

**West Virginia Department of Environmental Protection
Closure Landfill Design & QA/QC**

Expression of Interest – DEP 14619
South Charleston Landfill

Site Characterization Study, Leachate Management and Closure Cap Design and
Quality Assurance/Quality Control

May 5, 2009

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**PURCHASING DIVISION
STATE OF WV**

Prepared For:
State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
PO Box 51030
Charleston, WV 25305-0130



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State College, PA 16803
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L.A. Gates Company
2302 South Fayette Street
Beckley, WV 25801
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Contact: L.A. Gates, P.E., P.S.
President/CEO



April 28, 2008

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

**RE: EXPRESSION OF INTEREST FOR SOUTH CHARLESTON LANDFILL
SITE CHARACTERIZATION STUDY, LEACHATE MANAGEMENT AND
CLOSURE CAP DESIGN AND QUALITY ASSURANCE/QUALITY CONTROL**

Dear Committee Members

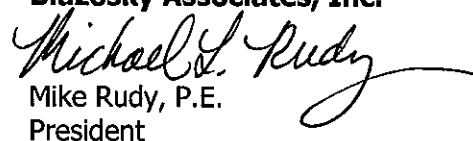
Blazosky Associates Inc, (BAI) in association with L.A. Gates Company is pleased to submit our Expression of Interest for the waste management consulting projects at the South Charleston Landfill. As a team we believe that the combination of the solid waste expertise of BAI with the local presence of L.A. Gates brings the most value to the West Virginia DEP. This submission includes the original loose-leaf three ring binder along with three (3) copies on compact discs.

This Expression of Interest presents the extensive qualifications of BAI in the area of solid waste management. Since 1986, BAI has served the waste management industry with professional environmental consulting services. These landfill services have been provided to the private, public, and institutional sectors and include all aspects of solid waste management. Currently we are completing a major landfill closure project for the PaDOT as just one project example. As this area of expertise represents a *majority* of BAI's work, we strongly believe that we can provide solutions which are efficient and effective.

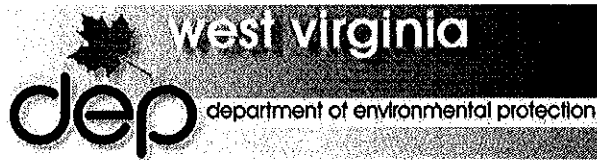
L.A. Gates Company brings its own environmental consulting credentials to this project, particularly in the site assessment and characterization portions of the work. In addition, their surveying, and field capabilities bring value with their local proximity to the project.

Between these two firms, a strong team has been assembled to meet every need of the site characterization, leachate management, closure design and QA/QC portions of the project. We strongly believe we are worthy of your consideration and we are anxious to present ourselves in an oral interview. At that time you can evaluate further the specifics of our qualifications. Certainly feel free to contact with any questions in the interim.

Sincerely
Blazosky Associates, Inc.


Mike Rudy, P.E.
President

KF/JB/av
Enclosure



West Virginia Department of Environmental Protection Closure Landfill Design & QA/QC

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**1.0 Project Understanding &
Corporate Histories**

Blazosky Associates, Inc. & L.A. Gates Company

Project Understanding and Corporate Histories

Project Understanding

The West Virginia DEP is requesting Expressions of Interest from consulting companies to provide professional services for a site characterization study, leachate management design, closure cap design, and QA/QC for the South Charleston Landfill in Kanawha County. The Scope of Services for the South Charleston Landfill Closure will generally consist of the following elements in conformance with 33CSR1:

- Site characterization study
 - site investigation of existing conditions and features
 - surveying/mapping
 - analysis of soil and water characteristics
 - subsurface investigations to determine limits, depths and location of waste
 - location of potential borrow areas on or off-site
 - site drainage characteristics
- Engineering and design of capping system
 - grading plans
 - cross sections
 - leachate collection, storage and treatment systems
 - gas collection system, as required
 - cap system selection and design
 - erosion and sediment control facilities (including ponds) design
 - vegetative cover design
- Preparation of construction plans, specifications and contract documents suitable for bidding
- Preparation of opinion of probable construction costs of the cap system and associated work items involved with the closure plans and specifications
- Preparation of permit applications, rights-of-way, rights-of-entry and access agreements and approvals
- QA/QC during the design process and following design approval and bid award, as well as required construction management
- Project closeout activities and documents, as required
- Appropriate documentation, communication, progress reports and meetings with DEP
- Assuring adherence to and conformance with 33CRS1

The selected company will provide all necessary personnel, facilities, equipment, material, supplies, and services needed to perform the Scope of Services. Appropriate licensed and certified personnel shall also be furnished.

As described throughout this Expression of Interest, the Project Team of Blazosky Associates, Inc. in association with L.A. Gates Company possesses the landfill design and construction experience, knowledge of West Virginia regulations and permitting, staff and expertise, and proximity to the site to execute this Scope of Services successfully and efficiently.

Blazosky Associates, Inc. (BAI) is a quality, mid-sized engineering and earth science environmental consulting firm. BAI was founded by John J. Blazosky, P.E., in 1986 to fulfill the technical consulting needs of the private and public sector waste management industry. Since that time, BAI's practice has evolved into other select areas of environmental consulting. BAI has successful project experience in many areas of environmental consulting including site assessment/remediation, construction management/inspection, industrial/hazardous waste management, air quality, wastewater treatment and wetlands mitigation and monitoring.

BAI is comprised of engineers, geologists, soil scientists, environmental consultants, construction inspectors and technicians. Together, these professionals provide a broad range of expertise to the environmental services industry. BAI's staff is large enough to fulfill our clients environmental consulting needs, yet small enough to maintain personal and professional service. BAI currently has Professional Engineers and Professional Geologists registered in eight states, including three P.E.'s licensed in West Virginia.

Pennsylvania has 52 permitted municipal solid waste (MSW) landfills; of which our project team has a presence on well over half of these facilities. As identified throughout this Expression of Interest, although BAI has extensive experience in Pennsylvania, we have also successfully completed landfill projects in the surrounding states. Last year we provided QA/QC and Construction Certification services for a MSW landfill in Easton, Maryland; and we presently serve as the engineer of record for the Cecil County, Maryland Cell 4 Redevelopment project. The team takes great pride in securing, and more importantly, *retaining* our client base.

The primary goal of BAI is to establish *long-term* professional relationships by providing high quality consulting services at a reasonable cost. To achieve this objective, BAI places great emphasis on service -- and adapting to the various needs of our clients. BAI is committed to protecting the public trust and the trust of our clients.

Areas of specialization in the waste management sector include, but are not limited to:

- Efficient landfill design
- Stormwater/erosion and sedimentation control design
- Preparation of complete permit applications
- Landfill operation audits
- Preparation of construction specifications and bid documents
- Construction management, QA/QC inspection, and construction certification
- Developing and implementing RCRA closure and post-closure plans
- Leachate management
- Geotechnical services
- Site investigations for groundwater, soils, and environmental siting issues
- Borrow source evaluations
- Field monitoring and data acquisition
- Pro forma cost analysis (life cycle costing) and construction cost estimates
- Monitoring services for groundwater, surface water, leachate, soils and landfill gas
- Coordinating permitting efforts through appropriate regulatory agencies

The L.A. Gates Company (Gates) is a professional firm offering services in Transportation, Civil, Structural, Mining and Environmental Engineering, and Expert Witness Litigation since 1985. The company's roots stem from Gates Engineering Company which had a direct lineage to the E.M. Merrill Engineering Company organized in 1905 in Beckley, West Virginia.

L.A. Gates strives to provide the client with comprehensive professional and technical expertise to assess a wide range of problems and to develop innovative solutions. Their engineers maintain professional registration in three states and represent more than 120 years of professional and technical expertise.

Gates has many years of experience performing construction inspection and contract administration. Gates has gained valuable experience over the years in seeing that projects are built as per the designed plans and specifications and as per the WVDEP standards and regulations while still maintaining a solid working relationship with the contractor.

L. A. Gates Company provides a full range of permitting services for the environmental and mining community. Their staff of engineers, geologists, designers, technicians and support staff are among the best the industry has to offer and have an average of 20 years experience each in the industry. They have an established and effective working relationship with all DEP offices located throughout the state of West Virginia.

A partial list of design and permitting functions performed by L.A. Gates staff includes the following:

- Article 3 Permits (MTR, Deep Mine, Contour/HWM, Maintenance Activities, (etc)
- Article 11 Permits (NPDES)
- Quarry Permits
- Air Quality Permits
- AOC Modeling
- Surface Water Runoff Analysis (SWROA)
- Subsidence/Ground Control Plans
- State 401 and USCOE 404 Permits
- Slope Stability Analysis
- Valley Fill Designs
- Erosion and Sediment Control Design
- Probable Hydrologic Consequence (PHC's)
- Pond Designs

L.A. Gates Company maintains the latest in state-of-the-art surveying equipment from Total Stations to GPS equipment. Gates has performed all of the surveying or has supervised surveying sub-consultants on all of their projects over the last 24 years. Gate's surveying department is possibly the most experienced and diversified of all the company's many departments having over 75 years of field surveying experience.

Some of the surveying tasks performed by L.A. Gates Company crews include the following:

- Field Topographic Surveys
- Core Boring Location
- Utility Locations
- Property Line Locations
- Horizontal and Vertical Control
- Drainage Profiles
- Water and Sewer Line Stakeout

With the ability to provide an extensive staff of qualified individuals, and recent experience on a wide variety of projects, the highly qualified L.A. Gates team will meet the surveying needs for this project, assist with site work and field inspection, and provide the local permitting and approvals.

Novel Geo-Environmental, LLC (NGE) is a woman owned 8(a) environmental and geotechnical engineering firm founded in 2002 with offices in Charleston, West Virginia and Pittsburgh, Pennsylvania. The goal was to start an engineering and consulting firm that was able to serve a wide range of clients without losing site of their primary objectives:

- Every client is the most important
- No job is too big or too small
- Everything must be done to the highest standards

NGE is led by a management team that averages over 21 years of technical and management experience providing quality services to industrial and public sector clients. Our management staff includes professional engineers, geologists, consultants, construction managers, and foremen with experience in a broad range of technical disciplines.

NGE is an organization that is small enough to focus time on the issues our clients need to have immediately resolved. Without the overhead of larger companies, NGE is able to provide an extremely high level of service at a lower price than our competition. NGE staff has the education, experience, professionalism, and desire to complete projects efficiently and accurately. As a result, NGE has established their position in the marketplace and *in 2007 was named "the fastest growing consulting engineering firm" in western Pennsylvania* by the Pittsburgh Business Times.

Primary service areas include:

- Environmental Engineering
- Geotechnical Engineering and Laboratory Testing
- Site Investigation
- Environmental Construction and Remediation
- Construction Monitoring and Inspection
- State and Federal Government
- Aviation Industry and Airport Environmental

NGE is a certified Disadvantaged Business Enterprise (DBE) in West Virginia, Pennsylvania, Ohio, Maryland, and New Jersey and is certified by the Small Business Administration as an 8(a) Small Disadvantaged Business.

NGE is ideally located and has the expertise and staff to assist with the geotechnical aspects and material testing needs of this project.

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**2.0 Project Team, Organization Chart
& Qualification Summary**

Blazosky Associates, Inc. & L.A. Gates Company

Project Team and Organization Chart

Blazosky Associates, Inc. (BAI) will serve as the prime consultant for this project team. BAI has successfully completed numerous landfill site characterization studies, closure cap designs and quality assurance/quality control (QA/QC) projects for landfill closure systems very similar to what is needed for this project. A brief summary of some of these projects is included in the Section 4, Consultant Confidential Qualification Questionnaire.

In addition to being able to provide a high quality of engineering and technical services, the primary reason for this success is establishing strict lines of communication between our clients, our subcontractors and the regulatory agencies.

For this project, Mr. James Echard, P.E., of BAI will serve as the Project Manager, the certifying engineer, and will be the West Virginia DEP's single point of contact. Mr. Echard will be responsible for the overall management of this contract and project with the West Virginia DEP. His diverse background encompasses a unique combination of services that allows him to provide his clients with efficient, effective solutions for their projects. He has extensive experience working with national solid waste management corporations, as well as municipally-owned authorities, including landfill design and closure projects. Mr. Echard will assure that the resources and personnel of the entire team required to perform the required work and services are available in a timely and cost effective manner.

Mr. Echard will also work closely with Mr. John Blazosky to assure that the QA/QC Plan is implemented throughout the design process and QA/QC Controls are maintained during construction. Mr. Echard will maintain communication throughout the project with DEP to assure that the project is performed within the scope of services, the agreed-to schedule and the established budget.

Mr. Echard will be directly assisted by Mr. Jay Cantley Jr., P.E., P.S., COO of L.A. Gates, who will serve as the Assistant Project Manager. Mr. Cantley oversees L.A. Gates civil engineering department and has extensive experience in engineering, design, and surveying. Mr. Cantley will work closely with Mr. Echard to assure that all local field work and data collection are conducted in conformance with the scope of services and the schedule for the project. He will also manage the efforts of any needed local surveying and also the work of Novel Geo-Environmental for required subsurface and laboratory analyses. Mr. Cantley will manage the L.A. Gates team to provide permitting assistance and site access approvals. He will assist as well with keeping the DEP informed of work activities and schedules on an ongoing basis.

The Organizational Chart and Qualification Summary located on the following pages identifies the major project tasks to be completed or subcontracted by BAI, and the team's roles and responsibilities of each entity. Due to the location, depth and overlapping skills of the team, many of the required services can be completed by each of the members; however, it is the intent of the project team to take full advantage of the primary skills and location of each group.

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Organization Chart



Blazosky Associates, Inc.
in association with **L.A. Gates Company**

Project Manager
James Echard, P.E.
Certifying Engineer, BAI

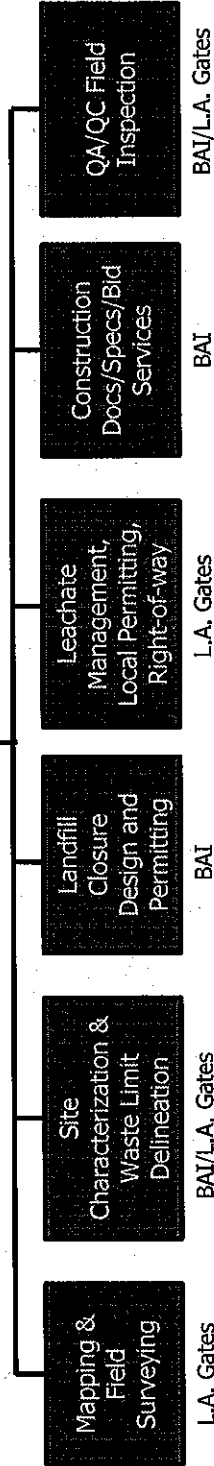
Assistant Project Manager
Jay Cantley, P.E./P.S.
COO, L.A. Gates

Michael Rudy, P.E.
President
Blazosky Associates, Inc.

Patrick Murphy, P.E.
Vice President
L.A. Gates Company

John J. Blazosky, P.E.
QC Director
Blazosky Associates, Inc.

Tim Coleman
QC Assistant Director
L.A. Gates Company



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Qualification Summary

Project Role	Name	Experience
Company Principals/ Project Directors		
BAI President	Michael Rudy, P.E.	Michael Rudy, P.E., has been in the environmental field, specializing in the solid waste management sector for over 18 years. While he serves as president and owner, he is very active in the management of projects.
LA Gates Vice President Senior Engineer	Patrick M. Murphy, P.E. Registered Professional Engineer, West Virginia, No. 16001	Mr. Murphy has over 11 years experience in environmental permitting. He provided project management and engineering oversight for a diverse permitting staff to include: designers, drafters, forester, permit manager and clerical. As Senior Engineer and Vice President he has provided surface and deep mine permit applications.
Project Managers		
Project Manager/ Certifying Engineer	James Echard, P.E. Registered Professional Engineer, West Virginia, No. 17666	Jim Echard, P.E., has been working in the environmental field over the last 14 years, specializing in the design, permitting, construction, certification, and operation of various municipal solid waste facilities, including landfills, transfer stations and processing plants.
Assistant Project Manager	Jerry (Jay) Cantley, P. E. /P.S. Registered Professional Engineer, West Virginia, No. 12188	Mr. Cantley has over 20 years of experience in design and management of governmental related projects. Mr. Cantley specializes in surveying, utilities and site work, erosion and sediment control design, construction coordination, management of records, and cost and time studies.
Construction Directors		
BAI QC Director	John Blazosky, P.E. Registered Professional Engineer, West Virginia, No. 14607	John J. Blazosky, P.E. has more than 35 years of experience in environmental engineering projects in every major area of practice. Mr. Blazosky has provided management, specific administration, supervision, and certification for landfill liners, caps, gas collection, erosion control and residue drying bed construction for numerous landfill, transfer stations and wastewater treatment projects.
LA Gates QC Assistant Director	Tim Coleman	Tim Coleman, has more than 34 years of experience as a mining engineer. He has managed contract labor for environmental and property maintenance. He is experienced in refuse impoundment planning, construction oversight, and compliance.

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3.0 Office Locations

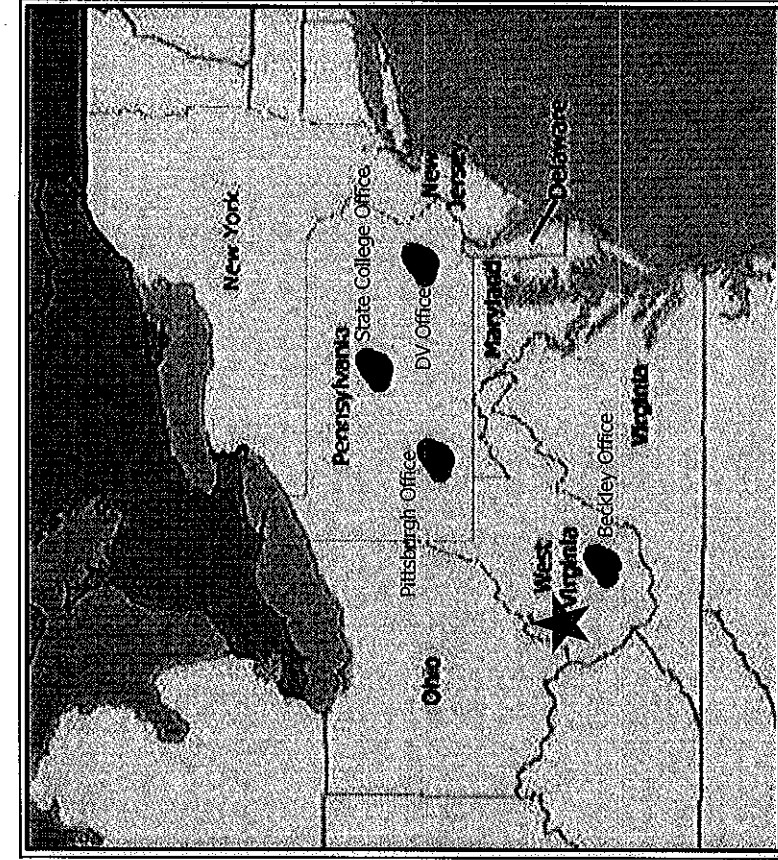
The attached map illustrates the location of the project team's offices. The contract for this project will be administered from the BAI State College (Corporate) Office. Additional technical support for the project team will be provided as required out of our team's other offices located in Pennsylvania and West Virginia.






MAIN OFFICE
 2525 Green Tech Dr. Ste. D
 State College, PA 16803
 Phone: 814.238.2060
 Fax: 814.238.7123

PITTSBURGH OFFICE
 787 Pine Valley Dr. Ste. C
 Pittsburgh, PA 15239
 Phone: 724.733.2060
 Fax: 724.733.2077

DELAWARE VALLEY OFFICE
 649 North Lewis Rd. Ste. 215
 Royersford, PA 19468
 Phone: 610.495.5585
 Fax: 610.495.7652



-  L.A. Gates Office Locations
-  BAI Office Locations
-  Project Location



MAIN OFFICE
 2302 South Fayette Street
 Beckley, WV 25801
 Phone: 304.256.1617
 Fax: 304.256.1617

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**4.0 Consultant Confidential Qualification
Questionnaire**

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

PROJECT NAME Expression of Interest DEP 14619 South Charleston Landfill	DATE (DAY, MONTH, YEAR) May 1, 2009	FEIN 25-1536344
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1. FIRM NAME Blazosky Associates, Inc.	2. HOME OFFICE BUSINESS ADDRESS 2525 Green Tech Drive Suite D State College, PA 16803	3. FORMER FIRM NAME
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4. HOME OFFICE TELEPHONE (814) 238.2060	5. ESTABLISHED (YEAR) 1986	6. TYPE OWNERSHIP INDIVIDUAL, <input checked="" type="checkbox"/> CORPORATION, PARTNERSHIP, JOINT- VENTURE	6A. WV REGISTERED DBE (DISADVANTAGED BUSINESS ENTERPRISE) YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
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7. PRIMARY OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. (name particular type) PERSONNEL EACH OFFICE

2525 Green Tech Drive Suite D
State College, PA 16803
(814) 238.2060
(814) 238.7123

James B. Echard, P.E.
Project Manager/ Certifying Engineer

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM Michael Rudy, President	8a. NAME, TITLE, & TELEPHONE NUMBER-OTHER PRINCIPALS
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9. NUMBER OF PERSONNEL BY DISPLINE (Bold Lettering Indicates Minimum Design Team Members) Detailed information On Team To Be Included

3 ADMINISTRATIVE	— ECOLOGISTS	— LANDSCAPE	2 STRUCTURAL ENGINEERS
— ARCHITECTS	— ECONOMISTS	— ARCHITECTS	
3 BIOLOGIST	1 ELECTRICAL ENGINEERS	— MECHANICAL ENGINEERS	2 SURVEYORS
4 CADD OPERATORS	— ENGINEERS	— ENGINEERS	
— CHEMICAL ENGINEERS	1 ENVIRONMENTALISTS	4 MINING ENGINEERS	— OTHER
6 CIVIL ENGINEERS	1 ESTIMATORS	— PHOTOGRAMMETRISTS	
5 CONSTRUCTION INSPECTORS	3 GEOLOGIST	— PLANNERS:	44 TOTAL PERSONNEL
5 DESIGNERS	— HISTORIANS	— URBAN/REGIONAL	
— DRAFTSMEN	1 HYDROLOGISTS	— SANITARY ENGINEERS	
		1 SOILS ENGINEERS	
		2 SPECIFICATION WRITERS	

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE:
2

*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".

10a. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? YES NO N/A

11. OUTSIDE KEY CONSULTANTS/ SUB-CONSULTANTS ANTICIPATED TO BE USED.

NAME AND ADDRESS: L.A. Gates Company 2302 South Fayette Street Beckley, WV 25801	SPECIALTY: Civil engineering; environmental engineering and permitting; mining engineering; land surveying; structural engineering	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO
NAME AND ADDRESS: Novel Geo-Environmental, LLC 806 B Street St. Albans, West Virginia 25177	SPECIALTY: Geosynthetic and Geotechnical Laboratory.	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO

NAME AND ADDRESS: Geotechnics, Inc. 544 Braddock Ave East Pittsburgh, PA 15112	SPECIALTY: Geosynthetic and Geotechnical Laboratory.	WORKED WITH BEFORE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
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12. *Note: Personnel refers to those who will be working directly on the project:**

A. Are your firm's personnel experienced in Solid Waste Landfill Closure Design?

YES **Description and Number of Projects: 23** (*Denotes multiple years/phases of closure design at project site.)

The following list summarizes Solid Waste Landfill Closure Projects that BAI has completed or are presently engaged. We also included residual/hazardous and construction/demolition landfills in the list. Services provided are generally standard for each site and client, and typically include, at a minimum: Design of the final cap system components, including geotechnical analysis for slope stability concerns; design of leachate collection and management systems; design of the final conditions as they relate to the overall site erosion and sedimentation (E&S) and surface water management plans; permitting; QA/QC plans; bonding calculation; liaison with the client and regulatory agencies; post closure monitoring.

➤ **Residual/Hazardous Landfills (6):**

- PRC Landfill;
- Pennsylvania-American Water Company;
- Elger plumbing (Ohio);
- PaDOT Engineered Rock Placement Area;
- American Color & Chemical (PA);
- Dupont Spelter Smelter Works (WV)

➤ **Construction/Demolition Landfills (3):**

- WM – Phoenix Landfill;
- Veolia Environmental Services (VES) – Lancaster Landfill;
- ERSI Landfill*;

➤ **Municipal Waste Landfills (14):**

- VES - Greentree Landfill*;
- Rosencranse;
- Northern Tier Solid Waste Authority (Bradford and Tioga Counties)*;
- Mifflin County Solid Waste Authority;
- Forest Lawn Landfill;
- Delaware County Solid Waste Authority (DCSWA) – Rolling Hills Landfill;
- Cumberland County Landfill: BFI – Conestoga Landfill;
- Southeast Chester County Refuse Authority (SECCRA) Landfill;
- WM – River Road (RR) Landfill;
- Clinton County Solid Authority – Wayne Township Landfill;
- Carlin Landfill;
- Vogel Seneca Landfill.

Nearly all of these landfills have leachate collection lines which have been designed by BAI. Many of these also have leachate lines which convey leachate off-site to a public sewer and wastewater treatment plant. For the Lancaster Landfill, the leachate line was over 1.5 miles within ROW's and a crossing under state roads. The design utilized two metering pits and both gravity and force main (pumping stations) lines to convey leachate to a POTW. The Conestoga project conveyed leachate over 2.5 miles and was fitted with bypasses for future connections. Metering pits were also designed for this gravity and force main system.

B. Are your firm's personnel experienced in Solid Waste landfill site characterization assessment and evaluation?

YES **Description and Number of Projects: 5**

- Abex- US Bronze
- Cameron County Landfill
- Amity Landfill
- Mount Carmel Landfill
- R.S. Carlin Landfill

BAI is frequently contracted to conduct site characterization assessments on *older* areas of landfills. As part of the

proposed closure activities, BAI can assess the extent of buried waste utilizing a variety of field methods including test pits, direct push technology and surface geophysics at a variety of landfill sites to achieve a variety of goals. For this particular project, ground penetrating radar could be employed as these are useful for determining changes in subsurface lithologies which might indicate subsurface disposal. Test pits and geoprobing, however, may be adequate for delineation of waste, without the need for GPR.

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

YES Description and Number of Projects:

BAI has utilized Aerial Photography and Developed Contour Mapping on numerous projects. BAI does not have the in-house equipment for aerial photography so we utilize outside consultants when necessary. LA Gates will be responsible to provide and acquire any land surveying, aerial photography and develop the necessary contour mapping for this project. Gates will be supplemented by local surveyors in the project area to maximize local knowledge of the site and provide cost effective services.

E. Are your firm's personnel experienced in evaluating ground water contamination, such as may be associated with landfills?

YES Description and Number of Projects: 20+

BAI has completed multiple groundwater characterizations at open and closed municipal, hazardous and construction/demolition landfills. These assessments have included drilling, well construction, sampling, geophysical methods, hydrogeological analyses, groundwater modeling, and data analysis for wide variety of potential and existing impacts including volatile organic chemicals, semi-volatile organic chemicals, metals and general chemistry assessments. All of our landfill design and permit application incorporate measures to monitor water quality. The landfill list is similar to that detailed in above section 12.A.

F. Are your firm's personnel experienced in Landfill Closure cost estimating?

YES Description and Number of Projects: 22

All of our landfill design and permit applications include closure cost pro formas and/or life cycle analysis for establishment of landfill bonds. BAI is also very experienced in estimation closure costs to provide budgets and assessments of contractor bids. The list of projects is also similar to that in above section 12.A.

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.) Rudy, Michael L. P.E./President Project Role: Senior Project Director	YEARS OR EXPERIENCE; 18 Years		
	YEARS OF (type) EXPERIENCE: Project Management 12	YEARS OF (type) EXPERIENCE: Operations 5	YEARS OF (name type) EXPERIENCE: Engineering Design and Permitting 17

Brief Explanation of Responsibilities: Mr. Rudy will serve as Senior Project Manager on this assignment. He has extensive experience in solid waste management and landfill designs including numerous closure projects. He is very knowledgeable of the closure process and requirements. He will assure that the firm's resources are allocated to the project; that experienced personnel are assigned; that schedules are maintained; budgets followed; QA/QC is performed; sub consultants are managed; DEP is kept informed; the scope of work is followed; and deliverables meet requirements.

EDUCATION (DEGREE, YEAR, SPECIALIZATION)

B.S., Civil Engineering. The Pennsylvania State University, University Park, PA.
M.B.A., Finance. Temple University, Philadelphia, PA.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:

Solid Waste Association of North America

REGISTRATION (Type, Year, State)

Professional Engineer: PA 9/30/2009, DE 6/30/2010, MD 2/1/2011

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.) Echard, James B., P.E. Senior Engineer/ Project Manager	YEARS OF EXPERIENCE: 14		
	YEARS OF EXPERIENCE (name type): Landfill Design & Construction 14	YEARS OF EXPERIENCE (name type):	YEARS OF EXPERIENCE (name type):

Brief Explanation of Responsibilities: Responsible for the design, permitting and construction oversight of landfill liners, caps, gas systems, leachate collection and storage systems, etc.

EDUCATION (Degree, Year, Specialization)

B.S., Civil Engineering. The Pennsylvania State University, University Park, PA.
M.S., Environmental Engineering. The Pennsylvania State University, University Park, PA.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS Solid Waste Association of North America American Society of Civil Engineers Tau Beta Pi – National Engineering Honor Society Chi Epsilon – National Civil Engineering Honor Society	REGISTRATION (Type, Year, State) Professional Engineer: PA 9/30/2009, WV 6/30/2009, OH 12/31/2009, MD 3/20/2010, VA Pending.
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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.) Blazosky, John J., P.E. Director of CQ/CA	YEARS OF EXPEIRENCE: 35		
	YEARS OF EXPERIENCE (name type): Engineering Design, Permitting & Construction 35	YEARS OF EXPERIENCE (name type): Industrial Compliance 20	YEARS OR EXPERIENCE (name type): Wetland Projects 22

Brief Explanation of Responsibilities: Supervise quality assurance/quality control personnel. Conduct progress and status meetings, including development of project schedule.

EDUCATION (Degree, Year, Specialization)
B.S., Civil Engineering, The Pennsylvania State University (PSU), University Park, PA
Graduate Courses and Research, Sanitary Engineering. PSU, University Park, PA

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS Chi Epsilon, Civil Engineering Honor Society Technical Advisory Committee for Pennsylvania Waste Industries Association, 1992-1994 Solid Waste Association of North America American Academy of Environmental Engineers with specialty in Solid Waste Management (DEE)	REGISTRATION (Type, Year, State) Professional Engineer: PA 9/30/2009; WV 6/30/2009; MD 4/13/2009; NJ 4/30/2010; NY 12/31/2011; OH 12/31/2009; OK 9/30/2009; VA 10/31/2010;
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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.) Cantley, Jerry W. Jr., P.E. & P.S. Vice President Civil Engineering L.A. Gates Company	YEARS OF EXPERIENCE: 15		
	YEARS OF EXPERIENCE (name type) Civil Engineer 15	YEARS OF EXPERIENCE (name type) Surveyor 14	YEARS OF EXPERIENCE (name type)

Brief Explanation of Responsibilities
Construction oversight, Civil Engineering, and Survey work.

EDUCATION (Degree, Year, Specialization)
West Virginia Institute of Technology, B.S. Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS National Society of Professional Engineers	REGISTRATION (Type, Year, State) Professional Engineer: WV 1994; VA 2003; Professional Surveyor: WV 1995
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14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE THIS PROJECT (name project)

Blazosky Associates, Inc. (BAI) Software and Equipment

BAI carefully selects equipment that will make us more efficient to our clients. We generally avoid the latest technological fad, viewing new technology as an investment. However, we are continually upgrading and expanding our information systems to keep up with the many changes in analyzing, describing, and transmitting information to each other and to our clients.

Information Technology: BAI maintains a modern equipment base to assist in providing high quality products efficiently. Our technical personnel utilize an extensive array of computer systems to perform complex design calculations and computer modeling. BAI also has desktop publishing with graphics capability, color laser and oversized document printers, and comprehensive software packages to provide rapid turnaround when producing or revising reports and documents. BAI continually upgrades computer systems to enhance document quality and office efficiency. Of course, each of our offices maintains copier and fax machines.

Field-Based Information Technology and Communication: BAI firmly believes that information technology needs to be accessible beyond our office settings. For this reason, we have laptop computers with wireless modem capability available for our professionals' field and remote use. High-resolution digital cameras and silver halide-based photographic supplies provide our field

professionals a wide range of imaging capabilities. All of our professional services and field staff have cellular telephones to ensure accessibility from the field to clients and project team members. For communications on large sites on which there is not cellular reception, we often utilize VHF radio communication.

CAD and GIS Technology: BAI graphic design professionals provide designs and plans for presentation of project deliverables. We are equipped and staffed to assure immediate reproduction of project plans and presentations. BAI's computer-aided design (CAD) capability further increases efficiency and accuracy of graphic representation. We efficiently generate high-resolution topographic plans, cross sections and cut-and-fill volume calculations. The CAD computer systems utilize modern technology such as AutoCAD Civil 3D software to provide accurate graphic representations with maximum efficiency and cost effectiveness. We utilize a 36" high-resolution, full color plotter for printing engineering diagrams, plans, and over-sized documents.

We also utilize GIS to build and produce maps and diagrams incorporating multiple layers of information. Utilizing surveyed data as well as data located with our handheld GPS equipment, BAI has the capability of customizing and revising client-provided and publicly-available data layers to efficiently produce task-specific maps. In addition to producing standard to oversized printouts of GIS-based diagrams, we have developed GIS-based presentations on behalf of our clients.

Geotechnical/Construction Management Field Equipment: BAI possesses an extensive supply of field equipment for Construction Management and QA/QC programs. We are licensed and own several Troxler, Model 3440, Surface Moisture-Density Gauges for measuring *in situ* moisture content, density, and compaction of soils ranging from clays to soil/stone matrices. The Model 3440 is one of the most accurate instruments of its type available to construction engineers and QA/QC personnel, providing over 30 special functions to insure fast, reliable test results at the testing site.

BAI can also provide the necessary field-lab equipment for our staff to conduct the following tests:

Standard Proctor	ASTM D-698
Sand Cone	ASTM D-1556
Thin-Walled Tube Sampling	ASTM D-1587
Standard Oven Dry	ASTM D-2216
Nuclear Density Testing	ASTM D 2922
Nuclear Moisture Testing	ASTM D-3017
Drive Cylinder	ASTM D 2937
Atterberg Limits	ASTM D-4318
Microwave Oven Dry	ASTM D-4944
Moisture Content By Direct Heat	ASTM D-4959
Two-Stage Borehole Test	ASTM D-6391

Water Quality and Waste Sampling Equipment: For water quality and waste sampling and monitoring, BAI owns an extensive inventory of pumps, generators, balers, water level probes, hoists, and specialized sample collection equipment. As a full service consultant in environmental services, we possess all equipment normally used to collect surface and ground water samples, solid and sludge samples, macroinvertebrate samples, and asbestos. With instrumentation changing rapidly for more complex projects such as multi-media remediation, BAI typically leases the latest proven technology. This approach has proven more cost effective than owning and maintaining outdated technology.

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
Greentree MSW LF; 10 Acre Cell Liner; Elk County, PA	Veolia Env'l Services; Kersey, PA	Design, Permitting, Bid Docs, QA/QC, Certifying Engineer	\$2,000,000.00	10% (Ongoing)
Dupont Chamber Works Landfill; 1.5 Acre Cap Deep Water, New Jersey	Dupont Chemical Solutions	QA/QC, Certifying Engineer	\$400,000.00	80% (Ongoing)
Phoenix Landfill Construction/Demolition Waste Landfill; 14 Acre Cap; Tioga County, PA	WM - Phoenix Antrim, PA	Design, Permitting, Bid Docs, QA/QC, Certifying Engineer	\$1,800,000.00	20% (Ongoing)
ERPA RSW LF 21 Acre Cap; Centre County, PA	PaDOT; District 02; Clearfield, PA	Design, Permitting, Bid Docs, QA/QC, Certifying Engineer, Operations	\$15,000,000.00	95% (Ongoing)

Seneca MSW LF; 4 Acre Cell Liner; Delaware County, PA	Vogel, Inc.; Butler County, PA	Design, QA/QC, Certifying Engineer	\$800,000.00	10% (Ongoing)
Seneca MSW LF; 7 Acre Cap; Delaware County, PA	Vogel, Inc.; Butler County, PA	Design, QA/QC, Certifying Engineer	\$910,000.00	70% (Ongoing)
Cecil County Dept Public Works 20 Acre MSW LF; Cecil County, MD	CCDPW; Northeast, MD	Design, Permitting, Bid Docs, QA/QC, Certifying Engineer	\$2,600,000.00	20% (Ongoing)
TOTAL NUMBER OF PROJECTS:			TOTAL ESTIMATED CONSTRUCTION COSTS:	
# 7			\$24,410,000.00	

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS RELATING TO LANDFILL CLOSURE AND CONSTRUCTION.					
PROJECT NAME, TYPE, AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST:	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
NA	NA	NA	NA	NA	NA

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)
Dupont Smelter Spelter Site; 50 Acre Cap; Spelter, West Virginia	Dupont	\$10,000,000.00	2004	YES
Greentree MSW LF; 60 Acre Cap; Elk County, PA	Veolia Env'l Services; Kersey, PA	\$7,800,000.00	2002-2007	YES
Phoenix C/D LF; 20 Acre Cap; Tioga County, PA	Waste Management – Phoenix; Antrim, PA	\$8,000,000.00	2004-2008	YES
ERPA RSW LF; 21 Acre Liner and Cap; Centre County, PA	PaDOT; District 02: Clearfield, PA	\$15,000,000.00	2006-2008	YES
Rolling Hills MSW LF; 20 Acre Cap; Delaware County, PA	DCSWA; Delaware County, PA	\$2,600,000.00	2006-2008	YES
Seneca MSW LF; 7.6 Acre Cap; Butler County, PA	Vogel, Inc.; Butler County, PA	\$910,000.00	2006	No
Barner No. 2 MSW LF; 20 Acre Cap; Mifflin County, PA	Mifflin County Solid Waste Authority; Lewistown, PA	\$2,600,000.00	2005-2006	YES

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

NA	NA	NA	NA	NA	NA
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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.

1. BAI possesses significant expertise and experience in the site characterization, leachate management, closure cap design, and QA/QC for a wide variety of landfills. BAI is recognized as one of the specialty leaders in solid waste management and landfill design and operations, having been involved in hundreds of landfill projects over the past several years. Although BAI has not had the opportunity to contract directly with the West Virginia DEP it has worked very closely with the PA DEP on many similar assignments and projects. BAI is, therefore very experienced in working with regulatory entities such as West Virginia DEP.
2. BAI has associated with LA Gates Engineering Consultants of Beckley, West Va on this project. LA Gates is based in West Virginia and, thus is very familiar with local ordinances and permitting requirements, environmental permitting procedures, construction contractors, etc. The firm specializes in civil, mining, environmental structural and transportation engineering as well as surveying, field data collection, construction management, and other services required for this assignment. BAI has entered into a strategic teaming arrangement with LA Gates to provide services on this and other projects throughout West Virginia. The firm has an excellent reputation throughout the state and is well respected by the various state agencies.
3. BAI's and LA Gates' combined staff consists of professionals and technicians with many years of experience in solid waste management and landfill design and operations. Staff includes professional engineers and surveyors licensed in West Virginia and Certified Professionals and Field Supervisors and Technicians in landfill construction.
4. BAI is very familiar with Federal and West Virginia procedures and regulations for closing landfills. The firm has a long history with the Solid Waste Industry's Protocols and Technologies for landfill design, operations, construction and closure, including leachate management, synthetic liners and caps, groundwater remediation and monitoring and post-closure monitoring.
5. BAI staff is very experienced in the utilization of state of the art Design Software, GIS technology including 3-D modeling, and Geotechnical applications and Construction Management field activities and equipment.
6. The offices of LA Gates are relatively close to the project site and BAI offices are reasonably located as well. We believe that both firms are well positioned to respond to this closure assignment in a timely and cost effective manner.

20. The foregoing is a statement of facts

Signature: Michael L. Rudy
 Title: President
 Printed
 Name: Michael Rudy

Date: MAY 1, 2009

**West Virginia Department of Environmental Protection
Landfill Closure Design & QA/QC**

Expression of Interest – DEP 14619
South Charleston Landfill

Site Characterization Study, Leachate Management and Closure Cap Design and Quality Assurance/Quality Control

5.0 Appendices

- a) **Similar Project Profiles**
- b) **Resumes**
- c) **Purchasing Affidavit**

- *Landfill Design Services*
- *Construction Management and Inspection*

- *Permitting Services*
- *Geotechnical Services*
- *Water Monitoring Services*

PROJECT PROFILE

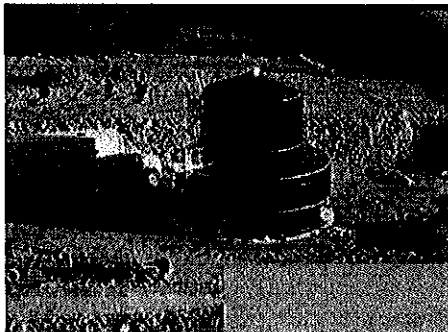
**Interstate 99 Acid Rock Remediation
Engineered Rock Placement Area
Pennsylvania Department of Transportation**

We stepped in to get a stalled highway project back on track and save the taxpayers money.

During excavation for a portion of Interstate 99 in Central Pennsylvania, pyritic rock was uncovered. When exposed to oxygen and water, pyrite creates sulfuric acid, meaning it was worth spending millions on this cleanup. One of the Pennsylvania Department of Transportation's solutions to the problem was to move the acid rock to a lined disposal site known as an engineered rock placement area. Because of our experience, PennDOT hired Blazosky Associates, Inc. as consultant.

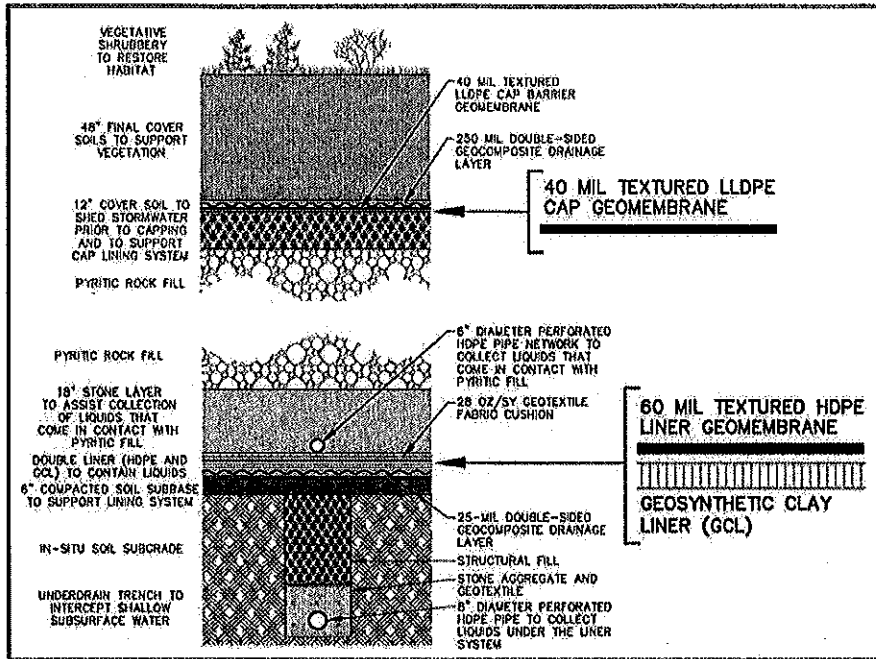


We moved quickly to find a creative solution for the rock placement area that included design, permitting, construction, operation, water management, closure, monitoring and public relations. One of the first tasks was to find several suitable locations for a disposal site. BAI found a nearby yet rather remote section of the new highway where off-road trucks could be used to haul nearly 1.3 million tons of pyrite-laden rock, providing a real cost saving and minimal impact to local traffic.



To provide a total environmental solution to this very public and intensive project, Blazosky Associates, Inc. teamed with WHM Solutions Inc., a solutions company already working with the state Department of Environmental Protection on other matters. We thoroughly investigated the site on an expedited schedule. The science included a plan for mixing the pyritic rock with baghouse lime to neutralize the acid. The BAI/WHM team presented its plans at a number of public meetings that included the secretaries of PennDOT and the Department of Environmental Protection, as well as committee members from the Pennsylvania House and Senate.

Upon permitting, BAI provided Construction Quality Assurance, including on-site observation and documentation of construction activities, material testing to assure conformance with the specifications, and certification by a professional engineer that the construction was completed in accordance with the permit. We provided certification for the entire construction team, which included the installers of the liner and cap systems, installation of groundwater monitoring wells, geotechnical monitoring instrumentation to measure soil pore pressures, and close monitoring of all filling operations.



Bringing a client value – a goal of Blazosky Associates, Inc. – our team employed a landfill customer to provide the operations equipment and know-how. All parties worked closely to mix and compact more than 1.4 million cubic yards of materials within an eight-month period, hauling up to 20 hours per day. All water mixing with the engineered rock placement area material was hauled to a wastewater treatment plant by a team member.

Closure employs a unique final cover system – a geomembrane welded to the lining system so the pyritic material is completely sealed off from the environment. Finally, there is a 4-foot soil cap appropriate for native vegetation of grasses, shrubs and small trees.

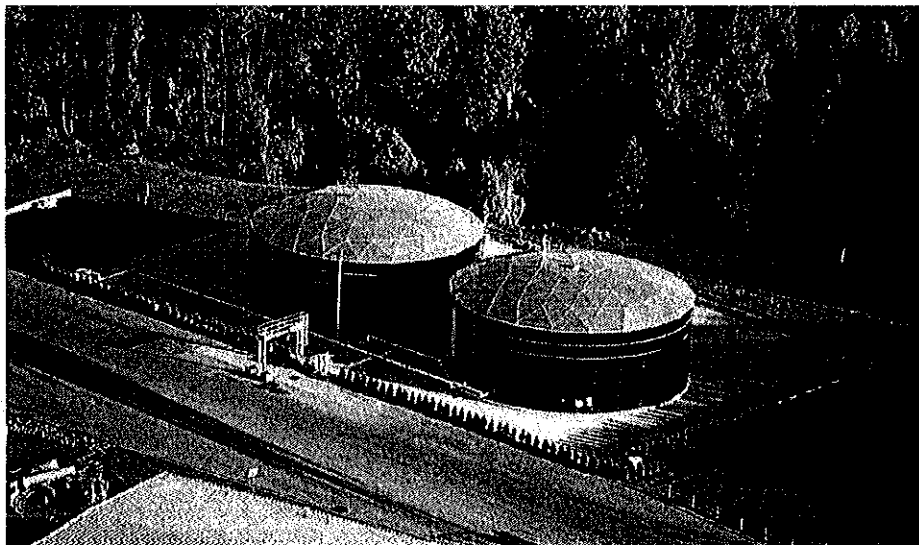
Our relationships with regulators, creativity and partnerships allowed a massive project to be completed rather quickly. Blazosky Associates, Inc. will continue to monitor the progress of the vegetation and water quality in the vicinity, and to provide recommendations on infiltrate water treatment management.



Leachate Management Southeastern Pennsylvania

Blazosky Associates, Inc. has played an instrumental role at one of the largest landfills in Pennsylvania, providing engineering and field services for the entire leachate collection, piping, storage and treatment systems. This has included design and permitting, construction management, construction quality assurance, quality control inspection and certification, operation and compliance assistance, monitoring, sampling and reporting.

Leachate storage requirements for the permitted 153-acre footprint necessitated the installation of two 1,125,000-gallon storage tanks, one ultimately to be used for pre-treatment and one for post-treatment. The tanks are steel bolted with factory-applied, glass-fused lining and a concrete secondary containment structure.



For the first several years of operations and prior to installation of an on-site treatment facility, an automated leachate load-out station was utilized for the pumping of leachate into vehicles for off-site treatment. The hauling of leachate is now only used in emergencies.

Once the landfill was constructed and operational, BAI analyzed the volume and quality of the leachate. On-site treatment would need to handle up to 50,000 gallons per day, the approximate average daily volume generated in the lined landfill. We prepared a request for quotation to vet the list of leachate treatment vendors. All proposals were evaluated for technical as well as financial merits.

In the end, a state-of-the-art reverse-osmosis unit was selected, and the vendor agreed to treat the leachate on a cents-per-gallon basis, with the system being operated by the vendor's on-site employee. That was attractive to the owner, who did not want the burden of treatment-plant operations.



Interior view of reverse-osmosis self-contained, modular treatment unit

Another attraction to the owner was the flexible, modular design of the reverse-osmosis system. Although it's designed to treat 50,000 gallons per day, the addition of supplemental canisters can increase the treatment capacity as the leachate generation and treatment needs for the landfill expand. The self-contained modules also can be moved if the treatment plant is relocated during future site expansion.

In order to incorporate the treatment plant into the existing leachate management system, numerous additions and revisions were made, including:

- Installation of a 217,000-gallon, post-treatment, dual-contained storage tank.
- Installation of more than two miles of outfall discharge pipeline.
- Retrofitting of the existing tank farm to allow for a new, fully automated piping/pumping control system to convey leachate and treated permeate between the three storage tanks, the treatment plant and the outfall.

BAI assisted with the design of the treatment plant components and the extensive piping network to allow the maximum amount of flexibility for future needs. The three storage tanks are plumbed to be used as pre- or post-treatment storage. The tanks as well as the treatment plant also were designed for the possibility of relocating for future landfill expansion.

Blazosky Associates also assisted with defining data need requirements, computer-screen layouts and reporting for the System Control and Data Acquisition process that controls and monitors leachate management.

We prepared applications and obtained the required permits – waste management, air quality and National Pollutant Discharge Elimination System – for the treatment plant, storage tank and outfall, as well as obtaining local land development approvals.

In addition to quality assurance and certification services, BAI also provided day-to-day construction management of the plant and storage tank installation, including contract negotiations, contractor scheduling and oversight, start-up operations and troubleshooting, daily operational oversight, monitoring, compliance reporting and recordkeeping. Following permitting and construction, the plant has been operating successfully since 1999.



Interior view of reverse-osmosis treatment plant (self-contained modular units in background)

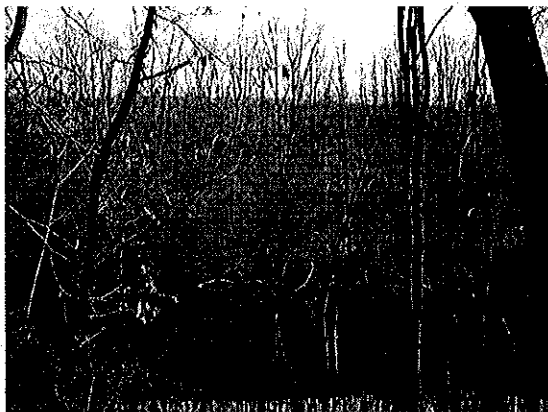
- Landfill Design/Permitting
- Construction Management and Inspection
- Due Diligence
- Hydro/Geologic Studies
- Compliance

PROJECT PROFILE

**Veolia ES Lancaster, LLC
Veolia ES Lancaster Landfill**

Blazosky Associates, Inc. has provided waste management consulting services to Veolia ES Lancaster, LLC for more than 50 landfill projects, and we've been the lead engineer in the design and permitting for its 22-acre expansion.

We've provided engineering assistance, due diligence, construction management and quality assurance inspection since Veolia acquired the landfill in Mount Joy Township, Lancaster County, Pa. The site currently includes a 46-acre disposal area and a leachate storage facility.



In 2007, BAI submitted an application to permit a 22-acre expansion of the site. The proposed expansion involves both vertical and lateral expansion of the disposal area. Several ancillary environmental items need to be addressed in order to secure the permit, including wetlands mitigation, reclamation of an onsite quarry highwall, and demonstrating that the expansion will not impact streams adjacent to the site.

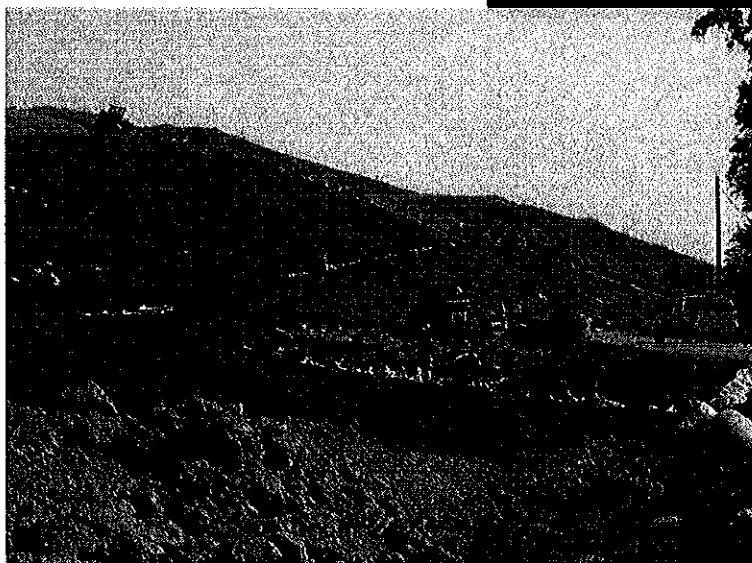
Blazosky Associates and Wetlands Habitat Management are working closely with the state Department of Environmental Protection and U.S. Army Corps of Engineers, because the expansion is considered a significant impact to wetlands formed within an abandoned quarry. WHM has proposed several large wetland mitigation sites that would meet all of the needs of the landfill expansion. This approach would allow for a superior wetland mitigation site that would provide greater environmental benefits and lower overall costs to Veolia.

Over the last five years, BAI has provided the field engineering and certification services for the development and closure of the facility, primarily involving six liner-system installations (26.6 acres) and two cap installations (9 acres). We have worked closely with various field and review personnel from the Department of Environmental Protection, and we've developed a trust between the client, regulatory agencies and numerous contractors that is necessary for the success of projects of this caliber.



As our relationship with Veolia and the Department of Environmental Preservation has grown, we've been able to economize by working with all parties on items such as review and streamlining of the construction quality assurance plan, and subsequent modification of construction materials to reduce cost without compromising the final product or the certification process.

An example of this is evaluating different combinations of aggregates and geotextiles used in the protective cover layer of the liner system. We also have economized our daily field inspection efforts by training the earthworks contractor in the placement and conditioning of the structural fill and subbase layers, thereby reducing our daily presence during the installation of these components.



In addition, Blazosky Associates, Inc. accomplished several other projects for the Veolia ES Lancaster Landfill. These include various site-plan modifications, hydrogeologic and groundwater investigations, permitting, liner system modification, quarterly groundwater monitoring and annual operation reporting.

Key Projects – L.A. Gates

L.A. Gates Company has designed a myriad of projects throughout its 24 year history. Gates has performed virtually all phases of the design for the projects listed. Below is a summary of the tasks performed.

- Surveying
- Roadway Design
- Bridge Design
- Civil Site Design
- Project Management
- Water System Design
- Wastewater System Design
- Construction Administration
- Construction Inspection
- Subconsultant Management
- Mine Permitting
- Mine Planning
- Coal Reserve Study

Flat Top Lake Wastewater System

Ghent, West Virginia

Shady Spring Public Service District

Gates performed all aspects of design, surveying, contract administration and construction inspection on this project. The project consisted of a new 200,000 gallons per day Sequencing Batch Reactor (SBR) Wastewater Treatment Plant to treat the sewer flow from the nearby resort community of Flat Top Lake as well as several commercial businesses at the Ghent Interchange including the Winterplace Ski Resort.



In addition to the new the Wastewater Treatment Plant the project also include a low pressure grinder pump pressure sewer system to the 270 residences around Flat Top Lake. This system utilized individual grinder pumps at each residence to create a low pressure system which is ideally suited to the complex terrain of residences around a lake.

Construction Cost: \$7,800,00000

Shady Spring Wastewater Treatment Plant

Glen Morgan, West Virginia

Shady Spring Public Service District

Additional treatment capacity was needed at this plant which utilizes the extended aeration activated sludge treatment process. Wastewater flows received at the plant were periodically higher than the plant's rated capacity of 0.8 million gallons per day. Effective treatment was not being accomplished during these periods of higher flow. The headworks grit removal system was not functioning properly. A more effective means of

sludge dewatering was needed to replace the sludge drying beds. Disinfection of plant effluent was accomplished through chlorination/dechlorination. This disinfection process was undesirable due to the hazardous nature of the chemicals required.

The plant was upgraded to a capacity of 1.2 million gallons per day. The improvements made at the plant included a new headworks with mechanical filter screen equipped with screenings compactor and a vortec grit removal unit. A new 400,000 gallon rectangular aeration basin and 32 foot diameter clarifier were constructed. The aeration basin utilizes a fine bubble aeration system. A new 1.2 meter tower-type belt filter press was installed for sludge dewatering. An ultraviolet disinfection system was added to for disinfection of plant effluent.



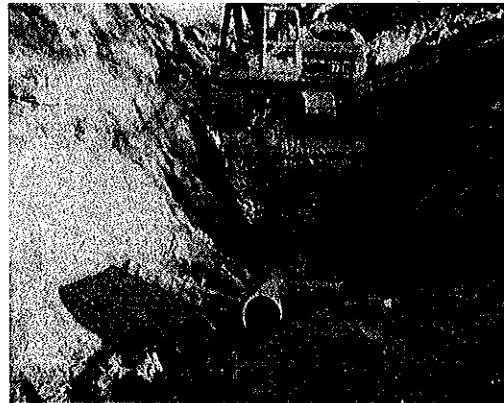
Construction Cost: \$1,642,000

Ward Park/Beaver Creek Sewer Interceptor

Glen Morgan, West Virginia
Shady Spring Public Service District

The project consisted of construction of new interceptor and collector sewers for the purpose of providing service to new customers within the Public Service District. The new system replaced smaller collection and treatment systems serving housing subdivisions. It also replaced individual septic systems in other areas. Areas served as a result of this project include: Ward Park Subdivision, Tilden Subdivision, Skyline Drive, Mont Phillips Road, Lamplighter Drive and C&O Dam Road. There were approximately 255 customers added as a result of this project.

The new system includes approximately 22,000 linear feet of 6-inch pipe, 51,000 linear feet of 8-inch pipe, 5,000 linear feet of 10-inch pipe, 1,000 linear feet of 12-inch pipe, , 5,000 linear feet of 15-inch pipe, grinder pump stations, force main pipe, 300 manholes, and cleanouts. Also included were highway crossings, stream crossings, and dam modifications.



Construction Cost: \$4,000,000

Greenbrier Avenue Bridge

State Project No. S313-60/87-0.02
Greenbrier County, WV

Study, design, and preparation of a bridge replacement study, contract, plans, R/W plans and environmental documents for the replacement of the existing truss bridge on Greenbrier Avenue (CR 60/87) over Howard's Creek. The existing bridge was replaced by a 152 ft prefabricated steel truss bridge.



Estimated Construction Cost: \$1.1 Million

US 220 Ramp Connector Bridge

State Project No. X316-H-100.40
Hardy County, WV

Study, design and preparation of construction documents for a new bridge along Corridor H over Dumpling Run and the South Branch Valley Railroad near Moorefield, WV. The new bridge is a 615 ft. four span steel plate girder structure. Gates was a subconsultant to Michael Baker on this project.



Construction Cost: \$4.3 Million

B&O Railroad Underpass Bridge

State Project No. S301-119-15.86
Barbour County, WV

Study, design and preparation of construction contract plans and related documents for the replacement structure and necessary roadway approaches to replace the existing B&O Railroad Underpass Bridge. The replacement bridge is a curved 345 ft. four span steel plate girder structure.



Construction Cost: \$2.5 Million

Stollings - Logan Road

State Project S323-10-19.39 00
Logan County, WV



Study, design, and preparation of construction contract plans and related documents for a segment of WV 10 beginning on the west side of the Guyandotte River approximately 1.0 mile south of Logan Boulevard and extending northward to Logan Boulevard, and for a connector from WV 10 to WV 17 and existing WV 10 across the river at Stollings. The project includes a bridge on the connector spanning the Guyandotte River, existing WV 10 and the railroad, a bridge on the relocation of existing WV 10 over the railroad and Dingess Run, a sideroad bridge on Dingess Run, and a mainline bridge over the river near the end of the project. The mainline will be a four-lane facility with a 46' median and a design speed of 65 miles per hour.

LAG Project No.: 10111.778

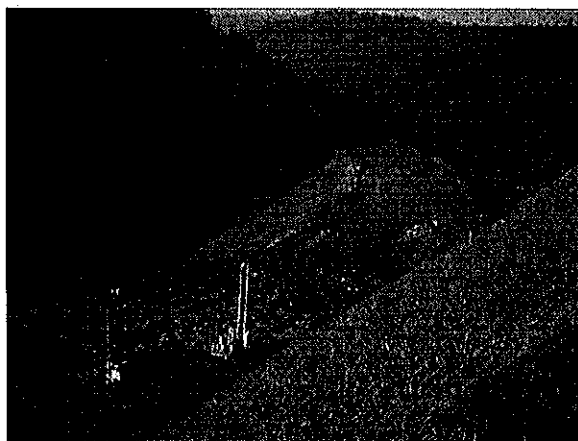
Estimated Construction Cost: Section 02 \$9,900,000

Section 03 \$12,000,000

Section 04 \$23,500,000

**Slab Fork – Surveyor Creek Road
(Coalfields Expressway)**

State Project No. X341-121-560 00
Raleigh County, WV



Study, design and preparation of R/W documents and Construction Contact Plans for a 2-mile portion of the Coalfields Expressway, a four-lane facility with a 46' median and a design speed of 65 miles per hour.

*Estimated Construction Cost: \$26.7
Million*

President

Michael Rudy, P.E., has been in the environmental field, specializing in the solid waste management sector for over 17 years. During this period, Mr. Rudy has been involved with the design, permitting, construction and operation of numerous municipal, construction/demolition and residual waste management projects. While he serves as an officer of the company, he is very active in the management of projects ranging from preparation of conceptual designs to performing due diligence investigations on potential acquisitions for our clients. Mr. Rudy has extensive experience working with national solid waste management corporations, as well as municipally owned authorities. His diverse background encompasses a unique combination of services that allows him to provide his clients with efficient solutions for their projects.

Education

B.S., Civil Engineering. The Pennsylvania State University, University Park, PA.

M.B.A., Finance. Temple University, Philadelphia, PA.

Registrations

Professional Engineer: Delaware, Pennsylvania, Maryland.

Project Experience*Project Management*

- Conduct investigation of a municipal waste landfill located in southeastern Pennsylvania producing abnormal levels of heat and hydrogen.
- Develop design and permitting activities associated with a waste transfer facility in support of river dredging operations located in the City of Philadelphia.
- Complete permitting/construction oversight activities associated with closure/post closure activities for a hazardous waste land farm treatment unit located in Philadelphia, PA.
- Oversight of permitting and design activities associated with the 130 acre expansion application of a municipal waste landfill facility located near Morgantown, PA.
- Preparing due diligence reports, permit modifications and construction quality assurance work for a construction/demolition landfill and tire processing facility, located in Lancaster County, PA.
- Permitting and construction of a landfill gas extraction system associated with controlling the release of fugitive VOCs into groundwater for a closed municipal waste landfill located in Wayne County, PA.
- Development of landfill gas management system to abate odors associated with a construction/demolition landfill facility located in northeastern Pennsylvania.
- Preparation of permit application for a proposed 140 acre construction/demolition landfill located in Schuylkill County, PA.
- Complete numerous solid waste permit design modifications associated with operation of the municipal solid waste transfer stations servicing the City of Philadelphia.
- Coordinating permit application and construction quality assurance for closure of a 25-acre municipal waste landfill facility located in northeastern Pennsylvania.
- Complete permitting activities associated with the development of a construction/demolition landfill located in Lackawanna County, Pennsylvania.

Engineering Design and Permitting

- Assisted lead consulting firm with the preparing permit applications associated with re-design activities associated with municipal waste landfills located in Dunmore, PA and Hegins, PA.
 - Lead design member for an approximate 150-acre expansion of the R&B Landfill, Homer GA.
 - Managed design team responsible for development of the Phase III Pellegrine Sanitary Landfill Lateral Expansion Application, located in Coral, Pennsylvania.
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- Lead design member associated with permitting a transfer station in northeastern Pennsylvania.
- Preparation of wetland mitigation and design options for expansion of the Quail Hollow Landfill, located in Tullahoma, TN.
- Development of construction drawing packages for the Clearview Landfill, Lake, MS and Pine Bluff Landfill, Ball Ground, GA.
- Served as an expert witness regarding several solid waste permit appeal cases in Pennsylvania.

Operations

- Site Manager responsible for start-up activities associated with a 500 tpd construction & demolition landfill facility located in Taylor, PA. Responsibilities included construction of approximately 20 acres of disposal area, refurbishment of heavy equipment fleet, establishment of all revenues required to operate facility and complete capital projects, hiring and management of employees. Completed tenure as site manager with annual gross revenue of approximately \$2.4 million.
- Assistant Operation Manager for a mid-west municipal waste hauling company that was comprised of rear load, roll-off, lugger and tractor trailer hauling vehicles.
- Assisted in operations/construction management activities for a 800 tpd municipal waste landfill facility located in Brown City, MI.

Conferences and Seminars

PWIA/SWANA/DEP/PA HMI Technical Meeting, "Building Solid Partnerships – Eleventh Annual Fall Conference- Waste Industry Priorities 2008", Penn Stater Conference Center Hotel, State College, PA, September 3 and 4, 2008.

PWIA/SWANA/DEP/PA HMI Technical Meeting, "Building Solid Partnerships – Eighth Annual Fall Conference - Waste Industry Priorities 2005", Penn Stater Conference Center Hotel, State College, PA, September 2005.

"Act 2 Land Recycling Program Client Workshop", Pennsylvania Department of Environmental Protection, Valley Forge, PA, April 2004.

Specialty Seminar, "Municipal Waste Technical Conference," PWIA/Solid Waste Association of North America, State College, PA, 1998, 2002.

Seminar, "Design/Build – Wave of the Future." Eastern Risk Specialists, Inc., Philadelphia, PA 1999.

Seminar, "MQC/MQA and CQC/CQA of Geosynthetics," Geosynthetics Research Institute, Philadelphia, PA, 1993.

Seminar, "Advanced Landfill Design, Construction, and Closure," New York State Department of Environmental Conservation, Albany, NY, 1990.

Seminar, "Structural Synthetic Geogrids for Waste Facility Applications." The Tensar Corp., Pittsburgh, PA, 1990.

Seminar, "Landfill Closures: Geosynthetics, Interface Friction and New Developments." Geosynthetic Research Institute, Philadelphia, PA, 1990.

RESUME

Patrick M. Murphy, P.E.

Vice President Environmental Engineering

11 Years Experience

EDUCATION:

Master of Science – Engineering – Environmental , Marshall University, 2003

Bachelor of Science – Civil Engineering Technology, Fairmont State College, 1997

REGISTRATION:

Registered Professional Engineer, West Virginia, No. 16001

EXPERIENCE:

Mr. Murphy has over 11 years of experience in engineering, permitting and construction, primarily in the mining industry. He also has experience with public water systems and water treatment as the District Engineer for the WV Department of Health and Human Resources public. Through the majority of Mr. Murphy's career, he has performed in the functions of project management, senior engineer and personnel management.

Engineering

- Surface Water Hydrology
- Stormwater Runoff Control Structures
- Sediment Control Structures
- 3-D Geotechnical Design/Modeling
- Stability Analysis
- Valley Fill Designs
- Coal Reserve Analysis
- Water Treatment and Analysis

Permitting

- Surface/Deep Mines Permits
- NPDES Permits
- Air Quality Permits

- Quarry Permits
- Industrial Stormwater Permits
- USCOE 404 Permits
- WVDEP 401 Permits
- Project Management

Construction

- Estimating
- Soils & Concrete QA/QC
- Project Management
- Laboratory/Field Soils Testing & Analysis
- Laboratory/Field Concrete Testing and Analysis

TEN MOST RECENT REPRESENTATIVE PROJECTS:

- Sewell Mine No. 1- Curtin, West Virginia
3-D geotechnical modeling and drainage structure design for a slope deep mine with haulroad, spoil disposal structure, and stormwater/sediment control structures.
- Midland Trail Surface Mine No. 1- Rupert, West Virginia
3-D geotechnical modeling and design; hydrology and drainage structure design for surface and auger mine operation; Surface Water Runoff Analysis of affected watersheds, stormwater/sediment control embankment structures and dugout stormwater/sediment control structures; geotechnical modeling/design of 3-D grid generation, excavation/fill volumes, regrade/reclaim design and stability analysis.
- Dents Run Impoundment Abandonment, Marion County, West Virginia
Engineering, hydrology, reclamation design, permitting for impoundment abandonment.
- Tate Run Surface Mine, Drennen, West Virginia
Hydrology analysis and design of existing stormwater and sediment control structures on a mountain top removal surface mine; recommended required structure redesigns.

- **Buck Lilly Surface Mine, Rupert, West Virginia**
3-D geotechnical modeling and design, hydrology and drainage structure designs for both WVDEP Surface Mine Permit and WVDEP AML No Cost Reclamation Agreement; engineering of mining and reclamation activities performed to meet the criteria of both agencies; reclamation design to segregate acid mine drainage and stormwater runoff; design of numerous fresh water and AMD drainage structures.
- **Source Water Evaluation and Design**
Source water evaluation of the Buffalo Creek Watershed in effort to identify potential sources of fresh water required for make-up water to the preparation plant; assisted in the design of conveyance and storage system for the water.
- **Longbottom Surface Mine, Sharon, West Virginia**
3-D geotechnical modeling and design for excavation and reclamation activities associated with highwall miner operation; design of hydrology and drainage structures, embankment structure and numerous dugouts.
- **Four Mile Surface Mine, Paint Creek, West Virginia**
3-D geotechnical modeling and design for the excavation and reclamation activities associated with mountaintop mining activities; hydrology and design of embankment and dugout structures; surface water runoff analysis for associated watersheds.
- **Wildcat No. 2 Surface Mine, Sharon, West Virginia**
3-D modeling and design for excavation and reclamation of a mountaintop mine operation; performed hydrology and drainage structure designs associated with operation including embankment structures and numerous dugout structures; performed Surface Water Runoff Analysis for all associated watersheds.
- **Paynter Branch South Surface Mine, Cyclone, West Virginia**
3-D geotechnical modeling and design for a surface mine operation; design of embankment drainage structures and numerous dugout structures; Surface Water Runoff Analysis for the associated watersheds.

CONTINUING EDUCATION:

- Acid Mine Drainage Task Force Seminar, April 2009, AMD Task Force, Morgantown, WV
- Coal Refuse Disposal Facility Seminar, April 2008, Geo/Environmental Associates, Charleston, WV
- Approximate Original Contour (AOC) Workshop, February 2008, WVDEP, Logan, WV
- Erosion Prevention and Sediment Control Workshop, February 2008, Beckley Sanitary Board, Beckley, WV
- Mid-Atlantic Stream Restoration Conference, November 2007, Rocky Gap, Maryland
- Toxic Release Inventory Training, 2007, EPA, South Charleston, WV
- Public Water System Counter-Terrorism Training, July 2004, MSES Consultants, Inc., Beckley, WV
- Basic Water Fluoridation Engineering Course, November 2002, Centers for Disease Control, Murfreesboro, TN
- Financial Management for Small Drinking Water Systems, August 2002, National Environmental Training Center, Morgantown, WV
- Building the Technical Capacity of Small Drinking Water Systems, August 2002, National Environmental Training Center, Morgantown, WV
- Emergency Response, August 2001, WV Rural Water Association, Teays Valley, WV
- Backflow Prevention/Cross Connection, November 2001, WV Rural Water Association, Teays Valley, WV
- Corrosion Control, November 2001, WV Rural Water Association, Teays Valley, WV
- Thermal Expansion, November 2001, WV Rural Water Association, Teays Valley, WV
- Class II Water Treatment Operators Course, 2001, West Virginia Department of Health and Human Resources, Environmental Training Center, Ripley, WV
- AOC Guidance Document Training, June 2000, WV DEP, Nitro, WV
- Nuclear Density Testing, May 1997, Troxler Electronic Laboratories, Inc., Fairmont, WV.

Engineering Department Manager

Jim Echard, P.E., Project Manager, has been working in the environmental field over the last fourteen years, specializing in the design, permitting, construction, certification, and operation of various municipal solid waste facilities, including landfills, transfer stations and processing plants. Throughout these projects, he is responsible for many aspects of permitting, layout, design, construction, operation and compliance. Mr. Echard also has experience in the preparation of construction documents and construction oversight for many construction/earth moving projects including new landfill cells, caps, leachate and gas management facilities. He has progressive experience and has developed an outstanding reputation working with both the private and public sectors, and within the regulatory community.

Education

B.S., Civil Engineering. Pennsylvania State University, University Park, PA, 1992.

M.S., Environmental Engineering, Pennsylvania State University, University Park, PA, 1994.

Training Certificate, "Hazardous Materials Site Operations, "OSHA Hazardous Materials Site Worker 40-Hour Certification, Woodward-Clyde, Inc., 1995.

Training Certificate, "OSHA Confined Space Operations Program," OSHA 16-Hour Certification, Gannett Fleming, Inc., 1996.

Registration

Registered Professional Engineer: Pennsylvania, Maryland, West Virginia, Ohio.

Professional Affiliations

Solid Waste Association of North America.

American Society of Civil Engineers.

Tau Beta Pi – National Engineering Honor Society.

Chi Epsilon – National Civil Engineering Honor Society.

Project Experience*Solid Waste Management*

- Municipal and residual waste landfill cell/closure design, permitting, certification, and operation.
- Design of leachate management and recirculation systems.
- Design of gas management systems and well field management including optimization for beneficial use projects.
- Design of landfill stormwater conveyance and control facilities.
- Preparation of residual waste analysis and classification plans.
- Developing potential beneficial/alternative uses of residual waste as construction aggregates as well as their replacement for raw materials in manufacturing.
- Investigation and permit preparation for the use of residual waste as an alternative daily cover.
- Waste tire recycling facility permitting.

Air Quality Management

- Preparation of various permit applications including; Title V, Plan Approvals and Request or Determination/Prepare calculations for annual emissions inventory reports (AIMS), and various other reports for industrial and solid waste facilities.
 - Layout of Landfill Gas Collection, conveyance and control systems and sizing.
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- Optimization of LFG systems for beneficial reuse.

Wastewater Management

- Preparation of National Pollutant Discharge Elimination System (NPDES) and Part II permits.
- Sizing of pumps and piping systems.
- Design and permitting of lagoons, impoundments, and tank storage systems.
- Design/Review of storm/sanitary sewer facilities including gravity, low pressure, pumping stations and force mains.
- Determination of Equivalent Dwelling Units (EDUs) to be assessed to construction projects, developments and related projects for municipal authorities.
- Design of oil/water separation facilities.
- Sewage sludge dewatering and disposal.
- Design of permanent sanitary and industrial wastewater flow metering and telemetry facilities including pH, ultrasound, area/velocity and magnetic flow meters.

Site Remediation

- Design of groundwater pump treatment systems for oil, VOC and metals removal.
- Managed bench scale treatability analyses for ion exchange media selection and identification of chemical treatment techniques.
- Design of an oil-contaminated groundwater interceptor trench and recovery system at a major industrial site. The plume of contamination was revealed in a nearby stream necessitating the interceptor trench. The project included identifying the sources and paths of contamination.
- Conducted ground water sampling of monitoring wells, as well as compiling and evaluating analytical results and trends.

Civil/Other Engineering

- Preparation of storm water management and erosion and sediment pollution control plans.
- Construction and maintenance cost estimating.
- Preparation of capital reserve studies.
- Administration of construction contracts.
- Culvert designs
- Stream crossings.

Publications

"Environmental Impact of Foundry Residuals: Pennsylvania Beneficial Use Approach," Echard, J.B., Regan, R.W., and Voight, R.C., The Metal Casting Center and the Environmental Resources Research Institute, The Pennsylvania State University, in the American Foundrymen's Society Transactions, August, 1995. Presented at the 1995 AFS Casting Congress, Received the American Foundrymen's Society, Inc., Environmental Control Division Best Paper Award for 1995.

"Environmental Impact of Solid Waste from Pennsylvania Foundries," Echard, J.B., M.S. Thesis, December 1994.

"Leachate and Groundwater Quality from Ferrous Foundry Landfills in Wisconsin," Regan, R.W., and Echard, J.B., Synopsis, Pub. ER9303, The Environmental Resources Research Institute, The Pennsylvania State University, April 1993.

RESUME

Jerry W. Cantley, Jr., P.E. & P.S.
Vice President Civil Engineering
15 Years Experience

EDUCATION:

West Virginia Institute of Technology, B.S. Civil Engineering, 1987

REGISTRATION:

Professional Engineer:
West Virginia (12188)
Registered Land Surveyor:
West Virginia (1477)

MEMBER:

Tau Beta Pi - Alpha Chi Chapter

SPECIALTIES:

- Roadway design and plans
- Surveying
- Utilities and site work
- Erosion and sediment control design
- Construction coordination
- Management of records
- Cost and time studies

EXPERIENCE:

Mr. Cantley has over 12 years of experience in transportation engineering and roadway design. He has worked for L.A. Gates Company for the past 8 years and designed more than 20 roadway and bridge projects, primarily for the West Virginia Department of Transportation. Mr. Cantley currently directs a staff of 9 engineers, technicians and surveyors, who produce roadway design work and prepare bridge and highway plans.

Mr. Cantley is also a licensed surveyor. His department includes a staff of surveyors who perform layout work for roadway, industrial and commercial projects.

REPRESENTATIVE PROJECTS:

- Camden on Gauley Bridge Replacement, Webster County, West Virginia
- Steinbeck Bridge Replacement, WVDOT, Roane County, West Virginia
- Hurricane Creek Road, 5-lane improvement project, WVDOT.
- Roach Truss Bridge Replacement, WVDOT, Cabell County, West Virginia
- Stringtown Bridge, WVDOT, Hampshire County, West Virginia
- Mill Road Bridge, WVDOT, Hardy County, West Virginia
- Mt. Gay Overpass Renovation, WVDOT, Logan County, West Virginia
- Interstate Route 77 Over WV Route 34, Kenna I/C Bridge #2179, WVDOT, Jackson County, West Virginia
- Interstate Route 77 Over Grass Lick Creek, Bridge #2199, WVDOT, Jackson County, West Virginia

- Interstate Route 77 Over Grass Lick Road, Bridge #2198, WVDOT, Jackson County, West Virginia
- Little Hurricane Creek Bridge #1813, WVDOT, Putnam County, West Virginia
- WV Route 10, Man to Logan, WVDOT, Logan County, West Virginia
- Sutton-Webster Springs Road, WVDOT, Braxton and Webster Counties, West Virginia
- Rock Lick Bridge, WVDOT
- James Branch Bridge #4003, WVDOT, Boone County, West Virginia
- Cazy Bridge #4404, WVDOT, Boone County, West Virginia
- B&O Railroad Underpass Bridge #3932, WVDOT, Barbour County, West Virginia
- Shady Spring Public Service District's Mont Phillips Road Extension
- Shady Spring Public Service District's Lamplighter Road Extension
- Soil Conservation Service, Brush Creek Bridges
- Forest Service Fish Run Bridge, USDA

Past President

John J. Blazosky, P.E. has more than 35 years of experience in environmental engineering projects in every major area of practice. As an engineer, he has worked for the regulatory community in a permitting capacity, and as a consultant performing major project assignments for corporations of all sizes, municipalities and government entities, attorneys, and other organizations.

As founder of Blazosky Associates, Inc., Mr. Blazosky has established a successful and highly reputable consulting firm serving the waste management and environmental consulting needs of a growing list of clients. He has expanded this consulting practice to three offices to provide environmental consulting services throughout Pennsylvania and the surrounding states.

In addition, he is founder of Wetlands Habitat Management, Inc., a company dedicated to seeking responsible solutions to wetland issues. The WHM Groupsm – along with its wholly owned subsidiaries, WHM Consulting and WHM Solutions – emerged from the successful business experiences of Wetlands Habitat Management, Inc. As president of WHM Consulting, Inc. and vice president of WHM Solutions, Inc., he provides third-party professional support to clients dealing with complex wetland, stream and other highly regulated environmental issues.

Education

B.S., Civil Engineering, The Pennsylvania State University (PSU), University Park, PA, 1973.

Graduate Courses and Research, Sanitary Engineering. PSU, University Park, PA, 1976 - 1977.

Training Certificate, 40-Hour OSHA Hazardous Materials Health and Safety Training, 1986.

Training Certificate, 8-Hour OSHA Hazardous Materials Health and Safety Refresher Training.

Registration

Registered Professional Engineer: Pennsylvania, Ohio, New Jersey, Maryland, Virginia, West Virginia, Oklahoma, New York.

Registered Professional Surveyor: Pennsylvania.

Professional Affiliations

Chi Epsilon, Civil Engineering Honor Society

Technical Advisory Committee for Pennsylvania Waste Industries Association, 1992-1994

Solid Waste Association of North America

American Academy of Environmental Engineers with specialty in Solid Waste Management (DEE)

Project Experience*Engineering Design and Permitting*

- Planning, design, permitting, and implementation of numerous municipal and industrial waste landfills.
 - Evaluate acid mine drainage solutions.
 - Develop solutions for landfill methane gas including pipeline gas quality.
 - Design, permitting, and implementation of numerous closure plans for waste disposal facilities, impoundments, and waste storage facilities.
 - Design, permitting and implementation of landfill gas management systems.
 - Solving landfill leachate treatment problems, and design, permitting of sewage and industrial wastewater treatment facilities.
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- Implementation of unique leachate recirculation (bioreactor) techniques.
 - Performing remediation design, permitting, and construction certification for hazardous waste remediation sites.
 - Preparing air, water, and waste monitoring plans.
 - Serving as expert witness for a variety of environmental engineering matters.
 - Permitting land application and reclamation utilizing municipal and residual sludges.
 - Implementing best available, cost-effective construction and remediation techniques.
 - Specification writing and complete construction management for large environmental projects.
 - Managing Act 2 Brownfields projects and remediation.
 - Design and permitting of waste transfer stations.
 - Certifying Construction Quality Assurance for landfill projects.
 - Participating in public hearings and meetings.

Industrial Compliance

- Providing innovative strategies to beneficially utilize residual waste.
- Preparing industrial compliance and operation audits (P2/E2).
- Preparing SPCC, PPC and various other industrial compliance plans.
- Developing waste minimization planning and implementation strategies.
- Providing expert testimony for local, state and federal litigation.
- Managing complex site remediation projects.
- Negotiating legal consent orders and agreements for environmental compliance.

Wetlands Projects

- Developing wetland banking concepts for mitigation and industrial site closure.
- Constructing advanced compensation wetlands for PaDOT highway projects.
- Managing wetland-monitoring programs.
- Utilizing wetlands as treatment system.
- Evaluating sites for suitability of wetland construction.

Publication and Presentations

Presenter for The Pennsylvania State University Small Business Development Center and Mellon Bank seminar, "Environmental Considerations when Purchasing Commercial Property or an Existing Business," November 2001.

Presenter for Residual Waste Workshop, Centre County Industrial Development Corporation, Centre County Solid Waste Authority, July 1991.

Guest lecturer for Solid Waste Civil Engineering Course at The Pennsylvania State University (annual).

"The Mechanism of Phosphorus Removal by PhoStrip, Second Progress Report," J.J. Blazosky, R.W. Regan and J.B. Nesbitt. Department of Civil Engineering, PSU, University Park, PA, 1978.

Tim Coleman

Experience

2006 – Present **LA Gates Company & Gates Consultants** Beckley, WV
Vice President

- Responsible for all aspects of mining consulting related work including surface and underground mine design, permitting, and due diligence.
- Responsible for business development.

2005 – Present **Independent Consultant**
Domestic and international mining engineering consulting.

2003 – 2006

President **DAH,LLC** Beckley, WV
General Manager **Melbis Development & Summit Energy** Beckley, WV

- Provide technical analysis and coordinate due diligence efforts for acquisitions and partnerships in the energy field including acquisition of coal properties for a newly formed public traded company.
- Obtain necessary operating and environmental permits and plans to develop properties to begin production.
- Perform due diligence and evaluations of foreign and domestic potential mining properties.
- Develop a company to use coal and other waste products to generate section 45 qualified alternative fuels for electricity generation.
- Supervise administrative functions of the companies.
- Manage parts delivery and trucking service.

2001 - 2003 **Catenary Coal Company** Eskdale, WV
Manager of Development & Environmental Compliance

- Managed surface mine related capital projects including refuse impoundment construction, stockpile blending facility expansion, valley fill reclamation, gas line relocations, drainage and sediment control construction .
- Responsible for compliance for 7,800 permitted acre surface mine.
- Reduced violations 77% while reducing reclamation costs 25%.
- Won reclamation awards from Ducks Unlimited, WV Foresters Association, and Interstate Mining Commission.
- Developed and implemented waste management and conservation plans including environmental training programs.
- Responsible for mine reclamation escrow budgeting and funding.
- Dealt with three local watershed groups, state, and federal agencies concerning environmental issues.
- Managed contract environmental property maintenance.

2000 - 2001 **Independence Coal Company** **Madison, WV**

Chief Environmental Engineer

- Managed permit engineering and design group.
- Responsible for all state and federal permit compliance , and property maintenance.
- Developed and implemented PCB identification and elimination program.
- Developed and implemented waste management and conservation programs.

1999 - 2000 **Superior Sand, LLC** **Myrtle Beach, SC**

President & General Manager

- Engineered and implemented process modifications delivering a 500% production increase for dredge mining operation.
- Developed safety, operational, maintenance, environmental, and operating plans.
- Developed customer base and alliances within local construction and golf industries.

1993 - 1999 **US Steel Mining Company** **Pineville, WV**

Technical Services Engineer

- Responsible for and managed environmental permitting and compliance for surface and underground mines as well as a Title V preparation facility.
- Responsible for and managed EMS and ISO 14000 programs.
- Managed contract labor for environmental and property maintenance.
- Responsible for refuse impoundment planning, construction, and compliance.
- Managed 35,000 acres of surface land including 200+ property leases.
- Project manager for all capital projects including ventilation shafts, high voltage line installations, pumping systems, sediment control, reclamation, synfuel plant construction, and coal handling systems.

Mining Engineer

- Redesigned and managed mine ventilation system and planning for a two LW mine liberating 20,000,000 ft³ of CH₄ per day.
- Reduced mine ventilation costs 33% and eliminated methane related delays for LW's.
- Delivered keynote speech for 1998 International Mine Ventilation Symposium.
- Responsible for roof control, ventilation, methane and dust control plans.

1975 - 1993 **AEP Fuel Supply** **Fairmont, WV; Lancaster, OH; Athens, OH**

- Ventilation engineer for 4 underground coal mines in two divisions.
- Resident mine engineer, senior mining engineer, industrial engineer, safety inspector, shift supervisor, LW production supervisor, CM = production supervisor, and underground mine laborer.

Education **West Virginia University** **BSEM Mining Engineering**

Larry E. Easter



Mr. Easter has approximately 39 years experience as a quality control technician/inspector and environmental technician. As a geotechnical technician, he has provided quality control oversight and testing services on numerous commercial and industrial projects. His duties have included compaction and concrete testing and observations, liaison between the general contractor and Engineer/Owner, and project reporting. He also has experience as a soils and concrete laboratory technician and as an engineering draftsman.

Fields of Competence

- Compaction testing and fill placement monitoring
- Concrete testing and sampling
- Asphalt pavement inspection and testing
- Drilling inspection
- Project documentation/reporting
- Geotechnical laboratory testing
- Concrete laboratory testing
- AutoCAD drafting and design

Education

- Certificate - Computer Aided Drafting and Design; Ben Franklin Career Center, 2005
- Troxler Nuclear Moisture-Density Gauge Certification, 2005

Registration/Certifications

- WVDOH Compaction Technician Certification
- WVDOH Concrete Technician Certification
- WVDOH Asphalt Inspection Certification

Employment History

- January 2005 - Present
Engineering Technician, NGE, LLC.
- 1970 - 2004
Flexsys America
Environmental Technician
Laboratory Analyst
Operating Technician
Master Mechanic
- 1966 - 1970
A. C. Ackenheil & Associates, Inc.
Compaction Technician
Concrete Technician
Soils & Concrete Laboratory Technician
Engineering Draftsman

STATE OF WEST VIRGINIA
Purchasing Division

024

PURCHASING AFFIDAVIT**VENDOR OWING A DEBT TO THE STATE:**

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

PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

If this is a solicitation for a public improvement construction contract, the vendor, by its signature below, affirms that it has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code*. The vendor **must** make said affirmation with its bid submission. Further, public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code* and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the *West Virginia Code* may take place before their work on the public improvement is begun.

ANTITRUST:

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

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

LICENSING:

Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY:

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.

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

Vendor's Name: Michael Rudy, PresidentAuthorized Signature:  Date: May 1, 2009

Purchasing Affidavit (Revised 01/01/09)