



19th AVENUE LANDFILL SUPERFUND SITE

U.S. Environmental Protection Agency • Region 9 • San Francisco, CA

Phoenix, Arizona

August 2006

U.S. EPA Announces Intent to Remove 19th Avenue Landfill from Superfund List

The United States Environmental Protection Agency (U.S. EPA) in conjunction with the Arizona Department of Environmental Quality (ADEQ) announces its intent to delete the Nineteenth (19th) Avenue Landfill Superfund site (the site), located in Phoenix, AZ, from the National Priorities List (NPL). The NPL is U.S. EPA's list of the most serious uncontrolled hazardous waste sites. This fact sheet describes the procedures and basis for this determination, how the public can participate, and an update of on-going activities at the site. Words in **bold** are defined in a glossary on page 5.

A public notice of this proposal has been published in the Federal Register and in the Arizona Republic newspaper. Written public comment is requested to be postmarked **by September 13, 2006**. The box below explains how to comment on this forthcoming decision. The public can review the deletion docket material for this determination at the site's repositories (see page 4 for locations).

The NPL

The NPL was established by Section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, and found in Appendix B of 40 CFR part 300 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This also established the **Superfund** Program. NPL sites are identified for possible long-term cleanup using money from the Superfund. U.S. EPA placed the 19th Avenue Landfill on the NPL in 1983.

The Cleanup Action

The site is a closed landfill that is owned by the City of Phoenix (City) and located near Salt River (see Figure 1 and site history on pages 2-3). The primary objectives of the cleanup were to keep landfill refuse in place, prevent the landfill from eroding during flood seasons, and to control underground soil gas produced due to the decomposing waste.



U.S. EPA REQUESTS PUBLIC COMMENTS



The public can review the deletion docket materials at the site's information repository and submit written comments postmarked **no later than Sept. 13, 2006** to:

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Comments may also be submitted on line at: <http://www.regulations.gov>. Follow the on-line instructions for submitting comments and direct your comments to Docket ID No. EPA-HQ-SFUND-1983-0002. They may also be mailed to:

U.S. Environmental Protection Agency
EPA Docket Center (EPA/DC)
Docket ID No: EPA-HQ-SFUND-1983-0002
Mailcode: 5202T1200
Pennsylvania Avenue, NW
Washington, DC 20460

SITE HISTORY

The 19th Avenue Landfill Superfund (the site) is located on 213 acres in a largely industrial area along Salt River, east of 19th Avenue and south of Lower Buckeye Road. The site is divided into two disposal cells: Cell A (200 acres) is located just north of the Salt River and Cell A-1 (13 acres) is located just south of the Salt River (see Figure 1). Before the site became a landfill, it was mined for sand and gravel. The site may have been used as an open-burning dump in the 1920's. As early as 1946, the landfill opened to accept municipal wastes, as well as hazardous and industrial wastes that may have included pesticides, solvents, and medical wastes. The City of Phoenix (City) operated the landfill from 1964 until 1979. In 1979, the Arizona Department of Health Services closed the landfill after several flood events of the Salt River in the 70s; the landfill was intermittently covered with water. In May 1978, flood water washed out refuse from the southwest part of Cell A and the northern third of Cell A-1. This site was listed on the Federal Superfund National Priority List (NPL) in 1983 in accordance with the CERCLA.

(Cont'd on page 3 sidebar)

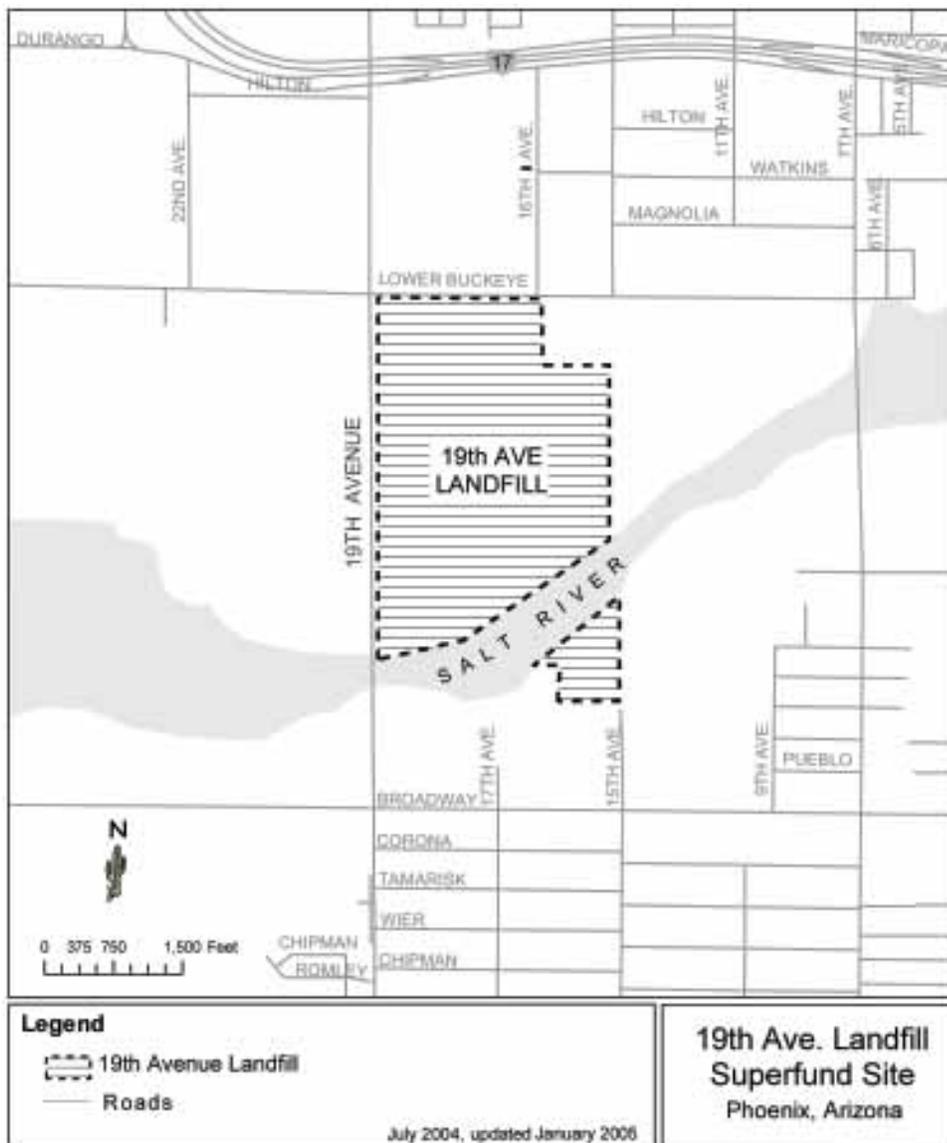


Figure 1: Location of 19th Avenue Landfill Superfund Site

The cleanup actions for the site consists of: building **levees** placed along both the north and south banks of the Salt River at the landfill site to provide for flood protection; widening the Salt River to a constant width of 600 ft near the landfill to withstand a 100-year flood event; placing a **soil cap** and a vegetive/erosion layer that prevents rain water from getting into the landfill material and creating **leachate**; building landfill gas collection and treatment systems; monitoring the **landfill gas**, the **ambient air**, and the **groundwater**; and developing a groundwater contingency plan to address potential groundwater impacts.

There have been three **Explanations of Significant Differences (ESD)** of the cleanup for this site. In December 1995, the first ESD described an improvement in the lining technology for the drainage canal. In September 2003, the second ESD incorporated the Arizona Ambient Air Quality Guidelines as technical standards, and updated the Aquifer Water Quality Standards to reflect the current requirements. In June 2006, a third ESD identified **institutional**

controls (IC) that are necessary for the site that will ensure future protection of the cleanup. The primary IC was attaching a **Declaration of Environmental Use Restriction (DEUR)** to the property's deed to notify future land owners of the requirement to maintain the cleanup actions. It was implemented to safeguard the integrity of the landfill cap and restrict public access.

Why Delete the 19th Avenue Landfill?

The appropriate response actions under CERCLA have been completed according to the required standards and the site no longer poses a significant threat to human health or the environment. Further cleanup measures, other than on-going maintenance and reviews, are not warranted at this time. Therefore, the EPA is removing the site from the NPL. Sites deleted from the NPL remain eligible for cleanup actions if conditions at a site warrant it.

What is the Deletion Process?

Once a site becomes eligible to be deleted, the deletion process is initiated. The following are the steps in this process:

- 1.) The U.S. EPA and ADEQ agree with the determination to delete the site.
- 2.) A deletion docket is prepared that holds copies of all the documents that helped make this determination.
- 3.) A notice of intent to delete is published in the *Federal Register* and in the local paper requesting public comment on the determination.
- 4.) A notice with U.S. EPA's final determination and a responsiveness summary to comments (if any are received) is published and available at the site's information repositories.

The first three of these steps have been completed, and the final step will be completed after the public comment period ends.

Activities at 19th Avenue Landfill

The City of Phoenix is required to continue the following activities regardless of the determination for the site. The ADEQ will continue its oversight responsibility of these activities and conduct a formal review every five years to ensure the protectiveness of the remedy.

Drainage and Levee System

The City will ensure that all drainage facilities are maintained and kept clear from objects that may impede the flow of storm water runoff and ensure compliance with the Federal Emergency Management Agency criteria. All components of the drainage and levee system shall be inspected annually, cleaned, and repaired as necessary, including storm drainage inlets and outlets, flow gate valves, natural and man-made drainage channels, and detention basins.

Landfill Gas Monitoring

The City will continue operation and maintenance of the landfill gas collection system. The landfill gas collection system consists of a series of **monitoring probes** and **extraction wells** around the

SITE HISTORY, cont'd.

In 1988, with EPA oversight, the City completed a **remedial investigation and feasibility study (RI/FS)** for the site. The findings of the RI/FS were used in a **risk assessment** to evaluate the risk posed by 19th Avenue Landfill site to public health and the environment. In 1988, the U.S. EPA assigned the lead oversight responsibility for the site to ADEQ. After receiving public comment, a September 12, 1989 **Letter of Determination (LOD)** was approved by ADEQ. The LOD describes the Remedial Action Plan (RAP) to clean up the site. On September 29, 1989, the U.S. EPA signed a **Record of Decision (ROD)** concurring ADEQ's decision. On June 18, 1992, the United States District Court approved a **Consent Decree** between ADEQ and the landfill owner, the City of Phoenix, detailing how the selected cleanup method will be implemented. Construction of the remedy was completed in 1998, and in 2002, additional enhancements to the methane system were completed. U.S. EPA and ADEQ determined in a Final Closeout Report (FCOR) completed August 3, 2006 that the cleanup objectives of the site were achieved, and the site became eligible for deletion.



perimeter of both Cell A and A-1 that is connected to a **flare station**. The system monitors on a monthly basis to ensure there is no movement of landfill gas from the property boundaries.

Routine Landfill Operations and Maintenance (O&M)

The City will routinely inspect and maintain all access roads, slopes, perimeter security fence, topsoil cover, infiltration barrier layer, vegetative landscape, and irrigation system. Maintenance may include: re-grading of roads and repair of surface erosion, areas of settlement or subsidence, vegetation cover damage, irrigation system damage, and replacement of fencing, signs and locks. Unscheduled inspections will be necessary after storm events.

Groundwater Monitoring

The City is required to continue quarterly groundwater monitoring of the wells surrounding the landfill. If the City detects elevated concentrations of contaminants in well samples, it is required to implement the Groundwater Contingency Plan (GCP). The GCP provides a process to determine if the elevated concentrations are caused by the landfill. If the landfill is contaminating the groundwater quality, the City will evaluate and take action to remedy it. Any future cleanup actions will be overseen by ADEQ. Based on historical groundwater quality patterns, the landfill does not impact the groundwater and the need for groundwater cleanup is extremely unlikely.

Ambient Air Monitoring

The City monitored the potential impacts to the surrounding air from the landfill and has prepared an Ambient Air Monitoring Report. This report discusses the results in detail and is available in the site's information repository (see at right). The landfill does not significantly impact ambient (surrounding) air quality.

Five-Year Reviews

According to CERCLA, any site with remaining contamination will be formally reviewed every five years to determine that the remedy in place remains protective of human health and the environment. Evaluation of the results of the review may result in an increase or decrease of the O&M requirements. Two reviews have been completed to date, and are available at the site repositories. The next five-year review is scheduled for September 2010.

What is the Future of the 19th Avenue Landfill?

Presently, access to the site is restricted by a locked gate and perimeter fence. Any future property owners will be notified of the requirement to maintain the remedy. The City may present a proposal to ADEQ to reuse the property for a beneficial purpose. Any proposals submitted will have a community involvement component. Proposals to reuse the 19th Avenue Landfill must continue to protect public health, the environment, and the integrity of the cleanup action.

Site Information Repositories

The public can review the Deletion Docket for this proposed action and all other documents related to the 19th Avenue Landfill Superfund at the following locations:

Arizona Department of Environmental Quality Records Center

1110 West Washington Street
Phoenix, Arizona 85007

For an appointment, e-mail the records center at recordscenter@azdeq.gov or call (602) 771-4380 or 1(800) 234-5677, ext. 771-4380

Hours: Mon - Fri, 8:30 a.m. to 4:30 p.m.

City of Phoenix Public Library

Government Documents Section
1221 North Central Avenue
Phoenix, Arizona 85004
(602) 262-4636

Hours: Mon, - Thurs., 10 a.m. to 9 p.m.
Fri. & Sat. 10 a.m. to 6 p.m.
Sun. 12 p.m. to 6 p.m.

U.S. EPA Superfund Records Center

95 Hawthorne Street, Suite 403S
San Francisco, California 94105
(415) 536-2000

Hours: Mon - Fri, 8 a.m. to 5 p.m.



For More Information on the Site

Visit the ADEQ online web site at: <http://www.azdeq.gov> The ADEQ web site contains information on the 19th Avenue Landfill Superfund site, other Superfund sites in Arizona, and other ADEQ programs under the Air Quality and Water Quality Divisions.



Visit the U.S. EPA online web site at <http://www.epa.gov/region9/waste/sfund/superfundsites.html> Scroll down and double click on Site Overviews and the sites are listed in alpha order. The U.S. EPA web site contains information on Superfund sites in Arizona, California, Nevada and the Pacific Islands.

GLOSSARY OF TERMS

Ambient Air: is any unconfined portion of the atmosphere: open air, surrounding air.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA): is a federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act. The act created a special tax that goes into a Trust Fund, commonly known as Superfund, to investigate and cleanup abandon or uncontrolled hazardous waste sites.

Consent Decree (CD): is a legal document approved and issued by a judge to formalize an agreement reached between the U.S. EPA and potentially responsible parties where the PRPs will perform all or part of the Superfund site cleanup.

Declaration of Environmental Use Restriction (DEUR): is a property deed recorded covenant that directs all owners, heirs, successors, etc. as to how they will maintain the cleanup remedies on said property to keep it protective, now and in the future.

Explanation of Significant Differences (ESD): is a change to the original EPA Record of Decision that does not fundamentally affect the scope, the performance or costs of the selected remedy.

Extraction Well: is a well which is used to extract, or vacuum, contaminated air (landfill gas), from the ground. Extraction wells are used to bring the contaminated vapors to the surface so the contaminants can be treated.

Flare Station: is a chimney type stack with an enclosed burner at the bottom of the stack that thermally decomposes, via oxidation, the landfill gas.

Groundwater: is a supply of fresh water found beneath the Earth's surface, usually in aquifers, which supply wells and springs.

Institutional Controls (ICs): are administrative or legal measures EPA uses to keep cleanup remedies protective, now and in the future. For example, it can be a deed restriction preventing residential use.

Landfill: is a disposal site for refuse (materials ranging from municipal garbage to industrial waste) spread in layers, compacted to the smallest practical volume, and covered by material applied at the end of each operating day.

Landfill Gas: is generated by decomposition of organic material at landfill disposal sites. Landfill gas primarily is composed of methane and carbon dioxide, and small

amounts of oxygen, nitrogen, and hydrogen, but may also be mixed with volatile organic carbons, or other contaminants that are also present in the landfill.

Leachate: is water containing contaminants which leaks from a disposal site such as a landfill or dump.

Letter of Determination: is an official state record of a selected cleanup method for a site, equivalent to EPA's Record of Decision.

Levee: is an artificial or natural embankment that prevents a body of water, such as a river, from overflowing.

Methane Gas: is an odorless, colorless flammable gas. It can be formed by the decay of natural materials and is common in landfills, marshes, septic systems and sewers.

Monitoring Probes: are constructed 2-inch PVC pipe with screened interval to allow infiltration of methane. They are placed in boreholes and surrounded by a gravel pack. The boreholes are then sealed from the gravel to the ground surface. They are used to detect if methane gas is present.

Record of Decision (ROD): a U.S. EPA legal document that explains the cleanup action(s) that will be implemented at a contaminated site.

Remedial Investigation and Feasibility Study (RI/FS) involves collecting data to determine the extent of the contamination in soil and water to determine if the contamination presents a significant risk to human health or the environment. The FS focuses on the development and evaluation of specific response alternatives for addressing contamination at a site.

Risk Assessment: Identifies and quantifies the risk of the present site conditions to the public and/or environment if they were exposed through different pathways for a long period of time.

Refuse: is non-liquid, non-soluble material ranging from municipal garbage to industrial wastes that contain complex and sometimes hazardous substances. Solid waste may also include sewage sludge, agricultural refuse, demolition wastes, and mining residues.

Soil Cap: is a layer of soil placed over the top of a closed landfill to prevent entry of storm water, and contain the landfill waste in place.

Superfund: The program operated under the legislative authority of CERCLA and the Superfund Amendments and Re-Authorization Act (SARA) that funds and carries out EPA solid waste emergency and long-term remedial actions.

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