

PROJECT PROFILE

MILLCREEK SUPERFUND SITE RESTORATION AND REDEVELOPMENT

The Millcreek Superfund Site was once a 75-acre, poorly drained, low-lying area. Beginning about 40 years ago,



Typical view of site prior to redevelopment. Note the barrels of waste materials littering the landscape.

nearly 70 acres were backfilled with foundry sand and industrial wastes. Numerous drums containing slag material, waste oils, and solvents were also disposed at the site.

A remedial design for the site was prepared by a USEPA contractor. The proposed remedial design included:

- Removal of the liquid-filled drums
- Site grading, construction of a soil cap over remaining waste materials, and grass revegetation
- Design and construction of surface water management structures (i.e., stream channel modifications, a flood control structure, and a flood retention basin).

Prior to remedial construction, the "potentially responsible parties" for the site (PRP Group) obtained the lead for the project from the USEPA. D'Appolonia served as technical consultant to the PRP Group. A technical review, focused on the design scope, constructability, and construction costs of the government-prepared remedial design documents, was performed. Review of the drawings and specifications identified inconsistencies and non project-

specific details, subjective design criteria, and incomplete details for construction, especially for items pertaining to surface water management issues.

After review of the proposed remedial design, D'Appolonia developed a revised remedial design and construction bid package. Services performed by D'Appolonia included:

- Detailed hydrological and hydraulic analyses to support recommended design modifications for surface water structures and channel improvements.
- Detailed hydrological and hydraulic analyses to support recommended design criteria alternatives and design modifications for items pertaining to the surface water management issues.
- Development of conceptual adaptive reuse options for the site including nature trails, baseball and soccer fields, nine-hole golf and pitch and putt courses and a golf driving range.

Based on hydrologic/hydraulic analyses, design modifications for the surface water management issues were recommended and approved, representing an

estimated construction cost savings of \$1.3 million, providing a significant reduction in off-site property easements and a reduction in the potential for downstream flooding.

The nine-hole golf course (for which D'Appolonia prepared a detailed conceptual design) was the selected site reuse option and was approved by the local township and the USEPA. The construction of this remedial solution has resulted in an estimated savings of more than \$2 million over the government's proposed remedial design and will eliminate long-term maintenance costs for the PRP Group. The selected reuse option also provides a recreational benefit to the local community without altering the performance of the capping remedy. D'Appolonia was responsible for monitoring of construction activities associated with the golf course construction.

The golf course was opened to the public in May 2002. D'Appolonia continues to provide monitoring services at the site.



View of Millcreek Golf Course following site remediation and redevelopment.