processing plant waste
S&S Landfill	Eastern Environmental	Good Hope, WV	Siting; hydrogeologic investigation and monitoring well installation; Part I and Part II; Certificate of Need; wetland identification and removal; permitting and technical assistance
Incinerator Ash Landfill	Cytec Industries, Inc.	Willow Island, WV	Siting, hydrogeologic investigations, Part A and Part B Hazardous Waste Landfill permitting; geologic and soil studies; leachate collection, pumping, and treatment; liner systems, synthetic and manufactured clay; construction documents, construction technical assistance, and construction QA/QC; air permitting; groundwater protection planning; USEPA Region III and WVDEP regulatory agency interaction
Flyash Disposal Landfill	Cytec Industries, Inc.	Willow Island, WV	Development and permitting of industrial solid waste landfill for the de-watering and disposal of flyash; de-watering effluent collection, pumping, treatment, and disposal; economic re-use planning of flyash
Banner Fibreboard Industrial Landfill	Banner Fibreboard	Wellsburg, WV	Compilation of Part I and Part II applications for closure of now inactive former industrial waste landfill, including detailed mapping; geologic mapping and characterizations, hydrogeologic investigations/analyses; aerial photography; compliance issues; and regulatory interaction
Hazardous Waste Solid Waste Management Unit Closure	Cytec Industries, Inc.	Willow Island, WV	Location investigations; site identification and characterization; hydrogeologic investigations, groundwater impact assessments, aquifer testing, monitoring well installation; closure planning; closure permitting and regulatory interaction; construction documents, construction technical assistance, and construction QA/QC for 22 sites within the 3,000 acre complex.

Related Prior Experience

PROJECT NAME	CLIENT	LOCATION	DESCRIPTION
Glass Cullet Disposal Area Closure	The Fenton Art Glass Company	Williamstown, WV	Fenton's consulting engineer since 1991, for characterization/closure of an on-site former disposal area of spent and below-standard glass and waste glass batch materials, now deemed by State and Federal regulations as hazardous waste. MSES has performed detailed subsurface investigations, site mapping, and sampling/analysis programs to define the character and extent of waste; extensive hydrogeologic investigations, including area water well inventories, groundwater monitoring well installation, development, sampling, and analysis, aquifer studies and pump test analyses. Data were utilized to develop a detailed site characterization and treatment and closure plan for the 1.2-acre hazardous waste disposal area, calling for in-place closure of the former disposal area, detailed groundwater monitoring plan, re-sloping and compaction of existing materials in the disposal area, and installation of synthetic and soil liners to cap the disposal area. MSES coordinated all regulatory agency interactions for the Plan's approval, negotiated Consent Order with WVDEP, and provided construction oversight, quality assurance/quality control of closure activities and materials used, and compliance documentation.
Braxton County Citizens' Civil Action	Central WV Refuse, Inc.	Gassaway, WV	Appointed by Federal Judge as Special Lawmasters to investigate hydrogeologic conditions, leachate generation, leachate collection and treatment, and final closure of an inactive landfill; also involved interaction with regulatory agencies, citizens' action groups, and class action law firms; developed report of hydrogeologic conditions, leachate production, and closure needs; negotiated settlement between citizens' group, parties to class action suit, and Central WV Refuse; coordinated closure under LCAP Program
S&S Landfill	S&S Grading, Inc.	Good Hope, WV	GPP and SPCC Plans
Blaw Knox Foundry Sand Landfill Closure	Blaw Know Foundry	Wheeling, WV	Evaluated foundry sand waste via field sampling and laboratory analysis. Worked to resolve WVDEP Notice of Violation to manage found sand waste.
Meadowfill Landfill Major Permit Expansion	Meadowfill Landfill, Inc.	Bridgeport, WV	Part 1 and Part 2 preparation, certificate of need, construction documents, construction management, construction CQA, leachate collection system, hydrogeologic and geologic evaluations of expansion area, permitting, and closure of existing area

Related Prior Experience

PROJECT NAME	CLIENT	LOCATION	DESCRIPTION
S&S Landfill Major Permit Expansion	S&S Grading, Inc.	Good Hope, WV	Part 1 and Part 2 preparation, certificate of need, construction documents, construction management, construction CQA, leachate collection system, hydrogeologic and geologic evaluations of expansion area, permitting, and closure of existing area
City of Clarksburg C&D Landfills	City of Clarksburg	Clarksburg, WV	Siting, design, and permit to implement multiple 2 acre C&D Landfills for City housing demolition
City of Clarksburg C&D Landfill Closure	City of Clarksburg	Clarksburg, WV	Record surveying, drainage design, and construction, cover material location of C&D placement to achieve final grade, courthouse and deed work to close C&D landfill.

6. Confirmations

General

MSES Consultants, Inc. confirms the Team's intention and willingness to:

1. Abide by applicable provisions of codes and regulations of the State of West Virginia.
2. Employ registered professional engineers, architects, and other pertinent personnel (surveyors, remediation specialists, etc., as applicable) licensed to practice in the State of West Virginia.
3. Prepare detailed proposals/work plans, with estimated fees, and to execute agreements for services based thereon, including fixed fees for well identified scopes of work, or other mutually agreeable forms of compensation.
4. Comply with all other civil rights, conflict of interest, records access, or other laws, regulations or requirements that may be referenced in conjunction with each project.

Quality Commitment

MSES Consultants, Inc. is committed to providing high quality environmental and engineering services to its customers through its continuous quality improvement program that involves all personnel in a systematic, logical process to continually improve the firm's work practices and procedures. MSES' approach to quality is composed of four elements: the individual, procedures for project execution, procedures for controlling and assuring the quality of our services, and the continuous quality improvement process.

The Individual

Since 1976, we have relied on the care, diligence, imagination, intelligence, and commitment of our personnel to provide quality designs and quality services. Recent policies and procedures emphasize the importance and contribution of each individual in achieving our quality goals.

Procedures for Project Execution

Standard procedures for project execution are adopted by MSES, providing for project management with current guidelines and procedures for managing projects and assuring quality in our technical performance, from the proposal stage through the close-out stage.

QA/QC Procedures

The quality assurance/quality control procedures are incorporated into the technical quality control of services provided to our clients. A set of guidelines and procedures is established for each type of service provided by the firm: planning reports and studies, design services, construction phase services, and facility inspection services. These procedures are used in conjunction with project technical and management controls, which set forth the following criteria on which to base successful completion of a project: project schedule, project budget, scope requirements, project objectives, and client satisfaction.

Continuous Quality Improvement

Continuous Quality Improvement, or CQI, MSES' adaption of Total Quality Management, is a systematic, firm-wide process of improving services we perform for our clients by improving the way we work and the services we provide. CQI is concerned with identifying barriers and removing those barriers. CQI achieves this by making quality a part of everyone's job description. We train each person in CQI and assign him or her to a Quality Improvement Meeting Unit (QIMU). These QIMU's hold one-hour weekly meetings to identify barriers and to propose improvements or changes in the way we work. In this way, CQI provides a vehicle for the recognition and re-involvement of all employees in improving the firm's methods, procedures, and operations.