

Environmental Due Diligence



Simplifying complexity and risk to facilitate more informed real estate decisions.

Each site presents a unique set of challenges, goals, and objectives related to environmental impacts, health risks, liabilities, compliance, and their associated financial implications. Effective business decisions depend on an accurate understanding of the nature and extent of potential environmental issues from past and present site activities, and an informed strategy to achieve your project objectives—whether it is for new construction, asset transfer, life cycle reduction, or regulatory closure.

GES' due diligence teams seek understanding beyond the technical elements of each site, broadening the viewpoints to include risk, security, and liability issues. We have successfully managed thousands of due diligence assignments at operating and legacy manufacturing, oil and gas, and commercial properties.

We help our clients develop technically-sound and legally defensible risk management strategies that define and limit environmental liabilities. Our expertise includes file reviews, transaction screening, compliance evaluation, closure plans, ecological studies, and permit transfers. Our focus on innovation applies leading-edge field methods, rapid characterization techniques, and aggressive remediation technologies to efficiently restore assets, reduce liability, and enhance your return on investment.

Value-Added Tools and Features

- Environmental liability and reserves cost estimating
- Wetlands delineation
- State and federal permitting for property development
- Protected species habitat evaluations and surveys
- Soil and groundwater management plans to support site development
- Environmental inspection/construction monitoring

Areas of Expertise

Phase I/II environmental site assessment

Risk and impact assessment

Building characterization

Hazardous materials

inspection

UST removal and closure

Demolition management

Ecological studies

Hydrogeological analysis

Fate and transport modeling

Site characterization

Remedial investigation and feasibility analysis

Life-cycle cost analysis

Remedy design and construction



National Due Diligence Program Management of 716 retail sites (FL, NC, NH, NJ, NY, OH, PA, RI, SC, TN, TX, VA)

A major petroleum marketer pursued the divestment of their US gas station and convenience store assets. GES was engaged to perform ASTM-compliant due diligence assessments for a portfolio of 716 sites spanning 16 states, including Florida, Georgia, Indiana, Louisiana, Massachusetts, North Carolina, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, and Virginia. The work was completed on a fast-paced, transaction-driven schedule utilizing digital applications and software for records review, mapping, field data and site inspection reporting, and overall report preparation. The paperless process facilitated streamlined reporting and enhanced consistency in the report format for more efficient client review. GES also advised the client of potential follow-up assignments that may be required due to state-specific requirements beyond ASTM standards. Final deliverables were submitted prior to the client's deadline, on-budget, and with minimal feedback from the buyer's consultant, helping to advance the real estate transaction process. As a result, the client awarded GES follow-on assignments for all required Phase II Environmental Site Assessments (ESAs) and hazardous materials surveys identified during the initial 1,200-site Phase I program.



Environmental Due Diligence Project for 52 Retail Sites (MD, VA, DC)

GES was contracted to conduct an environmental due diligence project by performing a total of 52 Phase II ESAs on retail service station properties in the DC Metro Area (District of Columbia/Maryland/Virginia). GES completed a review of previously collected historical site data and then proceeded with drilling activities to characterize the site and determine current subsurface conditions. Soil borings were advanced using hollow-stem auger, direct-push, or air-rotary drilling techniques. Soil samples were collected, and lithologic descriptions and photoionization detector (PID) readings were logged. GES also installed, surveyed, and sampled groundwater monitoring wells. All work was completed within a three-month period. GES reviewed and tabulated field and analytical data for inclusion in the 52 Phase II ESA reports, meeting the client deadlines.



Environmental Due Diligence for 110 Retail Sites (NY, MA, CT, PA, NJ)

GES was contracted by an oil and gas company to complete a due diligence project (comprised of Phase I ESA, sensitive receptor survey, and limited Phase II ESA) to support the divestment of 110 properties across a five-state area. A multi-office team, under the direction of a senior manager, was established to manage and execute the project. Work schedule, task, and resource plans were based on a specified three-month timeframe. Midway through the project, when the initiative was expanded to new geographic regions, GES allocated additional resources from across our offices to accommodate the new business drivers. As project parameters changed, the modifications were rapidly communicated to the local teams, enabling on-time completion of the project with adherence to all safety and quality requirements. As a result, the properties were successfully transferred in alignment with the client's business strategy.



Title Environmental Services at 45 industrial properties (AZ, FL, LA, MA, MI, NV, NJ, NY, OR, TN, TX, UT, WA, WV, WI)

GES provides environmental due diligence and remedial action support for more than 45 industrial manufacturing sites in the states of Arizona, Florida, Louisiana, Massachusetts, Michigan, Nevada, New Jersey, New York, Oregon, Tennessee, Texas, Utah, Washington, West Virginia, and Wisconsin. GES performed Phase I and Phase II ESAs as part of the client's real estate transaction procedure, with additional assessment and remediation actions performed where contamination was identified. GES performed Phase I and Phase II ESAs at 14 Arizona locations. Assessment and remediation services included drilling, sampling, well installations, and analytical testing, as well as excavations, tank removals, and other remedial measures like groundwater monitoring, compliance, and remedial action implementation. Work is often conducted at site locations inside commercial structures or in confined areas adjacent to active operations, which requires extra attention to logistics, safety, and access issues



Phase I ESA of a Petroleum Pipeline Property (PA)

GES conducted a Phase I ESA to evaluate potential environmental liabilities that would impact the purchase or lease of an undeveloped portion of a petroleum pipeline property. Historical aerial photography was used to identify three bulk storage above ground storage tanks (ASTs) formerly present on the property, and pipeline releases had been reported on an adjacent property in the past. Based on the lack of historical documentation and the potential for impacts to migrate onto the site, the identified spills/releases constituted a recognized environmental condition. Work included review of regulatory environmental agency databases, interviews with client personnel familiar with the site, review of pipeline maps and files, and use of the Freedom of Information Act to obtain historical records. The project was completed within three months.



Preliminary Assessment for Soft Drink Bottling Plant/Chemical Manufacturer (NJ)

GES was contracted to conduct a preliminary assessment of a former soft drink bottling plant turned cleaning chemical manufacturing facility in Kearney, New Jersey. A total of 52 unique areas of concern were identified and were investigated as part of a site investigation. Over the course of seven months, numerous soil and groundwater samples were collected, and approximately 146 tons of impacted soils were excavated and removed from the site. As part of building pre-demolition activities, over 260 samples of building materials were collected and analyzed for asbestos, lead, and/or PCBs. After collection of post-remedial groundwater and soil gas samples, GES submitted the findings to the New Jersey Department of Environmental Protection in a Remedial Investigation / Remedial Action Report. The property has been redeveloped into a warehouse and distribution center, and GES is currently in the process of issuing a Restricted Response Action Outcome with a Deed Restriction and virtual groundwater Classification Exception Area.



Pre-Demolition Building Surveys of 78 Buildings for Explosives Manufacturer (NY)

GES performed pre-demolition building surveys at a former explosives manufacturing facility in New York. A total of 78 buildings and structures were surveyed over two separate one-week periods. During the surveys, over 500 samples of building materials were collected and analyzed for asbestos, lead, and/or PCBs. A universal waste survey was also conducted as part of the activities, which identified such regulated wastes as gasoline, fluorescent lights and ballasts, refrigerators and air conditioners, and other mechanical and electronic devices. GES also reviewed historical asbestos survey data that had been collected several years prior. GES presented their findings to the client in a summary report, which the client was able to use to identify buildings and structures where specialized abatement work was required prior to demolition activities.



Due Diligence for 50 Commercial/Industrial Properties (MI, AR, TX, CA, OR)

GES was contracted by a confidential international shipping company to complete Phase I ESAs of approximately 50 properties located across the United States. A multi-office team, under the direction of our program manager, was established to manage and execute the project. Project is ongoing, and GES has completed 5 of the 50 ESAs. GES worked with the client to develop a personalized ESA report template that incorporated business specific risk information that our client wanted to include in the ESA reports. This included the presence of MS3 permits/discharges or other business specific risk concerns. The programmatic approach enabled GES to maintain consistency in field methodology and reporting, while creating cost savings for our client. GES anticipates any Recognized Environmental Conditions found during the Phase I ESA activities will lead to Phase II ESA activities for GES, and continued client satisfaction. Project was put on hold during the Pandemic and is anticipated to resume in the third quarter of 2022.



Lifecycle Costs Estimates of Environmental Liability Associated with Releases at 35 Retail Sites (CA)

GES reviewed and evaluated a portfolio of 35 retail gasoline service station sites in Southern California, utilizing our skills and knowledge of remediation methods and costs, to estimate life-cycle costs to achieve No Further Action (NFA) status from the appropriate regulatory agencies.

GES' evaluation was used to provide the client with an estimation of potential life-cycle costs to assist in its financial negotiations with the selling parties, as part of the potential acquisition of the portfolio.



Phase I of Railway Equipment Company (IL)

GES conducted a Phase I ESA to evaluate potential environmental liabilities that would affect the sale of a locomotive construction and repair facility. Review of Historical Aerials, Sanborn Maps, City Directories, and the site reconnaissance revealed the historical presence of a coal handling equipment manufacturer and a steel supply facility at the property. In accordance with standard practice guidelines established in ASTM E1527-13 the following was identified: presence of ASTs throughout the property, hydraulically operated equipment, railroad spurs entering the property from the adjoining railroad tracks, an oil water separator and staining, a junk yard on the adjoining property, and pipeline releases reported on an adjacent property.



Comprehensive of Phase I ESA for Corporate Center (VA)

A global integrated oil company was selling its 117-acre campus, located in northern Virginia. The campus consisted of four nine-story buildings, six adjoining towers, and connecting bridges, totaling over 930,000 square feet of space. GES performed a comprehensive Phase I ESA of the entire campus. In accordance with standard practice guidelines established in American Society for Testing and Materials (ASTM) E1527-13, GES provided the following services: records review for information to allow a qualitative evaluation of the area and characterize drainage and groundwater flow; a property and surrounding area reconnaissance for obvious indications of present or past activities which could have adversely impacted the property; assessment of historical property and adjoining property uses; and review of regulatory-agency-published lists to ascertain present or past environmental problems. GES conducted activities beyond the typical scope of work for a Phase I ESA, including evaluation of the subsurface geology beneath the existing structures for identification of potential radon impacts; asbestos and lead-based paint evaluation of structures in disrepair; inspection for indicators of wetlands, flood zones, and endangered species; inventory of known or suspected PCB-containing equipment; observations for indications of mold inside the structures; and inspection for leaking hydraulic fluid.



Phase I for Vacant Property for Future Development with USTs (IL)

GES conducted a Phase I ESA to evaluate development and the future business risk for the client. In accordance with standard practice guidelines established in ASTM E1527-13, GES determined that the property was utilized by a clean construction debris company. Fill material was brought onto the property prior to new state established maximum acceptable concentrations (MAC) and testing was established in Illinois, and that although not considered a recognized environmental condition, the Property was identified to be located within the boundaries of the Class III groundwater designation (particularly sensitive and ecologically vital). Based on the Phase II investigation identifying concentrations greater than the allowable MAC levels, and the planned future use of the property to have USTs, it was determined that the Class III groundwater designation for the property was not an acceptable business risk for the client.



Phase I ESAs for 22 Bulk Petroleum Terminals (NC, GA, TN, VA, AL, MO)

GES was contracted to conduct Phase I ESAs on a portfolio of 22 bulk petroleum product terminals throughout the southeast and mid-Atlantic to support a potential business transaction. A multi-office team of site assessors, report producers, and senior reviewers was established under direction of a GES Senior Project Manager to execute the project within a timeframe of 3 months. In accordance with standard practice guidelines established in American Society for Testing and Materials (ASTM) E1527-13, GES determined current site operations and use, reviewed regulatory agency files for the sites and nearby properties, and identified historical release incidents at and near the project locations. Recognized Environmental Conditions and Business Environmental Risks were identified at many of the portfolio sites which protected the interests of the buyer.



Phase I ESA Site Reconnaissance Support for Residential & Industrial Properties (NC)

GES was contracted to provide in-field site reconnaissance support of Phase I ESAs at various property types including multiple mobile home parks and industrial facilities within the Piedmont and Coastal Plain of North Carolina. GES coordinated with site contacts, arranged inspection schedules, and performed site walks to satisfy the requirements of standard practice guidelines established in ASTM E1527-13. GES field staff interfaced with the client's online reporting system to upload completed forms, photos, and sketches directly into the report. Additional support and clarification were provided as needed during client's completion of the reporting process.



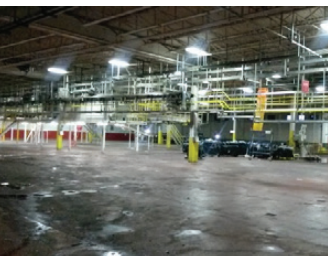
Phase I ESA at Private Marina (NC)

GES was contracted to perform a Phase I ESA at a private marina on the coast of North Carolina. The subject property was managed by a boat owners association that included multiple parcels combined over time, and were planned to be purchased together by an individual prospective buyer. Improvements included numerous boat slips, two boat ramps, clubhouse, automobile parking areas, and a pier/dock. GES guided the client in application of due diligence in accordance with the standard practice of ASTM E1527-21. GES protected the client's interests by identifying a recognized environmental condition at the subject property associated with potential contamination from a historical release incident at an adjoining property.



Phase I ESAs for Multi-Family Residential Properties in New York City

GES has been contracted by multiple clients to conduct Phase I ESA at multi-family residential apartment buildings in New York City. In addition to completing the Phase I ESAs in accordance with standard practice guidelines established in ASTM E1527-13, GES also performed non-ASTM tasks, including visual surveys for asbestos, lead paint, and microbial matter, and evaluating the properties for radon potential.



Phase I ESA at a Soft Drink Bottling Plant (NY)

A national home-improvement retailer in Queens, NY needed to address environmental issues at a 316,200-square-foot former beverage bottling plant to proceed with redevelopment of the property. GES was contracted to conduct a Phase I ESA ASTM E1527-13 to identify RECs, as well as to constitute all appropriate inquiry consistent with good commercial and customary practice, including a vapor encroachment condition (VEC) screen in accordance with ASTM E2600-15 "Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions" (E2600-15).

A Phase II ESA was subsequently performed to evaluate subsurface soil conditions and asbestos/hazardous materials surveys were required prior to building demolition. The Phase II boring investigation provided the client with information that there were areas of fill historically utilized at the site which were heavily impacted by lead. This allowed for the client to plan for hazardous soil disposal during redevelopment activities. GES subsequently prepared a Phase II ESA report for the client documenting findings.



Preliminary Assessment of Former Greenhouse Garden Center (NJ)

GES was contracted to conduct a preliminary assessment in accordance with N.J.A.C. 7:26E of a former greenhouse and garden center in New Jersey. The preliminary assessment revealed multiple areas of concern that required further investigation, including historic pesticide use, underground and aboveground storage tanks, chemical storage areas, and soil piles. As a result of the findings of the preliminary assessment, GES performed a geophysical investigation, collected soil samples, and prepared a Remedial Cost Review, a Public Participation Plan, and an Administrative Consent Order in compliance with New Jersey Department of Environmental Protection requirements. Additionally, due to the presence of wetlands on site, GES also performed an Ecological Evaluation / Ecological Risk Assessment, including the collection and laboratory analysis of soil samples from the wetland areas.



Phase I ESA on a Rural Property (TX)

GES conducted a Phase I ESA for a proposed utility-scale solar project site that consisted of 25 parcels totaling approximately 1,374 acres in Texas. The assessment was performed in general accordance with ASTM Standard E 2247-16. This standard provides an alternative method to ASTM E1527 for good commercial and customary practice for conducting a Phase I ESA of forestland or rural property with respect to the range of contaminants within the scope of CERCLA and petroleum products and therefore constitutes “all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice” as defined in 42 USC § 9601(35) (B). The ESA concluded that an unlabeled 55-gallon drum with unknown contents was considered a recognized environmental condition for the property. In addition, the presence of waste lagoons associated with a poultry farm onsite was considered a business environmental risk for the subject property.



Phase I and Phase II ESA at Airport Property (TX)

GES conducted a Phase I and Phase II ESA at a 5.25-acre tract of land located at a general aviation airport in TX. The purpose of the investigation was to update a Phase I ESA that GES had previously conducted on the site, document baseline soil and groundwater conditions, and further investigate the RECs identified in the previous Phase I ESA that GES had conducted. The Phase I ESA determined that existing RECs include: the former use of the site as a military base, the uncertainty surrounding the nature of activities conducted on the site during that time, and a Leaking Petroleum Storage Tank site on the adjacent property. In addition, the Phase II ESA concluded that metals and PFAS were present in elevated concentrations in the site groundwater. Assessment and remediation services include drilling, sampling, well installations, and analytical testing.



Phase I ESA at an Industrial Park (NY)

GES conducted a Phase I ESA of a 3.2-acre industrial park in Brooklyn, New York. The Phase I ESA was intended to satisfy one of the requirements to qualify for the “innocent landowner defense” of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as cited in the 1986 Superfund Amendments and Reauthorization Act (SARA) legislation, 42 USC 9601(35)(B). The Phase I ESA identified impacted historic fill material across the property, as well as the potential presence of USTs, and identified areas of the property that may have been associated with the use or storage of hazardous materials.