SUSAN O'BRIEN, LSP

PROJECT DIRECTOR

Sanborn, Head & Associates, Inc.

Professional Profile Summary

Susan is a Project Manager with 24 years of environmental consulting experience. She serves as LSP-of-Record and provides regulatory direction on a variety of private and public-sector projects and directs assessment and remediation activities at sites with contaminated soil, groundwater, sediment, and indoor air. Susan has extensive experience in environmental compliance and preparing and supervising the preparation of Phase I and II Environmental Site Assessments in accordance with the ASTM standards. She is responsible for strategic work scope development and execution, budgeting, organizing, executing and coordinating overall job assignments. Susan also has prepared numerous Method 1 and Method 3 human health risk assessments in accordance with the Massachusetts Contingency Plan (MCP).

Education

- Masters, Civil/Environmental Engineering, Tufts University
- Bachelors, Civil/Environmental Engineering, Tufts University

Registrations

- Licensed Site Professional - MA, 9605
- 10 Hour Construction Training - OSHA
- 40 Hour HAZWOPER Training - OSHA

Professional Associations

- Society of Women Environmental Professionals, former Board Member and Treasurer
- LSP Association, former Board Member and current member of Education Committee
- NAIOP, current member of Brownfields Redevelopment Subcommittee

Related Experience

Confidential Clients, US – Due Diligence Investigations. For a national waste disposal and emergency response company, managed and staffed the preparation of eight Phase I Environmental Site Assessments (ESAs) that were performed for facilities located throughout the country. For a national television broadcasting company, performed the same duties for nine Phase I ESAs at facilities also located throughout the country.

City of Quincy, MA – Beale Street Fire Station. As the LSP-of-Record, provided LSP services for a site with a historic release of gasoline which resulted in the presence of Non-Aqueous Phase Liquid (NAPL). Using updated guidance documents, performed response actions to demonstrate that the NAPL is stable and not migrating. Prepared the appropriate MCP regulatory closure documents.

City of Quincy, MA – Intervale Street Site. For a former scrap metal yard that had historic releases of metals and polychlorinated biphenyls (PCBs), with limited cleanup performed by the U.S. Environmental Protection Agency (EPA), prepared a Notification of a Self-Implementing PCB Site Cleanup Under 40 CFR 761.61(a) to the EPA proposing additional cleanup and regulatory closure at both a state and federal level. Preparing the appropriate MCP documents to perform the cleanup and site closeout.

Confidential Client, Detroit, MI – Tank Farm. Client Manager responsible for providing contractor and consultant oversight for the removal and disposal of seven underground storage tanks (USTs) and over 1,000 tons of contaminated soil for a flight services support company at the Detroit Metropolitan Wayne County Airport. Also directed the removal activities and provided client support during the excavation. Assisted with the design of a subsurface investigation to delineate the extents of contamination and oversaw the preparation of site closure documents.

Confidential Client, Baton Rouge, LA – Tank Farm. Client Manager responsible for providing contractor and consultant oversight for the removal and disposal of five USTs and any associated contaminated soil for a flight services support company at the Baton Rouge Metropolitan Airport. In the process of directing the UST removal activities and providing client support.

Confidential Client, Foxborough, MA – Stormwater Management. For a large private industrial facility that has been the subject to stringent and arduous National Pollutant Discharge Elimination System (NPDES) permitting requirements since the 1970s, assisted in the negotiations with the client, their attorneys, and the U.S. Environmental Protection Agency (EPA) to terminate the permit and transition to a simpler and much less cumbersome Remediation General Permit (RGP). Prepared the Notice of Intent for the RGP and supporting documents, including the Best Management Practices Plan (BMPP), which were subsequently approved by EPA. Currently manages the analytical database and performs data validation for the monthly samples that are collected as part of the RGP.

Confidential Client, Somerville, MA – Commercial Real Estate Developer. For a vacant industrial property with historic contamination, provided soil management and disposal support services for 50,000 cubic yards of soil that will require off-site disposal. Over 70 soil samples were collected during three subsurface investigations. The sample results were placed in a database and compared to reporting thresholds and disposal criteria. Several appropriate receiving facilities will be selected based on the contaminant levels.

Due Diligence Practice Leader at Former Consulting Firm. Responsibilities included managing and staffing the preparation of Phase I ESAs for numerous clients in accordance with ASTM Standard E1527-13. Based on the findings of the Phase I ESAs, if applicable, designed and managed the subsurface investigations and preparation of reports for the Phase II ESAs in accordance with ASTM Standard E1903-11. Projects included management of a portfolio of over 54 Phase I ESAs in 2017 for commercial/ residential properties located in Rhode Island, in addition to 22 Phase II subsurface investigations, based on the findings of the Phase I ESAs. Also performed site investigations and reviewed documents (or provided staff to do so) to ensure environmental regulatory compliance with wastewater, stormwater, RCRA hazardous waste storage, air, toxics reporting inventory, universal waste, sludge disposal and solid waste, and USTs.

Bank of America, Reading, MA – Subsurface Investigations. As Project Manager and LSP-of-Record, provided LSP services and designed and managed subsurface investigations for a historic release of gasoline from USTs when the property was used as a filling station. Duties included the advancement of 28 soil borings and the collection of 49 soil samples for laboratory analysis. In addition, 12 permanent groundwater monitoring wells were installed and quarterly rounds of groundwater samples were collected from the wells for laboratory analysis. After characterization was complete and the extents of contamination were defined, prepared the regulatory closure documents under the MCP, including a Permanent Solution Statement with Conditions and Method 3 risk characterization, as well as an Activity and Use Limitation (AUL).

Confidential Client, MA – Westborough 16 Landfills 4 and 5. Project Manager responsible for conducting a detailed review of previous site investigations conducted under the MCP and Massachusetts Solid Waste facility regulations for two former industrial landfills following the owner's receipt of Notice of Technical Deficiency from the Massachusetts Department of Environmental Protection (MassDEP). Assisted in the development of scope of work for a risk characterization to address the Notice of Technical Deficiency and provided regulatory expertise regarding the process to move the project toward regulatory closure under the solid waste regulations. Reviewed existing site data and helped identify data gaps which needed to be addressed in order to complete a Method 3 risk characterization and Quantitative Ecological Risk Assessment. Provided senior technical review of draft risk assessments and identified areas of weakness. Facilitated identification of preliminary land fill closure options, along with anticipated costs, and developed a scope of work for the Corrective Action Alternatives Analysis. Managed the field test pit investigation program to delineate the horizontal extent of the waste.

Harvard Mills, Wakefield, MA – LSP-of-Record. Technical Liaison and Project Manager responsible for investigating the extent of groundwater and vapor intrusion impacts from an extensive historic release of trichloroethene to groundwater in an urban area, assisted in the preparation of a groundwater, soil gas, and indoor air sampling program which included the installation and/or sampling of 65 groundwater monitoring wells and 74 temporary sampling points, from which 363 groundwater samples were collected from various depths, as well as over 20 on-site and off-site sub-slab soil gas vapor points and subsequent indoor air, if required. Prepared the appropriate MCP documents consisting of a Phase II Comprehensive Site Assessment documenting the results of the investigation and nature and extent of the release. Also, prepared Release Abatement Measure (RAM) Status Reports for the sub-slab depressurization system that was installed to mitigate the vapor intrusion pathway and Immediate Response Action (IRA) reports to discuss the potential condition of Substantial Release Migration based on the groundwater analytical results of wells installed near residential properties. Developed a plume stability work plan to conduct seasonal sampling of select wells to evaluate plume stability. Assisted in the preparation of the regulatory closure documents consisting of a Permanent Solution Statement with Conditions and AUL.

CSX Transportation, MA – Emergency Response Provider and LSP-of-Record. Responsibilities included managing numerous emergency responses and serving as the LSP-of-Record relating to sudden releases of petroleum products at railroad facilities located throughout Massachusetts. as Also assessed site conditions and if required, reported them to the MassDEP Emergency Response Department, and developed remediation approaches with the contracted emergency remediation services provider. If required, duties also included designing and implementing subsurface investigations and/or sampling programs to assess the nature and extent of the releases. Communicated frequently with field staff, the emergency remediation services provider, the MassDEP and the client representatives. Also prepared and submitted the appropriate MCP documents, including IRA reports, Bills of Lading and Permanent Solution Statements (with and without Conditions), along with the appropriate Method 1 or Method 3 risk characterization.

Town of Needham, MA – School Administration Building. Project Manager and LSP-of-Record responsible for the management of the removal of a leaking UST and impacted soil, excavation of test pits under the floor inside building, and advancement of soil borings and installation of monitoring wells and sampling of soil and groundwater to investigate the extent of contamination, as well as the installation and sampling of sub-slab soil gas vapor points and indoor air sampling to evaluate the vapor intrusion pathway. Based on the results of the investigation, assisted in the design a vapor extraction system to mitigate the vapors below the floor of the building. Prepared the necessary MCP reports, including IRA and Remedial Monitoring Reports, Phase I Initial Site Investigation Report and Tier Classification, and regulatory closure documents consisting of a Permanent Solution Statement with Conditions and Method 3 risk characterization, as well as a deed restriction consisting of an AUL.

City of Boston, MA – Mattapan Branch Library. Project Manager responsible for investigating the nature and extent of soil, groundwater, and potential vapor intrusion impacts prior to construction of the library building, prepared a sampling plan and managed a subsurface investigation consisting of the advancement of over 40 soil borings, 14 soil vapor probes and the installation of 21 groundwater monitoring wells. Prepared bid specifications for the site preparation work, consisting of the demolition of two on-site auto repair and auto body shops, abatement of asbestos and other hazardous materials, management of hazardous waste, earthwork and contaminated soil and site restoration. Developed unit costs for the transportation, removal and disposal of materials and wastes encountered during the site preparation work. Assisted the architect, geotechnical, civil and electrical engineers in the preparation of several sections of the construction bid specifications. Managed the removal of over 5,000 tons of impacted soil, three USTs, and an oil/water separator. Communicated frequently with the MassDEP with respect to a potential residential vapor intrusion pathway. Prepared a sampling plan for the installation and sampling of sub-slab soil gas vapor points and indoor air at nearby private residences. Designed a sub-slab depressurization system which was constructed as part of the library building. Prepared numerous MCP reports, including an AUL, IRA reports, Phase I Initial Site Investigation Report, Downgradient Property Status (DPS) Opinion, and Class A-3 Response Action Outcome (RAO) Statement as a regulatory endpoint in accordance with the MCP.

Various Towns (Watertown, Waltham, and Raynham), MA – LSP and Construction Administrator. Responsibilities included the management of the removal of 22 USTs from three municipal housing authorities which consisted of preparing the technical bid specifications for the removal of the USTs and site restoration, attending pre-bid meetings, bid openings, and weekly construction meetings with clients and contractors, communicating frequently with clients, managing the contractors during the projects, providing construction administration and LSP services, including UST removal oversight and sampling/screening the UST excavations. Prepared UST Closure Reports and IRA Plans due to the three 72-hour MCP reporting conditions. Managed junior staff during the subsurface investigations initiated as part of the IRAs. Prepared AULs on two properties and Class A-2 and A-3 RAOs as regulatory endpoints.

Massachusetts Bay Transportation Authority (MBTA), Boston, MA – Green Line Extension (Cambridge, Somerville and Medford) and South Coast Rail Projects (numerous towns). Project Manager for the proposed expansion of the Green Line subway system into Medford and the extension of the commuter rail to New Bedford and Fall River, managed the hazardous materials portion of the investigation for the proposed station locations, layovers and bypasses. Duties included supervising the preparation of 25 ASTM Phase I ESAs and numerous Phase II subsurface investigations throughout the rail right-of-way and at proposed stations in Medford, Somerville and Cambridge (for the Green Line Extension). Also prepared the Environmental Notification Form (ENF), the Environmental Assessment, the Draft and Final Environmental Impact Reports (DEIR/FEIR) and Environmental Impact Statements (DEIS/FEIS) in accordance with the requirements of the Massachusetts Environmental Protection Act (MEPA) and the National Environmental Protection Act (NEPA) for the Massachusetts Department of Transportation.

City of Somerville, MA – Community Bike Path Imminent Hazard Mitigation. Project Manager and LSP-of-Record responsible for managing remedial actions performed adjacent to the bicycle path in response to the detection of arsenic at concentrations presenting an Imminent Hazard during preliminary excavation activities for drainage evaluation activities. IRA activities included the installation of fencing and signage around two areas exhibiting elevated concentrations. Assisted the City with the preparation of a bid package for the excavation and off-site disposal of arsenic contaminated soil to eliminate the Imminent Hazard condition. Managed the screening of soils onsite using an x-ray fluorescence (XRF) instrument to ensure that arsenic concentrations in soil were well below the Imminent Hazard threshold. Confirmatory soil samples were submitted for laboratory analysis to confirm XRF screening results. Prepared a Class A-2 RAO Statement as a regulatory endpoint.

City of Somerville, Somerville, MA – Central Branch Library Fuel Oil Assessment. As LSP of Record, managed subsurface investigations, including advancement of soil borings, installation of monitoring wells, and conducted a soil gas survey, to investigate the nature and extent of contamination due to the presence of No. 2 fuel oil in soil and groundwater from an abandoned UST. Supervised the removal of petroleum impacted soil adjacent to the former UST. Prepared the necessary MCP documents to meet the requirements of an Administrative Consent Order and reduction of penalties, including a Class A-2 RAO Statement as a regulatory endpoint.

City of Somerville, Somerville, MA – Public Safety Building. As LSP of Record, managed the removal of a UST which had failed a tightness test and performed a subsurface investigation to evaluate the nature and extent of contamination. Prepared the appropriate documents in accordance with the MCP, including an IRA Plan and Completion Statement and Class B-1 RAO Statement as a regulatory endpoint.

City of Somerville, Somerville, MA – Conway Park Ice Skating Rink Redevelopment. During construction of an ice skating rink on a contaminated site that had an AUL, prepared the Brownfields Cleanup Revolving Loan Fund application, as well as the Community Relations Plan. Attended public meetings to present the Community Relations Plan, prepared the appropriate MCP reports. Oversaw response actions that included the excavation and off-site disposal of soil and confirmatory sampling.

Private Industrial Rubber and Plastics Manufacturing Company, Milford, MA. Project Manager and LSP-of-Record responsible for managing subsurface investigations to address releases of chlorinated compounds and 1,4-dioxane and to further delineate the historic release of petroleum to groundwater. Prepared the appropriate MCP reports and designed and implemented the in-situ chemical oxidation (ISCO) injections to reduce dissolved-phase contaminant concentrations to below regulatory closure standards in a GW-1 groundwater area. Managed several ISCO events using nine dedicated injection wells.

City of Chelsea, MA – Ruiz Public Park Development. Project Manager and LSP-of-Record for a former gasoline station and vehicle repair garage that was to be developed as a public recreational neighborhood park, prepared a sampling plan to evaluate the nature and extent of historic fill and petroleum contamination and collected soil samples at three separate depth intervals. A supplemental subsurface investigation was implemented to further define the extent of the historic fill impacts. Managed the removal of an estimated 350 cubic yards of impacted soil via a RAM Plan. Met with the City and landscape architects to develop the guidelines and specifications to obtain the contractor that would remove and properly dispose of the soil and construct the park. Supervised the soil removal activities and prepared the necessary MCP documents, including a Class A-2 RAO Statement as a regulatory endpoint.