

3355 Route 611 • Suite 1 • Bartonsville, PA 18321-7822 Phone: 570.688.9550 • Fax: 570.688.9768 • HanoverEng.com

February 5, 2018

Mr. John J. Jablowski, Jr., MPA Township Manager Tobyhanna Township 105 Government Center Way Pocono Pines, PA 18350

Sewage Enforcement Officer Services Tobyhanna Township, Monroe County

Hanover Project P18-0136

Dear Mr. Jablowski:

Вү:.... It has come to our attention that, due to a recent vacancy, Tobyhanna Township may be seeking to fulfill the position of Sewage Enforcement Officer (SEO) for calendar year 2018. Hanover Engineering Associates respectfully requests the Township's consideration in this matter and have included six (6) copies of the enclosed Company Qualifications for distribution, as well as copies of our 2018 Professional Fee Schedule. We request a copy of this information be presented to each Board member. The remaining copy has been provided for the Township's records.

As a firm, Hanover Engineering has been administering the Act 537 program for municipalities since the 1970s. Our firm currently employs seven (7) certified SEOs who combined offer over 115 years of experience. With the understanding that no two municipalities are the same, we have tailored the administration of the program to suit each client's individual needs in many ways throughout this time. Alternatives include everything from comprehensive management of the administration and enforcement of Act 537 to limited involvement of the duties and responsibilities required by a certified SEO, as well as everything in between. Our knowledgeable, professional, and friendly staff have great experience working closely with municipalities to offer a wide array of program services, and have assisted many different municipal clients in many ways to ensure smooth, successful administration of the Act 537 Program.

We understand the Township operates on a limited budget, and believe we can offer an effective service to the Township and their constituents at a value that suits this budget. Our existing 10-year appointment in neighboring Coolbaugh Township provides a unique opportunity for cost-savings due not only to our presence in the area geographically, but also due to our existing knowledge of the area, contractors, and landowners with whom we would be working.

We would be available to further discuss the Township's goals and desires, as well as Hanover Engineering's unique qualifications which could be utilized to ensure the 537 program is administered, and associated SEO services are fulfilled, as cost-effectively and efficiently as possible in Tobyhanna Township.

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Once the Township has had a chance to review the enclosed information, we will be pleased to meet with you and/or representatives of the Township to answer any questions you may have regarding the details of our proposal or the qualifications of our firm. Please contact me at 610.217.5944, or by e-mail at sbrown@hanovereng.com.

We look forward to the opportunity to assist Tobyhanna Township with sewage enforcement services or other needs of the Township.

Respectfully,

HANOVER ENGINEERING

Scott J. Brown SEO

Vice President

sjb:jas/djn

5:\Projects\Proposals\P18-0136-TobyhannaTownshipSEO\CompanyQualifications\0000_Toby_SEOProposalCoverLtr.doc

Enclosure(s)



Company Qualifications

Tobyhanna Township Monroe County, Pennsylvania

Sewage Enforcement Officer Services February 5, 2018

LOCATIONS

610.691.5644 · Fax 610.691.6968

Bethlehem Office (Corporate Headquarters) 252 Brodhead Road, Suite 100 · Bethlehem, PA 18017-8944

Lancaster-Lebanon Office 20 C Snyder Lane • Ephrata, PA 17522-9101 717.721.7444 • Fax 717.721.7447

Portersville Office 1271 Perry Highway, PO Box 218 · Portersville, PA 16051-0218 724.598.6414 · Fax 724.368.4184 Allentown Office

5920 Hamilton Blvd., Suite 108 · Allentown, PA 18106-8942 610.395.9222 · Fax 610.395.9262

Elizabethtown Office 48 North Market Street · Elizabethtown, PA 17022-2025 717.367.0144 · Fax 717.361.1012 **Poconos Office**

3355 Route 611, Suite 1 · Bartonsville, PA 18321-7822 570.688.9550 · Fax 570.688.9768

Wellsboro Office 3006 Princeton Street - Wellsboro, PA 16901-7632 570.724.5326 - Fax 570.724.5386



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Appendix A - Employee Resumes

- Jacob A. Schray, SEO
- Scott J. Brown, SEO
- Gregory C. Gray, SEO
- Christopher A. Taylor, PG, SEO
- Pamela J. Kemecsy, SEO



COMPANY PROFILE

Hanover Engineering Associates, Inc. is a Pennsylvania Corporation formed in January 1970. Over the past 45 years, the company has grown steadily to its current staff of over 70 employees. As the company has grown, Hanover Engineering has continued to expand its service area, and has opened offices in regions as needed to support its growing clientele. Hanover Engineering currently has seven office locations in Pennsylvania. The firm's corporate headquarters is located on Brodhead Road in Hanover Township, north of Bethlehem, PA,

Over the years, Hanover Engineering has provided consulting civil engineering, structural engineering, environmental, surveying, and sewage enforcement services in Pennsylvania, Maryland, New Jersey and other surrounding states through its offices located in the Lehigh Valley, Lancaster-Lebanon and Pocono areas. Over the last few years, Hanover Engineering expanded its service area to include northern and western Pennsylvania, as well as the eastern Ohlo region.

While Hanover Engineering has continued to grow and expand its services over the years, its corporate mission has remained the same – service to our clients and the community. Our goal is to provide quality designs that result in improvements to our community and our natural surroundings through engineering solutions that are sustainable, cost-effective, and environmentally responsible.

Hanover Engineering's success is a result of its commitment to quality, exceptional service, and lifelong relationships with our clients. More than 90 percent of our business volume comes from existing and returning clients – a testament to customer satisfaction. Members of the professional staff are not just Hanover Engineering employees; each one is the "client engineer." In that role, our staff members meet regularly with clients and visit the project sites to support the client, from the design inception to the point of construction completion.

As a local, employee-owned engineering firm, Hanover Engineering is proud to contribute to the quality of life in the areas and communities we serve.

All company shareholders are full-time employees of Hanover Engineering. The company's owners/officers are as follows:

Charles H. Unangst, PE, PLS, President and CEO

Jill Lipovsky Smith, PE, Vice President and COO Robert J. Lynn, PE, Vice President of Municipal Engineering J. Bradley Youst, PE, Vice President Phillip C. Malitsch, PE Brien R. Kocher, PE, Vice President and CFO Scott J. Brown, SEO, Vice President of Energy Services Jeffrey A. Lazar, PE Salvatore J. Caiazzo, PE



DEFINITION OF SERVICES OFFERED

Hanover Engineering offers to perform tasks and duties required by Pennsylvania Act 537 and as directed by the Township. These tasks may include the following:

- Conducting or Witnessing Soil Probes
- Conducting or Witnessing Percolation Tests
- Design Review
- Permit Issuance
- Construction Inspections
- Complaint and Malfunction Investigation
- Sewage Facilities Planning Module Review for Subdivision or Land Development projects
- General Office Work as required (telephone calls, e-mails, meetings with applicants, etc.)
- Completion of Annual Reimbursement Application, if applicable

Hanover Engineering is flexible to the needs of Tobyhanna Township; therefore tasks may be added or removed, per the Township's request.

For continuity, we recommend one individual be the Township's primary contact for services. However, to ensure coverage, the following Sewage Enforcement Officers would be available to perform SEO duties in Tobyhanna Township:

- Jacob A. Schray, SEO
- Scott J. Brown, SEO, Vice President
- Gregory C. Gray, SEO
- Christopher A. Taylor, PG, SEO
- Pamela J. Kemecsy, SEO

Our staff also includes a Professional Soil Scientist (not listed above) who could be available to serve the Township if needed.



EXPERIENCE AND QUALIFICATIONS OF KEY PERSONNEL

Jacob A. Schray, SEO would serve as the primary contact for Sewage Enforcement services we would provide to Tobyhanna Township.

Jacob A. Schray, SEO: With over 15 years as a Sewage Enforcement Officer, Mr. Schray has been
responsible for enforcing the Pennsylvania Sewage Facilities Act in several area municipalities. In this
capacity, he has provided diligent, cost-effective services, as well as meaningful interaction with
municipalities, PA DEP, and the public. Specific experience includes soil testing, site evaluation, sewage
system designs, inspections, review of Act 537 Sewage Facilities Official Plans, and subdivision and land
development reviews and inspection. Mr. Schray is also a certified Host Municipal Inspector and Building
Code Official.

Mr. Schray has maintained his certifications by regularly attending field-specific continuing education classes, and has built on his knowledge of the field by attending various seminars and forums.

A detailed resume for Mr. Schray is provided in Appendix A.

Additional individuals who may play a role in providing Sewage Enforcement services to the Township include the following:

- Scott J. Brown, Vice President and SEO: Mr. Brown has over 30 years experience in project management involving the Sewage Enforcement Officer staff, including providing soil testing, sewage system designs, and inspections. He also provides project management for and preparation of Act 537 Sewage Facilities Official Plans, Township Engineer assistance, subdivision reviews and inspection, and capital project design and construction inspection. In addition, Mr. Brown has over 25 years experience as a Host Municipal Inspector, providing landfill inspections and permit plan reviews. Mr. Brown would be available to Tobyhanna Township as needed.
- Gregory C. Gray, SEO: Mr. Gray became a Certified Sewage Enforcement Officer in 2016. His background
 in geography and Geographic Information Systems has helped him to quickly gain valuable knowledge
 and experience in the world of onlot septic systems. When he is not performing SEO-related tasks, Mr.
 Gray's services are a valued asset to Hanover Engineering's surveying and inspection departments. Mr.
 Gray would be available to assist Mr. Schray as needed by conducting or observing soil testing, performing
 inspections, and issuing permits.
- Christopher A. Taylor, PG, SEO: Mr. Taylor is a licensed Professional Geologist, a Certified Sewage
 Enforcement Officer, and a Host Municipal Inspector in Pennsylvania. He has over 24 years experience in
 the field of Geology, infiltration testing, and supervising Installation of wells and pumping tests, and
 would provide support for the SEO staff, if needed.

Pamela J. Kemecsy, SEO: Ms. Kemecsy obtained her SEO Certification in 2007. She spent several years
actively performing SEO duties and gaining vital knowledge and experience in the field. Ms. Kemecsy's
current responsibilities as Project Scientist have allowed her to expand her expertise into a broader range
of environmental science. Ms. Kemecsy maintains her SEO Certification by regularly attending relevant
SEO continuing education seminars. Ms. Kemecsy would be available to Tobyhanna Township in the event
of a scheduling conflict.

Please see Appendix A for detailed Employee Resumes of the Key Personnel listed above.



REFERENCES

Hanover Engineering currently provides Certified Sewage Enforcement Officer services for the following municipal clients:

LEHIGH COUNTY

Emmaus Borough	Mr. Shane Pepe, Manager	610.965.9292
Fountain Hill Borough	Mr. Anthony Branco, Borough	610.867.0301
	Administrator	
Salisbury Township (Alt. SEO)	Ms. Cathy Bonaskiewich, Manager	610.797.4000
South Whitehall Township (Alt. SEO)	Ms. Renee Bickel, Manager	610.398.0401
Upper Saucon Township	Mr. Thomas F. Beil, Manager	610.282.1171
NORTHAMPTON COUNTY		
East Allen Township	Ms. Deborah A. Seiple, Manager	610.262.7961
Hanover Township	Mr. John J. Finnigan, Jr., Manager	610.866.1140
Lower Saucon Township	Mr. Jack Cahalan, Manager	610.865.3291
Plainfield Township (Alt, SEO)	Mr. Thomas Petrucci, Manager/Secretary	610.759.6944
BERKS COUNTY		
Longswamp Township (Alt. SEO)	Mr. Michael Sacks, Chair, Board of Supervisors	610.682.7388
LANCASTER COUNTY		
Adamstown Borough	Ms. Sam Toffy, Administrative Secretary/ Assistant Treasurer	717.484.2280
Denver Borough	Mr. Michael Hession, Manager	717.336.2831
Pequea Township (Alt. SEO)	Ms. Lori Ann Leltch, Secretary/Treasurer	717.464.2322
MONROE COUNTY		
Coolbaugh Township	Ms. Maureen Mills, Business Manager/Controller	570.894.8490
Eldred Township	Ms. Ann Velopolcek, Secretary	610.381.4252
LAWRENCE COUNTY		
Shenango Township (Alt. SEO)	Mr. Albert D. Burick, III, Supervisor/Secretary-Treasurer	724.658.4460



ADDITIONAL INFORMATION

Fees for Services

Hanover Engineering provides a billing structure based on hourly rates in accordance with our firm's Professional Fee Schedule. Time is billed for minimum 15 minute (¼ hour) increments for Municipal reviews and projects. Generally, our firm does not charge overtime for attendance at Township meetings. This includes monthly Supervisors, Planning Commission, and Zoning Hearing Board meetings, as applicable.

Additional charges, including billable mileage (from our closest office), overtime charges, cost for plan copies, and field equipment usage, are included and described at the bottom of our Professional Fee Schedule.

A copy of our 2018 Professional Fee Schedule is provided within this Qualifications Package.

Our annual rate increases over the last five (5) years and anticipated in future years generally varies between 0% to 3% depending on the specific job category.

Conflicts of Interest

Hanover Engineering has a policy, consistent with the American Society of Civil Engineers' *Code of Ethics*, that it will not provide Engineering or Surveying services to any private enterprises or individuals within a community that retains Hanover Engineering as their appointed Municipal Engineer.

Hanover Engineering has provided or currently provides engineering, planning, and environmental consulting services for several clients located in or having property interests in Tobyhanna Township. None of our projects or anticipated work for these clients involves sewage planning or onlot septic system permitting or installation. The following is a list of return clients for whom we anticipate new or ongoing project work within Tobyhanna Township and a brief description of services provided:

- Wildlands Conservancy Hanover Engineering has provided professional land surveying, trail planning, and environmental consulting services for land preservation projects within the Township for over twenty (20) years. We are currently designing a parking area for a trailhead that will access hiking trails within the Thom Darling Preserve.
- The Nature Conservancy Hanover Engineering has provided professional land surveying, trail planning, and environmental consulting services for land preservation projects within the Township for over twenty (20) years. We have no current projects with The Nature Conservancy.
- Pocono Lake Preserve Hanover Engineering has been providing lake management services to the Preserve on an annual basis for nearly twelve (12) years. During this time, we have also provided various



ADDITIONAL INFORMATION

planning and engineering services to the Preserve, including bridge inspection, community planning, stormwater management, environmental consulting, and structural inspections. Current work with the Preserve includes the ongoing annual lake water quality studies.

- Tunkhannock Creek Association Hanover Engineering has been working with the Association on trout
 habitat improvement projects and water quality studies for approximately ten (10) years. We are currently
 completing a study of the Upper Tunkhannock Creek to determine potential impacts that may affect trout
 habitat and migration.
- Locust Lake Village Property Owner's Association Hanover Engineering has been the appointed
 engineer by Locust Lake Village to provide services for dam inspection and maintenance, as well as
 general lake management consulting. We are currently working on a stormwater management plan
 within the vicinity of the community's lakes to help protect the lakes from water quality impacts.

Should Tobyhanna Township retain Hanover Engineering for Sewage Enforcement Officer services, we will coordinate all ongoing and new private engineering and consulting projects with the Township on a case-by-case basis to fully ensure that conflicts of interest related to our position with the Township do not arise.



Professional Engineering and Consulting Services

Municipal Engineering and Planning

Streets, Bridges and Culverts
Public Water and Sanitary Sewer Systems
Wastewater Treatment Facilities
Parks and Recreational Area Design
Open Space and Recreation Plans
MS4 Compliance and Reporting
Watershed Management Ordinances
Act 537 Sewage Facilities Plans
Act 209 Traffic Impact Fee Ordinances
Comprehensive Planning
SALDO and Zoning Ordinances
Capital Improvements Programming

Structural Engineering

Steel and Concrete Structures
Structural Analysis
Crane Runway Evaluation, Inspection and Analysis
Bridge Inspection
Rehabilitation Design
Foundation Design
Structural Inspection and Design for Industrial
and Commercial Buildings

Mechanical Engineering

Pipeline and Facility Engineering
Feasibility Studies
Budgetary Estimating
Front End Engineering Design
Process Flow Diagrams
Piping and Instrumentation Diagrams
Mechanical, Civil, and Electrical Detailed Drawings
Hydraulic Analysis
Project Management-Services

Subdivision and Land Development

Residential Subdivisions Commercial and Industrial Development Low Impact Development Development Impact Studies Feasibility Studies and Site Evaluation Regulatory Compliance Evaluations

Utility Line Design and Permitting

Utility Line Permitting and Permit Compliance ESCGP-2 and NPDES Permitting DEP and ACOE Permitting Article VII Application Process Route Development and Final Alignment Layout Project Coordination/Project Management Horizontal Direction Drill Design Legal Plat Preparation Compressor Facilities Permitting Gas Well Pad Permitting Environmental and E&S Feature Inspections

Transportation Planning and Permitting

Municipal Impact Fee Studies
Traffic Impact Analyses
Highway Occupancy Permitting
Traffic Signal Design and Permitting
Pedestrian Mobility Enhancements Transportation
Capital Improvements Planning

Environmental Services

Wetland Delineation and Permitting
Wetland Restoration and Mitigation
Stream Assessment, Monitoring and Restoration
Trout Habitation Improvements and Restoration
Lake Studies and Management
Dam Engineering, Planning & Permitting
Watershed Studies
Threatened and Endangered Species Surveys
Rivers Conservation and Greenways Planning
Cold Water Conservation Plans
Pond Evaluations
Dredging Design and Permitting
Stormwater Basin Retrofits
Environmental Site Assessments (Phase I & II)
Perc Testing and Soil Probe Analysis
Onlot Sewer System Designs
Water Supply and Pumping Design
Geologic Studies (incl. Core Boring Evaluation)
Hydrogeologic Studies
Soil Classification
Sinkhole Investigation
Carbonate Geology Studies

Stormwater Management

Best Management Practices (BMPs) Design Post Construction Stormwater Management Stormwater Management Stormwater Management Facility Design NPDES Phase II Stormwater Compliance Soil Investigations and Infiltration Testing Floodplain and Floodway Studies Culvert Rehabilitation/Replacement Design Erosion and Sediment Pollution Control Plans Stormwater Facility Inspection Act 167 Planning Low Impact Development

Surveying

ALTA/ACSM Land Title Surveys
Boundary and Topographic Surveys
Construction Stakeout
As-Built Surveys
Aerial Photography Ground Control
Heavy Construction Erection Surveys
Bathymetric Surveys (waterway bottom)
Flood Elevation Studies
FEMA/NFIP Flood Insurance Certifications
Alignment Surveys for Industrial Facilities

Computer Aided Drafting (CAD), Geographic Information Systems (GIS) and Global Positioning System (GPS)

Roadway Layout and Profiling
Database Creation and Management
Comprehensive Plan Mapping
Municipal Mapping and Database Development
Sinkhole Location and Database Development
Water, Sewer, and Utility System Mapping
Watershed Mapping and Database Development
GPS Surveys
Desktop, Mobile, and Web Geospatial
Application Development

HANOVER ENGINEERING ASSOCIATES, INC 2018 MUNICIPAL PROFESSIONAL FEE SCHEDULE

DESCRIPTION		HOURLY RATE
ENGINEER Senior Engineer Registered Graduate (Nonregistered)		\$ 110.00 104.50 90.00
CERTIFIED PLANNER		104.50
REGISTERED GEOLOGIST / SENIOR SCIENTIST		104.50
REGISTERED LANDSCAPE ARCHITECT		104.50
TRAFFIC SPECIALIST		104.50
REGISTERED SURVEYOR		98.00
ENVIRONMENTAL Environmental Specialist Environmental Technician		92.00 80.50
GIS (GEOGRAPHIC INFORMATION SYSTEMS) WORK GIS Specialist GIS Technician		84.50 63.00
DESIGN / DRAFTING / TECHNICAL WORK Senior Designer/Senior Technician Design/Calculations/Technician Draftsperson 1 (CAD Drafting) Draftsperson 2/Technician 2		88.90 77.50 66.70 64.20
GROUND PENETRATING RADAR / GLOBAL POSITIONING SERVICE FIEL	D PERSON	100.00
ZONING OFFICER / CODES ENFORCEMENT		84.00
SURVEY CREW Two-Person Crew (2 @ \$70.00 each) Three-Person Crew (3 @ \$59.00 each) One-Person Crew w/Robotic Equipment 3D Scanning w/One-Person Crew		140.00 177.00 115.00 175.00
CONSTRUCTION OBSERVER / SEWAGE OFFICER Highway, Heavy, Commercial, or Residential Construction Highway, Heavy, Commercial, or Residential Construction (Senior) Certified Sewage Enforcement Officer Onlot Sewer Percolation Test (Pass or Fail) Observe Percolation Test	Lump Sum Lump Sum	72.50 78.50 69.90 435.00 350.00
SECRETARIAL / WORD PROCESSOR		38.00

- Travel to and from the job site is chargeable time, with project mileage at \$0.52 per mile. 1.
- Overtime is charged at 1.5 times base rate. 2.
- Ordinary overhead expenses are included in the above rates. 3.
- Extraordinary expenses required specifically for a particular project will be billed at direct cost plus 5%. Examples of these expenses include soil borings costs or testing laboratory charges. All such additional expenses are to be specifically approved by the client prior to their use.
- A special rate of \$155.00 per hour is established for formal hearings and court appearances as an expert witness for a Professional Engineer, Geologist, Surveyor, or other professional. 5.
- Cost for plan copies is \$0.55 per square foot (black & white); \$2.00 per square foot (color). Cost for Mylars is \$1.65 per square foot (black & white); \$6.00 per square foot (color). 6.
- 7.
- 8.
- Cost for photocopies is \$0.25 per page (black & white); \$0.55 per page (color).
 Field equipment usage will be charged as follows: Sewage Flow Meter \$12.00/day, Traffic Counter \$55.00/day,
 GPS Locator \$22.50/day, RTKGPS \$215.00/day, SUB-RTKGPS \$50.00/day. 9.
- Push Camera \$10.00/hour for Televising; \$15.00/hour for Televising and Locating Services.



APPENDIX A

EDUCATION

Villanova University, 1998-2000 Northampton Community College, 2001-2002 East Stroudsburg University, 2008

ADDITIONAL TRAINING

Wastewater Collection Systems - Parts I & II, 2015

Advanced Host Municipal Inspector Training - Department of Environmental Protection (DEP), 2011, 2015 Advanced Soils Training - Department of Environmental Protection, 2006

Multiple Continuing Education Courses for Soils Evaluation, Sewage Facilities Planning, and Building Codes

PROFESSIONAL REGISTRATIONS

Sewage Enforcement Officer: Pennsylvania DEP Bureau of Clean Water Building Code Official: Pennsylvania Department of Labor and Industry Host Municipal Inspector: Pennsylvania DEP Bureau of Waste Management

Operator-In-Training – WWE4 Wastewater Collection Systems: Pennsylvania DEP Bureau of Safe Drinking Water

PROFESSIONAL ASSOCIATIONS

Pennsylvania Association of Sewage Enforcement Officers

Engineers Without Borders USA – Lehigh Valley Professionals Chapter – Active Member

Chapter Vice President 2014-2015; Chapter President 2015-2016

EXPERIENCE

Sewage Enforcement Officer - Hanover Engineering

As a Sewage Enforcement Officer, Mr. Schray has over 15 years' experience enforcing the Pennsylvania Sewage Facilities Act in municipalities throughout Berks, Carbon, Lehigh, Monroe, and Northampton Counties. Mr. Schray also has experience as a Zoning Officer and Building Code Official. Mr. Schray assists with the review of Subdivision and Land Development projects, has provided construction inspection services, and is experienced on survey crews and structural steel inspection crews.

Mr. Schray has maintained his certifications by regularly attending field specific continuing education classes and has built upon his field knowledge by attending various seminars and forums.

Examples of Specific Experience

- Sewage Enforcement Officer. Responsible for enforcing the Pennsylvania Sewage Facilities Act for numerous municipalities throughout Berks, Carbon, Lehigh, Monroe, and Northampton Counties. In this capacity, he provides diligent, cost-effective services, including soil testing, site evaluation, and inspections. Designs onlot sewage treatment and disposal systems for private clientele.
- Building Code Official. Responsible for issuing Building Permits and Certificates of Occupancy on behalf of Lehigh Township, Northampton County, and East Penn Township, Carbon County. This position requires a fundamental understanding of the Uniform Construction Code (UCC) and associated Building Codes. Coordinates with Third Party Agencies to ensure technical accuracy in the management, administration and enforcement of the UCC.
- Host Municipal Inspector. In 2007, Mr. Schray was certified by the Pennsylvania Department of Environmental Protection (PA DEP) as a Host Municipal Inspector and was appointed in Lower Saucon Township, Northampton County to inspect the IESI Bethlehem Landfill. In 2017, he was appointed in Plainfield Township, Northampton County as an alternate inspector to inspect the Grand Central Landfill. He is experienced in performing landfill inspections and providing comprehensive reports.

- Zoning Officer. Served as Zoning Officer for Lehigh Township, Northampton County. In this
 capacity, he has assisted the Township in revising the policies and procedures regarding the
 management, administration, and enforcement of the Township's Zoning Ordinance. Attended
 Planning Commission and Zoning Hearing Board meetings and has provided feedback to the
 Township, as requested, regarding management and administration of the Zoning Department.
- Public Wastewater Collection Facilities. Experienced with the operation of public wastewater
 collection facilities, including gravity and low-pressure systems, and metering stations. In 2015, Mr.
 Schray qualified with PA DEP as an Operator-In-Training for Class WWE4 Single Entity Owner
 Collection Systems. He performs flow analyses and has provided recommendations for capacity
 increases and assistance in determining appropriate user rates.
- Engineers Without Borders USA. Mr. Schray has been a volunteer of the Lehigh Valley
 Professionals Chapter of Engineers Without Borders USA (EWB-USA) since 2010. In this role, he has
 assisted the Chapter with the testing and design of sanitation and stormwater management facilities
 at the Centennial Secondary School in Slerra Leone, Western Africa. In 2013, he traveled to the
 school to construct stormwater management facilities and assist with the Installation of sanitary
 facilities. Served the Chapter as Vice-President in 2014/2015 and President in 2015/2016, and
 remains an active member.

Examples of Appointments

- East Penn Township, Carbon County. Appointed Building Code Official in 2018.
- Penn Forest Township, Carbon County. Appointed Sewage Enforcement Officer from 2000 through 2011.
- Emmaus Borough, Lehigh County. Appointed Sewage Enforcement Officer from 2013 to present.
- Fountain Hill Borough, Lehigh County. Appointed Sewage Enforcement Officer from 2016 to present.
- Upper Saucon Township, Lehigh County. Appointed Sewage Enforcement Officer from 2015 to present. Provides reviews pertaining to Act 537 Sewage Facilities Planning for Subdivision and Land Development projects.
- Coolbaugh Township, Monroe County. Appointed Sewage Enforcement Officer from 2007 to present. Provides reviews pertaining to Act 537 Sewage Facilities Planning for Subdivision and Land Development projects.
- Eldred Township, Monroe County. Appointed Sewage Enforcement Officer from 2006 to present. Provides reviews pertaining to Act 537 Sewage Facilities Planning for Subdivision and Land Development projects.
- Polk Township, Monroe County. Appointed Sewage Enforcement Officer from 2000 through 2013.
- Tunkhannock Township, Monroe County. Appointed Sewage Enforcement Officer in 2008 and 2009.
- East Allen Township, Northampton County. Appointed Sewage Enforcement Officer from 2000 to present. Provides reviews pertaining to Act 537 Sewage Facilities Planning for Subdivision and Land Development projects.
- Hanover Township, Northampton County. Appointed Sewage Enforcement Officer from 2000 to present. Provides reviews pertaining to Act 537 Sewage Facilities Planning for Subdivision and Land Development projects.
- Lehigh Township, Northampton County. Appointed Sewage Enforcement Officer from 2000 through 2013. Appointed Zoning Officer and Building Code Official in 2017.
- Lower Saucon Township, Northampton County. Appointed Sewage Enforcement Officer from 2000 to present and appointed Host Municipal Inspector from 2007 to present. Provides reviews pertaining to Act 537 Sewage Facilities Planning for Subdivision and Land Development projects.
- Plainfield Township, Northampton County. Appointed Alternate Host Municipal Inspector from 2017 to present. Appointed Alternate Sewage Enforcement Officer in 2018.

Jacob A. Schray, SEO, BCO, HMI

- Longswamp Township, Berks County. Appointed Sewage Enforcement Officer from 2006 through 2013. Appointed Alternate Sewage Enforcement Officer from 2014 to present.
- Salisbury Township, Lehigh County. Appointed Alternate Sewage Enforcement Officer from 2014 to present.
- South Whitehall Township, Lehigh County. Appointed Alternate Sewage Enforcement Officer from 2014 to present.

Scott J. Brown, SEO Vice President of Energy Services

EDUCATION

B.S. Civil Engineering/Construction Technology - Temple University, 1984

ADDITIONAL TRAINING

Advanced HMI Training, 2010

PROFESSIONAL REGISTRATIONS

Sewage Enforcement Officer: Pennsylvania

PROFESSIONAL ASSOCIATIONS

Pennsylvania Association of Sewage Enforcement Officer

EXPERIENCE

Project Manager - Hanover Engineering

As Vice President of Hanover Engineering, Mr. Brown is currently directing the Energy Services group and has experience in permitting and designing Natural Gas pipelines to supply natural gas for Power Plant conversions and Natural Gas Midstream clients. Other experience includes providing professional oversight to numerous municipal clients and their related construction projects, inspection and oversight of solid waste facilities, and commercial and residential land development, including all infrastructures to ensure compliance with all local and state regulations.

Over his 32-year career at Hanover Engineering, Mr. Brown has gained experience in engineering procedures and standard practices, project management, working with state and local officials, elected officials, and the public. He also provides project management involving the Sewage Enforcement Officer staff, including providing soil testing, sewage system designs, and inspections. He also provided project management for the preparation of Act 537 Sewage Facilities Act Official Sewer Plans, Township Engineer assistance, subdivision reviews and inspections, and capital project design and construction inspection. In addition, Mr. Brown has over 21 years of experience as a Host Municipal Inspector, providing landfill inspections and permit plan reviews.

Examples of Specific Experience

- Natural Gas Industry. Provided engineering and client management for the design and permitting of pipelines and facilities for natural gas power plant conversion projects, natural gas gathering lines, compressor pads, and well pads.
- Lower Saucon Township, Northampton County. Assists Township Engineer in performing reviews
 of major and minor permit modifications for a Municipal Solid Waste Landfill, including review of plans
 for expansion of the disposal area for existing permitted facilities. Performs landfill inspections as
 permitted by Act 101, including inspections for stormwater control measures, abatement system
 operations and records, leachate collection systems, daily disposal operations, and daily cover.
 Provides review of quarterly and annual reports; provides technical support to Township Landfill
 Committee; responds to complaints as directed by Township Manager.

Examples of Appointments

- Adamstown Borough, Lancaster County. Serves as Sewage Enforcement Officer.
- Denver Borough, Lancaster County. Serves as Sewage Enforcement Officer.
- Fountain Hill Borough, Lehigh County. Serves as Sewage Enforcement Officer from 2016 to present.
- Upper Saucon Township, Lehigh County. Serves as Sewage Enforcement Officer from 2015 to present.
- Coolbaugh Township, Monroe County. Serves as Sewage Enforcement Officer from 2006 to present.

Scott J. Brown, SEO Vice President of Energy Services

- Eldred Township, Monroe County. Serves as Sewage Enforcement Officer from 2004 to present. Hanover Engineering was appointed Township Engineer in 2006.
- East Allen Township, Northampton County. Serves as Sewage Enforcement Officer from 2000 to present.
- Hanover Township, Northampton County. Serves as Sewage Enforcement Officer from 2000 to present.
- Lower Saucon Township, Northampton County. Serves as Sewage Enforcement Officer from 1985 to present. Served as Host Municipal Inspector from 1991 to 2011.
- Pequea Township, Lancaster County. Serves as Alternate Sewage Enforcement Officer in 2018.
- Shenango Township, Lawrence County. Serves as Alternate Sewage Enforcement Officer in 2018.
- Plainfield Township, Northampton County. Serves as Alternate Sewage Enforcement Officer in 2018
- Kidder Township, Carbon County. Served as Municipal Representative from 2000 to 2012.
 Provided engineering review services for proposed Subdivision and Land Development projects.
- Penn Forest Township, Carbon County. Served as Municipal Representative from 1991 to 2011.
 Provided engineering review services for proposed Subdivision and Land Development projects.
 Performed Township inspection of private improvement projects and oversaw design and construction of municipal storm sewer and roadway construction projects. Performed Sewage Enforcement Officer duties and assisted Zoning and Building Code Departments.
- Polk Township, Monroe County. Served as Sewage Enforcement Officer from 1999 to 2013.

EDUCATION

B.S. Geography, Geographic Information Systems Emphasis – Slippery Rock University, 2014

Minor in Environmental Studies

ADDITIONAL TRAINING

NECEPT Bituminous Field Technician, 2015 NECEPT Concrete Field Testing Technician, 2015 ECMS II Construction (Wave 5), 2015 Multiple Continuing Education Courses

PROFESSIONAL REGISTRATIONS

ACI Concrete Field Testing Technician - Grade I Sewage Enforcement Officer: Pennsylvania

PROFESSIONAL ASSOCIATIONS

Pennsylvania Association of Sewage Enforcement Officers Pennsylvania State Association of Township Supervisors

EXPERIENCE

Sewage Enforcement Officer - Project Inspector - Hanover Engineering

As a Sewage Enforcement Officer, Mr. Gray has been responsible for enforcing the Pennsylvania Sewage Facilities Act in municipalities throughout Lehigh, Northampton, Berks, Carbon, and Monroe Counties. In this capacity, he has provided diligent, cost-effective services, including soil testing, site evaluation, sewage system designs, and inspections.

In addition, Mr. Gray has experience in construction observation, environmental inspection, and testing of public and private improvements for site development. He is experienced in completing reports, weekly inspections, and resolving issues during construction for permit compliance. He is experienced in Arc GIS, as well as working on survey crews utilizing GPS for field collection of data.

Examples of Specific Experience

- Cherokee Street Repaving Project, Fountain Hill Borough, Lehigh County. Provided construction
 observation for the repaving of Cherokee Street. Performed temperature checks, verified paving depth
 for consistency, collected and documented weight slips, and tracked project tonnage.
- FedEx Ground Hub Land Development, Allen Township, Northampton County. Oversaw the
 installation of the storm sewer system. Monitored trench excavation, placement of bedding material,
 slope checks, proper trench backfill procedures, and quality control of incoming material.
- Natural Gas Pipeline Project. Served as an Environmental Inspector during construction of pipeline.
 Completed daily and weekly inspections to ensure permit compliance. Worked with contractor and client to resolve any Issues in an efficient manner.
- Natural Gas Pipeline Project. Completed survey stake out of right-of-way in wooded areas in addition to access points in preparation for clearing crew. Prior to construction, oversaw geotechnical sampling in areas of proposed horizontal directional drill bores.
- Natural Gas Pipeline Project. Served as an Environmental Inspector on 3.5-mile natural gas
 conversion project. Completed weekly and daily environmental inspections to ensure local, state, and
 federal permit compliance and associated reports. Completed environmental inspections during
 construction through the restoration of the project. Resolved any issues by working closely with the
 contractor and the project owner.

Natural Gas Pipeline Project. Served as Environmental Inspector on 9.5-mile natural gas pipeline
project. Completed required weekly inspections and associated reports. Completed daily inspections to
ensure permit compliance while overseeing clearing and right-of-way grading activities. Oversaw
stream and wetland crossings during construction of project. Attended weekly inspector meetings with
project owner to provide progress updates during construction.

Examples of Appointments

- Emmaus Borough, Lehigh County. Appointed Sewage Enforcement Officer from 2016 to present.
- Fountain Hill Borough, Lehigh County. Appointed Sewage Enforcement Officer from 2016 to present.
- Upper Saucon Township, Lehigh County. Appointed Sewage Enforcement Officer from 2016 to present.
- East Allen Township, Northampton County. Appointed Sewage Enforcement Officer from 2016 to present.
- Hanover Township, Northampton County. Appointed Sewage Enforcement Officer from 2016 to present.
- Lower Saucon Township, Northampton County. Appointed Sewage Enforcement Officer from 2017 to present.
- Coolbaugh Township, Monroe County. Appointed Sewage Enforcement Officer from 2016 to present.
- · Eldred Township, Monroe County. Appointed Sewage Enforcement Officer from 2016 to present.
- Longswamp Township, Berks County. Appointed Alternate Sewage Enforcement Officer from 2016 to present.
- Salisbury Township, Lehigh County. Appointed Alternate Sewage Enforcement Officer from 2016 to present.
- South Whitehall Township, Lehigh County. Appointed Alternate Sewage Enforcement Officer from 2016 to present.

EDUCATION

B.A. Geology - Rutgers University, 1986

ADDITIONAL TRAINING

OSHA Certification for Hazardous Materials Workers Sewage Enforcement Officer Certification Host Municipality Inspector Certification

PROFESSIONAL REGISTRATIONS

Professional Geologist: Pennsylvania Sewage Enforcement Officer: Pennsylvania

Host Municipality Inspector: Pennsylvania Department of Environmental Protection

PROFESSIONAL ASSOCIATIONS

Pennsylvania Association of Sewage Enforcement Officers Pennsylvania Council of Professional Geologists Pennsylvania Ground Water Association

EXPERIENCE

Geologist -- Hanover Engineering

Mr. Taylor provides geological services for Hanover Engineering. In this capacity, he supervises the installation of test wells, collects and catalogs formation samples, writes descriptive well logs, identifies water-bearing zones, and directs blown yield testing. He supervises construction of production wells, directs well development work, evaluates well yields, and creates final well diagrams. He directs construction of monitoring wells, inspects and documents materials and quantities installed, and creates final well diagrams. He directs execution of pumping tests, including 8-hour step tests and 24- and 48-hour constant rate tests, conducts manual monitoring of water levels in production well and observation wells, plots drawdown data, calculates well performance, and directs appropriate adjustments to pumping rates.

Mr. Taylor conducts slug testing of monitoring wells, and sets up and programs pressure transducers to record water levels. He directs geotechnical-boring investigations of sites, collects and catalogs soils and bedrock samples, evaluates samples, and writes descriptive logs of borings. Mr. Taylor conducts Phase I Environmental Site Assessments (ESA), in accordance with the All Appropriate Inquiries (AAI) Rule. He reviews carbonate geology studies pursuant to local municipal regulations, conducts soil probes and percolation tests to evaluate site suitability for sewage disposal, and designs onlot sewage disposal systems for residential and commercial units.

Examples of Specific Experience

- Ferlauto Tract, Bedminster Township, Bucks County. Oversaw construction of monitoring wells
 and performed slug tests to determine loading rates from community sewage system.
- Covington Industrial Park, Covington Township, Lackawanna County. Supervised installation of production wells and pumping tests to supply domestic and fire suppression water for proposed industrial development.
- Lynn Township, Lehigh County and Albany Township, Berks County. Directed pumping tests to determine aquifer characteristics and optimum yield for regional hydrogeologic study.
- PPL, Allentown, Lehigh County. Supervised test well and production well installation, pumping tests, and geotechnical borings for power generator construction projects in several municipalities.
- Agere Systems, Inc., City of Allentown, Lehigh County. Observed drilling of borings for construction of caissons to support proposed chiller unit.
- Airport Center, Hanover Township, Lehigh County. Supervised geotechnical borings, fieldevaluated soil and bedrock samples, completed a Phase I ESA, and prepared associated reports.

Christopher A. Taylor, PG, SEO, HMI

- KidsPeace Broadway Campus, Salisbury Township, Lehigh County. Conducted a Phase I ESA to satisfy conditions of grant approval. Completed stormwater testing for design of infiltration facilities.
- Zawarski Project, Upper Macungie Township, Lehigh County. Conducted a Phase I ESA and a
 Phase II ESA including soil sampling, overseeing installation of monitoring wells, and groundwater
 sampling.
- Proposed Residential Development, Butler Township, Luzerne County. Conducted a Phase I ESA and assessed water supply and site contamination issues caused by two adjacent underground storage tank release sites. Evaluated the location and availability of existing public water systems and researched area properties to assess the viability of constructing off-site water supply wells.
- Berean Bible Church, Stroud Township, Monroe County. Assessed existing and proposed sewage flows, conducted soil testing, and designed sewage system utilizing flow equalization to accommodate church expansion.
- Louise Moore Park, Bethlehem Township, Northampton County. Supervised installation and testing of public water supply well to serve this County Park.
- First Regional Compost Authority, East Allen Township, Northampton County. Project included siting and installation of a production well to supply water for existing composting facility.
- Orban Tract, Lower Saucon Township, Northampton County. Evaluated municipal recreation
 park site including performing a Phase I ESA, supervising subsurface investigation using air-track
 drilling, and preparing a Carbonate Geology Report.
- Tott's Gap Area, Upper Mount Bethel Township, Northampton County. Completed Phase I ESAs on numerous parcels to be acquired for incorporation into the Northampton County Park System. Conducted ongoing inspections of two earthen dams in accordance with the Pennsylvania Dam Safety and Encroachments Act.
- William Shi Project, Dingman Township, Pike County. Project included installation of a production
 well to supply domestic and fire suppression water for proposed multifamily residential development.
- Borough of Adamstown, Lancaster County. Project included set up and supervision of stepdrawdown and constant rate pumping tests, installation, programming, and download of data loggers, completion of research and reporting for Susquehanna River Basin Commission application for groundwater withdrawal pursuant to re-permitting existing public water supply wells.
- Mount Joy Township Authority, Lancaster County. Observed installation of ground source heat pump wells for compliance with Municipal Ordinances. Conducted development of new public water supply wells. Work included researching area geology and existing high-production wells, siting and installation of test wells, design and construction of production wells, and monitoring of area wells to determine potential interference affects.
- Stormwater Testing, Various Projects. Evaluated requirements and conducted soil and permeability testing for stormwater infiltration on numerous residential and commercial projects.
- Professional Geologic Services, Various Municipalities. Reviewed environmental impact statements, hydrogeologic reports, carbonate geology reports, and stormwater testing reports prepared for proposed developments. Determined compliance with Municipal Ordinances and issued comment letters to municipal officials.
- Sewage Enforcement Services, Various Municipalities. Conducted and witnessed percolation tests, inspected sewage systems under construction, reviewed sewage system designs and issued permits, designed conventional and alternate systems, and conducted needs assessment surveys.
- Host Municipality inspector Services, Lower Saucon Township, Northampton County. Conducted inspections of facility, met with landfill personnel to determine and discuss status of operations, and prepared reports of findings for Township. Conducted monthly meetings of Landfill Committee and quarterly meetings of Technical Consultant Committee to discuss current landfill issues. Reviewed and maintained files for landfill-related documents and correspondence, including inspection reports generated by the Department of Environmental Protection and reports generated by the landfill owner. Provided testimony at Township meetings regarding landfill status.

EDUCATION

Bloomsburg University of Pennsylvania, 1991 - 1995

ADDITIONAL TRAINING

PASPGP-5 Training - Marcellus Shale Coalition, 2016

Pennsylvania Department of Environmental Protection ESCGP-2 Training, 2013

Hydric Solls - The Field Indicators and More Professional Development Program, 2013 - Wilkes University

Pennsylvania Department of Environmental Protection Marcelius Shale Industry Training, 2012

Pennsylvania Department of Environmental Protection MS4 Training, 2012

U.S. Army Corps of Engineers Regional Supplement Training, 2009, 2011 – Pennsylvania Association of Professional Soil Scientists

MS4 Permitting Status and Strategies, 2011 - Lancaster County Clean Water Consortium

Introduction to Wetland Delineation - Rutgers University

Multiple Continuing Education Courses and Webinars

PROFESSIONAL REGISTRATIONS

Sewage Enforcement Officer: Pennsylvania

PROFESSIONAL ASSOCIATIONS

Pennsylvania Association of Sewage Enforcement Officers Society of Wetland Scientists

EXPERIENCE

Project Scientist/Sewage Enforcement Officer - Hanover Engineering

As Project Scientist for Hanover Engineering, Ms. Kemecsy has over 10 years of professional experience in sewage enforcement, wetland delineation, environmental permitting, GPS data collection, stormwater infiltration testing, Municipal Separate Sewer System (MS4) reporting, wetland mitigation, surveying, and trail planning, design, and construction. She routinely works with various federal, state, and local regulatory agencies, including the U.S. Army Corps of Engineers, Pennsylvania Department of Environmental Protection, U.S. Fish & Wildlife Service, Pennsylvania Department of Conservation and Natural Resources, Pennsylvania Fish & Boat Commission, Pennsylvania Game Commission, and the Pennsylvania Historical and Museum Commission.

Examples of Specific Experience

- Environmental Permitting. Prepared Joint Permit Applications, General Permit Applications, and Erosion and Sediment Control General Permit Applications for numerous projects impacting wetlands and waters in Pennsylvania. Specific permit application tasks include, but are not limited to, preparing Wetland and Waters Evaluation Reports and mapping, Wetland Determination Data Forms, Environmental Analysis Reports, Mitigation Reports, Act 14 Notifications, and assisting with adherence and compliance with Section 106 relating to the National Historic Preservation Act of 1966 and the Endangered Species Act of 1973.
- Wetland Delineation. Experienced with identifying wetland vegetation, hydrologic indicators, and hydric soil conditions consistent with the regulations set forth in both the U.S. Army Corps of Engineers 1987 Delineation Manual and subsequent Regional Supplements. Conducted Wetland Determinations and Wetland Delineations for numerous project sites in Bradford, Lehigh, Monroe, and Northampton Counties in Pennsylvania, as well as project sites in Maryland.
- Wetland Mitigation / Streambank Restoration. Facilitated successful mitigation projects by
 coordinating a myriad of specific initial site assessments followed by actual construction and postconstruction monitoring. Ms. Kemecsy's careful attention to the initial aspects have ultimately ensured
 success and alleviated clients from prolonged monitoring requirements. Ms. Kemecsy's understanding

- of hydrology, soils, and wetland functions and values has allowed her to accurately identify feasible sites as well as aid in the development of conceptual mitigation designs. She has also developed post-construction monitoring plans and as-built plans capable of satisfying permit conditions.
- Trail Design. Experienced in the planning, design, and construction of trails and trail systems with a
 specific focus on physical, ecological, and economic sustainability. Based on these sustainability
 principles, she has consistently provided a unique insight to trail design that encourages proper use,
 results in the protection of natural resources, and requires minimal maintenance and cost over the life
 cycle of the trail project.
- Sewage Enforcement Officer. Responsible for enforcing the Pennsylvania Sewage Facilities Act for numerous municipalities throughout Monroe and Carbon Counties. In this capacity, she has provided diligent, cost-effective services, as well as meaningful interaction with municipalities, the Pennsylvania Department of Environmental Protection, and the public.

Examples of Appointments

- Coolbaugh Township, Monroe County. Appointed Sewage Enforcement Officer from 2009 through 2011 and reappointed again in 2018.
- East Allen Township, Northampton County. Appointed Sewage Enforcement Officer from 2016 to present.
- Lower Saucon Township, Northampton County. Appointed Sewage Enforcement Officer from 2017 to present.
- Penn Forest Township, Carbon County. Appointed Sewage Enforcement Officer from 2009 to 2011.
- Eldred Township, Monroe County. Appointed Sewage Enforcement Officer from 2009 to 2011.
- Polk Township, Monroe County. Appointed Sewage Enforcement Officer from 2009 to 2013.
- Tunkhannock Township, Monroe County. Appointed Sewage Enforcement Officer from 2009 to 2010.