

Project Name

Bayonne Redevelopment Site - Design Slurry Wall and Leachate Collection System, Oversight of Remediation

Client

OENJ Cherokee

Services Provided

- Reviewed site history and conducted additional investigations
- Evaluated developer's plans to redevelop landfill as golf course
- Designed leachate collection system
- Designed cutoff structure to prevent leachate migration
- Prepared Remedial Action Work Plan
Provided oversight of remediation and construction

Project Description

SAI was retained by OENJ to finalize plans to convert the former Bayonne Landfill and the adjacent former PSE&G property into an 18-hole golf course.

Approach

SAI prepared plans for site redevelopment involving regrading and recontouring the site using dredge material from the New York / New Jersey Harbor in order to develop a golf course. SAI had previously used dredge material in another OENJ redevelopment project with very favorable results. For this project, SAI developed an innovative concept for using stabilized dredge and recyclable materials as fill to regrade the site and also to cap the landfill. Special foundation consideration was given to the Club House building. Select materials have been placed in the footprint of the building, and the parking lots associated with the building will be surcharged to minimize differential settlement.

In order to be able to receive dredge material at the site, and to be able to control the leachate that was contaminated as a result of prior activities, SAI developed a leachate collection control plan. To develop the plan, SAI oversaw test borings to locate an impermeable clay / peat layer. In addition, SAI performed site investigations using test pits to locate an area of oily waste requiring special remedial measures. Based on these additional investigations, SAI proposed revisions to a Remedial Action Plan prepared earlier by another consultant. DEP approved the revised Remedial Action Workplan. SAI oversaw remediation of hot



spots and in-place closure of a former waste oil lagoon. SAI provided construction oversight for installation of a 14,300-foot soil bentonite slurry wall, extending a maximum depth of 30 feet below existing grade. SAI designed a 950-foot sheet pile wall to contain portions of the site and to allow up to 60 feet of additional fill material to be included in the grading plan. SAI coordinated with Eric Bergstol, a noted golf designer, to complete grading plans for an innovative approach to providing 18 holes of golf on the 120-acre property.

Permitting

Permits and approvals secured by SAI for the project included:

- Upland Waterfront Development
- Memorandum of Agreement
- Remedial Investigation/Remedial Action Workplan
- Landfill Disruption and Closure Approval
- Soil Erosion & Sediment Control Approval
- Local Sewage Agency approval
- Stream Encroachment Permit
- Acceptable Use Determination (AUD)

Project Impact

The end result of the project was the completion of the 18-hole golf course, which opened in 2003.