



South Bay Asbestos Superfund Site

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Five-Year Review Completed

In September 2010, the United States Environmental Protection Agency (EPA) completed the Third Five-Year Review of the remedial actions implemented at the South Bay Asbestos Superfund Site (SBA Site) in the Alviso district of San Jose, California (Figure 1). EPA has found that clean up actions at the SBA Site are currently protective of human health and the environment because the major sources of asbestos exposure have been removed or are being controlled. This fact sheet summarizes the findings of the Third Five-Year Review Report.

A Five-Year Review and What it Means

When EPA's cleanup remedy leaves contaminants in place at a Superfund site above levels that allow for unrestricted use, Superfund law requires an evaluation of the remedy every five years. The purpose of the Five-Year Review is to make sure the cleanup continues to protect human health and the environment. During the review, EPA looks at cleanup actions taken and control measures in place at the Site. EPA also conducts a site inspection and community interviews and makes a technical assessment of site conditions.

The Five-Year Review report identifies site issues and recommendations and includes a protectiveness statement. A protectiveness statement explains whether the cleanup continues to be effective and what other measures may still be needed at the Site.

The Third Five-Year Review of the SBA Site was completed in September 2010. The next Five-Year Review for the SBA Site will be performed in 2015.

Summary of Third Five-Year Review Findings

The SBA Site consists of two operable units (OUs):

- 1) The Ring Levee (OU-1)
- 2) The Overall Site (OU-2), which includes three landfills (Santos, Marshland, and Sainte Claire) and four truck yards.

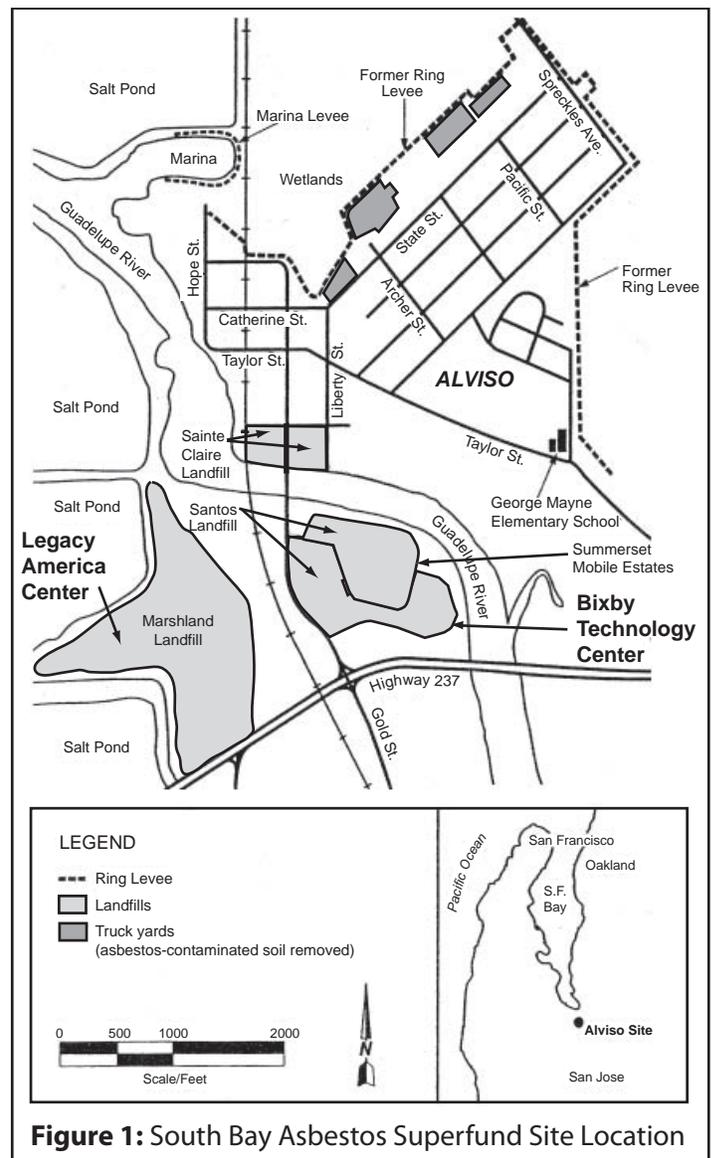


Figure 1: South Bay Asbestos Superfund Site Location

Asbestos-containing soil material and buried asbestos-containing waste are the contamination issues requiring cleanup at the SBA Site. Soil-disturbing activities, such as excavation or truck traffic, can cause asbestos fibers to be released into the air. Asbestos can cause lung disease when asbestos fibers are present in the air we breathe. EPA has used the measurement of one percent asbestos in soil as the action level for cleanup at the Site.

Cleanup Activities at SBA Site

The cleanup objective of the SBA Superfund Site is to minimize exposure to asbestos for humans and the environment by controlling the release of asbestos fibers into the air. EPA has completed a number of measures for meeting its objective, as described in this section.

Removal of Ring Levee

The Alviso Ring Levee, which was built with asbestos-containing material in 1983, was removed in 1993. The Ring Levee was replaced by a temporary levee, which was constructed with clean soil. Upon completion of the Coyote Creek Flood Control Project, the temporary levee was removed in 1996. A Wetlands Restoration Project was completed in 2003 in order to restore and replace wetlands lost as a result of construction of the Alviso Ring Levee.

Paving and Soil Removal at Truck Yards

It was determined that the four truck yard areas, located north of State Street, had used asbestos-containing material to raise the elevation of the yards. In 1992, the four truck yards were required to pave their property to control the release of asbestos fibers into the air. The asbestos-containing material was removed from three of the truck yards in 1998 and from the fourth in 2004.

Capping of Landfills

Three former landfill areas (Santos, Marshland, and Sainte Claire) in Alviso have asbestos-containing cement pipe buried on their property. These landfills are required to be covered or “capped” to prevent possible exposure to waste materials in the landfill. The final landfill cap serves to prevent the release of asbestos into the air. Based on soil sampling, EPA has determined that all three of the landfill properties have adequate caps, consisting of either a minimum of two feet of clean soil cover or a paved surface.

What is Asbestos?

Asbestos is a natural mineral made of strong, very fine fibers. When asbestos is in the air we breathe, it can be a significant health threat and may cause lung cancer. In the past, asbestos was added to a variety of products to strengthen them, and to provide heat insulation and fire resistance. EPA has banned or severely restricted its use in manufacturing and construction.

To ensure that these caps are maintained, long-term regulations, or “institutional controls,” must be in place. The Marshland Landfill has adequate controls in place under the state landfill closure regulations. The Bixby Technology Center portion of the Santos Landfill has a deed restriction in place which ensures the cap will be maintained. However, the Sainte Claire Landfill, the Marshland Landfill, and the Summerset Mobile Estates portion of the Santos Landfill have not had a deed restriction placed on their titles as required by the 1989 Record of Decision, or **ROD**, which documents how the site will be cleaned up. This is addressed under the “Recommendations” section of this Fact Sheet.

Restoration of Environmental Education Center

One other cleanup action was performed at the Environmental Education Center, which is located in the San Francisco Wildlife Refuge. In a joint project between EPA and the City of San Jose in 2004, over 2,500 cubic yards of asbestos-containing material were removed, transported, and properly disposed. The Environmental Education Center site was fully restored and excavated areas were backfilled with clean soil.

SBA Site Inspection

EPA representatives conducted site inspections in May 2010. The primary purpose of the inspections was to evaluate areas where asbestos waste was left in place above cleanup action levels. Since asbestos waste remains buried at the three landfill areas (Santos, Sainte Claire, and Marshland), EPA inspected the conditions of the existing caps. Overall, there were no problems identified with the landfill areas that could result in the release of asbestos into the air. There were no significant cracks or holes in any of the caps. In addition, under the state landfill program, the City of San Jose, which is the local enforcement agency for the California Integrated Waste Management Board, will continue to inspect all of the former landfill properties on a quarterly basis.

Activity-Based Sampling

The Second Five-Year Review in 2005 found that the cleanup continued to be protective of human health and the environment according to the existing Site data. However, a new understanding of how low concentrations of asbestos in soil can translate into actual airborne exposures raised the issue of whether the soil screening level used for soil cleanup at the SBA Site was still protective (EPA, 2005). In order to address whether or not the one percent asbestos cleanup level in soil was still protective, EPA determined that additional asbestos sampling was needed at the SBA Site.

In August 2007, EPA conducted an activity-based sampling (ABS) event in several public areas of Alviso. ABS involves monitoring the breathing zone of personnel while they are performing dust generating activities (e.g., bike riding, walking, raking soil and grassy areas). The intent is to determine if significant exposure to asbestos can occur while engaged in these routine activities. The results of the ABS event indicated that the estimates of asbestos exposure are below risk-based levels of concern. Therefore, no further evaluation or remedial action is recommended. EPA has recently concluded that the original remedy continues to be protective because the risks from asbestos exposure in the Alviso community are low and within Superfund remedial goals (EPA, 2010). For more information regarding the ABS, please review the *Additional Asbestos Sampling and Evaluation of Results* Fact Sheet distributed to the community in September, 2010.

Technical Assessment

EPA has used the standard of one percent asbestos in soil as the cleanup action level at the SBA Site. This assumes that dust-generating activities at soils below this level would not release significant amounts of health-endangering asbestos into the air. According to the data reviewed, including the *Asbestos Exposure and Risk Evaluation Report* (EPA, 2010), the SBA Site inspection, and the interviews, the remedy is functioning as intended by the RODs for OU-1 and OU-2. There have been no changes in the physical conditions of the SBA Site that would affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

Protectiveness Statement

The remedy at OU-1, the Ring Levee, is protective of human health and the environment because the major source of asbestos exposure that could result in unacceptable risks has been removed. The remedial actions at OU-2, the Overall

Site, are currently protective of human health and the environment where the remedial actions were implemented because the major sources of asbestos exposure that could result in unacceptable risks are being controlled (landfill covers) or have been removed (truck yards).

Because the remedial actions at all OUs are currently protective, the Site is protective of human health and the environment in the short term. For the remedy at OU-2 to be protective in the long term the institutional controls need to be implemented at the Summerset Mobile Estates portion of the former Santos Landfill and the Sainte Claire Landfill. For the Marshland Landfill, the EPA has determined that the existing State landfill regulations meet the deed restriction requirements in the ROD and that no further controls are needed.

Issues

- 1) The 1989 ROD requires placement of deed restrictions as institutional controls on former landfills at the Site to protect the integrity of the final landfill caps. The asbestos containing material portion of former Santos Landfill and the Sainte Claire Landfill do not have the ROD-required deed restrictions placed on their titles.
- 2) The Marshland Landfill at the Site has not had the ROD-required deed restriction placed on its title, however, this capped landfill is regulated by the following two State agencies: 1) California Regional Water Quality Control Board, San Francisco Bay Region (Water Board) as a Class III landfill and is subject to its waste discharge requirements for closure and operation and maintenance, and 2) California Integrated Waste Management board requirements under the Title 27 Landfill Closure Regulations. A supplement to the ROD, called an **Explanation of Significant Differences** is needed to specify that no further controls are needed at the Marshland Landfill and that state requirements meet the deed restriction requirements in the ROD.

Recommendations

- 1) EPA will work towards placing deed restrictions on the property titles for the Summerset Mobile Estates portion of the former Santos Landfill and the Sainte Claire Landfill.
- 2) EPA will prepare an Explanation of Significant Differences that will specify that no further institutional controls are needed at the Marshland Landfill since the use of existing Water Board requirements and the California Integrated Waste Management Board regulations (Title 27, California Administrative Code) meet the deed restriction requirements in the ROD.



South Bay Asbestos Superfund Site

Five-Year Review Completed

Web Page

Information about the Site is available on EPA's webpage at:
<http://www.epa.gov/region09/southbayasbestos>



Information Repositories

Two information repositories hold the Third Five-Year Review Report for the SBA Site as well as other documents related to the investigation and cleanup of this Superfund Site:

San Jose Public Library

Alviso Branch, 5050 N. First St.
Alviso, CA 95002
(408) 263-3626

Email: al.sjpl@sjlibrary.org
Mon 2pm - 7pm
Tues - Wed 11am - 8pm
Thurs - Sat 10am - 6pm

Superfund Records Center

95 Hawthorne St, Room 403
San Francisco, CA 94105
(415) 536-2000

Mon - Fri 8am - 5pm

How to Contact Us

If you have questions or concerns about the South Bay Asbestos Superfund Site, please contact any of the EPA staff listed below

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