

Environmental Property Transfer  
Site Assessments

Underground Tank Management

LUST & RCRA Environmental  
Closure Plans & Permits

Groundwater Hydrogeologic  
Investigations & Monitoring

Wetland Mitigation  
Studies & Permits

*SEECO Environmental Services, Inc.*  
SPECIAL AND HAZARDOUS WASTE MANAGEMENT

Hazardous Waste Site  
Environmental Assessments &  
Remedial Design

Hydrocarbon Contaminated  
Soils & Groundwater  
Remediation Design &  
Clean-Up

Asbestos Management Services

Industrial Hygiene Services  
Indoor & Outdoor Air

QUALIFICATIONS  
AND  
SERVICES

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## INTRODUCTION

### Background

*SEECO Environmental Services, Inc. (SES)* is a full service environmental consulting firm that was established in 1991. The company was created to provide environmental investigations, environmental engineering, remediation design and cleanups and consulting services for our clients in the Midwest. *SES* is an affiliate of *SEECO Consultants, Inc.*, which is a full service engineering consulting firm that provides comprehensive geotechnical engineering services, construction field services and special engineering services, including structural design that was established in 1970. *SES's* Drillers are represented by Local 150 of the International Union of Operating Engineers.

In the 1980s, environmental services were provided by *SEECO Consultants* and centered around Phase I environmental site assessments, Phase II subsurface investigations and underground storage tank management and closures, some of which were associated with civil engineering projects. *SEECO Consultants* also provided investigations and monitoring for industrial clients, landfill facilities and municipalities. Environmental services and capabilities were expanded to accommodate the increasing needs of industrial clients (air quality modeling and permitting, asbestos abatement and removal, NPDES permits, SPCC plans, site remediation, RCRA compliance, SARA Title III), lenders (Phase I and Phase II assessments), developers (Phase I and Phase II assessments and site remediation), various commercial businesses (Phase I ESAs, combination geotechnical/Phase II subsurface Investigations) and federal, state and local government agencies. *SES* was established with this expansion.

Hydropunch groundwater sampling equipment and direct push technology were added to the drilling equipment and capabilities in 1991 and 1995, respectively. *SES* and *SEECO Consultants, Inc.* own seven truck-mounted drill rigs, two (2) all-terrain drill rigs, one skid rig, and two floating barges for off-shore investigation work. Operating our own drill rigs presents a two-fold advantage over many of our competitors: we can schedule a drill rig for on-site work immediately, and we are able to closely monitor and control our drilling teams and the quality of the samples and data collected. This flexibility is not possible with many other environmental firms which subcontract their drilling requirements.

A mobile laboratory with a portable gas chromatograph was purchased for analyzing benzene, toluene, ethylbenzene, and xylenes (BTEX) and volatile organic compounds (VOCs) to expedite investigation, reporting and closure of leaking underground storage tanks (underground storage tank) sites and remediation at industrial sites for our clients. On-site analyses can significantly reduce the amount of time and analytical costs for large remediation projects or projects where time is a critical factor and accelerated site characterization has been chosen to expedite corrective action at a contaminated site.

Environmental services are conducted primarily in the Midwest in Illinois, Indiana, Michigan and Wisconsin; however, our services are provided throughout the United States for our nationally located clients. *SES* is a Small Business Enterprise (SBE).

Consistent quality service, high professional standards and our concern for the clients needs have contributed to our steady growth. The *SES* Team consists of professional engineers, environmental engineers, hydrogeologists, geologists, environmental consultants, and technicians. These team members are supported by an organizational structure and operating philosophy that emphasizes cost effective solutions for environmental issues, combines state-of-the-art technology and training and a **total quality management/quality management system** to ensure that we meet the expectations of our clients on each project.

An integral part of our philosophy toward project management is simple: Put experienced and proven project managers on the job and give them the resources they require to accomplish the project goals.

## **Services**

*SES* provides a wide range of environmental consulting services to meet the needs of heavy industry, manufacturing and commercial businesses, the banking industry, insurance companies, real estate firms and developers, A and E consulting engineering firms, local, state and federal government agencies. *SES* has provided services to the U.S. Army Corps of Engineers Chicago District, the City of Chicago, the Metropolitan Water Reclamation District of Greater Chicago, the Illinois Department of Transportation, the Indiana Department of Transportation, the Illinois Capital Development Board and various municipalities within the Greater Chicago Metropolitan area.

The firm provides environmental assessments, remedial design and site remediation services, compliance audits and facility permitting, expert testimony and agency negotiations, geotechnical testing and construction/remediation management, various plans to comply with environmental regulations such as a spill control and countermeasure plan, air monitoring and sick building investigations. *SES* staff experience includes, but is not limited to, solid waste landfill closures, project management, design and coordination of Investigation and remediation at state and federal Superfund sites, underground storage tank closure and reimbursement; Phase I, Phase II and compliance audits of heavy industrial sites, including petroleum refineries and steel mills, foundries and chemical plants; operating facility permits for air emissions, wastewater discharges, storage, handling treatment and/or disposal of hazardous substances or wastes; remedial design including SVE and air sparge systems, in-situ bioremediation and bioventing, and natural attenuation; risk assessment and remedial investigation/feasibility studies, wetlands delineation, and on-site environmental laboratory testing and analyses.

## **QUALITY ASSURANCE/QUALITY CONTROL**

*SEECO Environmental Services, Inc.* maintains a quality assurance program (QAP) and written standard operating procedures (SOPs) for the functions at *SES* that are included in the *SES* Company Handbook, field guidance manuals and quality management system (QMS). The QAP and QMS include work in the field to ensure that quality assurance and quality control are implemented and maintained at all levels within the company.

The QAP is supported and administered by management. The QAP includes weekly project management meetings, monthly safety and quality meetings, vehicle and equipment service meetings and reports, in-house technical seminars and documents and a principal/peer review system for all projects and reports.

**Every report prepared by *SES* is reviewed by a Licensed Professional Engineer.**

## **HEALTH AND SAFETY PROGRAM**

*SES* has a written Health and Safety Program that outlines policy, procedures and guidelines that are implemented through the participation of all levels of personnel. This plan outlines the health and safety procedures that must be followed for any environmental or construction project.

Senior *SES* field personnel (drillers, helpers, field geologists and environmental technicians) have

Occupational Safety and Health Administration (OSHA), 40-hour training for hazardous waste site workers in accordance with 29 CFR1910.120, and Annual HAZWOPER refresher courses are attended. Corporate safety meetings are conducted monthly and project specific health and safety meetings are held for each project prior to initiation of field work where there are known or suspected exposure risks in accordance with a written health and safety plan. Additionally, *SES* field personnel participate in a comprehensive medical monitoring program. *SES* personnel are trained and capable of working on projects requiring all levels of personnel protective equipment (levels A through D). *SES* will complete and implement a health and safety plan for each project when no other plan is provided by the Client. *SES* staff is trained to serve as the health and safety officers, and *SES* maintains air monitoring equipment and other project monitoring equipment.

## **PROJECT MANAGEMENT**

*SES* project managers are involved at the inception of a project and generally have responsibility of a project from proposal to completion. There are weekly and monthly project meetings to monitor project progress, health and safety, identify any problem areas or timeline deficiencies, to evaluate contractor and/or subcontractor performance, billing and/or audits for purchase orders and contracts for services to verify compliance with the scope of work.

One of the key constituents for *SEECO Environmental's* success is our staff of highly experienced professionals who can provide a wide range of consulting services and have the ability to be the “single source” point of contact for the client as well as the project manager/project administrator.

## **INSURANCE**

*SES* carries comprehensive insurance coverage that includes the following: General liability, automobile liability, excess liability, workers' compensation and employer's liability, and professional and pollution liability. The general, umbrella liability and professional/pollution liability coverages have an aggregate limit of \$8,000,000 per year (please refer to the attached copy of our current Certificate of Liability Insurance in this brochure).

Increased coverage available upon request.

## **ENVIRONMENTAL SERVICES AND CAPABILITIES**

### **Environmental Consulting Services**

- ❖ Phase I Environmental Site Assessments
- ❖ Phase II Subsurface Investigations and Remedial Environmental Engineering Design
- ❖ Phase III Environmental Cleanups and Closure Documentation
- ❖ Leaking Underground Storage Tank Management, Investigation, Remediation and Closure
- ❖ Underground Storage Tank Reimbursements
- ❖ Risk Assessments and Risk-Based Corrective Action

- ❖ RCRA Permits and Closure Plans
- ❖ Contingency Plans
- ❖ Geotechnical Investigations and Testing
- ❖ NPDES Permits and Stormwater Pollution Prevention Plans
- ❖ Consent Order Consulting and Negotiations
- ❖ State and Federal Grants and Loans
- ❖ Environmental Compliance Audits and Operating Facility Permits
- ❖ Spill Prevention Control and Countermeasure Plans (SPCC)
- ❖ Clean Construction Demolition Debris (CCDD) soil sampling, field screening & completion of LPC-663 form “Uncontaminated Soil Certification by Licensed Professional Engineer” prior to legal disposal.
- ❖ Soil and Groundwater Remediation Systems
- ❖ Hazardous Waste Site Assessments and Remediation
- ❖ Expert Testimony
- ❖ Wetland Studies and Wetland Mitigation Permits (404B)
- ❖ Materials Sampling and Chemical Analyses
- ❖ Landfill Monitoring and Closures (Part 809, 810 and 811 of IAC)
- ❖ Industrial Hygiene Services
- ❖ Remediation Life Cycle Cost Estimates

### **Selected Exploration/Investigation And Testing Equipment**

- ❖ Mobile Laboratory-Hnu Model 311 Portable Gas Chromatograph (BTEX/VOCs)
- ❖ Seven Truck-Mounted Drill Rigs, One All-Terrain, One Skid Rig, and Two Floating Plant Barges
- ❖ 1,700-Gallon Water Tank Truck
- ❖ Soil Gas Sampling Equipment
- ❖ Direct Push Sampling Equipment
- ❖ Hydro-Punch<sup>®</sup> Sampling Equipment
- ❖ Inventory of Groundwater Monitoring Well Equipment

- ❖ Seis DAQ Refraction and ReMi Y30+ Recording System
- ❖ Ground Penetrating Radar Equipment
- ❖ Soil Vapor Extraction System Equipment
- ❖ Brainard-Kilman Triaxial/Permeameter Testing System
- ❖ Lysimeters and Piezometers
- ❖ Three Portable Truco Core Drills (concrete and pavement)
- ❖ High Pressure Steam Cleaner
- ❖ Field Inclometers
- ❖ Photoionization Detectors (PIDs)
- ❖ Packer Rock Pressure Testing for In-Situ Permeability
- ❖ Groundwater Dewatering Pumps
- ❖ Menard Pressure Meter
- ❖ Dual-Diaphragm Groundwater Sampling Pumps
- ❖ Geoguard 1.5-inch Well Development Pump with Oil-Less Air Compressor
- ❖ Four (4) Survey Instruments and one (1) Total Station (EPM)
- ❖ Complete Physical/Geotechnical Laboratory Approved by USACOE, IDOT, INDOT, and MWRDGC

## **ENVIRONMENTAL CONSULTING SERVICES**

### **Phase I Environmental Site Assessments**

*SEECO Environmental Services, Inc. (SES)* performs Phase I environmental site assessments in conformance with the American Society for Testing and Materials (ASTM) Standards (E 1527 and E 1528). Phase I assessments may be customized to meet the needs of the client.

Site reconnaissance is performed to evaluate the site and adjacent properties for the presence of hazardous and/or toxic materials, spills and evidence of recognized environmental conditions in connection with the subject property, as defined by ASTM. Interviews of property owners, occupants and local authorities are conducted to determine first-hand knowledge of historical events which may have occurred on the subject or adjacent properties. A study of structures for potential presence of asbestos, lead paint, radon, and hydrogen sulfide gas may also be performed when required.

Commercially available databases of State and local agency information are reviewed for the history of

land use and agency reporting or notifications including locations of RCRA hazardous waste facilities, locations of Federal or State Superfund sites, locations of landfills, and locations of leaking underground storage tank sites. Reasonably ascertainable state geological survey data, including topographic maps, state water survey data, historical aerial photographs, and Sanborn fire insurance maps are reviewed. In many cases a title search or tract search is performed to identify property ownership. Hazardous waste research and information center data, national flood insurance and floodway maps, national wetlands inventory maps, and other pertinent data sources may also be reviewed and included.

A Phase I Report is prepared which details the information obtained and recognized environmental conditions or environmental concerns are identified. The Report will include or present an opinion related to potential environmental impact associated with known or suspect conditions identified, recommendations for additional investigation or testing deemed necessary and the signatures of the environmental professionals responsible for the Report.

## **Phase II Subsurface Investigations and Assessments**

Phase II investigations are performed to evaluate known contamination and/or information presented in a Phase I environmental site assessment to determine the existence of impacts from potential or identified sources of environmental contaminants. The Phase II investigation may include, but is not limited to: Sampling and testing of surficial and/or subsurface soils from soil borings or test pits; sampling and testing of vessels, equipment, spilled material, tanks or containers; air sampling and testing; building material sampling and testing; surface water sampling and testing, and groundwater sampling and testing from the installation of monitoring wells.

In some cases environmental contamination is identified at a construction project or during geotechnical investigation prior to development of a site. *SES* and *SEECO* Consultants are positioned to address both environmental and geotechnical investigations. Environmental impacts may be investigated simultaneously with the geotechnical investigation as a planned investigation or incorporated into an existing investigation when impacts have been identified. This service can reduce the overall costs associated with investigation and development of property.

The complexity of any Phase II investigation will depend on a number of factors including the impacted media, the type of contaminants and the locations or size of the impacts. Timing can also be a critical factor. An investigation can be limited to simply identify if contamination exists or it can be a comprehensive site characterization investigation or risk assessment to identify each potential area of concern, the indicator contaminants and concentrations, and the vertical and horizontal impact to soil and/or groundwater to supply information for a site in a State or Federal cleanup program. It may also be a remedial investigation/feasibility study (RI/FS) to identify the impacts and evaluate cleanup methods and alternative technologies, such as soil vapor extraction or bioremediation or a risk assessment for determining risk based corrective action to close a site in an agency program such as the leaking underground storage tank program.

*SES* has the capacity to complete Phase II investigations, RI/FS, and risk assessments, hazardous waste assessments and waste stream assessments for operating facilities, abandoned sites and spills. *SES* has the experience and equipment to complete accelerated site characterization (ASTM E 1912). Site characterization can be lengthy and time consuming, especially off-site investigation to define soil and groundwater plumes. Very often it may take weeks and several mobilizations to complete the extent of contamination investigation. *SES* can plan and negotiate accelerated site characterization and provide the on-site testing results with our mobile laboratory, with closure soil testing at an accredited environmental laboratory.

In addition to our sampling and testing equipment, *SES* has complete decontamination facilities including pressure washers, a high pressure steam cleaner and personnel protective equipment (PPE), pads, booms and a portable decon pad. Soil cuttings, decon fluids, monitoring well development and excess sampling water and PPE may be properly containerized and disposed, as needed.

Field screening of soils obtained while drilling with portable instruments and tests may be performed on suspect materials encountered during the site investigation to identify the presence of volatile organic materials, petroleum hydrocarbons, polychlorinated biphenyls (PCBs), and/or other hazardous materials.

Laboratory analyses of suspect materials may be performed for numerous chemical parameters which may include: Total petroleum hydrocarbons (TPH), chlorinated solvents, heavy metals, PCBs, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides and herbicides, and cyanide.

A typical Phase II subsurface investigation Report details the information obtained in the field and the testing data from the laboratory, general site information, tabulated analytical testing results, soil boring logs, site maps and a discussion of the findings and testing results with a comparison to current State or Federal baseline cleanup objectives.

In many cases the concerns associated with known or suspect contamination are: (1) defining the amount of contamination and (2) the cost estimate to remediate the site. Based on the requirements of the client, the report conclusions may include site characterization data, current and projected impacts to sensitive receptors and the potential for liability exposure and remediation cost estimates and/or remediation life cycle cost estimates where long term systems may be involved.

### **Clean Construction or Demolition Debris (CCDD)**

As part of the IEPA requirements for Source Site Certification for Clean Construction or Demolition Debris/ Uncontaminated Soil Fill Operation, SEECO can perform source/site specific services. As part of the criteria for SEECO to provide a Professional Engineer's Certification of Commercial or Industrial sites (including on ROW sites) on IEPA LPC-662 or LPC-663 Forms, the following services will be applicable:

#### Scenario 1 –During the Geotechnical Study

SEECO will review readily available/accessible IEPA databases and commercially available databases for potential locations adjacent to or part of the project limits which have the potential for subsurface contamination issues, i.e. Potentially Impacted Properties (PIPs). Assuming no locations exhibit said potential, the geotechnical soil boring scope of work will be performed. If the data review indicates otherwise, than the geotechnical scope of services will be modified. All soil samples obtained as part of the geotechnical investigation will be field screened for the presence of volatile organic vapors using a photo ionization detector (PID). Visual and olfactory senses will also be used to screen the soil samples for the presence of petroleum hydrocarbons. A pH analysis will be performed for each boring. If no samples display an elevated PID reading, and the pH results meet the MAC table, then the soil will be assumed to be, to the best of our knowledge, clean, uncontaminated fill material. This information will be documented on the IEPA LPC-662 or LPC-663 form, whichever is applicable. One (1) form will be prepared per street/roadway section or site. Screening or pre-screening of samples at job site is no guarantee that the CCDD landfill facility will accept/not reject materials. Nor is it a determination that the site is entirely clean of contaminants per IEPA standards.

Scenario 2 - Disposal sampling for preconstruction—Depending on whether the site is in design or construction phase, representative soil borings/probes may be performed solely for CCDD purposes. SEECO will review readily available/accessible IEPA databases and commercially available databases for potential locations adjacent to or part of the project limits which have the potential for subsurface contamination issues, i.e. Potentially Impacted Properties (PIPs). Assuming no locations exhibit said potential, the sampling scope of work will be performed. During the performance of said borings/probes, soil samples obtained are collected and field screened for the presence of volatile organic vapors using a photo ionization detector (PID). Visual and olfactory senses are also used to screen the soil samples for the presence of petroleum hydrocarbons. A pH test will be performed on a sample from each boring/probe. If no samples display an elevated PID reading, and the pH results meet the MAC, then the soil is assumed to be, to the best of our knowledge, clean, uncontaminated fill material. This information is documented on the IEPA LPC-663 form.

Scenario 3 - Stockpiled Soils from Various Sites—Representative soil samples are collected and field screened for the presence of volatile organic vapors using a photo ionization detector (PID). Visual and olfactory senses are also be used to screen the soil samples for the presence of petroleum hydrocarbons. Addresses of former locations stockpiled here are reviewed for PIPs. SEECO will review readily available/accessible IEPA databases and commercially available databases for potential locations adjacent to or part of the project limits which have the potential for subsurface contamination issues, i.e. Potentially Impacted Properties (PIPs). Assuming no locations exhibit said potential, the sampling scope of work will be performed. A pH test will be performed on a sample from each boring/probe. If no samples display an elevated PID reading, and the pH results meet the MAC, then the soil is assumed to be, to the best of our knowledge, clean, uncontaminated fill material. This information is documented on the IEPA LPC-663 form.

Scenario 4 –

Chemical Analysis- If due diligence activities indicate that the site, or stockpiled locations are, or are adjacent to a PIP, and/or if representative soil samples screened for the presence of volatile organic vapors using a photo ionization detector (PID) and/or visual and olfactory senses utilized to screen the soil samples display an elevated PID reading, then the representative soil samples determined by field observations, and or due diligence, to be the most conducive to transmitting potential contamination may be analyzed for composite sample will be chemically analyzed by an Environmental Laboratory for the some, or all of following TACO Tier One parameters: 8260 – VOCs, 8270- SVOCs, 8081/8082 - Pesticides and PCBs, 6010 (8 RCRA Metals only - Ar, Ba, Cd, Cr, Pb, Se, Ag), 7470 - Mercury (Hg), and pH. If chemical analysis results indicate no contamination above TACO Tier 1 objectives, then the soils tested will be assumed to be, to the best of our knowledge, clean, uncontaminated fill material. Sample testing parameters will be dictated by relevant data gleaned from the due diligence tasks. This information will be documented on the IEPA LPC-663 form(s). If test results indicate that the soils are contaminated above said objectives, we will consult with you regarding alternate means of disposal.

### **Asbestos**

Asbestos surveys are performed in accordance with the asbestos requirement of the National Emission Standard for Hazardous Air Pollutants (NESHAP) for building Demolition/Renovation. The surveys identify suspect asbestos containing building material (ACBM) inside the facility, estimate material quantities, determine friability, and assess material conditions using the EPA Inspector's Homogeneous Area Assessment Decision Tree. They also include sampling suspect ACBM and analyzing bulk samples by Polarized Light Microscopy (PLM) using a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory. Reporting includes a summary table which indicates

homogeneous material description, ACBM description, type, quantity, friability, bulk sample number, and whether asbestos is present. The report also includes an estimate of material quantities for each homogenous material that is found to contain asbestos. The asbestos surveys are performed and the report is signed by an Illinois Department of Public Health (IDPH) Asbestos Building Inspector.

### **Risk Assessments**

*SES* performs risk assessments as part of the evaluation process for contaminated sites in various state or federal programs such as leaking underground storage tanks (underground storage tank), Resource Conservation and Recovery Act (RCRA) permitting and closure, various voluntary cleanup programs such as the Illinois Site Remediation Program (SRP) and Superfund. *SES* has completed numerous risk assessments for petroleum releases to obtain “No Further Remediation” determination letters from the IEPA underground storage tank Program for many of our clients.

The risk assessment is used to determine the potential for risk to human health and the environment and to generate target cleanup levels for remediation of a site. A three-tiered risk-based approach for evaluating risk to human health outlined by the USEPA site screening guidance, the Illinois EPA Title 35 IAC Part 742 Tiered Approach to Corrective Action Objectives (TACO) and ASTM risk based corrective action is used. The risk assessments involve collection of site data to complete site characterization and a Tier 1 evaluation which includes comparison of sampling data to the Tier 1 look up tables. The Tier 1 objectives are based on conservative assumptions and take into account only limited site-specific information related to exposure pathways and the class of groundwater. In order to complete a Tier 1 evaluation for submission to an agency for review and approval the concentrations of the chemicals of concern and the extent of contamination must be known, the groundwater class, human exposure routes that exist, land use classification and in some cases soil pH.

In developing remediation objectives and evaluation of a site the tiered approach allows for the exclusion of exposure routes and the use of area background concentrations as remediation objectives. The selection of the Tier or Tiers that may be used is dependent upon site conditions, future use of the site and the corresponding remediation goals of the client.

Tier 2 evaluations incorporate site-specific data and simple models and equations to generate Tier 2 remediation objectives for a site. These objectives are equally protective of human health and the environment and are considered conservative. These objectives can allow a responsible party to leave contamination in place at higher levels than the Tier 1 levels. The Tier 3 evaluations allow for alternative parameters and factors not available under Tier 1 or a Tier 2 evaluation to be considered when developing remediation objectives. This evaluation is developed through more formal risk assessment procedures and more sophisticated fate and transport models and probabilistic data analysis.

### **Wetland Studies**

*SES* has experience performing wetland delineation studies as well as preparing 404B mitigation permits under the Clean Water Act with amendments. *SES* can also investigate, design, and implement wetland mitigation projects associated with large wetland sites. *SES* has completed wetland studies on properties in excess of 50 acres.

## **Compliance, Plans, Facility Permits**

### **Environmental Compliance Audits**

*SES* personnel have exceptional regulatory knowledge and extensive experience performing environmental compliance audits for operating manufacturing and industrial facilities. The audits have been performed for investment groups, law firms, banks, holding companies industrial and manufacturing companies and realtors. The audits were completed to provide information necessary to complete due diligence for a variety of transactions including real estate transfers, stock purchases, mergers and acquisitions, bankruptcy/foreclosures and plant closures, and for manufacturers to evaluate their facilities and prepare and update compliance programs.

The *SES* team has experience with a diverse amount of operating facilities including a petroleum refinery in California, steel mills, forges and foundries, an explosives manufacturer in Kansas, chemical and adhesives manufacturer in Kentucky, plastic injection molding plants, dairies, corrugated board and box and bag plants throughout the contiguous U.S., aluminum casting facilities, hospitals, machine shops, cable manufacturers, chemical plants, cathode ray tube manufacturer, quarries, printed carton manufacturers, meat processing facilities, aircraft parts manufacturers, industrial saw and file manufacturer in Massachusetts, and numerous commercial and light industrial facilities.

The compliance audit will include information contained in a Phase I environmental site assessment and the following compliance areas:

- Air Emissions
- Environmental Management System (ISO 14000)
- Pollution Prevention
- SARA/Title III/Community Right-to-Know
- Spill Prevention and Control
- Hazardous and Solid  
Waste Management
- Hazardous Substances
- Operating Permits
- OSHA
- Water-Wastewater-Stormwater
- Storage Areas
- Storage Tanks
- Toxic Substances
- TSD Facility Review
- Waste Minimization
- Wetlands and Flood Zones

The audit will involve interviews with management personnel in charge of the facility, workers and maintenance personnel, detailed site inspections and site monitoring, equipment evaluations, policy and procedures and facility manuals review, facility records and reports review, regulatory records review, review of local federal and state regulations, laws, ordinances and policies, interviews with agency personnel, as applicable, review of future environmental and equipment expenditures and new regulations.

The compliance audit report will contain the findings and conclusions of our audit, identification of areas of non-compliance and recognized environmental conditions and concerns, the information necessary to complete due diligence and build or augment environmental management systems or compliance programs. The report will also contain recommendations for further action to minimize potential liability exposure for the conditions identified.

To aid the client, the scope of the audit may include review of alternative technologies, compliance schedules, and cost estimates. Annual or periodic audit Inspections to track compliance and assist in the overall effort of achieving compliance may also be completed and reported.

The *SES* compliance audit will allow facilities to meet environmental program goals with minimal disruption to operations, provide comprehensive due diligence and regulatory information for various transactions and mergers and help reduce liability and risk.

## **Plans and Permits**

Non-compliance can lead to fines. When a facility, property or individual is cited for non-compliance it is important to attack the problem immediately and put together a team and strategy to address the item or items that are recorded. The *SES* team can lead and assist the client with agency negotiations, plans and permits to achieve compliance on a fast track basis, limit fines and reduce liability. We have worked with our clients to develop sampling plans and cleanups that are practical and meet the requirements of compliance commitment agreements, notices of non-compliance, violation notices, and various citations.

The *SES* team uses their regulatory knowledge and compliance audit experience to streamline the permit process for industry, developers and municipalities. The *SES* team experience includes RCRA Part A and B permits, air permits, National Pollutant Discharge Elimination System (NPDES) permits for wastewater and stormwater, 404B wetlands permits, facility operating permits including chemical plants, steel mills and forges, quarries, and general manufacturer siting, and permits for land development, solid waste landfills and waste transfer facilities.

In association with many permits, various plans and documentation are required. *SES* can efficiently prepare Spill Prevention Control and Countermeasure (SPCC) plans for oil storage and hazardous material storage, Stormwater Pollution Protection Plans (SWPPP) for industrial and commercial stormwater discharges, OSHA Hazard Communication Plans, Best Management Practices (BMP) plans, waste management and contingency plans for hazardous and solid waste handling, storage and disposal and Operations and Maintenance (O/M) plans. In addition to preparing the plans *SES* provides the background and our experience to help implement the plan.

## **Remediation and Closure Services**

The *SES* team has the qualifications and proven experience to investigate, design and offer the most cost effective remedial solutions for Superfund, RCRA, underground storage tank, spill and landfill sites, facility decommissioning, and construction projects. In addition to traditional dig and haul cleanup, groundwater pump and treat systems and engineered barriers, successful remediation projects utilizing alternative technology include natural attenuation, soil vapor extraction, bioremediation and bioventing and/or thermal desorption. Many clients now opt for risk based corrective action and the utilization of institutional controls, agreements and engineered barriers to leave contamination in place, where it can be demonstrated that the contamination plumes are not moving and sensitive receptors are protected. In these cases the client may elect to use or allow the use of deed restrictions and/or environmental land use

agreements. In other cases, the client chooses to remediate the site to Tier 1 residential remediation objectives to obtain the highest level of safety with respect to contaminants and exposure routes and gain state or federal documentation of the cleanup for the property.

*SES* specializes in providing a permanent remedial solution that is cost effective, meets the requirements of the regulatory agency and the needs of the client. With a background of over 30 years in the engineering and construction and many years of experience associated with environmental programs, *SES* has the experience and intuition to view projects beyond the concept and proposal phase through construction/remediation to closure and post closure.

Our experience coupled with our project management System ensures that your project is completed on schedule. Our knowledge of state and federal grant and loan programs can ensure our clients that available monetary resources will be explored. Many states now have funds available to municipalities to help communities revitalize blighted properties. *SES* expertise in site closure will ensure that the appropriate state or federal certification and documentation (“No Further Remediation” letter, Covenant Not to Sue, Return to Compliance) is achieved in a timely and efficient manner.

### **Selected Remediation and Closure Services**

- Waste Stream Testing and Analysis/Disposal Facility Acceptance
- Leaking Underground Storage Tank Closures
  - Early Action activities and Reporting
  - Site Classification
  - Corrective Action Plans
  - Corrective Action Completion Reports
  - Reimbursement
- Excavation, Transportation and Disposal
- Groundwater Pump and Treat
- Dual-Phase Extraction Systems
- Thermo Desorption (Soil Roasting)
- Soil Vapor Extraction Systems
- Bioventing
- Natural Attenuation
- Solid Waste Management Unit (SWMU) Closure
  - Drum Storage Areas
  - Incinerators
  - Waste Piles
  - Lagoons
  - Recycling Areas and Stills
- Waste Water Treatment Plant Decommissioning
- Passive Thermal Desorption
- Engineered Barriers
- Illinois Site Remediation Program (SRP)
  - Program Application
  - Site Characterization
  - Remedial Action Objectives
  - Remedial Action Plan
  - Remedial Action Completion Report
- Hazardous Materials Management and Disposal
- Indiana Voluntary Remediation Program (VRP)
  - Program Application
  - Phase II Investigation Report
  - Remediation Work Plan
  - Remediation Completion Report
- Brownfields Redevelopment Grants and Loans
- Asbestos Management
- Land Farming
- Facility Decommissioning
- Landfill Monitoring and Closures

## **DRILL RIGS, LABORATORIES AND EQUIPMENT**

*SEECO Environmental Services, Inc. (SES)* and SEECO Consultants, Inc. owns and operates eight truck-mounted drill rigs, one skid rig and two all-terrain mounted drill rigs and a segmented floating barge and row boat for off-shore drilling work. *SES* can install groundwater monitoring wells to project specifications with 4.25" I.D., 6.25" I.D., 8.25" I.D., and 12.25" I.D. hollow stem augers. The field exploration programs are conducted by senior drillers who possess many years of experience drilling throughout the continental United States and Canada.

*SES* has an inventory and warehouse of well supplies (PVC, stainless steel, sand, bentonite, caps and protective covers) and spare equipment parts that allow us to mobilize and begin a project immediately and limit down time in the event of an equipment breakdown.

Our drillers are experienced in hollow stem auger drilling, direct push technology and methods, rotary wash boring, split spoon, Shelby tube and piston sampling, auger profile sampling, large diameter soil sampling, wireline rock coring of bedrock and overburden and bedrock packer permeability (hydraulic conductivity) testing, large diameter core sampling and installation of piezometers, monitoring wells and slope indicator instrumentation. Select *SES* field personnel have OSHA 40-hour Hazwoper training and are provided with eight-hour refresher training annually.

The drilling rigs are as follows: Sprague & Henwood C-142 rotary type drilling rig, a four wheel drive mobile B-30, a four wheel drive Brainard-Kilman BK-51, an all-terrain vehicle mounted Central Mine Equipment CME-45B model rotary rig, two truck-mounted Central Mine Equipment CME-55 model rotary rigs, one (1) truck-mounted CME-75 drill rig, two (2) truck mounted Diedrich D-50s and a skid mounted Diedrich D-25. These rigs advance the soil borehole by conventional continuous flight auger, continuous hollow stem augers, and mud rotary wash methods. The CME-75 and CME-55 rigs are also fully equipped with NX wireline core drilling equipment. All of the rigs have direct push soil sampling capability, water pumps, grout pumps and carry tremie pipe for well installations. *SES* also has a 1,700 gallon water truck.

Our Mobile B-30 Rig has the following capabilities: Auger drilling with continuous augers to 100 feet, angle drilling capability, four wheel drive F-350 truck-mounted rig, which is ideal for small clearance areas and soft ground field conditions.

The Sprague & Henwood possesses the following capabilities: Auger drilling-conventional and hollow stem augers 700 feet up to six-inch hole size and 150 feet of angle drilling. Core and rotary drilling-NW drill rods, three-inch hole to depths of 2400 feet.

Our CME-45B possesses the following capabilities: Auger drilling-conventional and hollow augers to 150 feet and from depths of 75 feet up to 12 inch hole size. Core and rotary drilling-500 feet with NW rods. This rig is mounted on all terrain "Highmount" four wheel drive Gemco 300 buggy with front winch capabilities. The Highmount capabilities allow the rig to maneuver in up to 2.5 feet of water in a solid stream bed.

Our CME-55 rigs possess the following capabilities: Auger drilling-conventional and hollow augers from depths of 125 feet up to 250 feet up to 14-inch hole size. Core and rotary drilling-1,000 feet with NW drill rods. These rigs possess automatic standard penetration hammers.

Our CME-75 rig possesses the following capabilities: Auger drilling-conventional and hollow augers

from depths of 150 feet to 300 feet up to 16-inch hole size. Core and rotary drilling-1000 feet with NW rods and NW and HX wireline coring.

Our CME 750 Rig has the same capabilities as the CME 75, with all terrain accessibility.

Our BK-51 drill rig possesses the following capabilities: Auger drilling-to depths of 175 feet. Core and rotary drilling to 500 feet with NW rods.

Our D-50 drill rigs possess the following capabilities: Auger drilling-conventional and hollow stem augers from depths of 125 feet to 250 feet up to 14-inch hole size. Core and rotary drilling-1,000 feet with NW drill rods. These rigs possess automatic standard penetration hammers.

Our D-25 skid rig possesses the following capabilities: Conventional and hollow stem auger capabilities to 75 feet, core and rotary drilling to over 100 feet. The rig is trailer mounted with easy on/easy off accessibility.

We also have three (3) portable Truco core drills for drilling concrete and asphalt pavement. *SES* also owns and operates a motorized Cathead tripod rig.

### **Laboratory Capabilities**

The *SES* and SEECO Consultants, Inc., soil laboratory is fully equipped with modern laboratory grade equipment for comprehensive geotechnical soil, rock and building materials testing and a mobile Hnu Model 311 Portable Gas Chromatograph (GC) for environmental media testing for Volatile Organic Compounds (VOCs).

The following tests may be performed at the *SES* facility: conventional visual soil and rock classification of samples, unconfined compressive strength, unit weight determination, natural moisture content, organic content, density, specific gravity, sieve, hydrometer, Soil pH, hand penetrometer, compaction tests, Atterberg limits and Triaxial shear tests with or without pore pressure measurements and consolidation testing equipment are available in our laboratory for more elaborate testing programs. The Brainard-Kilman Triaxial/Permeameter Testing System also allows *SES* to perform ex-situ permeability testing. All geotechnical laboratory testing is done in accordance with the latest applicable American Society for Testing and Materials standards under the supervision of the SEECO Senior Project Engineer/Geotechnical Lab Manager.

*SES* has an Hnu Model 311 Portable Gas Chromatograph (GC) which is equipped to perform Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) or Volatile Organic Compound (VOC) analyses. The GC may be used in our laboratory facility, or in the field with our dedicated self-contained mobile laboratory vehicle. The GC is operated by a chemist with 38 years of analytical laboratory experience.

The geotechnical laboratory is approved by the U.S. Army Corps of Engineers, the Illinois Capital Development Board, and the Illinois Department of Transportation (IDOT), AASHTO, MWRDGC and INDOT. *SES* is in the process of acquiring Accreditation for Laboratories for Drinking Water, Wastewater and Hazardous Wastes' Analysis through the Illinois EPA Laboratory Accreditation Program (Illinois ELAP).

## Equipment List

<u>Type</u>	<u>Make</u>	<u>Capabilities</u>
Drill Rig-Truck Mounted	CME 75	300 feet in depth
Drill Rig-Truck Mounted	CME 55	250 feet in depth
Drill Rig-Truck Mounted	CME 55	250 feet in depth
Drill Rig-Truck Mounted	BK 51	150 feet in depth
Drill Rig-Truck Mounted	Diedrich D-50	250 feet in depth
Drill Rig-Truck Mounted	Diedrich D-50	250 feet in depth
All-Terrain Vehicle Mounted	CME 750	300 feet in depth
All-Terrain Vehicle Mounted	CME 45B	150 feet in depth
Drill Rig-Truck Mounted	Mobile B-30	100 feet in depth
Drill Rig-Truck Mounted	Sprague C-142	700 feet/150 feet of angle drilling
Skid Mounted Drill Rig	Diedrich D-25	75 feet in depth
Truck Mounted Water Tank		1,700 gallon
Segmented Barge Floating Plant		
Foam Filled Floating Plant		
Row Boat (14 feet long)		
Tripod Cathead Assembly	Acker 40032-1	50 feet in depth
Hydro-Punch Ground Water Sampler		Samples groundwater without monitoring wells
Direct Push Soil Sampling System		Eliminates drill cuttings
Portable Hnu Model 311 GC and Mobile Laboratory		Mobile lab capable of performing on-site VOC and BTEX testing
Soil Sampling Kits with Soil, Sand and Sludge Augers		
Soil Gas Probes		
Hermit Data Logger		
Brainard-Kilman Triaxial/Permeameter Testing System		
Three (3) Portable Truco Core Drills (concrete and pavement)		
High Pressure Steam Cleaner		
Inventory of Groundwater Monitoring Well Equipment		
Packer Rock Pressure Testing Equipment for In-Situ Permeability		
Dual-Diaphragm Groundwater Sampling Pumps		
Geoguard 1.5-inch Well Development Pump with Oil-Less Air Compressor		
Three (3) Survey Theodolites and one (1) Total Station EDM		

<u>Type</u>	<u>Make</u>	<u>Capabilities</u>
Portable Decontamination Station		
Three (3) Photoionization Detectors		
Disposable, Stainless Steel and Teflon Bailers		
Air Monitoring Equipment		
Ground Penetrating Radar		
Seis DAQ Refraction and ReMi Y30+ Recording System		
VERTEK HT Series Cone Penetrometer		

## **PROJECT EXPERIENCE**

Client: McCallister Equipment Company

Project: Environmental Soil and Groundwater Site Assessment & Remediation

*SES* performed a subsurface environmental soil investigation and environmental groundwater investigation for Underground Storage Tank (UST) System releases of Gasoline, Diesel Fuel & Used Oil. A Site Classification was performed per Illinois Administrative Code (IAC) Part 732 followed by a Corrective Action Plan (CAP) and Budget Plan to the IEPA LUST Section for approval per 35 IAC Part 742 Tiered Approach to Corrective Action Objectives (TACO). Following submittal of the CAP & Budget to the IEPA, both were approved and the CAP which consisted of standard petroleum contaminated soil excavation and removal followed by a Corrective Action Completion Report (CACR) and LUST Reimbursement package to the IEPA LUST Section, both of which were approved and the client received approximately 95% monetary reimbursement from the State of Illinois IEPA LUST fund up to \$300,00.00 and complete residential closure of the IEPA LUST Incident..

Client: Catholic Charities.

Project: Phase I & Phase II environmental site assessments for various sites in Illinois. Continuing services include preliminary site assessments, title searches, soil borings, asbestos sampling, groundwater monitoring, chemical analytical services, and hydrogeologic and environmental engineering reports.

Client: Ada S. McKinley Community Services, Inc.

Project: Phase I and Phase II environmental site assessments for various sites in Illinois.

*SES* performs Phase I & Phase II environmental site assessments on sites in Illinois. A number of the sites have been drilled and sampled for soil and groundwater contamination. Our services include, title searches, soil borings, asbestos sampling, lead based paint sampling, groundwater monitoring and modeling, chemical analytical testing services and environmental engineering reports.

Client: Various Municipalities:

Project: Illinois Environmental Protection Agency (IEPA) Clean Construction Demolition Debris (CCDD) Uncontaminated Soil Certification LPC 663 Soil Sampling Work for disposal for various Municipal Public Works facilities, i.e. Village of Lombard, IL; Village of Downers Grove, IL; Village of Westmont, IL; West Chicago, IL; Village of Deerfield, IL; Village of Bolingbrook, IL; Village of Glen Ellyn, IL; Village of Mt. Prospect, IL.

Client: Village of Frankfort, Frankfort, Illinois, Wastewater Treatment Plant

Project: SES was contracted to complete sampling of solids in a creek and the liquid discharges from the wastewater treatment plant to investigate odors and fish kills in the creek. SES demonstrated that an upstream source appeared to be the cause of the fish kill and that native wildlife contributed more of an impact to the creek than the wastewater treatment plant discharges. Also sampled and characterized unknown solids at bottom of a long unused aeration pond.

Client: Village of Matteson, Public Works Facility

Project: Management of tank upgrades to 1998 standards, site characterization, corrective action plan and specifications, field remediation oversight, closure report, underground storage tank reimbursement.

Client: Village of Summit-Former Guzlas Gas Station, Summit, Illinois

Project: Underground storage tank site characterization, corrective action plan and specification preparation, field remediation oversight, corrective action completion report for closure to TACO Tier 1 standards.

Client: Various Major Petroleum Clients

Project: Various major petroleum clients consisted of Emro-Speedway, Phillips 66, Citgo-Graham Enterprise Site, investigation, remedial design, and closure. This project included the investigation and remediation of both soil and groundwater contamination from leaking underground storage tanks. When the investigation was completed a total of 16,000 cubic yards of soil were remediated and a “No Further Remediation” closure letter was obtained from the IEPA. Our services also included applying for and receiving \$975,000 from the Illinois underground storage tank reimbursement fund.

Client: Village of Hoffman Estates, Illinois

Project: Public Works Facility, 630 Illinois Boulevard, corrective action plan, field remediation oversight, corrective action completion report and underground storage tank reimbursement.

Client: Arnold Lies Company

Project: Galena Avenue Shopping Center, Aurora, Illinois, underground storage tank site cleanup oversight, and closure, and underground storage tank reimbursement.

Client: Graham Enterprise, Des Plaines, Illinois

Project: Underground storage tank site characterization, corrective action plan, field remediation oversight, closure with TACO Tier 2 remediation objectives, underground storage tank reimbursement.

Client: Conestoga Rovers & Associates

Project: Illinois Cereal Mills in Illinois and Indiana. Underground storage tank removal and soil remediation services.

Client: Metropolitan Water Reclamation District of Greater Chicago Maintenance and Operations Department

Project: Underground storage tank removal and underground storage tank closure services at Calumet Water Reclamation Plant.

Client: North Chicago Automotive, North Chicago, Illinois

Project: Site characterization, corrective action plan and development of TACO Tier 2 remediation objectives for closure of the underground storage tank incident. Reimbursement. Project included a pilot scale field study for a bio-venting remediation system.

Client: Si-Tech Industries, Inc.

Project: Tanker Spill, O'Hare International Airport. Performed site remediation and closure reporting of a jet fuel spill and obtained No Further Remediation letter from SRP.

Client: Village of Morton Grove

Project: Public Works Facility underground storage tank upgrades. Upgraded two (2) underground storage tanks to 1998 OSFM standards. Decommission and abandon in place of third underground storage tank, site characterization.

Client: County of Cook, Board of Commissioners

Project: Arthur J. Audi Juvenile Detention Center. Site characterization and oversight of remediation of 3,000 cubic yards of PCB contaminated soil from abandoned underground storage tanks.

Client: Smrt Property, Wayne, Illinois

Project: Site characterization, lead contaminated soil remediation and development of TACO objectives for closure through the SRP.

Client: Fox Valley Systems, Cary, Illinois

Project: Rectified air discharge permit violations, performed air quality testing and stack testing. Obtained modified air discharge permit to allow increased production at paint manufacturing facility.

Client: Postma Chevrolet, Chicago, Illinois

Project: Underground storage tank environmental engineering, corrective action, field oversight and closure.

Client: U.S. Army Corps of Engineers, Chicago District 111 North Canal Street, Chicago, Illinois

Project: Contract DACW23-94-D-004. Monitoring well installation at various sites.

Client: Olivet Nazarene University, Kankakee, Illinois

Project: Williams, Chapman and Chalfont Halls. Asbestos building materials audit.

**REFERENCES**

- A/E Firms:** Tria Architecture  
Mr. Jim Petrakos, AIA.....(630) 455-4500
- Bollinger, Lach & Associates  
Mr. Dan Bruckelmeyer..... (630) 438-6400
- HR Green  
Mr. Scott Creech..... (815) 462-9324
- Municipalities:** City of Joliet  
Ms. Allison Swisher.....(815) 724-4220
- Village of Homewood  
Mr. Max Massi.....(708) 206-2909
- Village of Plainfield  
Mr. Arlan Schattke.....(815) 230-2036
- IDOT:** IDOT Materials  
Mr. George Houston .....(847) 705-4337
- Businesses:** McDonald’s Chicago Region  
Mr. Chris Stepp.....(630) 210-2413
- Catholic Cemeteries  
Mr. Mark Olesen.....(708) 449-6100

## **QUALIFICATIONS OF KEY PERSONNEL**

The majority of the SES staff have advanced degrees and each of the key team members and project managers have over 20 years of environmental experience. We are committed to the continuing professional growth and development of our staff through internal and external education programs. This system includes protocol for the continuing professional development of management, engineering, technical, and support staff.

One of the key constituents for SES's success is our staff of highly experienced professionals. As individual professionals and on a corporate basis, we participate in organizations that advance the understanding of fields such as soil and rock mechanics, environmental assessments, groundwater studies, environmental fate and transport, and landfill performance.

### **Key Professionals**

**Mr. Collin W. Gray, S.E., P.E.** is the President of SES and has over 59 years' experience in environmental and geotechnical engineering. Mr. Gray has a B.S.C.E. in Civil Engineering major Structural Engineering and an M.S.C.E. in Civil Engineering from the University of Notre Dame specializing in Geotech and Environmental Engineering. He is a licensed Structural Engineer in Illinois as well as a Professional Engineer in Illinois, Indiana and Wisconsin. Mr. Gray provides management and direction of SES, directs remedial design projects, supplies expert testimony and reviews all reports prior to client submittal.

**Mr. Donald Cassier** is the SES Director of Environmental/Construction Field Services. Mr. Cassier has over 45 years' experience managing and coordinating environmental and construction projects. He is the Field Superintendent on large scale projects and complex projects that include both environmental and construction coordination. He is responsible for scheduling and coordinating all SES drilling and investigation projects and the SEECO Consultants, Inc. field services including soil and rock drilling, construction observation and materials testing for commercial, residential, industrial and transportation projects and site remediation subcontractors.

**Mr. Paul Bollinger, PWS** is a Wetland Specialist with over 25 years' experience and 300 wetland delineations, 40 Clean Water Act Section 404 permits, 50 tree surveys, 300 vegetative monitoring visits with written reports including statistical analysis, mitigation plans, management and restoration plans, flora mapping, endangered/threatened species searches, purple loosestrife beetle monitoring, wildlife habitat evaluations, prescribed burning and public hearings. Received nationwide, regional and individual USACE permits for private developers, municipalities and government agencies. Additional permits have been obtained from local agencies.

**Mr. Garrett W. Gray, P.E.,** is a GeoEnvironmental Engineer. Mr. Gray has a B.S.E.E. in Environmental Engineering, M.S.C.E. in Geotechnical/Environmental Engineering, an M.B.A. and over 30 years of experience in managing underground storage tank removals and underground storage tank projects, special and hazardous waste remediation projects, and media sampling. Mr. Gray has completed both Phase I ESAs and Phase II ESAs as well as site hydrogeological investigations and engineering reports.

**Collin W. Gray, S.E., P.E.**

**TITLE:** President  
Principal Engineer

**SEECO YEARS EXPERIENCE:** 56  
**TOTAL YEARS EXPERIENCE:** 59

**EDUCATION:** B.S.C.E. 1965 University of Notre Dame, Civil Engineering  
M.S.C.E. 1967 University of Notre Dame, Geotechnical and Environmental Engineering

**ACTIVE REGISTRATION:** P.E. 1970, Civil Engineering, Illinois, Indiana  
S.E. 1971, Structural Engineering, Illinois  
P.E. 2010, Wisconsin

**RELEVANT TRAINING:**

Groundwater Contaminant Management for Industry, NWWA, 1990  
Bioremediation of Organic Constituents in Soil and Groundwater, NGWA, 1993  
Aeration Technologies, Environmental Education Enterprises, 1994

**EXPERIENCE:**

As the Principal Engineer of SEECO Environmental Services, Mr. Gray's experience includes the following environmental engineering and geoenvironmental engineering projects:

• IDOT PESAs

Egyptian Trail	Monee
Read St.	Lockport
Custer Ave.	Lyons
Springfield Dr.	Bloomingtondale
East Branch Trail	Bloomingtondale
Great Western Trail	Lombard
Indian Boundary Road	Channahon
West Bridge St.	
Multi-Use Path	Channahon
Dove/Sioux Roadway	Channahon
Ridgeland Ave.	Palos Heights
Crete Road	Crete
East Ave.	Hodgkins
147th & Ravinia	Orland Park
183rd & Oak Park	Tinley Park
Illinois Street	Lemont
Midlothian Turnpike	Crestwood
Wolf Road Bike Path	Western Springs

• IDOT PSIs

North & MacGregor	Lockport
Winchester Ave.	Lisle
Egyptian Trail	Monee
Brainard Ave.	Countryside
Cermak Road	North Riverside

- Ada S. McKinley Community Services, Inc., 7640 Vincennes Avenue, Chicago, Illinois, Phase I environmental site assessment and asbestos and lead survey, proposed Senior Housing
- Catholic Charities, Hine Building # 14, #51 and #53, Hines VA Complex, Hines, Illinois, Phase I environmental site assessment as required by HUD, 2004.
- McDonald's Corporation, numerous Phase I environmental site assessments and Phase II environmental site studies for potential restaurant sites, 1997 through present
- McAllister Equipment Co., 12500 South Cicero Ave., Alsip, Illinois, Phase I, Site Investigation Completion Report, Corrective Action Plan (CAP), and Corrective Action Completion Report (CACR)
- Plainfield School District 2002, two (2) elementary school sites and a high school site, Plainfield and Brookfield, Illinois. Phase I environmental site assessment and nearby quarry blasting noise study, 2005
- National Shopping Plazas, Inc. Proposed Wal-Mart Shopping Center, near Southwest Corner (SWC) Harlem and 191<sup>st</sup> Street, Tinley Park, Illinois, September 2006
- Village of Frankfort, 432 West Nebraska Street (Village Hall), Frankfort, Illinois, various and multiple projects through the Frankfort area over approximately the past 19 years
- Village of Tinley Park, 16250 Oak Park Avenue (Village Hall), Tinley Park, Illinois, various and multiple projects throughout the Tinley Park area over approximately the past 25 years
- Capital Development Board, State of Illinois, underground storage tank management, ten sites throughout the State, 1992
- Cavalea Continental Freight Company, McCook, Illinois and Chicago, Illinois, Phase II environmental site assessment, 1989 and 1990
- Chicago Heights Refuse Depot, environmental landfill permitting, closure and post closure plan, 1984-present
- Chicago Management Company, Jack Brown Buick Dealership, Chicago Heights, Illinois, underground storage tank management, 1990
- Crown Cork & Seal Company, 3501 West 31st Street, Chicago, Illinois, Hazardous Waste Disposal Permit, 1991
- George DeVries Construction, Chicagoland Area Phase I and Phase II environmental site assessments, 1988 to present
- Emro Marketing Company, various Speedway, Branded and Cheker gas stations in Illinois, Indiana, Michigan and Wisconsin, underground storage tank management from preliminary investigations to closure reports, including remedial system design, 1984 to present
- Marathon Petroleum Company, various gas stations, Cracking Plants and Bulk Storage Plants in Michigan, Illinois, Indiana and Wisconsin, Underground Storage Tank Management-1984 to present

- Hinkley & Schmitt, new office and warehouse, Frankfort, Illinois, Phase II environmental site assessment, 1989
- C.W. Transport, Milwaukee, Wisconsin, Chicago, Illinois and various other locations, Phase II environmental site assessments with Phase III remediation of soil and groundwater plans, 1989 and 1990
- Inland Real Estate, numerous Phase I and Phase II environmental site assessments with some Phase III remediation reports as needed at various locations in Lake, Kendall, Cook, DuPage, Kane and McHenry Counties, Illinois, 1988 to present
- Village of Franklin Park, Illinois, Phase II hazardous waste site assessment, TARP sewer basin project, 1990
- Salvation Army, Chicago, Illinois, Underground Storage Tank Management, 1990
- North American Salt Company, Division of Domtar Industries, Phase II environmental site assessments, 107th and Burley Avenue, Chicago, Illinois and 99th and Calumet River, Chicago, Illinois, 1988 to present
- Olin Chemical Corporation, Joliet, Illinois, Phase II environmental site assessment, 1988-1989
- Premium Plastics Corporation, 22nd Street, Chicago, Illinois, underground storage tank management, 1989-1990
- Cole Taylor Bank, McCormick Boulevard, Skokie, Illinois, Phase II environmental site assessment with permit and closure applications, 1989 and 1990
- Stauber Ace Hardware, 8012 North Milwaukee Avenue, Niles, Illinois, Phase II environmental underground tank site assessment, 1991
- Postma Chevrolet, 4530 South Archer Avenue, Chicago, Illinois, environmental engineering
- Conestoga Rovers & Associates, 1801 Old Highway 8, Suite 114, St. Paul, Minnesota, underground storage tank removal and soil remediation services
- Metropolitan Water Reclamation District of Greater Chicago, Maintenance Department, 100 East Erie Street, Chicago, Illinois, underground storage tank services at Calumet Water Reclamation Plant
- U.S. Army Corps of Engineers, Chicago District, 111 North Canal Street, Room 650, Chicago, Illinois, Contract DACW 23-94-D-004, monitoring well installation, various sites
- Village of Hoffman Estates, 2305 Pembroke Avenue, Hoffman Estates, Illinois, Public Works Facility environmental cleanup
- North Chicago Automotive 2005 22nd Street, North Chicago, Illinois, environmental engineering, site characterization, corrective action plan and TACO Tier 2 with underground storage tank reimbursement.
- Graham Enterprise, 800 South Elmhurst Road, Des Plaines, Illinois, site characterization, corrective action plan, TACO Tier 2 with underground storage tank reimbursement
- Village of Matteson Public Works Facility, 21147 Tower Avenue, Matteson, Illinois, tank upgrade to 1998 standards, site characterization plans and specifications, closure report, TACO standards, underground storage tank remediation
- Village of Summit, Former Guzlas Gas Station, Summit, Illinois, site characterization, remediation plans and specification preparation, site closure report-TACO Tier 1 standards

**Donald C. Cassier**

**TITLE:** Director Environmental/Construction Field Operations

**SEECO YEARS EXPERIENCE:** 36

**TOTAL YEARS EXPERIENCE:** 45

**EDUCATION:** Illinois Institute of Technology, Civil Engineering

**ACTIVE REGISTRATION:** American Concrete Institute  
IDOT PCC and Bituminous Proportioning Certified

**RELEVANT TRAINING:**

Environmental Drilling Technology, University of Wisconsin, 1991

**AFFILIATIONS:**

American Public Works Association – Officer – Chicago Chapter

**EXPERIENCE:**

Mr. Cassier is responsible for coordinating SEECO’s field services including soil and rock drilling, subcontractor tasks, environmental testing, drilling and monitoring well installation. His field expertise includes field supervision, performing soil, rock drilling and well installations, and surveying and layout.

Mr. Cassier’s project responsibilities include field supervision, coordinating the efforts of SEECO’s field crews during subsurface drilling and sampling operations, and coordinating contractor/subcontractor tasks. His expertise also includes developing site specific drilling and sampling plans to fit the unique requirements of each site. Drilling applications may encompass hollow stem augers, split spoon, thinwall and continuous auger samplers, rock coring, hydropunch samples, monitoring wells, and direct push technology.

The following illustrates several projects on which Mr. Cassier’s expertise was utilized:

• IDOT PESAs

Egyptian Trail	Monee
Read St.	Lockport
Custer Ave.	Lyons
Springfield Dr.	Bloomingtondale
East Branch Trail	Bloomingtondale
Great Western Trail	Lombard
Indian Boundary Road	Channahon
West Bridge St.	
Multi-Use Path	Channahon
Dove/Sioux Roadway	Channahon
Ridgeland Ave.	Palos Heights
Crete Road	Crete
East Ave.	Hodgkins
147th & Ravinia	Orland Park
183rd & Oak Park	Tinley Park
Illinois Street	Lemont
Midlothian Turnpike	Crestwood

Wolf Road Bike Path      Western Springs

- IDOT PSIs

North & MacGregor	Lockport
Winchester Ave.	Lisle
Egyptian Trail	Monee
Brainard Ave.	Countryside
Cermak Road	North Riverside

- McDonald’s Corporation, numerous Phase I environmental site assessments and Phase II environmental site studies for potential restaurant sites, 1997 through present
- Catholic Charities, Hine Building # 14, #51 and #53, Hines VA Complex, Hines, Illinois, Phase I environmental site assessment as required by HUD, 2004.
- Village of Tinley Park, 16250 Oak Park Avenue (Village Hall), Tinley Park, Illinois, various and multiple projects throughout the Tinley Park over approximately the past 25 years
- Plainfield School District 2002, two (2) elementary school sites and a high school site, Plainfield and Brookfield, Illinois. Phase I environmental site assessment and nearby quarry blasting noise study, 2005
- Ada S. McKinley Community Services, Inc., 7640 Vincennes Avenue, Chicago, Illinois, Phase I environmental site assessment and asbestos and lead survey, proposed Senior Housing
- National Shopping Plazas, Inc. Proposed Wal-Mart Shopping Center, near Southwest Corner (SWC) Harlem and 191<sup>st</sup> Street, Tinley Park, Illinois, September 2006
- McAllister Equipment Co., 12500 South Cicero Ave., Alsip, Illinois, Phase I, Site Investigation Completion Report, Corrective Action Plan (CAP), and Corrective Action Completion Report (CACR)
- Village of Frankfort, 432 West Nebraska Street (Village Hall), Frankfort, Illinois, various and multiple projects through the Frankfort area over approximately the past 19 years
- Calumet Treatment Plant, MWRDGC-Contract No. 93-657-11, underground storage tank abandonment
- Village of Hoffman Estates, Public Works Garage Facility, underground storage tank investigation, removal and remediation
- Various Speedway and Checker Gas Stations, soil remediation projects
- Arnold Lies Company, West Galena Boulevard Shopping Center, Aurora, Illinois, underground storage tank removal and soil remediation
- Village of Matteson, underground storage tank Investigation, upgrades, removal and soil remediation
- McDonald’s Corporation, numerous restaurant sites, underground storage tank removal and soil and groundwater remediation
- Ron Postma Chevrolet, 4530 South Archer Avenue, Chicago, Illinois, underground storage tank removal and soil remediation
- Illinois Cereal Mills, Illinois and Indiana, underground storage tank removal and soil remediation

- Pep Boys, Chatham site, Chicago, Illinois, hazardous petroleum contaminated soils monitoring and removal
- U.S. Army Corp of Engineers, Structure 29A, Trail Creek and Kennedy Avenue borrow sites
- U.S. Army Corp of Engineers, Cady Marsh ditch project
- IDOT-District One Geotechnical, No. D-91-132-95
- I-80 and Houbolt Road
- Kennedy Expressway bridge survey
- FAUS and MFT projects for the following municipalities: Franklin Park, Westmont, Downers Grove, Cicero, Des Plaines, Morton Grove, Oak Brook, Hillside, Westchester, Oak Lawn and Arlington Heights
- Taxiway H, O'Hare Airport
- I-294, 83rd Street to 95th Street widening, Indiana State Line to 95th Street and Central Avenue to Lake-Cook Road. Overlay, I-88 ramps, 163rd Street Toll Plaza

## **Paul Bollinger, PWS**

**TITLE:** Wetland Specialist

**TOTAL YEARS EXPERIENCE:** 25

**EDUCATION:** 1992 University of Wisconsin, Green Bay, BS Biology &  
Environmental Science  
2001 Northern Michigan University, Iron Mountain, MI  
M.S. Biology

**ACTIVE REGISTRATION:** Professional Wetland Specialist #1390 - 2003 Society of Wetland  
Scientist Certification Program, Inc.

Certified Wetland Specialist (#C-047) 2002 Lake County Stormwater  
Management Commission

Qualified Wetland Review Specialist 2004. Kane County Department of  
Environmental Management

### **EXPERIENCE:**

Mr. Bollinger's experience includes over 300 wetland delineations, 40 section 404 permits, 50 tree surveys, 300 vegetative monitoring visits with written reports including statistical analysis, mitigation plans, management and restoration plans, flora mapping, endangered/threatened species searches, purple loosestrife beetle monitoring, wildlife habitat evaluations, prescribed burning and public hearings.

Received nationwide, regional and individual USACE 404B permits for private developers, municipalities and government agencies. Additional permits have been obtained from local agencies.

**Garrett W. Gray, P.E.**

**TITLE:** GeoEnvironmental Engineer

**SEECO YEARS EXPERIENCE:** 30

**TOTAL YEARS EXPERIENCE:** 30

**EDUCATION:** B.S.E.E. 1996 University of Notre Dame, Environmental Engineering  
M.S.C.E. 1998 Iowa State University, Geotechnical/Environmental Engineering  
M.B.A. 2018 St. Xavier University

**ACTIVE REGISTRATION:** P.E. State of Illinois 2008, P.E. State of Indiana 2022

**EXPERIENCE:**

Mr. Gray's experience with SEECO Environmental Services, Inc. includes sampling and assessment design, remedial design, cost analysis and oversight for both special and hazardous waste projects. His experience includes the following environmental services and underground tank management projects:

- IDOT PESAs

Egyptian Trail	Monee
Read St.	Lockport
Custer Ave.	Lyons
Springfield Dr.	Bloomingtondale
East Branch Trail	Bloomingtondale
Great Western Trail	Lombard
Indian Boundary Road	Channahon
West Bridge St.	
Multi-Use Path	Channahon
Dove/Sioux Roadway	Channahon
Ridgeland Ave.	Palos Heights
Crete Road	Crete
East Ave.	Hodgkins
147th & Ravinia	Orland Park
183rd & Oak Park	Tinley Park
Illinois Street	Lemont
Midlothian Turnpike	Crestwood
Wolf Road Bike Path	Western Springs

- IDOT PSIs

North & MacGregor	Lockport
Winchester Ave.	Lisle
Egyptian Trail	Monee
Brainard Ave.	Countryside
Cermak Road	North Riverside

- Plainfield School District 2002, two (2) elementary school sites and a high school site, Plainfield and Brookfield, Illinois

- McDonald's Corporation, numerous Phase I environmental site assessments and Phase II environmental site studies for potential restaurant sites, 1997 through present
- Village of Tinley Park, 16250 Oak Park Avenue (Village Hall), Tinley Park, Illinois, various and multiple projects through the Tinley Park area over approximately the past 25 years
- Catholic Charities, Hine Building # 14, #51 and #53, Hines VA Complex, Hines, Illinois, Phase I environmental site assessment as required by HUD, 2004.
- McAllister Equipment Co., 12500 South Cicero Ave., Alsip, Illinois, Phase I, Site Investigation Completion Report, Corrective Action Plan (CAP), and Corrective Action Completion Report (CACR)
- Ada S. McKinley Community Services, Inc., 7640 Vincennes Avenue, Chicago, Illinois, Phase I environmental site assessment and asbestos and lead survey, proposed Senior Housing
- National Shopping Plazas, Inc. Proposed Wal-Mart Shopping Center, near Southwest Corner (SWC) Harlem and 191<sup>st</sup> Street, Tinley Park, Illinois, September 2006
- Village of Frankfort, 432 West Nebraska Street (Village Hall), Frankfort, Illinois, various and multiple projects through the Frankfort area over approximately the past 15 years
- Midas Realty Corporation, underground storage tanks
- Marathon Petroleum Company, various sites, gasoline stations, bulk plants and cracking plants, underground storage tank management including permitting and Illinois underground storage tank reimbursement submittal, 1985 to present
- Romeoville Bridge work, IDOT environmental job
- INDOT, Grand Calumet River, Chicago Avenue bridge, East Chicago, Indiana
- Illinois Cereal Mills, Illinois and Indiana, underground storage tank removal and soil remediation
- Postma Chevrolet, 4530 South Archer Avenue, Chicago, Illinois, environmental engineering
- Metropolitan Water Reclamation District of Greater Chicago Maintenance Department, underground storage tank services at Calumet Water Reclamation Plant
- Village of Summit, former Guzlas gas station, Summit, Illinois, site characterization, remediation plans and specification preparation, site closure report-TACO Tier 1 standards
- Olivet Nazarene University, Kankakee, Illinois, asbestos building surveys
- Village of Frankfort Water Treatment Plant, Frankfort, Illinois, microbiological assessment and mitigation of effluent of Frankfort Square WWTP discharge into Hickory Creek
- Smrt Property, Wayne, Illinois, lead and solvent characterization and remediation
- McDonald's Corporation, various sites, Phase I and Phase II investigations, underground storage tank closure
- Doumak, Inc. Marshmallow Plant, Elk Grove Village, Illinois, environmental site observation and environmental air quality monitoring and environmental air quality report

- Well feasibility study for proposed irrigation well, Lombard, Illinois, review of existing site geology and hydrogeology and geological survey and the Illinois State water survey
- 102 Mile Vector Gas Pipeline, Joliet, Illinois, field observation (soil classification and testing of pipeline trench soils) and measurements of pipeline trench sideslopes (in accordance with OSHA guidelines). Field sideslope stability (factor of safety) calculations (in accordance with OSHA guidelines) for pipeline trenches, field observation of steel sheet pile installation and site observation, field testing and documentation of trench soil types
- Highland Ridge Commercial Subdivision, Tinley Park, Illinois, design and plotting plan and profile of the proposed right in/right out for road intersection. Computed flow calculations and plotting plan and profile for proposed storm sewer and ditch

**Tony Chen, Ph.D., P.E.**

**TITLE:** Field Engineer

**SEECO YEARS EXPERIENCE:** 22

**TOTAL YEARS EXPERIENCE:** 28

**EDUCATION:** Bachelor of Science, Civil Engineering – Tamkang University, Taiwan, 1973  
M.S. Civil Engineering, University of Idaho, 1991  
Ph.D. – Civil Engineering, Michigan Tech University, 1991

**REGISTRATION:** P.E. – 2001 Civil Engineering, Michigan  
IDOT Documentation March 8, 2001  
IDOT PCC Levels I, II and III  
IDOT Bituminous Levels I, II and III  
ACI Concrete Mix Design, Grades I and II

**EXPERIENCE:**

Dr. Chen is an experienced geotechnical engineer whose broad level of experience transcends two continents. His expertise includes slope stability analysis for embankments and structures, dam and retaining wall design, foundation design parameters for shallow and deep foundations supporting single story to multi-story high rise buildings, as well as geotechnical engineering application of physical laboratory data. His work duties have included analysis and design parameters for roadway embankment investigations.

Dr. Chen is proficient in geotechnical site investigations and in-situ testing methods, procedures and data collection. His exhaustive background in computer applications is utilized for data reduction and analysis, including modeling efforts. His field experience includes drilling, logging and rig supervision, pressure meter testing, vane shear testing and various soil sampling techniques.

A partial listing of his work experience includes:

- Lockport Master Sewer, Lockport, Illinois – Geotechnical Investigation
- Edgewater Condominiums, Tinley Park, Illinois – Geotechnical Investigation
- Uncle Julio’s Restaurant, Lombard, Illinois – Geotechnical Investigation
- St. Peter Claver, Robbins, Illinois – Geotechnical Investigation
- Dralle Road, University Park, Illinois – Geotechnical Investigation
- Proposed 21-Story Luxury Condominiums, Lisle, Illinois

Environmental Engineering projects include some of the following:

- SMRT Properties – SRP project in Wayne, Illinois, where buried aerosol plastic containers were Excavated out of the ground and legally disposed of offsite.
- Blazovich – SRP gasoline station site in North Chicago, Illinois included bioventing pilot plan which did not work followed by dig and haul remediation scheme with CACR and then obtaining an IEPA No Further Remediation Letter.

## **ABOUT SEECO Consultants, Inc.**

SEECO Consultants, Inc. (SEECO) is a full service Consulting Engineering firm specializing in Civil, Geotechnical and Structural Engineering and Construction Materials Engineering, Inspection and Control. We have a full complement of drilling rigs and a complete geotechnical testing laboratory that is approved by the U.S. Army Corps of Engineers (Ohio River Division), the Illinois Capital Development Board, Illinois Department of Transportation and AASHTO and CCRL.

The company is located in the southwest suburbs of Chicago and has been providing engineering consulting services throughout the Midwest since 1970. The staff includes Professional Engineers, Civil Engineers, Structural Engineers, Geotechnical Engineers, Hydrogeologists and Geologists and an experienced team of technicians.

SEECO has a strong project management system, project managers are involved at the inception of a project and generally have responsibility of a project from proposal to completion. Weekly and monthly project meetings are conducted to monitor project progress. In some cases projects are tracked on a daily basis. A “single source” point of contact for a project provides a single person who interfaces with the Client as well as the project administrator and provides a very efficient communication system.

From its inception, SEECO has provided a comprehensive in-house training program for construction material monitoring and testing. All staff are provided with annual training including in-house seminars and refresher training, as applicable. All of the engineers and technicians at SEECO are familiar with the American Society of Testing and Materials (ASTM), U.S. Army Corps of Engineers and American Association of State Highway and Transportation Officials (AASHTO) and Cement and Concrete Research Laboratory (CCRL) testing procedures. In addition, a number of the staff and technicians are Illinois Department of Transportation (IDOT) Portland Cement Concrete and Bituminous Proportioning Certified. The Senior Drillers and select personnel have completed OSHA Hazardous Site Worker training per 29 CFR 1910.120.

SEECO owns and operates eight (8) truck-mounted drill rigs, two (2) all-terrain vehicle (ATV) mounted drill rigs, one (1) skid-mounted drill rig, two (2) floating plants and a motor boat for off-shore drilling work.

SEECO carries comprehensive insurance coverage that includes the following: General Liability, Automobile Liability, Excess Liability, Workers Compensation and Employers Liability and Professional and Pollution Liability. The General and Professional/Pollution Liability Coverage have an aggregate limit of \$5,000,000 and a per occurrence limit of \$1,000,000 (please refer to the attached copy of our current Certificate of Insurance).

SEECO Consultants, Inc. is a licensed Professional and Structural Engineering Corporation and is a Small Business Enterprise (SBE).