

Munisport Landfill
152nd Street Northeast and Biscayne Boulevard
North Miami, Florida
County: Miami – Dade
District: Southeast
Site Lead: EPA
Placed on National Priorities List: December 20, 1982
Delisted: September 24, 1999
HWC # 019
ERIC ID # 3792

Site Description and History

The Munisport Landfill site is a 291-acre, inactive municipal landfill owned by the City of North Miami (City) and located within the original boundary of the Interama land tract in Section 21, Township 52S, Range 42E at 25° 54' 30.0000" N, 80° 09' 15.0100" W. The City received title to 350 acres of the Interama land in 1970. In 1972, the city signed a lease agreement with Munisport, Inc. to construct a recreational facility on this land. Munisport received a permit to fill low areas with clean fill and construction debris. However, by 1974, municipal refuse was being used for fill. In 1975, Munisport received a temporary permit from the Florida Department of Pollution Control to operate a sanitary landfill. Other permits to continue landfilling were also issued by the US Army Corps of Engineers (USAACE) and the Florida Department of Environmental Regulation (FDER, now DEP). Landfilling continued until 1981 at which time all permits to operate were revoked. In May 1981, the State of Florida advised Munisport to perform final closure of the landfill. The site has not yet been closed.

The Western portion of the Munisport Landfill site was backfilled with solid waste consisting of trash and municipal garbage. However, twelve drums containing tricresyl phosphate, ethylcyanoacetate, and acetate were discovered on the site and later removed. Infectious hospital waste was also seen on several occasions. Leachate has been sampled and lead, chlorobenzene and ethylbenzene were noted in the analysis. The source of these contaminants is unknown.

In September 1983, the Governor and Cabinet voted to purchase the site under the Conservation and Recreation Lands Program (CARL), subject to certain conditions. This decision was challenged and upheld by the Leon County Circuit Court. The First District Court of Appeals reversed the Circuit Court decision, and, this reversal was upheld by the Florida Supreme Court. The City submitted a new application for state acquisition of the site under the CARL Program. The CARL Selection Committee voted to conduct a full assessment of the project prior to making a decision, and in January 1986 the site was added to the Land Acquisition Trust Fund priority acquisition list.

Threat

The Munisport Landfill is located about 2,000 feet from Biscayne Bay. The natural soils in the landfill area have been removed. The remainder of the site beyond the landfill area lies below

the mean high water line. Mangrove swamps are found both inside and outside a dike constructed along the southeastern edge of the property. From the ground surface to a depth of 150 ft lays the Biscayne Aquifer. Regional groundwater flow is southeastward toward Biscayne Bay, but may vary locally due to mounding.

Sampling has revealed that on-site groundwater, soils and surface waters are contaminated with ammonia, low levels of lead, VOCs and pesticides. Two municipal wells operating in the area were shut down in 1982 due to saltwater intrusion. There are no private water wells in the vicinity of the site. The primary threat from this site was the exposure of aquatic life in the State Mangrove Preserve to toxic leachate emanating from the Munisport Landfill. The DEP and DERM are implementing mechanisms to coordinate closure of the landfill along with groundwater corrective action pursuant to both State and County regulations including the DEP delegation of the groundwater remedial action plan (RAP) oversight to DERM. The site was delisted from the NPL in September 1999.

Response Strategy and Status

The Munisport Landfill was placed on the National Priorities List (NPL) in December 1982.

In January 1985, EPA requested the State's recommendation regarding deletion of the Munisport Landfill site from the NPL versus further investigation. The state recommended deletion due to low levels of contamination and the lack of a public health threat. The City prepared a report detailing factual errors in the documentation used for listing the site on the NPL, and requested that EPA delete the Munisport Landfill from the list. The City contended that two nearby supply wells should not have been considered in the HRS scoring because they were abandoned due to saltwater intrusion.

In September 1985, FDER signed an agreement with the City of North Miami to provide partial funding for a study on proper closure of the Munisport Landfill with the balance provided by the City. The closure study was subcontracted by the City to H.J. Ross and Associates. The work plan was approved in December 1985 and field work and engineering studies were completed in early December 1986. A Site Investigation Report was received in January 1987 and the final Closure Design Report was received by FDER in September 1987.

In December 1985, EPA determined that a remedial investigation/feasibility study (RI/FS) was necessary and sent letters to the City of North Miami and other potentially responsible parties (PRPs) informing them of possible liability under CERCLA. In February 1986, the PRPs were notified that EPA would conduct an "accelerated RI/FS" at the site using Superfund money. Field work began in June 1986 and the RI was completed in June 1988. The Feasibility Study (FS) was completed in July 1988.

In February 1989, the EPA presented a Record of Decision (ROD) to FDER selecting a "no action" alternative. FDER concurred with the ROD which stated the landfill would be closed pursuant to Florida landfill closure rules and that no further action under CERCLA would be required. The EPA did not sign this ROD. In June 1989, a Toxicity Assessment Study was

performed by EPA to evaluate concerns that chemically complex leachate from the landfill might be adversely affecting aquatic organisms in the adjacent State Mangrove Preserve. The study was completed in November 1989, and reported that leachate emanating from the landfill was both acutely and chronically toxic to marine organisms used in the study.

A public meeting was held in March 1990, to discuss the Toxicity Assessment Study and remedial action alternatives for the Munisport Landfill. In May 1990, a new ROD was submitted to FDER for review and concurrence. EPA signed the ROD in July 1990 and FDER concurred in September 1990. The selected remedial action includes proper landfill closure in accordance with state regulations. The CERCLA action includes collection of leachate by interceptor wells for treatment and discharge. The estimated cost of cleanup of the CERCLA portion of the site is \$6.2 million.

In September 1990, the City applied for a grant from FDER and was awarded 1.4 million dollars from the Pollution Recovery Trust Fund to perform a hydrologic study of the landfill, and to design a leachate collection, treatment, and discharge system.

In late 1990, EPA and the City entered into consent decree negotiations for remedial action. A Consent Decree was signed in September 1991 whereby the City agreed to perform the hydrologic study, remedial design and remedial action. A draft design work plan was submitted for review in September 1991. The final design work plan was submitted in July 1992. The hydrologic study began in July 1992. The Hydrogeologic Study fieldwork was completed in March 1993. The final report was approved in February 1994.

In 1992 the legislature provided a \$2.6 million appropriation to assist the city with cleanup costs for the Superfund remedial actions. A contract encumbering this money was signed by FDER and the City in June 1993.

The Superfund Remedial Design and landfill closure plan are being developed concurrently to assure consistency. The City submitted a Preliminary Design Report for the Superfund groundwater cleanup in June 1994. A Closure Permit Application was submitted to DEP in June 1994 for closure of the landfill portion of the site.

In order to facilitate restoration of the tidal flow into the mangrove preserve, the Remedial Design for the breach of the causeway culverts was submitted in December 1993 and was approved in July 1994. The causeway breach construction was completed in January 1995.

The Pre-Final Remedial Design Report, submitted in December 1994, incorporated an expanded recovery system for contaminated groundwater. In March 1995, a draft remedial design for dike realignment and service road construction was submitted and approved by EPA in June 1995. The construction of the service road and dike re-alignment began in June 1995 and was completed in September 1995. A revised Pre-Final Remedial System Design Report for the Hydraulic Barrier System was submitted in July 1995 which included the installation of a groundwater interceptor trench rather than recovery wells for the hydraulic barrier. The final Remedial System Design Report for the Hydraulic Barrier System was submitted in September

1995, and approved by EPA in September 1995. Subsequently, a Field Verification Plan, which calls for partial implementation and performance verification of the hydraulic barrier system, was submitted in November 1995.

A Consent Agreement was entered into between DEP and the city for completion of requirements for the landfill closure permit application, alternate procedures for landfill closure, and management and storage of surface wards (MSSW) Permit Application in April 1995.

In September 1995, EPA directed the city to construct two isolated breaches of the Mangrove Preserve dike to facilitate the implementation of the mangrove mitigation effort as part of the dike realignment and service road construction.

Installation of the hydraulic barrier system began in January 1996 and was completed in March 1996. The hydraulic barrier system consists of fifteen shallow vertical wells along the southern boundary of the landfill and a 4,200-foot horizontal well along the eastern perimeter of the landfill.

EPA performed a Water Quality and Toxicity Reassessment Study to re-evaluate the mangrove preserve on the southeastern edge of the property. The results of this study suggest that the toxicity of the water in the mangrove preserve has been significantly reduced. Ammonia levels were also observed to be at significantly reduced levels. These effects in the mangrove preserve are attributed to improved circulation in response to the breaching of the culverts. After re-evaluation of this data, EPA issued an Amendment to the Record of Decision in September 1997. The Amendment provides for no further remedial action under CERCLA. Tidal restoration of the altered wetlands was addressed pursuant to the Clean Water Act through an Administrative Order with EPA. Closure of the landfill along with groundwater corrective action was addressed pursuant to State and County regulations. The City signed a Consent Agreement with DERM for completion of the groundwater corrective action and landfill closure on January 30, 1998. The DEP has authorized DERM to review the pilot project for the RAP. In June 1998, the EPA's wetlands group signed an agreement with the City to assure future breaching of the dikes for wetlands mitigation.

The DEP and DERM are implementing mechanisms to coordinate closure of the landfill along with groundwater corrective action pursuant to both State and County regulations including the DEP delegation of the groundwater remedial action plan (RAP) oversight to DERM. The Consent Decree was terminated in July 1999. The Deletion Notice was issued September 24, 1999.