Hunter's Point Parcel 8

Long Island City, New York

The Hunter's Point Parcel 8 Site (Site) is a 0.73-acre parcel located along the East River and part of the 78-acre Hunters Point waterfront tract in Long Island City (Queens), New York. The Site has a history of heavy industrial uses including a varnish factory, a paint factory, oil terminal, and manufacture of roofing materials. The Site was enrolled in the New York State Department of Environmental Conservation Brownfield Cleanup Program (NYSDEC BCP). FLS was retained to investigate the Site, formulate a remedy, and execute the remedy so as to achieve a Certificate of Completion (COC), and navigate the project through the BCP. FLS also implemented post-remedial monitoring.

View of a typical injection well installed at Parcel 8.

The Site has undergone multiple Remedial Investigations (RI) by FLS and other firms. Investigations identified contaminants of concern including benzene, toluene, ethylbenzene, xylenes, naphthalene, polychlorinated biphenyls (PCBs) and select metals in shallow and deep soils. The principal RI completed by FLS identified a 12-foot-thick band of residual coal tar Non-aqueous Phase Liquid (NAPL) ranging from approximately 10 to 22 feet-below grade (fbg). This constituted as the main remedial element occurring as 47,000-pound body of contaminant mass. Results of groundwater sampling found elevated concentrations of BTEX, polycyclic aromatic hydrocarbons, arsenic, and lead above New York State groundwater quality standards.

In coordination with the NYSDEC, FLS prepared a Remedial Action Work Plan that proposed excavation of shallow soils (4-5 fbg) site-wide hot spot excavation of areas with PCBs and metals, and an *in situ* remedy to reduce the coal tar contaminant mass by 90%. FLS designed and implemented remediation of the coal tar mass using an innovative, never-before-used *in situ* chemical oxidation methodology and alkaline-activated sodium persulfate injected into the treatment interval, 10-22 fbg. The treatment used the RemMetrik® patented methodology, Wavefront's Primawave® technology, and VeruTEK's Surfactant Enhanced *in situ* Chemical Oxidation (S-ISCO) process. The remedial program was successful and exceeded the NYSDEC goal of 90% contaminant mass reduction. Groundwater monitoring conducted for 48 months post remedy showed contaminant concentrations were greatly reduced and achieved asymptotic levels. No rebound was observed after four years of groundwater monitoring. The Site received a Certificate of Completion from the NYSDEC approximately 14-months after the start of the *in situ* treatment qualifying the Site owner for BCP Tax Credits. Currently, the Site is being developed as the Hunter's Point Community Library.

View of the Site post remedy and composite cover.