

Hipps Road Landfill
Hipps Road and Exline Road
Jacksonville, Florida
County: Duval
District: Northeast
Site Lead: EPA
Placed on National Priorities List: September 1, 1983
Delisted: February 27, 2012
HWC # 015
ERIC ID # 3788

Description

The Hipps Road Landfill site is located near Jacksonville Heights in Duval County, southwest of downtown Jacksonville in Section 28, Township 03S, Range 25E at 30° 13' 02.3901" N, 81° 48' 18.1237" W. The landfill is approximately seven acres in size, and was a low-lying area used for dumping during the 1960s. It was reported that during operation there were several refuse services using the landfill. The privately owned and operated landfill, which ceased operation in January 1970, was covered with a thin layer of soil and then sold as residential lots. There were two residences located on the site. One private well actually penetrated the landfill. Most of the information about the history of the site has come from residents who have lived in the area since its operation. Much of the waste was from the US Naval Air Station.

Threat

A groundwater plume consisting primarily of volatile organic compounds was identified to the northeast approximately 1,000 feet from the landfill. Vinyl chloride, methylene chloride, and toluene were detected in private wells. All residents in the plume area have been connected to the public water supply.

Response Strategy and Status

The Jacksonville Public Health Division collected water samples at a Hipps Road residence in February 1983, following a taste and odor complaint. Results indicated that vinyl chloride and methylene chloride were present. For verification, the well was resampled and toluene was also found. In March 1983, the Department of Health and Rehabilitative Services collected samples from five wells in the Hipps Road area. These samples contained vinyl chloride, methylene chloride, and toluene. Owners of contaminated wells were placed on bottled water.

Several agencies, including the Florida Department of Environmental Protection (DEP), the US Geological Survey, St. Johns River Water Management District, County Public Health Division, and Jacksonville Bio-Environmental Services Division, organized a study to evaluate the Hipps Road contamination problem. The main objectives of the study were: 1) to determine the source, type, extent, and concentrations of pollutants in the ground water and; 2) to determine the

rate and direction of movement of pollutants through the aquifer. The study included an electromagnetic survey (EM-31), an inventory of wells in the area, aquifer tests, and well sampling for priority pollutants. The results of the study were used to delineate the location of the plume. Upon completion of the study, the City of Jacksonville extended its municipal water system to residents with contaminated water. Only 44 of the 131 residents chose to hook up to the system.

In January 1985, the EPA connected all remaining residents in the plume area to the municipal water supply. The residents of the Hipps Road area formed a citizens group, "Jacksonville Citizens Against Contaminated Water, Inc." in response to conditions at the site.

In February 1984, the DEP requested that the EPA take the role as lead agency for the Remedial Investigation/Feasibility Study (RI/FS). EPA's contractor, Camp, Dresser, & McKee, completed the remedial investigation field work in June 1985. In May 1986, the draft RI/FS was completed, and a public meeting was held to discuss the RI/FS and remedial alternatives. In light of the draft FS review and the public meeting, it was decided that the FS would be revised to include a more in-depth look at the remedial alternatives. The revised FS was completed in July 1986. The DEP and EPA agreed upon an alternative, which included: 1) capping the site; 2) institutional controls and; 3) groundwater extraction with treatment at the local POTW. The Record of Decision (ROD) was signed by the EPA in September 1986.

The US Navy and Waste Control of Florida, Inc. (WCF) were identified as the primary responsible parties. WCF originally committed to closing the landfill, relocating residences on the landfill, conducting groundwater studies, and design of the groundwater recovery system. The Navy agreed to fund half the cost of the remedial activities and provide oversight activities.

In August 1987, a satisfactory remedial design work plan was submitted to the EPA by Golder Associates representing WCF. In December 1988, the involved parties agreed to a fast-track design approach for the landfill closure portion of the remedial design. In January 1989, a partial Consent Decree that formalized WCF's role in site remediation was entered by the Federal District Court in Jacksonville. The responsible parties agreed to undertake landfill closure, but did not commit to remediation of the contaminated groundwater. Construction of the landfill cover began in May 1989, and the cover was completed in September 1990.

In March 1990, the responsible parties submitted a brief in Federal Court stating that groundwater remediation was unnecessary, but also submitted an alternate proposal for groundwater remediation that consisted of onsite air stripping of contaminated water and onsite disposal via infiltration in the existing retention pond. Legal attempts to omit groundwater remediation from the ROD failed. In October 1990, an amended ROD for the alternative groundwater treatment plan was signed by EPA. In November 1990, the revised groundwater recovery and treatment design was approved by the EPA. The Consent Decree was signed by the responsible parties in August 1991, and was entered in the court in December 1991. Preconstruction activities by the responsible parties for the groundwater treatment system began

in December 1991. In June 1992, a public meeting was held by EPA to present the groundwater system construction plan.

Final remedial design of the groundwater system was completed and approved in April 1993. Construction began in May 1993, and was completed in August 1993. The groundwater treatment system operated from August 25 to September 17, 1993. At that time the system was taken off line in efforts to evaluate the air quality data and determine if any long term additive health effects from air and water exposures exist. The groundwater recovery system went back on line in March 1994 after completion of the long term additive risk assessment.

In mid-1995, the treatment system began experiencing shut-downs caused by high water levels in the infiltration gallery due to capacity limitations. In October 1995, the PRP submitted a letter requesting the use of the local POTW during periods of high water levels in the infiltration gallery. The EPA issued a final ESD for this modification to the ROD in June 1996. The contractor made the final connection to the sewer line in September 1996, and the POTW bypass was successfully utilized in October 1996.

In July 1995, EPA conducted a Five-Year Review since the remedial action does not allow unlimited use and unrestricted exposure. Based on the site visit and document review, it was determined that the source control remedial action met the requirements of the ROD.

In April 1999, Waste Management, Inc., who operates the treatment system for the EPA, hired Arcadis Geraghty & Miller to develop an alternative to continuing to operate the treatment system. An alternative was needed because the system was recovering a large quantity of water but very little contamination. In May 1999, Waste Management, Inc. and their subcontractor presented implementation of Natural Attenuation Monitoring (NAM) at the site to DEP and the EPA. The treatment system would be shut down for a period of 1 year while NAM occurred and data was collected to evaluate the feasibility of continuing with NAM. DEP was amenable to this plan and the EPA approved it. The treatment system was shutdown and NAM began at the site in July 1999, after a round of baseline sampling was performed. Since this time, the EPA and DEP have conducted annual and Five Year reviews of the groundwater monitoring data and have determined that natural attenuation of the groundwater contamination is occurring.

The most recent NAM data review was conducted in July 2009. Data continue to indicate natural attenuation is progressing satisfactorily and will remain the chosen remedy for the site. Based upon the July 2009 groundwater sampling data, Waste Management, Inc. requested delisting for the site. However, data from collected from monitor well MW-5 show nickel concentrations in excess of the Florida Primary Drinking Water Standard. Waste Management asserts the elevated nickel concentrations are the result of corrosion and leaching from the stainless steel well screen used to construct MW-5. The Five-Year Performance Review was conducted in January 2010. Groundwater data indicated elevated nickel concentrations still existed. However, since nickel is not listed as a contaminant of concern in the ROD, the EPA and DEP agreed to delist the site. DEP concurred with the EPA recommendation for site delisting on April 22, 2011. The site was delisted from the National Priorities List (NPL) on

February 27, 2012. Because waste was abandoned in place and capped as part of the selected remedy, Waste Management will have to perform groundwater monitoring as part of the Five-Year Review process.