

Direct Technical Mentoring Mariners Marsh Park, Staten Island, New York

Overview:

The 107-acre Mariners Marsh Park is located in the Port Ivory section of the Borough of Staten Island, Richmond County, New York. The property was the former Milliken Brothers Structural Iron Works and Rolling Mill and the Downey Shipbuilding Yard. It is suspected that backfilling of the site subsequent to the termination of manufacturing operations may have occurred. The former occupied the site from approximately 1903 to 1917; the latter occupied the site from 1917 to approximately 1931. The City purchased the property in 1974, intending to use it for container port operations associated with the Howland Hook Marine Terminal. The site was designated City parkland in 1997 and is currently managed by the NYC Department of Parks & Recreation (“DPR”). The property is presently closed to the public, but is intended for use as a recreational area to include ball fields and a wildlife sanctuary/nature preserve.



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Specific areas of primary concern include:

- Coal Tar residue present near the former gas holders located in the northwest portion of the site;
- Discolored soil in the vicinity of the former Sherardizing building;
- Fill material present in the vicinity of the former recreational area (baseball fields);
- Fill material present along the former rail spurs; and
- Debris and other material within ponds on the property

A limited Phase I Environmental Site Assessment (ESA) and a limited Phase II Site Investigation were conducted in 2001 and 2003 on a 6.25-acre portion of the site using United States Environmental Protection Agency (EPA) Brownfields Pilot funding. A full Phase I ESA and Phase II Site Investigation were performed as part of a \$270,000 EPA Brownfields Assessment Grant awarded to the City of New York. The most recent phase of field work was performed in 2007 with a Phase 2 Site Investigation (SI) that sampled soil and groundwater throughout the park.



NJIT TAB Assistance Provided:

Stakeholder Coordination

NJIT TAB conducted a series of meetings with stakeholders that focused the project objectives and targeted the clean up funding to a section of the park where available data was sufficient to support remediation planning. This was accomplished through a series of meetings (systematic planning) that progressively developed a remedial strategy based on available data.

An initial meeting was held in NYC at the Mayor's Office of Environmental Remediation in July 2008 with the purpose of making contact with the project personnel and introducing the services of NJIT TAB. A second meeting was held in 2008 with the addition of personnel from the Department of Parks & Recreation (DPR). Prior to the meeting, DPR had transmitted to NJIT TAB staff certain technical reports (Phase 1 ESA and Phase 2 SI) for review. This meeting included a discussion of the available sampling data with regards to prioritizing portions of the 107 acres that could be less impacted and therefore quickly redeveloped into park recreational areas. A determination was made that the focus of the effort should include a 6-acre portion of the park previously designated to be active recreation (ball fields).

Strategic Analysis of Contamination

In order to further refine the understanding of environmental site conditions in the planned active recreation area, NJIT TAB, using ArcGIS, assembled available environmental information in a comprehensive data base. It was recognized that one of the issues with evaluating the results from the various investigations was that the data was scattered across several reports. The first activity was to compile the sampling results into one data base in order to assemble the available environmental sampling data into a compressive map. This allowed all the environmental data to be viewed simultaneously. Then the data was evaluated with regard to concentration and type of impacts, and additional sampling activities needed to supplement the existing data were identified. NJIT TAB staff then prepared a power point presentation of the data and organized a meeting with NYC DPR and NYC Mayor's Office of Environmental Remediation to discuss the appropriate remediation strategy.

NJIT TAB then prepared and provided the NYC DPR with a summary Power Point presentation that could be used to show the findings of the environmental investigations, and which defines the remedial strategy and identifies any additional sampling that would be necessary to complete the remedial investigation to NYSDEC regulatory standards.