

US EPA ARCHIVE DOCUMENT



Sites in Reuse

H.O.D. Landfill Superfund Site

55 McMillan Road, Antioch, Lake County, Illinois 60002



Panoramic View of the former landfill area of the H.O.D. Landfill site in Antioch, Illinois

Site size: Approximately 121 acres

Site Reuses: Athletic fields, restored wetlands, landfill gas-to-energy project



Antioch,
Illinois

INTRODUCTION

Residents of Antioch, Illinois, will soon see the 121-acre H.O.D. Landfill property in Antioch, Illinois, as a valuable recreational amenity for local children and not just as a Superfund site. By October 2005, the former municipal, commercial, and industrial landfill is expected to provide multiple services to the community and the neighboring high school. An innovative gas-to-energy project now utilizes methane produced by the landfill to provide power to the high school. Seasonal wetlands and Sequoit Creek will provide local ecological habitat and offer environmental education opportunities for high school students; and the capped landfill will become a much-needed recreational facility with athletic fields for the high school.

Beginning in 1963, the H.O.D. Landfill accepted municipal and industrial waste in the Antioch area. When the landfill, operated by Waste Management, closed in 1984, the 51-acre landfill area was covered with a clay cap. The remaining 70 acres of the site were merely undeveloped buffer land and never contained landfill waste

LOOKING BACK, LOOKING FORWARD: THE REUSE PLANNING PROCESS

When the Antioch Community High School District first approached EPA and Waste Management about the

possibility of constructing a system whereby the methane released by the landfill could be channelled to the school for use as a heating fuel, no one could have predicted that the resulting discussion would lead to such a multi-faceted reuse plan.

Initial discussions about the site's reuse began in 1998. At that time, the school district raised not only the question of potential power supply, but also the issues of the community's growth and the school district's shortage of athletic fields. Antioch and its suburbs in Lake County had been experiencing rapid population growth; in fact, between 1990 and 2000, Antioch's youth population increased by 48 percent. The demand for recreational facilities in the area has increased accordingly. The 51-acre landfill, located just east of the Antioch Community High School, is ideally situated to satisfy this need. The landfill's 70-acre buffer of undeveloped land, capable of supporting buildings, further enhanced the attractiveness of the site. Waste Management made special design modifications to its clean-up plan and remedy design so that the site could support the growing recreational demands in the local community. These modifications involved re-grading the site according to sports field specifications and seeding the fields with grass that can sustain heavy foot traffic. Leachate and gas extraction well heads were placed in below-ground vaults and covered with synthetic turf so that recreational users

could play on top of them.

In 2002, the Superfund Redevelopment Initiative awarded an in-kind services grant, the first of its kind, to the Antioch community to assess the reuse potential of the site and to create a reuse plan that incorporated input from the many meetings with local stakeholders. Together, the consultant team, EPA, the community, and Waste Management worked to resolve any lingering concern over the reuse plan and issues of site safety. Waste Management conducted a second risk assessment to alleviate the community's concerns about health risks of reusing the site - the study concluded that recreational reuse would pose no threat to human health. EPA wrote an Explanation of Significant Differences (ESD) to remove the site access restrictions and the fence requirements that were unnecessary to protect human health and the environment and were impeding reuse of the property. EPA sought to encourage reuse of the site by issuing a Ready for Reuse Determination, a document that states in plain language that the remedy in place will support recreational reuse, provided that the requirements and limitations laid out in the site's cleanup decision documents were followed.

The Antioch Community High School District purchased part of the H.O.D. Landfill property and now leases another portion of it from Waste Management for one dollar a year. The U.S. Soccer Foundation is donating equipment for the new soccer fields. Waste Management paid for remedial improvements and field construction and design. The school district paid for the methane co-generation plant, funded in part through an alternative energy grant from the Illinois Department of Commerce and Community Affairs. Waste Management donates the methane that powers the plant. The Antioch School District also sells excess power generated by the plant back to the local power utility.



Jack Dowden of Waste Management Inc. and Antioch's mayor Taso Maravelas hold the H.O.D. Landfill's Ready for Reuse Determination.



Microturbines in the methane co-generation plant.

FUTURE PLANS

Remedial activities at the site were completed in 2001; however, as of this writing, construction of the athletic fields and recreational facilities is still underway. If cost permits, construction activities at the site are expected to boast a number of environmentally friendly features. Permeable asphalt in the parking lot will alleviate storm water issues and the car stops in the parking lot will be made of recycled rubber. Designers also plan to use the landfill's existing leachate system to serve the restrooms in the new recreational facility rather than building an additional septic system.

The productive reuse of the H.O.D. Landfill will yield benefits for Waste Management, the Antioch Community High School District, and the community at large. The local school district will get a much-needed recreational facility, as well as cheap energy for its high school. Waste Management's support of the redevelopment has helped transform the stigma of a Superfund site into a public relations victory for the company and a valuable asset for the community of Antioch.

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