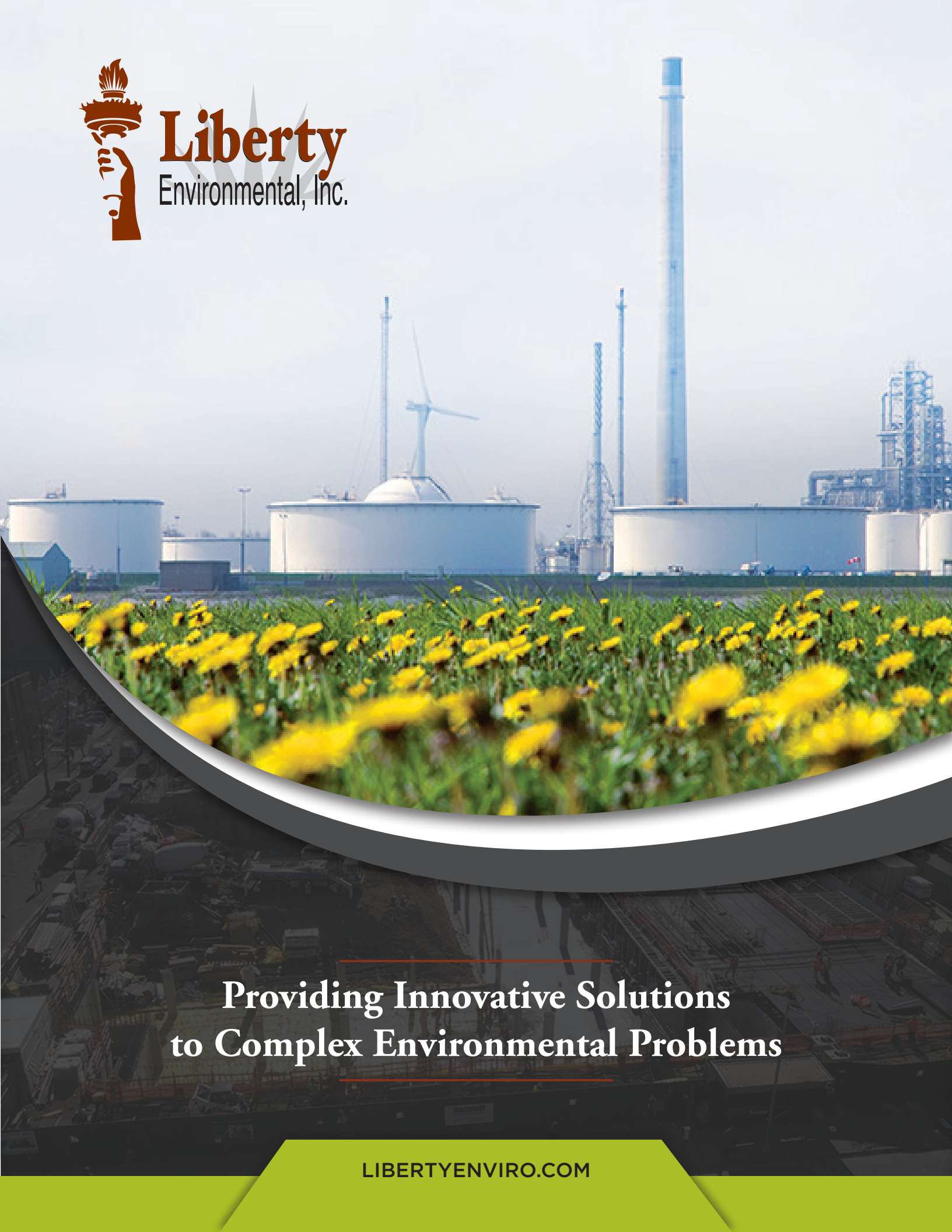




**Liberty**  
Environmental, Inc.



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**Providing Innovative Solutions  
to Complex Environmental Problems**

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## REGULATORY COMPLIANCE

Businesses and government agencies know that environmental compliance is not a static process. Staying compliant with regulations and permits often means managing a multitude of changing record-keeping and reporting requirements, while ensuring that employees understand their environmental responsibilities. Liberty has experience in helping businesses understand and manage their current environmental responsibilities, as well as helping businesses and government agencies plan for future environmental regulatory impacts.



### Environmental Compliance Services

To ensure compliance with regulatory obligations, Liberty Environmental provides clients with a customized environmental management system (EMS). We offer recordkeeping and regulatory tracking support and prepare periodic regulatory compliance reports, allowing customers the opportunity to outsource routine environmental compliance services. Liberty Environmental also provides the following services to help manage environmental compliance requirements:

- Environmental Compliance Audits and Assistance with Voluntary Disclosures
- Routine Environmental Reporting and Plant Management Services
- Environmental Management System (EMS) Development
- Regulatory Tracking and Interpretation
- Environmental Permitting & Sampling
  - Industrial Stormwater
  - Wastewater
- Spill Prevention and Contingency Planning, Facility Response Planning
- Chemical Inventory Reporting (Tier II, Form R, TRI)
- Supplemental Environmental Project (SEP) and Economic Benefit (BEN Model) Penalty Assessment Assistance
- Environmental Compliance Training
  - EPA & State Spill Programs, Spill Response and Reporting
  - Emergency Planning and Hazardous Communication Standards
  - Chemical Labeling & Management
  - Waste Management & Characterization
  - Hazardous Waste Generator Requirements
  - Air and Stormwater Pollution Prevention
- Third-Party Environmental Permit Application Reviews
- Expert Witness Testimony and Regulatory Agency Negotiation
- Conditional Use Zoning Testimony

### Strategic Planning Services

Liberty Environmental specializes in environmental assessments for new plant sites. We can also compare the “permitability” and local environmental climates at any number of candidate sites, in addition to providing environmental due diligence services. Liberty Environmental helps identify environmental options for plant closures including maintaining valuable operating permits and banking valuable emission reduction credits.

- New Plant Siting Environmental Impact and Fatal Flaw Analysis
- New Plant Environmental Permitting and Negotiation
- Plant Closure Environmental Management
- Plant Expansion Environmental Strategies
- Due Diligence for Mergers and Acquisitions
- EHS Management Program Auditing and Recommendations
- Regulatory Development Tracking and Comment Preparaton
- New Facilities Siting, Permitting and Negotiation
- Odor and Dustfall Complaint Investigations and Forensic Services







## AIR QUALITY

With a focus on delivering business-minded compliance support, Liberty Environmental's air quality management practice includes engineers and scientists who provide air quality permitting, emission inventories, air dispersion modeling, ambient monitoring, air emission testing and compliance services for industrial and government clients.

### Air Permitting and Pollution Control Evaluation

Air permits can put a plant expansion project on hold, failure to secure one can result in financial penalties, and errors in permit preparation can create unintended consequences. You know your business, we know air quality permitting. From compliance strategies and permitting to pollution control engineering, monitoring, and litigation support, our team is highly regarded for their ability to develop solutions and to address regulation in the most advantageous manner for our clients. Our team provides services for air permit applications for customers at manufacturing plants nationwide, including state construction permit applications, Title V renewal applications and minor modification submittals. We have permitting and technical contacts with over 30 state air regulatory agencies and most EPA regions.

The type of air permit depends in part on the project air emission rates and the type of air pollution controls proposed. Liberty provides clients with options to limit project air emission rates to help simplify the required air permits and to expedite the air permitting review process. In the event that a project cannot avoid major source permitting, our experience with air dispersion modeling and BACT/LAER air pollution control evaluations, and our relationships with many state air regulatory agency personnel, ensures that the air permitting process will be smooth and predictable.

### Air Quality Compliance Services

Air quality regulations are notoriously complicated with numerous acronyms and regulatory flowcharts leaving many in the regulated community challenged to determine if new air regulations must be evaluated for a project or when an operating permit is being renewed. Our compliance specialists closely monitor federal and state air regulations and guidance, explaining the regulatory impacts on our clients' business in plain language.

Increasingly, federal and state enforcement actions and citizen suits are alleging air pollution focusing on air toxics community impacts. Liberty Environmental's experience with developing air toxic inventories, conducting air dispersion modeling, and designing and implementing ambient air monitoring programs provide our clients with turnkey solutions that provide defensible data in these cases. Our internal mapping capabilities provide graphics that clearly present air modeling and monitoring results and assist in communicating mitigation options.

#### AIR QUALITY COMPLIANCE SERVICES:

- Air Emissions Stack Test Program Management
- Developing Air Emissions Tracking Systems
- EPA Method 9 Visible Emissions Testing
- Regulatory Review and Air Quality Auditing
- Litigation Support including Dust Sampling/Analysis, Air Dispersion Modeling, and Ambient Air Monitoring
- Fenceline Air Monitoring for Construction/Demolition/Remediation Projects
- Air Pollution Forensic Studies including PMF Source Apportionment Studies
- Inhalation Risk Assessment Studies
- Third Party Air Permit Reviews for Government Agencies

#### AIR PERMITTING AND AIR POLLUTION CONTROL EVALUATION SERVICES:

- State Air Construction Permits, Permit-to-Install, and Plan Approvals
- Title V Operating Permits
- State Only, FESOP, and Synthetic Minor Operating Permits
- Major Source PSD and Nonattainment NSR Permits
- Air Dispersion Modeling – AERMOD, CALPUFF
- BACT Analyses, LAER and BAT Determinations
- Flexible Air Permitting – PAL Permits
- RACT Assessments for VOC and NOx Sources
- NESHAP/MACT Compliance for HAP Emissions Sources
- Permit Negotiations
- Air Pollution Control Device Specification, Design and Cost Estimation
- Air Emission Factor Development
- Voluntary Greenhouse Gas (GHG) Reporting – Carbon Disclosure Project
- Mandatory Part 98 Federal GHG Reporting
- Cogeneration and Waste Heat CHP Project Planning and Permitting







## NATURAL RESOURCES

We use our comprehensive knowledge of the natural sciences to perform studies that identify and protect wetlands, watercourses and the watersheds that sustain them. We design options for mitigating affected wetlands and perform restorations of damaged stream systems. Liberty Environmental also has the unique ability to identify sensitive habitats of endangered or protected plant and animal species. These services, when taken collectively, provide expert evaluations considered by decision makers in today's business world as key components of smart development and sustainable land use initiatives.

## WATER RESOURCES

As pressures on water quality and availability have increased, management of this critical resource has become an extremely important element of land development planning and public safety. Proper and responsible stewardship of water resources in today's regulatory climate calls for an integrated approach that must include expertise in several fields, including hydrogeology, geochemistry and hydraulics – and a strong familiarity with water supply and waterways regulatory programs.



### Wetlands Delineation and Mitigation

Wetlands have long been considered to be unique and delicate ecosystems. Our team includes degreed wetlands biologists with extensive experience identifying and delineating wetlands and watercourses to determine buffer areas, setbacks and other land use restrictions affecting site development. Where impacts cannot be avoided, we provide solutions for mitigation of wetlands throughout the lifecycle of the project—including the design phase, permitting and construction.

### Watershed Management and Permitting

Private and public entities use our technical expertise in hydrology, hydraulics, species habitats, wetlands evaluations and fluvial geomorphology to complete detailed basin-wide studies and for watershed planning or design efforts. These skills are also used to provide a more complete and straightforward permitting process for projects ranging from simple stream crossing permits to complex, multi-impact joint agency permits that include detailed ecological assessments and compensatory mitigation designs.

### Endangered Species and Ecological Assessments

When evaluations of endangered species or sensitive habitats are required in the land development process or for purposes of scientific study, Liberty Environmental brings a unique level of expertise to bear. Our technical specialists include biologists regionally recognized for their expertise in several critical “indicator” species and who deliver a level of guidance and assistance rarely found elsewhere. As such, regulators and land development firms respect Liberty Environmental for the timely, solutions-oriented expertise we provide.



### Hydrologic and Hydraulic Studies

A skilled and focused understanding of a site's hydrologic and hydraulic setting is an essential element of land planning and design projects. From basic stormwater runoff calculations for general permit registrations, to complex unsteady-flow hydraulic modeling projects, Liberty Environmental provides the technical skills to support nearly any water planning or design project. Our experts include professionals in water resources engineering and urban hydrology, as well as Professional Geologists who perform detailed geologic and hydrogeologic evaluations to determine the suitability of sites for a range of critical site characteristics including karst/carbonate bedrock conditions, water supply suitability, and stormwater infiltration.

### Stormwater Best Management Practices

Liberty Environmental provides a range of services specifically designed to address site evaluation and best management practice (BMP) design requirements to fulfill the extensive water quality and stormwater volume control requirements established by Phase II of the National Pollutant Discharge Elimination System (NPDES) program. Performed for both industrial and municipal (MS4) clients, these include site-wide feasibility studies, surface and subsurface infiltration testing, BMP selection and design, and stormwater permitting. Our integrated approach relies on broad technical expertise that customers find, particularly in the site evaluation phase, allows for a smoother permitting process with fewer regulatory review comments or design conflicts.

### Public Water Supply

Groundwater and surface water contamination, and the increasing demand for safe, plentiful drinking and irrigation water supplies have placed great importance on the need for expert water supply planning. Our experts provide customers with the needed technical and planning skills to responsibly utilize this valuable resource. We assist our clients in all aspects of the water supply permitting and design process—from siting and installing new source wells or rehabilitating existing wells, to designing water supply treatment systems. Liberty Environmental also offers related hydrogeological services such as delineating wellhead protection areas, preparing wellhead protection management plans, performing hydrogeologic impact studies, conducting sinkhole evaluations and evaluating stormwater infiltration impacts.





## SITE ASSESSMENT & REMEDIATION

Liberty Environmental's team of due diligence specialists are experts in environmental site evaluation and remediation at large industrial complexes, commercial properties and residential development tracts. We understand the technical challenges, regulatory environment and business dynamics facing today's environmental managers and real estate developers.

Our capabilities span the range of assessment and investigative services, from transaction-based Phase I Environmental Site Assessments to comprehensive soil and groundwater investigations. Our hydrogeologists and remediation engineers also perform vapor intrusion evaluations, contaminant fate-and-transport modeling, risk assessments, remedial feasibility evaluations and remediation system design and installation to provide support for critical real estate decision making and the cleanup objectives of our clients.

### Environmental Due Diligence

In order to protect against environmental liabilities, it is critical for commercial and industrial property purchasers to conduct appropriate due diligence prior to acquisition of a site. Liberty Environmental has conducted thousands of Phase I Environmental Site Assessments and other due diligence assessments. Through our involvement in ASTM Committee E50, we stay ahead of the curve in the latest standards for conducting All Appropriate Inquiry on a wide array of property types. Our experience and knowledge enable us to communicate the real environmental risks and propose common-sense solutions to prospective purchasers, their lenders and attorneys. Our deep expertise in the management of environmental projects for real estate transactions and funding extends from the private sector to government-guaranteed loan programs such as SBA protocols, HUD Environmental Reviews, and NEPA studies.

### Remedial Investigations and Feasibility Studies

Today's risk-based approach to corrective actions at brownfield, hazardous waste and other contaminated sites requires a high level of scientific expertise and an understanding of federal and state regulatory programs. Application of our expertise in contaminant fate-and-transport modeling, risk assessment and use of institutional and engineering controls, ensures that remedial efforts are guided by informed decision making that takes into account the planned site use and human exposure pathways. Liberty Environmental's experience in this area places our clients at the forefront of this rapidly changing, innovative field. Our staff has completed site investigations under a wide range of programs including:

- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund)
- Resource Conservation and Recovery Act (RCRA)
- State Storage Tank Programs
- Voluntary Cleanups (including brownfields redevelopment)

We have experience with a full spectrum of conditions that can be encountered at a project site-including sanitary landfills, hazardous waste landfills, lagoons and impoundments, operating manufacturing plants, abandoned disposal sites and waste piles.



### Storage Tank Management

Liberty Environmental's storage tank services span many levels of tank management, including spill plan development, tank removal oversight and corrective action. Our staff, who frequently presents to national audiences on the subject, has managed thousands of storage tank removals, leaking tank investigations and remediations. Through our combined understanding of modern technological developments in tank materials, appurtenances and containment devices, we are able to assist our clients in avoiding future liability from spills and leaks, and responding quickly in addressing leaks when they do occur.

### Soil and Groundwater Remediation

Engineered remediation systems remain a large part of environmental cleanup solutions, and our team of experts brings an unequalled level of complementary skills to our system designs. Through the collaborative efforts of our diverse team of scientists and engineers, we design and operate efficient, innovative treatment systems designed to fit each site's unique setting and remedial objectives. Our applied remedial technologies have included:

- In-Situ Bioremediation
- In-Situ Chemical Oxidation
- Multiphase Fluid Extraction
- Physical and Biological Ex-Situ Treatment
- Phytoremediation
- Soil Vapor Extraction, Air Sparging and Bioventing

Most importantly, our investigative and remedial solutions are designed, engineered and operated with one overriding objective-to achieve site cleanup and re-use goals on time and under budget.

### Vapor Intrusion Mitigation

Vapor intrusion has emerged as one of the most significant human health concerns on contaminated properties. After vapor intrusion modeling or soil gas sampling conclude that vapor intrusion is a concern, Liberty's engineering team evaluates mitigation options, completes data-led design in coordination with other design professionals, and oversees installation of system components such as vapor barriers and sub-slab ventilation systems.





## BUILDING ASSESSMENT SERVICES

Liberty's wide range of site assessment expertise isn't limited to below the ground. Our capabilities extend above the ground surface and into the built environment, where we help real estate industry professionals understand the condition, risk, and costs of building ownership. From multi-family complexes within the country's largest urban centers to industrial infrastructure along transportation corridors, Liberty has the capabilities to bring its built-environment knowledge to all sectors of the real estate market.

### Property Condition Assessments

Evaluations of the physical condition of a building and a site's infrastructure have become integral to real estate decisionmaking, and therefore form a natural extension of Liberty's due diligence services. Our detailed knowledge of environmental conditions is coupled with our understanding of historical and modern building systems to form a valuable set of services that can be used by lenders, attorneys, investors, builders and planners to map out the ongoing needs – and the associated costs – of facility ownership and management. Our Property Condition Assessment services represent the latest industry standards and are conducted by qualified experts with certifications and licenses in building-related environmental evaluations and years of construction-industry experience.

### Asbestos, Lead Paint and Hazardous Building Materials

Without a thorough knowledge of the building materials within an existing structure, redevelopment projects can face costly delays when materials requiring special management are unexpectedly encountered during renovation or demolition. Liberty's team of assessment experts includes scientists who are qualified and licensed to perform surveys of asbestos-containing materials (ACM), lead-based paint (LBP), mold and microbial matter, and other materials that are collectively identified as hazardous building materials (HBM). Each of these materials poses a unique challenge to a building project through the need for proper identification, inventory procedures, pre-removal planning or demolition-phase management, disposal, and documentation.

With first-hand expertise that encompasses over 25 years of building industry knowledge, our building assessment specialists regularly identify, sample, and analyze these categories of materials and guide our clients through the maze of materials management. Liberty's services extend beyond the pre-construction planning phase to include management plans and demolition-phase specifications, to ensure that the site work is performed correctly and environmental risks are minimized. Our overall goal is to provide our clients with the knowledge to protect worker and occupant health, meet regulatory obligations, and avoid project delays.



Liberty Environmental, Inc. provides environmental consulting and engineering services to clients across the United States – including manufacturers, private landowners, land developers, financial institutions and government entities. Our staff is composed of national experts in air quality management, water and waste management, environmental compliance and auditing, sustainability and greenhouse gas management, storage tank management and earth sciences. Our environmental services are valued by our customers, many of whom we have worked closely with for years and who appreciate our thoroughness and dedication, proven record of success in managing environmental matters, innovative approach to environmental challenges, and discretion in managing sensitive compliance concerns.

Liberty Environmental's vision is to provide our customers with a trusted advisor to manage environmental affairs. We make an effort to understand their business needs and partner with them to solve environmental problems in the most professional and cost-effective manner. Through our guiding principles of TRUST, QUALITY, EXPERTISE and INNOVATION, we strive to achieve our mission:

**Providing Innovative Solutions  
to Complex Environmental Problems**



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