

# Brian R. Fennelly, PE, LSRP



Mr. Fennelly is an Environmental Engineer and the founder of Fennelly Environmental Associates, LLC. He has more than 28 years of engineering, consulting, and regulatory compliance experience. Mr. Fennelly's experience includes site assessments, remedial investigations, innovative remedial strategies, design, contracting, and construction management. He has additional experience with brownfields redevelopment, environmental litigation, landfill closure, and environmental permitting. Mr. Fennelly has made presentations and provided testimony as an expert witness on environmental remediation matters before municipal planning and zoning boards. He has also provided expert testimony as part of environmental litigation proceedings. Mr. Fennelly specializes in working with clients to develop customized remedial strategies that are practical and cost effective. In 2009, Mr. Fennelly became one of the first individuals to be certified as a Licensed Site Remediation Professional (LSRP) under the newly created New Jersey Department of Environmental Protection (NJDEP) LSRP Program. After obtaining a permanent LSRP license, Mr. Fennelly served as an expert in NJDEP regulations and technical guidance and assisted with the development of subsequent LSRP exams. Mr. Fennelly is also a licensed Professional Engineer (PE) in New Jersey, Pennsylvania, Delaware, and Massachusetts.

## Professional Licenses

- Licensed Site Remediation Professional (New Jersey)
- Professional Engineer (New Jersey, Massachusetts, Pennsylvania, Delaware)

## Fields of Competence

- Preliminary Assessments
- Phase I/II Environmental Site Assessments
- Environmental Investigations
- Customized Remediation Strategies
- Environmental Litigation
- Brownfields Redevelopment
- Environmental Engineering
- Regulatory Compliance
- Landfill Closure
- Underground Storage Tank Closure
- Remedial Action Permits
- NJ ISRA Compliance
- DPCC and SPCC Plans
- Vapor Intrusion Mitigation

## Credentials

- Licensed Professional Engineer
- NJ Licensed Site Remediation Professional
- M.S., Civil/Environmental Engineering, University of New Hampshire
- B.S., Environmental Studies, Syracuse University
- 40-hour OSHA (29CFR 1910.120) course in Hazardous Waste Operations and Emergency Response Safety Training (HAZWOPER)
- Annual 8-Hour HAZWOPER Refresher Training for Supervisors
- Transportation Worker Identification Credential (TWIC)
- First Aid and CPR Training

## *Representative Project Experience*

Operation and Maintenance (O&M) and compliance activities at a closed RCRA landfill. Project tasks included management of 250,000 gallons of hazardous waste landfill leachate per year, facility maintenance, NJDEP inspections, compliance with USEPA regulations, and tracking hazardous waste manifests.

NJ Industrial Site Recovery Act remediation at a 250,000-sf former chemical manufacturing facility. Project tasks included a Preliminary Assessment, Site Investigation, Baseline Ecological Evaluation, Remedial Investigation, Vapor Intrusion Investigation, Receptor Evaluation, Remedial Action Work Plan, and Remedial Action. Remedial activities involved the use of structural support (helical piles) to access areas below the building foundation. The area subject to remediation was greatly reduced by demonstrating that elevated levels of metals observed in site soils were due to natural background conditions. Site-specific Impact to Ground Water Soil Remediation Standards were also created to reduce the number of constituents requiring remediation. Investigation and remediation activities were expedited to facilitate the sale of the property which proceeded unimpeded. An Entire Site Unrestricted Use Response Action Outcome was issued.

Long-term investigation and remediation project at large former industrial property in Bergen County, New Jersey. Project tasks included the investigation and remediation of numerous areas of concern including chemical storage areas, industrial operations areas, USTs, and waste disposal areas. Remediation activities included excavation and off-site disposal as well as on-site soil reuse followed by capping. Remedial Investigation activities included characterizing chlorinated solvent bedrock ground water contamination.

Underground storage tank remediation project involving multiple leaking USTs. Project tasks included a soil and ground water Remedial Investigation, soil remediation, potable well sampling, Vapor Intrusion Investigation, Receptor Evaluation, and ground water monitoring to support a monitored natural attenuation remedy.

NJ Industrial Site Recovery Act Preliminary Assessment and Remedial Action at a former chemical manufacturing facility. Project tasks included the removal of an underground storage tank with limited access and an expedited project schedule. An Entire Site Unrestricted Use Response Action Outcome was issued.

Landfill Closure at a former 6-acre asbestos disposal area. Project tasks included securing a Wetlands Permit, Flood Hazard Area Permit, Landfill Disruption Permit, and Delaware and Raritan Canal Commission (DRCC) approval.

Remedial Investigation and Remedial Action at a former paint manufacturing facility. Project tasks included investigation of DNAPL ground water contamination underneath a building, in-situ remediation using chemical injection, and a Vapor Intrusion Investigation.

Landfill Closure at an 11-acre industrial landfill in Middlesex County, NJ. Project tasks included preparing construction specifications, contract drawings, contractor bidding, construction management, and addressing endangered species issues.

NJ Industrial Site Recovery Act Preliminary Assessment, Site Investigation, Baseline Ecological Evaluation, Remedial Investigation, and Remedial Action at an active 195,000-sf pharmaceutical manufacturing facility. Project tasks included remediation of soil impacted with polycyclic aromatic hydrocarbons (PAHs). An Entire Site Unrestricted Use Response Action Outcome was issued.

Site Investigation and Baseline Ecological Evaluation at a former information technology facility. Project tasks included assessment and investigation of a significant product release in an urban area of New Jersey. The area of remediation was limited by demonstrating that soil impacts were related to background urban contamination. A technical consultation was utilized to gain NJDEP concurrence. An Entire Site Unrestricted Use Response Action Outcome was issued.

NJ Industrial Site Recovery Act Preliminary Assessment, Site Investigation, Baseline Ecological Evaluation, and Vapor Intrusion Investigation at a former ore processing facility. Remedial activities beyond existing engineering controls were avoided by demonstrating that impacts were related to the presence of historic fill at the site.

Remedial Investigation, Remedial Action Work Plan, and a Remedial Action at a 290-acre site containing refuse disposal areas and a leaking underground storage tank. Project tasks included securing a Wetlands Permit and a Flood Hazard Area Permit to allow implementation of the proposed remedial action, bid specifications, contractor bidding, and construction management.

### *Representative Project Experience (continued)*

Technical support to a major insurance company regarding litigation over the reasonableness and appropriateness of investigations and proposed remedies for the closure of a former landfill. Developed cost estimates and schedules to investigate and remediate the landfill area based upon the New Jersey Technical Requirements for Site Remediation and Landfill Closure Requirements.

Design of an innovative groundwater treatment system at a large, former industrial facility in Central New Jersey. Key project details: large groundwater plume impacted by low pH and dissolved metals, alkalinity passively added to the plume in-situ to precipitate metals, greatly reduced capital and operational costs vs. traditional pump and treat methods.

Remedial Action using engineering controls at an active chemical manufacturing facility. Project tasks included installation of an earthen cap, construction management, bid specifications, contractor bidding, and filing a deed notice.

Remedial Investigation, Baseline Ecological Evaluation, Human Health Risk Assessment, Wetlands Delineation Letter of Interpretation (LOI), and Remedial Action Work Plan for a 620-acre former agricultural property. Project tasks also included the removal of two underground storage tanks. Ground water monitoring was conducted to demonstrate that impacted ground water was effectively addressed using natural attenuation.

Site Investigation at Boston's Logan International Airport. Project tasks included identifying and characterizing contamination related to the airport's fuel distribution system prior to the transfer of a lease to operate the fuel system.

Screened and selected appropriate remedial actions for a 28-acre former auto parts manufacturing site impacted by asbestos, heavy metals, PCBs, and semivolatile organic compounds.

Engineering Evaluation/Cost Analysis for a former chemical manufacturing plant and areas downstream from the site along the Woonasquatucket River in Rhode Island. Challenges included Federal Superfund Site, dioxin contamination, and impacted sediment.

Aqueous cover system emplaced at a Federal Superfund Site in Gray, Maine. The project involved the site of a former waste collection and transfer facility where groundwater had been impacted with trichloroethene (TCE). To prevent access to contaminated surface water, an aqueous cover system was constructed at a spring area where the TCE plume discharged into the Royal River.

Prepared design drawings and specifications for a dual phase extraction (DPE) system to address light non-aqueous phase liquid (LNAPL) contamination at a USEPA Superfund Site in Plaistow, NH. The project involved the site of a former fuel oil recycling and distribution facility where three LNAPL plumes with a total area of approximately two acres were present. A DPE treatment system was constructed and operated to remove the floating product. More than 90,000 gallons of product was removed from the subsurface.

Remedial Action at a former chemical manufacturing site. In-situ chemical oxidation (sodium persulfate) was selected as the remedy to address ground water impacted by VOCs.

Site Investigation and Response Action Outcome Report for a school where contamination was discovered below the building foundation due to a leaking underground storage tank. Site investigation included angled boring advancement, soil sampling, monitoring well installation, and ground water sampling.

Transaction support, due diligence, remediation, and LSRP services at a 7-acre former industrial property in Hunterdon County, NJ. Advised client on risks and potential issues present at the site due to past industrial use. Developed pre-purchase remediation cost estimates to assist client in decision making and negotiations. Implemented Site Investigation, Remedial Investigation, and Remedial Action activities to prepare the site for future residential use. Challenges included chlorinated solvent bedrock ground water contamination, sensitive receptors on all sides of the site, radiological concerns, LNAPL in the subsurface, vapor intrusion concerns, impacts extending off-site, historic fill, construction dewatering, and an aggressive construction schedule.