FIVE-YEAR REVIEW REPORT FOR

SOUTH BAY ASBESTOS SUPERFUND SITE

SANTA CLARA COUNTY, CALIFORNIA

Prepared by

U.S. Environmental Protection Agency

Region IX

San Francisco, California

September 10, 2015

John Lyons, Acting Assistant Division Director

Superfund Division

California Site Cleanup Branch

U.S. EPA Region 9

Date

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site Name: South Bay Asbestos Superfund Site		
EPA ID: 0902250	CERCLIS ID: CAD980894885	
Region: 9	**State:** CA	**City/County:** San Jose/Santa Clara County

SITE STATUS	
NPL Status: Final	
Multiple OUs? Yes	**Has the site achieved construction completion?** Yes

REVIEW STATUS
Lead agency: EPA ***[If "Other Federal Agency", enter Agency name]*:** Click here to enter text.
Author name (Federal or State Project Manager): Grace Ma, Mariam Fawaz
Author affiliation: EPA Region IX
Review period: 11/18/2014 -6/30/2015
Date of site inspection: 2/10/2015
Type of review: Statutory
Review number: 4
Triggering action date: 9/22/2010
Due date *(five years after triggering action date)*: 9/22/2015

1 Introduction

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy continues to be protective of human health and the environment. The FYR is required due to the fact that hazardous substances, pollutants, or contaminants remain at a Superfund site above levels that allow for unlimited use and unrestricted exposure. The methods, findings, and conclusions of reviews are documented in a Five-Year Review report. In addition, FYR reports contain any issues found during the review, and include recommendations to address them.

In January 2014, the U.S Environmental Protection Agency's (EPA) Office of Superfund Remediation and Technology Innovation and EPA Region 9 Superfund Division agreed to conduct a limited Five-Year Review for South Bay Asbestos Superfund Site in San Jose, California, where the remedy currently consists of completed landfill caps and institutional controls. This limited FYR includes a snapshot of the current status of the remedy, a site inspection, and an assessment of the effectiveness of the institutional controls.

The South Bay Asbestos Superfund Site is located in the Alviso neighborhood of San Jose, California. Asbestos-containing soil was used to construct a ring levee to protect the low-lying areas of Alviso from flooding. In addition, Alviso landfills were thought to have received asbestos waste from an asbestos cement pipe manufacturing plant. Furthermore, local truck yards may have been contaminated with asbestos-containing soil materials from the ring levee that had blown onto the truck yards. The South Bay Asbestos Superfund Site (Site) consists of two Operable Units (OUs): the Ring Levee (OU-1) and the Overall Site (OU-2)

Ring Levee Operable Unit 1 (OU-1)

On September 29, 1988, the EPA signed the Record of Decision (ROD) to select a remedy addressing asbestos contamination in the ring levee. The remedy consisted of capping the ring levee in place. The remedial action objective of the selected remedy was to control the release of asbestos fibers from levee soils. The 1988 remedy was modified by a 1991 ROD Amendment and a 1993 Explanation of Significant Differences (ESD) to provide for removal and temporary replacement of the entire ring levee.

The total removal of the asbestos-containing flood control ring levee was completed in 1994 and removal of a temporary replacement levee was completed in 1997. Since there was no asbestos contamination left in place, there is no requirement for conducting a Five-Year Review on OU-1.

Overall Site Operable Unit 2 (OU-2)

EPA signed the ROD for Site OU-2 on September 29, 1989, selecting remedies to address asbestos contamination at three landfills and four truck yards. The landfills within the Site (Santos[1], Marshland[2], and Sainte Claire Landfills) contained asbestos waste from an asbestos cement pipe manufacturing plant. The Site location, layout, historic landfills and truck yards are shown in Figure 1.

[1] The Santos Landfill is subdivided into two separately-owned parcels: the Summerset Mobile Home Estates and the Bixby Technology Center (currently known as Gold Street Tech Center).

[2] The Marshland Landfill is also known as Highway 237 Landfill. The Legacy America Center (currently known as America Center) is located on the Marshland Landfill.

The remedial action objective of the selected remedy was to control the release of asbestos.

The remedy consisted of:

- Paving asbestos-contaminated truck and industrial yards after sampling to determine extent of necessary paving.
- Wet sweeping of Alviso streets on a monthly basis.
- Locating and removing obvious asbestos sources such as pipes, and disposing of them in an off-site landfill.
- Placing deed restrictions on landfills after verifying the adequacy of cover material pursuant to National Emission Standards for Hazardous Air Pollutants (NESHAP) Program for asbestos.
- Establishing institutional controls to ensure maintenance of remediation measures.
- Routine maintenance and monitoring.

The paving was completed by 1992 at the four truck yards using either asphalt, concrete or chip seal pavement. By November 2004, owners of all four truck yards had elected to excavate and dispose the contaminated soil off-site, thus removing any potential exposure from those properties. On the basis of the results of confirmation soil sampling, EPA concluded that the asbestos contamination was effectively removed from these properties, the remediation was completed and no further action was required.

The City of San Jose conducted wet sweeping of Alviso streets on a monthly basis after the 1989 ROD was issued. In August 2007, EPA conducted additional activity-based sampling for asbestos in the Alviso community. EPA concluded that asbestos exposures from typical dust generating activities (including vehicular traffic on the streets) were below risk-based levels of concern; and therefore, the streets did not require any further wet sweeping.

At the time of the 1989 ROD, the landfill cap covers were in place and EPA determined that the covers met the asbestos control requirements. Land Use Covenants were placed on the Bixby Technology Center[3] portion in 2004 and a Land Use Covenant[4] was placed on the Summerset Mobile Home Estate portion of the Santos Landfill in 2011. A landfill closure statement for Marshland Landfill was recorded in 2007.

To ensure maintenance of remediation measures, EPA has required, through the deed restriction and Land Use Covenant, the development of Soil Management Plans. These plans include monitoring, inspecting, reporting requirements and notification and engineering requirements if there is development on the landfill.

On September 28, 2011, an Explanation of Significant Differences (ESD) was completed. This ESD removed the requirement for institutional controls on Sainte Claire Landfill and also removed the requirement for monthly wet street sweeping. EPA determined that the asbestos level in the Sainte Claire landfill was below the action level of one percent asbestos in soil based on soil sampling results in 2004 and 2011. The ESD also determined

[3] Currently known as Gold Street Tech Center.

[4] The 2011 Explanation of Significant Differences clarified that the term "deed restriction" is now known as a Land Use Covenant.

that the existing Water Board requirements and the California Integrated Waste Management Board (CIWMB)[5] Titles 14 and 27 regulations meet the deed restriction requirements in the OU-2 ROD on the Marshland Landfill. Accordingly, a five-year review is only required for the Marshland and the Santos Landfills.

The remedy at South Bay Asbestos Superfund Site is protective of human health and the environment. The risk of exposure to asbestos has been lowered to acceptable levels by removing asbestos-containing material or capping and implementing land use covenants at landfills with asbestos-containing material.

More detailed information on the South Bay Asbestos Superfund site background and remedial actions is presented in the previous FYR (2010). This information can be found at the following website: www.epa.gov/region9/SouthBayAsbestos

[5] CIWMB's responsibilities have now been transferred to the California Department of Resources Recycling and Recovery (CalRecycle).

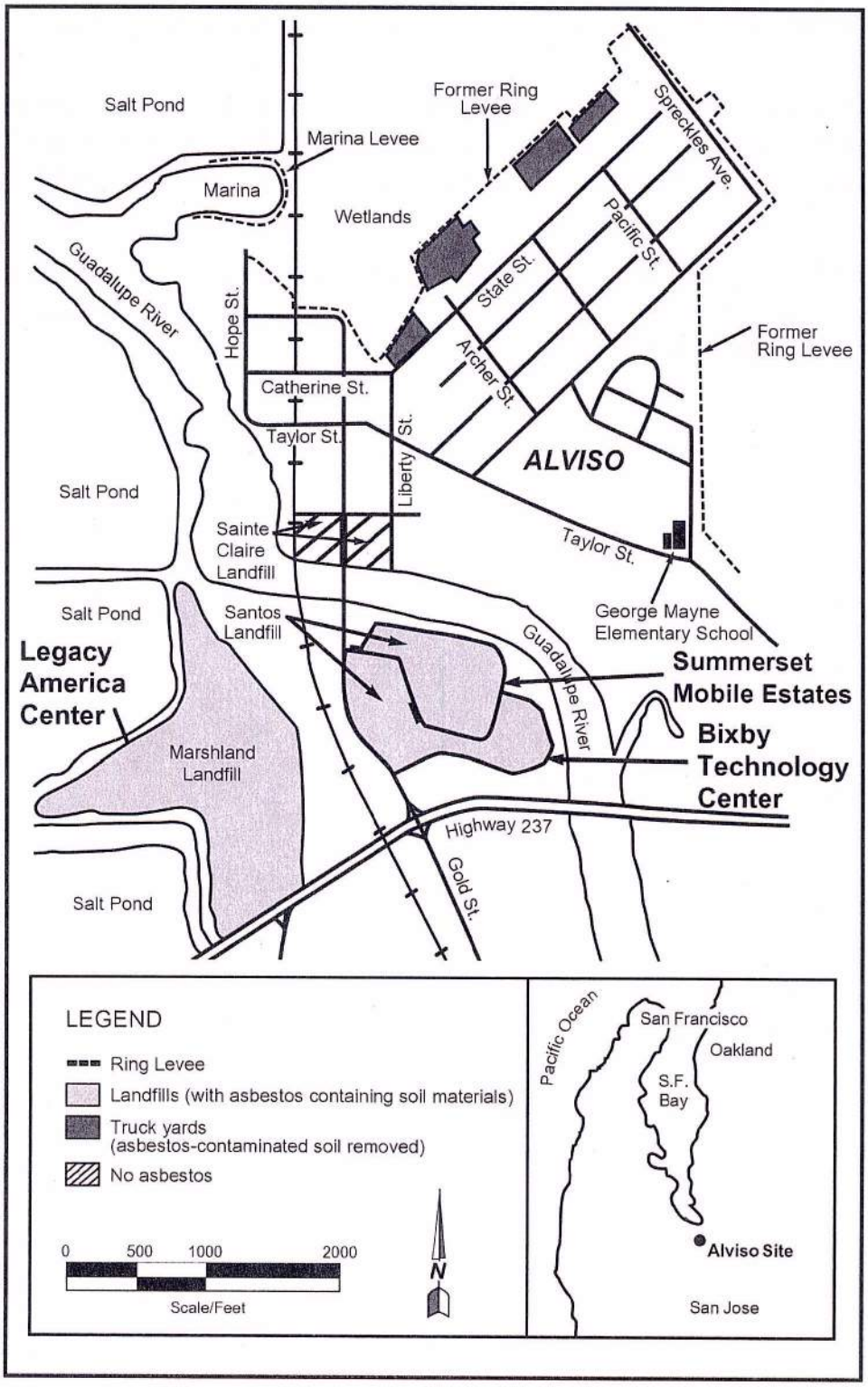


Figure 1. Site layout and location map

Figure 1. Site layout and location map

2 Progress Since the Previous Five-Year Review

The third FYR report for the South Bay Asbestos Superfund Site was signed on September 22, 2010. The protectiveness statement in the Report is as follows:

> *"The South Bay Asbestos Superfund site consists of two operable units (OUs): The Ring Levee (OU-1) and the Overall Site (OU-2), which includes the truck yards and landfills. 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 they 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, institutional controls need to be implemented at the SME [Summerset Mobile Estate] portion of the former Santos Landfill and the Sainte Claire Landfill. For the Marshland Landfill, the EPA needs to prepare an ESD [Explanation of Significant Differences] that will specify the use of Water Board requirements and CIWMB [California Integrated Waste Management Board] Title 27 regulations in lieu of deed restriction requirements in the ROD and that no further controls are needed."*

The third FYR identified two issues that affected future protectiveness. These issues and follow-up actions, and the status of the work completed over the past five years to address the issues, are discussed below.

Table 1. Status of Recommendations from the 2010 FYR

Issue	Recommendations/ Follow-up Actions	Original Milestone Date	Current Status	Completion Date (if applicable)
No deed restrictions are in place at the Summerset Mobile Estates portion of Santos Landfill or the Sainte Claire Landfill	EPA will place Land Use Covenants on the property titles for the Summerset Mobile Estates portion of the former Santos Landfill and the Sainte Claire Landfill.	September 2011	Complete for Santos Landfill; Not required for Sainte Claire[6] Landfill	August 24, 2011
Need Explanation of Significant Differences (ESD) to specify that state requirements provide adequate Institutional Controls at Marshland Landfill	EPA will prepare an ESD that specifies no further institutional controls are needed at the Marshland Landfill since the use of existing Water Board requirements and the CalRecycle (formerly CIWMB) Titles 14 and 27 regulations meet the deed	April 2011	Complete	September 28, 2011

[6] The Sainte Claire Landfill does not contain asbestos and therefore does not require a deed restriction, as determined in the 2011 ESD.

	restriction requirements in the ROD.			

Activities completed during the Past Five Years

Santos Landfill - Summerset Mobile Estate

In September 2013, asphalt streets within the Summerset Mobile Home Estate were removed and new roads were constructed with Type A asphalt concrete at a depth of 4 inches. The two-foot clean soil cap was not breached during the removal and placement of the asphalt. The construction was complete on September 13, 2013.

Santos Landfill – Bixby Technology Center[7]

A Five-Year Cap Status Assessment Report was completed in April 2015 for the Bixby Technology Center (currently called Gold Street Technology Center) by Erler & Kalinowski Inc. (EKI) on behalf of the current property owner. Based on the assessment, EKI noted in the report that there were no major cracks in the building slabs or paved sidewalk areas and patios, and no major holes or erosion other than burrowing from ground squirrels. Superficial cracks and signs of normal pavement wear were observed on the asphalt surface of the parking lots. EKI recommended that cracks that were ¼" or greater in width should be filled with hot asphalt patch. Cracks that are less than ¼" in width should be repaired with an asphalt sealcoat (Figure 2). No significant construction was noted between 2010 and 2015 at the Bixby Technology Center.

Marshland Landfill

The Legacy America Center[8] project is currently under construction (see Figure 3). As of 2015, two six-story office buildings are complete and in use and a 175-room hotel is nearly completed. Two additional office buildings and one parking garage are planned for future development. Approvals for regulatory permitting for post-closure landfill development were given by the Regional Water Quality Control Board (RWQCB), CalRecycle, the City of San Jose local enforcement agency (LEA), and the EPA.

To maintain the integrity of the landfill cap, buildings in the commercial business campus included pile supports to address settlement, which involved drilling 40-inch boreholes an average of 65 feet through the landfill for each pile. Bentonite slurry was placed within each borehole to provide a seal at the landfill/native material interface. Soil inspection and air monitoring was conducted during pile installation, foundation construction, and utility operations.

On June 1, 2015, the soil management plan for the Legacy America Center at Marshland Landfill was submitted by Mark Wheeler of Crawford Consulting, Inc. on behalf of the current property owner. The soil management plan included a landfill cap inspection report. The inspection noted no significant erosion or damage to the cover other than some erosion that was noted at Pond A-8, and repairs needed in 2014 due to tire-track rutting on the

[7] Currently known as Gold Street Tech Center.
[8] The current name is America Center.

landfill slope above the access road on the northeast side of the site (CCI, 2015). In addition, the soil management plan included the property title ownership transfer information.

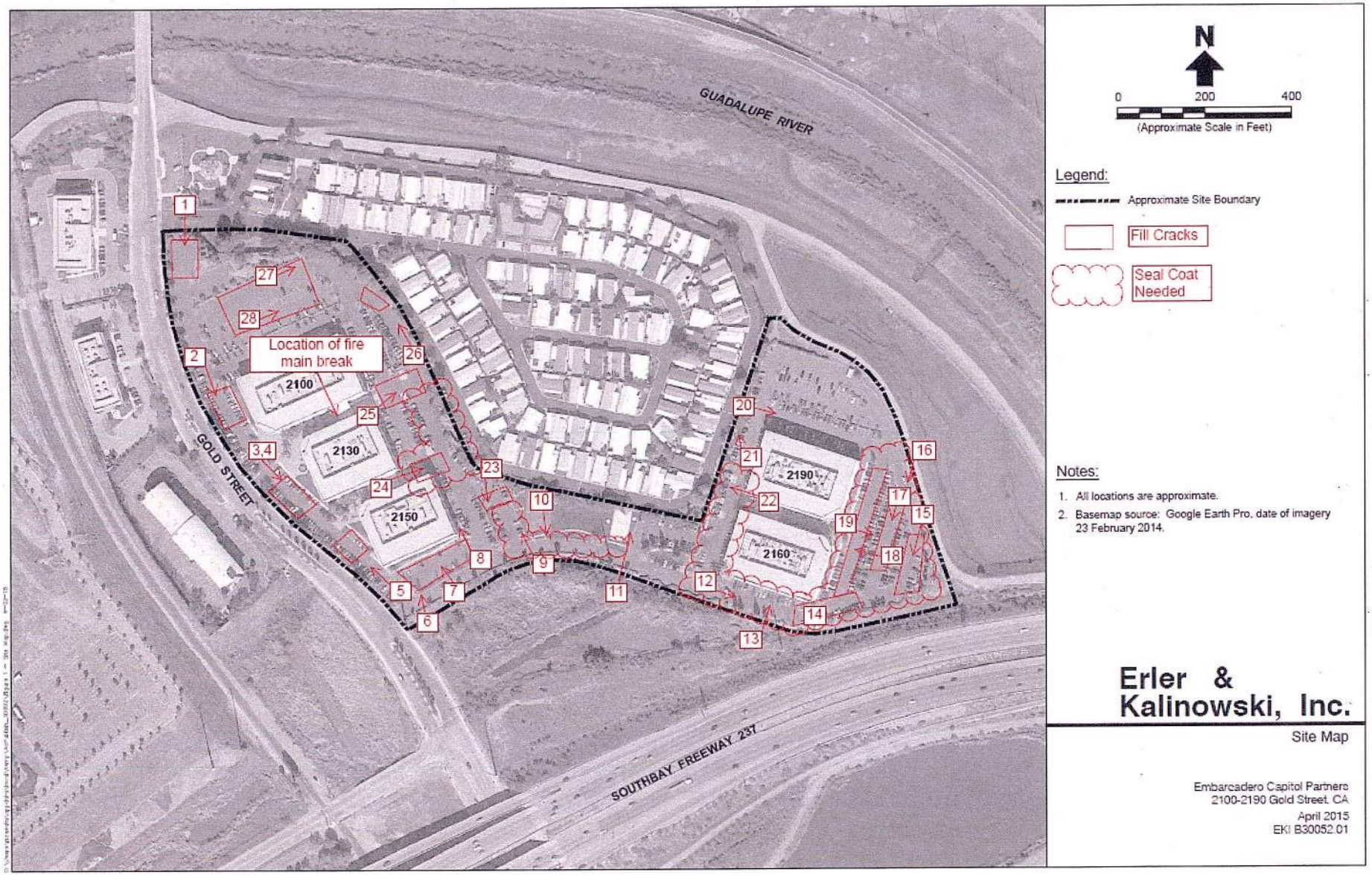


Figure 2 EKI's recommendation on locations for asphalt patching at Gold Street Technology Center

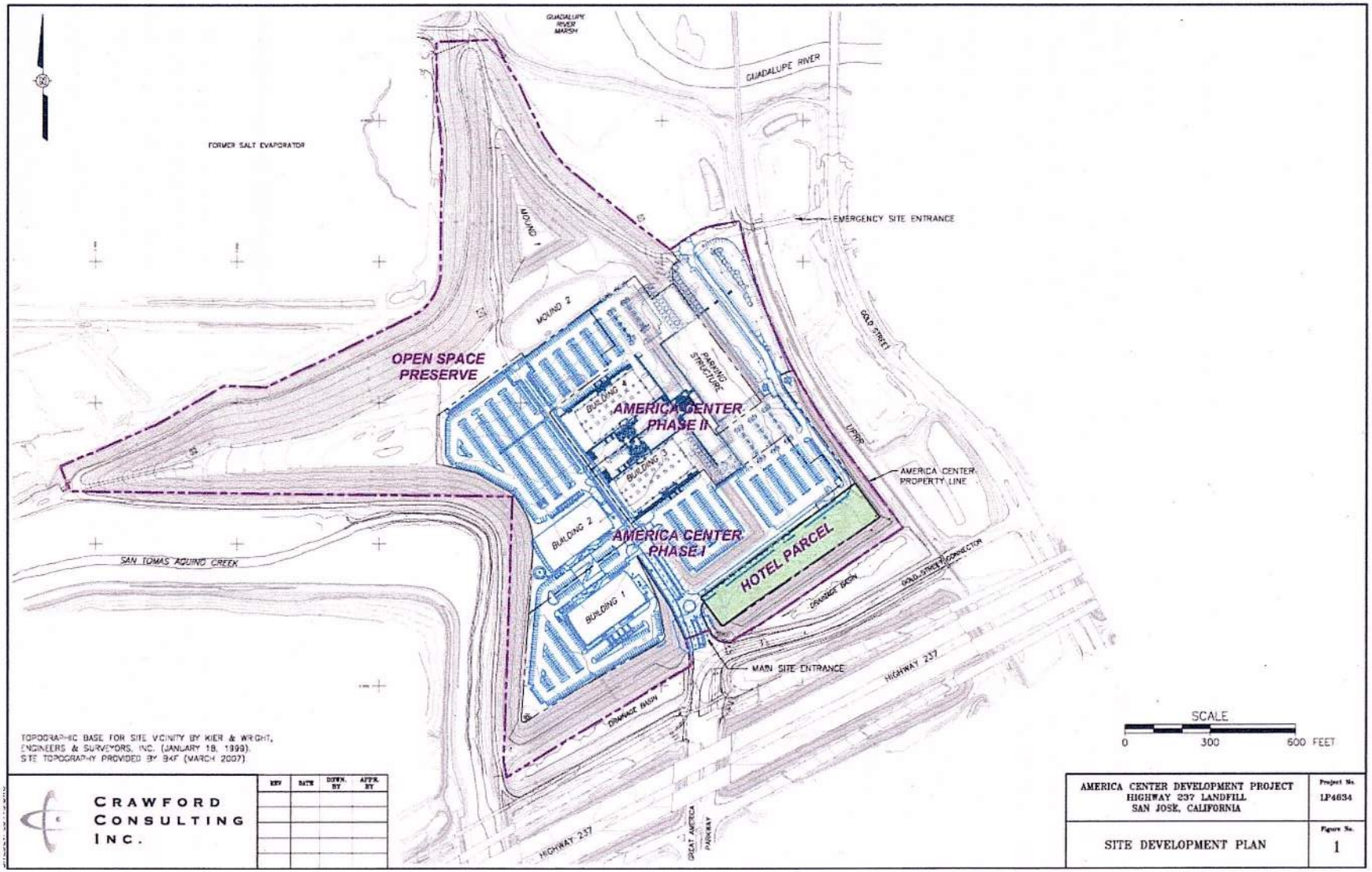


Figure 3 Site development plan map

3 Five-Year Review Process

Administrative Components

The South Bay Asbestos Superfund Site Five-Year Review was led by EPA Remedial Project Managers (RPMs) Mariam Fawaz and Grace Ma and Community Involvement Coordinator Carlin Hafiz. The results of the review and the report will be made available at the Site information repository located at the information repository for this Site (the Alviso Branch of the San Jose Public Library, 1060 Taylor Street, Alviso CA 95002), and on the web at:
www.epa.gov/region9/SouthBayAsbestos

Community Involvement

A public notice was placed in the *San Jose Mercury News* on May 15, 2015 announcing the Fourth Five-Year Review. The notice was translated and also placed in the Spanish language newspaper, *El Observador,* on the same day. To date, there have been no responses to the public notice.

Following the release of the Fourth Five-Year Review Report, EPA will notify the community in the vicinity of the SBA Site. The Five-Year Review Report will be placed in the Site information repository and on the web at the hyperlink identified above.

Site Inspection

The inspection of the Site was conducted on February 10, 2015, by EPA RPM Mariam Fawaz and Roxanne Grillo of the U.S. Army Corps of Engineers (USACE). The purpose of the inspection was to assess the protectiveness of the remedy.

The site visit and inspection of South Bay Asbestos Area Superfund Site was conducted on the following areas—the Legacy America Center on the Marshland Landfill, the Bixby Technology Center and Summerset Mobile Estates on the Santos Landfill, and properties near the former ring levee area and truck yards. No significant issues were noted at the landfill areas other than the occasional cracks in asphalt noted at the Bixby Technology Center that will require repairs.

Two properties near the truck yards area appeared to have had recent dust-creating disturbances. At least two trucks with trailers and many stockpiles were observed at an unpaved truck yard at the end of Archer Street. The vacant lot at the intersection of State Street and Pacific Street had evidence of current construction activities, including the presence of a small excavator truck on the property. Mariam Fawaz indicated that EPA received complaints regarding increased vehicular traffic and potential dust in this area in winter 2015.

The Site Inspection Photos are included in Appendix A, and the Site Inspection Checklist is included Appendix B.

Institutional Controls

The 2011 Explanation of Significant Differences clarified which properties need institutional controls, as seen in Table 2 below. Institutional controls were added to minimize exposure to asbestos in areas which were

determined to pose a risk to human health and the environment. The Explanation of Significant Differences removed the requirement for wet street sweeping.

Table 2. Summary of Institutional Controls

Location	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
Santos Landfill, Summerset Mobile Estates	Land Use Covenant	Assessor's Parcel No. 015-34-043	Limits land use for the Summerset Mobile Home Park and sets up reporting requirements.	Covenant to Restrict use of Property Environmental Restriction, recorded Sept. 14, 2011.
Santos Landfill, Bixby Technology Center	Land Use Covenant	Assessor's Parcel No. 015-34-081, 83, 84, and 120, 121, and 123	Limits land use for the Bixby Technology Center and sets up reporting requirements.	Covenant to Restrict use of Property Environmental Restriction
Marshland Landfill, Legacy America Center	Governmental Control	Assessor's Parcel No. 015-45-011, 025, 027, 028, 029, and 030	Verifies that requirements under Titles 14 and 27 are being implemented, the cover is maintained and cover is routinely inspected.	Titles 14 and 27 CCR regulations implemented by San Jose Local Enforcement Agency (LEA). Landfill closure recorded Sept. 4, 2007.

4 Technical Assessment Summary

The remedy is performing as anticipated and maintenance activities continue to be effective. Access and institutional controls implemented as land use covenants are maintaining the integrity of the implemented remedy. In the past decade, four truck lots have been paved and/or excavated to remove any possible asbestos found in the soil near the ring levee. Installation of land caps removed the risk of exposure to asbestos fibers.

Information gathered during the Asbestos Exposure Assessment and contained in the Risk Evaluation Summary Report completed in 2010 determined that risks to the residents from asbestos exposure, whether due to releases from unpaved truckyards or from vehicle brake dust on the roads, were within EPA's protective risk

range[9]. Past sampling events included activity-based sampling in the neighborhood, which showed that dust generated in the truck yard area would not have an adverse impact on the community. EPA believes the recently observed disturbances at the vacant lot and unpaved truck yard are consistent with the 2010 activities that occurred during those sampling events that showed the current remedy to be protective. However, EPA intends to assess the need for additional work at the unpaved truck yard and vacant lot.

Other than this concern, no changes to exposure assumptions, exposure routes, standards, or toxicity factors were identified that would affect the protectiveness of the remedy. No new applicable or relevant and appropriate requirements (ARARs), to-be-considered requirements, or other information arising in the past five years has been identified that would impact the protectiveness of the remedy. In addition, no unacceptable ecological risks were identified in the past five years.

5 Issues/Recommendations and follow-up actions

No issues that affect protectiveness of the remedy were noted during this FYR.

The following recommendations to ensure proper operation of the remedy and continued protectiveness were identified during the Five-Year Review:

- Assess the need for additional work, not specified in the ROD, around the vacant lot and unpaved truck yard where recent soil disturbance was found.
- Based on the observations during the site inspection, some asphalt parking lots and driveways require repair and maintenance. Such activities if conducted will ensure that the remedy is maintained.
- The Legacy America Center Soil Management Plan update and landfill cap inspection occurs every five years and should be submitted to EPA by the first day of the fiscal year when the Five-Year Review is due. The next soil management plan update with landfill cap inspection would be due October 1, 2019. In addition, the Legacy America Center Soil Management Plan should be updated with this due date requirement.
- The Bixby Technology Center landfill cap inspection report occurs every five years. It is recommended that the next landfill cap inspection report be submitted by October 1, 2019.
- The Summerset Mobile Estates inspection report occurs every thirty months. The next inspection report must be prepared and submitted to EPA and by September 30, 2017.

[9] EPA considers an excess cancer risk of one in one million to 100 in one million as protective for environmental exposures.

6 Protectiveness statement

Protectiveness Statement		
Operable Unit:	*Protectiveness Determination:*	*Addendum Due Date*
OU-2 The Overall Site	Protective	*(if applicable): N/A*
Protectiveness Statement:		
The remedy at South Bay Asbestos Superfund Site is protective of human health and the environment. The risk of exposure to asbestos has been lowered to acceptable levels by removing asbestos-containing material or capping and implementing institutional controls at landfills with asbestos-containing material.		

7 Next review

The next Five-Year Review report for the South Bay Asbestos Superfund Site is required five years from the completion date of this review.

List of Documents Reviewed

Crawford Consulting Inc (CCI), 2010. 2010 Soil Management Plan Update for Legacy America Center, San Jose, California. June 24.

EPA (United States Environmental Protection Agency). 1988. EPA Superfund Record of Decision: *South Bay Asbestos Site EPA ID: CAD980894885 OU 01 Alviso, California*. September 29.

EPA, 1989. Superfund Record of Decision: *South Bay Asbestos Site EPA ID:CAD980894885 OU 02 Alviso, California*. September 29.

EPA, 1991. EPA *Superfund Record of Decision Amendment: South Bay Asbestos Site EPA ID:CAD980894885 OU 01 Alviso, California*. June 26.

EPA, 1993. *Superfund Explanation of Significant Differences to the Record of Decision, South Bay Asbestos Site EPA ID: CAD980894885 OU 02 Alviso, California*. October 18.

EPA, 1998. Preliminary Close Out Report, South Bay Asbestos Site EPA ID:CAD980894885 San Jose, California. September 23.

EPA, 2000. EPA *Five Year Review Report, South Bay Asbestos Site EPA ID: CAD980894885 San Jose, California*. September 29.

EPA, 2001. *Comprehensive Five-Year Review Guidance, Office of Emergency and Remedial Response. OSWER No. 9355.7-03D-P, EPA Doc. No. 540-R-01-007*. June.

EPA, 2005. *Second Five-Year Review Report for South Bay Asbestos Site, San Jose, California*. September 27.

EPA, 2007. Fact Sheet: *EPA Will Conduct Additional Asbestos Sampling for South Bay Asbestos Superfund Site*. July.

EPA, 2010a. *Asbestos Exposure Assessment and Risk Evaluation Summary Report for South Bay Asbestos Superfund Site, Alviso, CA.* August.

EPA, 2010b. *Third Five-Year Review Report for South Bay Asbestos Site, San Jose, California*. September 27.

EPA, 2011. *Superfund Explanation of Significant Differences to the Record of Decision, South Bay Asbestos Site EPA ID: CAD980894885 San Jose, California*. September 28.

U.S. Army Corps of Engineers (USACE). 2003. Letter: Subject line File Number 15493S signed by Calvin C. Fong, Chief, Regulatory Branch, San Francisco District. May 13.

U.S. Army Corps of Engineers (USACE). 2015. Bixby Technology Center Inspection Report. San Francisco District. February 10.

U.S. Army Corps of Engineers (USACE). 2015. Legacy American Center Inspection Report. San Francisco District. February 10.

U.S. Army Corps of Engineers (USACE). 2015. Summerset Mobile Estates Inspection Report. San Francisco District. February 10.

Appendix A Site Visit Photos

Site Visit Photos
Legacy America Center (currently known as America Center) Site Photographs

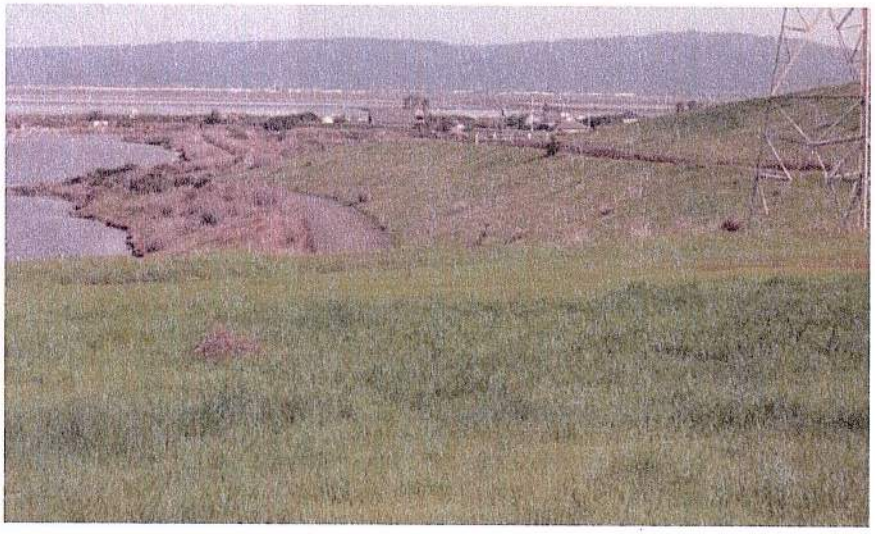
*For Legacy America Center photographs, please refer to the attached Legacy America Center Development Project Map.

Legacy America Center Photograph 1: Taken facing north/northwest. Most of the signs observed are located in the north and west areas of the site just outside of the parking lot in the open space preserve area.

Legacy America Center Photograph 2: Taken facing north/northwest. Vegetated mounds 1 and 2 are landfill features that are located in the open space preserve area in the background.

Legacy America Center Photograph 3: Taken facing west. Additional material formed into mounds has been installed on top of the cap in the open space preserve area to provide foraging and nesting habitat for burrowing owls.

Legacy America Center Photograph 4: Taken facing southeast. Landfill gas venting lines and pipes were installed in the overlying fill material above the landfill and are located in the parking lot areas. No significant cracking or settlement was observed in the parking lot areas. The protruding black pipe in the photograph is the gas vent. All vents appear to be in working order.



Legacy America Center Photograph 5: Taken facing north. Both gates that provide access to the open space preserve area were locked. This photo also shows the side slopes of the Marshland Landfill that face the salt ponds.

Legacy America Center Photograph 6: Taken facing southwest. This is the side slope of the landfill that faces the San Tomas Aquino Creek behind Buildings 1 and 2.

Legacy America Center Photograph 7: Taken facing northwest. This is one example of the locked groundwater monitoring wells observed throughout the property.

Legacy America Center Photograph 8: Taken facing the entrance to Building 2 (northern direction). According to Mr. Mark Wheeler, pavers are on top of a sand layer to mitigate for settlement adjacent to Buildings 1 and 2 and they are routinely surveyed to prevent the development of tripping hazards.

Legacy America Center Photograph 9: Utility connections for Building 2. All utilities vaults, lines, and piping are installed in the overlying material above the landfill. Mark Wheeler indicated that the flexible utility connections to each building prevent negative impacts to utilities due to settlement.

Legacy America Center Photograph 10: Taken facing east. This is an inactive area designated for the Phase II development for the Legacy America Center.

Legacy America Center Photograph 11: Taken facing south. Aloft Hotel construction site overview.

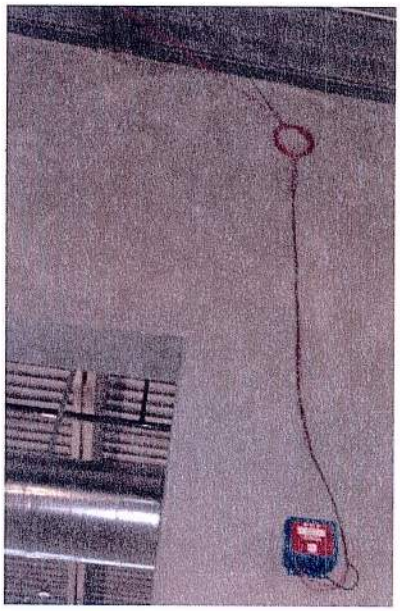
Legacy America Center Photograph 12: Taken facing south. Aloft Hotel construction site overview.

Legacy America Center Photograph 13: Taken facing south. Aloft Hotel construction site overview. The slope of the edge of the Legacy America Center property is also pictured. No signs of slope failures or significant erosion were observed.

Legacy America Center Photograph 14: Taken facing southeast. This is an example of utility vaults and lines being installed at the Aloft Hotel construction site. At the time of the inspection, it appeared that most of the excavation work is complete, but no digging or holes below the 5-7 foot cover range were observed.

Bixby Technology Center (currently known as Gold Street Technology Center) Site Photographs

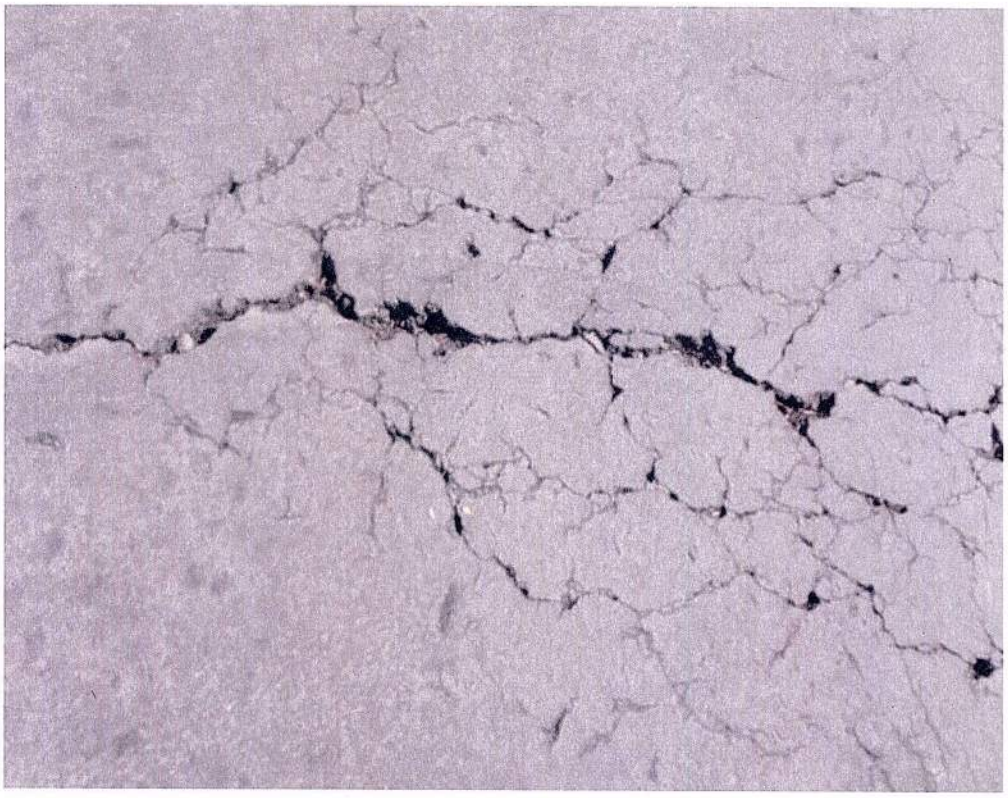
Bixby Technology Center Photograph 1: Taken facing east, toward the entrance of Building 2130. It appears that pavers are installed in sandy base in the areas around some of the buildings to mitigate for any expected settlement adjacent to buildings; however, no notable settlement was observed in these areas during the site inspection.



Bixby Technology Center Photograph 2: This is an example of the methane sensors that are equipped with an alarm system installed on the first and second floor of Buildings 2100, 2130, and 2150. This photograph was taken at the first floor of in Building 2100.

Bixby Technology Center Photograph 3: Taken facing east near the loading area between Buildings 2100 and 2130. There was observed cracking in this area. It was not noted in the attached map because no evidence of white precipitate was observed in this area.

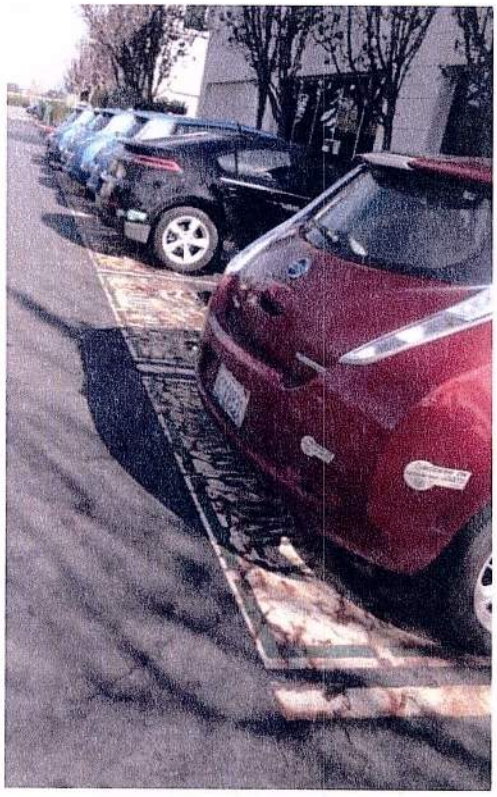
Bixby Technology Center Photograph 4: Taken facing west. The recreation area is located between buildings 2150 and 2160. The recreation area has a sand volleyball court, paved basketball court, and elevated area (resembles a small mound) between the volleyball and basketball courts.



Bixby Technology Center Photograph 5: There was cracking in the road near the southeastern corner of Building 2160.

Bixby Technology Center Photograph 6: There was cracking with evidence of white precipitate in the road near the northeastern corner of Building 2190.

Bixby Technology Center Photograph 7: Taken facing east. No major settlement was observed. However, in the electric vehicle charging parking spots in the southwestern corner of Building 2160, minor ponding was observed in the areas underneath each of the tires of the vehicles in each parking space as noted in the attached map in Appendix B. The ponding was no more than one inch deep.



Bixby Technology Center Photograph 8: Taken facing north. In the electric vehicle charging parking spots in the southwestern corner of Building 2160, the paint on the space that was originally white has turned brown. The brown discoloration of the white paint occurred throughout the old parking areas; it was not observed in any of the newly paved parking areas.

Bixby Technology Center Photograph 9: Taken facing northeast. The landfill gas vent labeled LG-2 in the attached observation map in Appendix B is obstructed by a tree, causing it to not be able to spin freely.

Bixby Technology Center Photograph 10: Taken facing northeast. Cracking and a small wet area was observed in the parking lot north of Building 2100 near the vegetated area.

Summerset Mobile Home Estates Site Photographs

Summerset Mobile Home Estates Photograph 1: This mobile home community is located over the Santos Landfill. This photo is representative of the entire property. This property has paved roadways, mobile homes, driveways, and small landscaped areas. All paved roadways and driveways appear to be in good repair.

Summerset Mobile Home Estates Photograph 2: Some fairly large trees are located on the property line between the Bixby Technology Center and Summerset Mobile Home Estates. Smaller palm trees and other trees are located throughout the mobile home property and the cap is well maintained in the vegetated areas.

Summerset Mobile Home Estates Photograph 3: Taken facing north. There is a 4-foot deep pool located behind the Summerset Mobile Home Estates office.

Other Sites Observed on 10 February 2015: Properties near the Former Ring Levee and Truck Yards

Other Sites – Photograph 1: Taken facing northeast. This is an empty lot located at the intersection of Pacific Avenue and State Street. Mariam Fawaz said EPA received complaints regarding dust in this area. All activity at the site ceased prior to the time of the inspection. A stabilized construction entrance was observed (as pictured). There was one truck with a small excavator in the bed observed on site.

Other Sites – Photograph 2: Taken facing southwest from a property at the end of Pacific Avenue facing an unpaved truck yard at the end of Archer Street. Mariam Fawaz said EPA received complaints about increased vehicular traffic and activity on the unpaved truck yard. At least two trucks with trailers and many stockpiles were observed at the time of inspection.

Other Sites – Photograph 3: Taken facing southwest from the property at the end of Pacific Avenue facing the unpaved truck yard on Archer Street. Zoomed in photo of the same site as Other Sites – Photograph 2.

Appendix B Inspection Checklist

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Five-Year Review Site Inspection Checklist

I. SITE INFORMATION	
Site name: South Bay Asbestos Bixby Technology Center (currently known as Gold Street Technology Center)– located on the Santos Landfill	**Date of inspection:** Tuesday, 10 February 2015
Location: Alviso, CA, Region 9	**EPA ID:** CAD980894885
Agency, office, or company leading the five-year review: United States Army Corps of Engineers – Seattle District	**Weather/temperature:** Sunny – approximately 70°F

Remedy Includes: (Check all that apply)

- ☒ Landfill cover/containment
- ☐ Monitored natural attenuation
- ☐ Access controls
- ☐ Groundwater containment
- ☒ Institutional controls
- ☐ Vertical barrier walls
- ☐ Groundwater pump and treatment
- ☐ Surface water collection and treatment
- ☐ Other: *e.g. Groundwater monitoring*

_____

Attachments: ☐ Inspection team roster attached ☒ Site map attached

Inspection Team Roster:

Roxanne Grillo – USACE San Francisco District – Five Year Review Site Inspection Lead – *roxanne.grillo@usace.army.mil* – (415) 503-6859

Mariam Fawaz – EPA Region 9 –Remedial Project Manager – *fawaz.mariam@epa.gov* – (415) 972-3078

Treat Suomi – Skeo Solutions – Senior Associate (gathering data for the EPA on redevelopment of SuperfundSites) – *tsuomi@skeo.com* – (719)256-4674

Shanna Murtagh – Embarcadero Capital Partners LLC – Property Manager – *smurtagh@ecp-llc.com* – (650) 494-6113

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** Shanna Murtagh | Property Manager | 10 February 2015

Name | Title | Date

Interviewed ☒ at site ☐ at office ☐ by phone Phone # (650) 494-6113

Problems, suggestions; ☐ Report attached Ms. Murtagh mentioned that there have been no problems with the cap since her company bought the property in late 2013. She had no suggestions for improvement to the remedy or site management.

III. ON-SITE DOCUMENTS & RECORDS VERIFIED ☒ N/A

IV. O&M COSTS

1. **O&M Organization**

☐ State in-house ☐ Contractor for State

☐ PRP in-house ☐ Contractor for PRP

☐ Federal Facility in-house ☐ Contractor for Federal Facility

☒ Other Shanna Murtagh, Property Manager (Embarcadero Capital Partners LLC – Property Owners)

Embarcadero Capital Partners has owned this property since the Fall (October/November) of 2013.

2. **O&M Cost Records – None Available**

V. ACCESS AND INSTITUTIONAL CONTROLS ☒ Applicable ☐ N/A

A. Fencing

1. **Fencing damaged** ☐ Location shown on site map ☐ Gates secured ☒ N/A

B. Other Access Restrictions

1. **Signs and other security measures** ☐ Location shown on site map ☒ N/A

C. Institutional Controls (ICs)

1. **Implementation and enforcement**

Site conditions imply ICs not properly implemented ☐ Yes ☒ No ☐ N/A

Site conditions imply ICs not being fully enforced ☐ Yes ☒ No ☐ N/A

Type of monitoring (*e.g.*, self-reporting, drive by) Site Inspections

Frequency Annual

Responsible party/agency California Department of Toxic Substances Control (DTSC)

Reporting is up-to-date ☒ Yes ☐ No ☐ N/A

Reports are verified by the lead agency ☒ Yes ☐ No ☐ N/A

Specific requirements in deed or decision documents have been met ☒ Yes ☐ No ☐ N/A

Violations have been reported ☐ Yes ☐ No ☒ N/A

2. **Adequacy** ☒ ICs are adequate ☐ ICs are inadequate ☐ N/A

Remarks: A deed restriction is in place for the Bixby Technology Center portion of the Santos Landfill. A soil management plan must be developed for any potential cap disturbance. A soil management plan was needed for utilities work in the vicinity. EPA reviewed and approved the soil management plan.

D. General

1. **Vandalism/trespassing** ☐ Location shown on site map ☒ No vandalism evident

2. **Land use changes on site** ☒ N/A

3. **Land use changes off site** ☒ N/A

VI. GENERAL SITE CONDITIONS

A. Roads ☒ Applicable ☐ N/A

1. **Roads damaged** ☒ Location shown on site map ☒ Roads adequate ☐ N/A

B. Other Site Conditions

Remarks: The site has five office buildings and continues to operate as a business park with annual inspections completed by the property management company and submitted to DTSC. There are methane sensors equipped with an alarm system installed on the first and second floors of Buildings 2100, 2130, and 2150. Upon inspection, these sensors appear to be functioning properly. In accordance with the site storm water management plan, this site has 36 catch basins that are cleaned quarterly and the storm water system is cleaned out semi-annually.

VII. LANDFILL COVERS ☒ Applicable ☐ N/A

A. Landfill Surface

1. **Settlement** (Low spots) ☐ Location shown on site map ☒ Settlement not evident

Areal extent_____ Depth_____

Remarks: No major settlement was observed. However, in the electric vehicle charging parking spaces on the south west side of Building 2160, some minor ponding was observed in the areas under the tires of the electric vehicles located in each parking space as noted in the attached map in Appendix B. The ponding was approximately one inch deep and the paint in the space that was originally white has turned brown. These parking spaces are adjacent to the building where some minor settlement would be expected.

In addition, pavers on top of sand have been installed in the areas around some of the buildings; however, no notable settlement was observed in these areas during the site inspection.

2. **Cracks** ☒ Location shown on site map ☐ Cracking not evident

Lengths_____ Widths_____ Depths_____

Remarks: Minor cracking was observed throughout all of the parking lot areas. The parking lot area in the northeastern most part of the site near Building 2190 exhibited no cracks. As noted in the 2010 Five Year Review site inspection, some areas exhibited cracks with white precipitate on the asphalt. These areas where evident cracking and white marks on the asphalt were observed are annotated on the attached site map.

3. **Erosion** ☐ Location shown on site map ☒ Erosion not evident

4. **Holes** ☐ Location shown on site map ☒ Holes not evident

5. **Vegetative Cover** ☐ Grass ☐ Cover properly established ☒ No signs of stress

☐ Trees/Shrubs (indicate size and locations on a diagram)

6. **Alternative Cover (armored rock, concrete, etc.)** ☒ N/A

Remarks: Asphalt paving, building concrete slab, and vegetative cover with sand volleyball court constitute the alternative cover at the Bixby Technology Center property. There is new asphalt paving in the northeastern part of the parking area with no cracks.

7. **Bulges** ☒ Location shown on site map ☐ Bulges not evident

Areal extent_____ Height_____

Remarks: A small elevated area was observed in the grass recreational area, between the sand volleyball court and the paved basketball court as annotated on the map. This area is covered with grass. No information was provided to the inspectors on this area.

8. **Wet Areas/Water Damage** ☐ Wet areas/water damage not evident

☒ Wet areas ☒ Location shown on site map Areal extent_____

☐ Ponding ☐ Location shown on site map Areal extent_____

☐ Seeps ☐ Location shown on site map Areal extent_____

☐ Soft subgrade ☐ Location shown on site map Areal extent_____

Remarks For further detail, please see section 1 regarding Settlement.

9. **Slope Instability** ☐ Slides ☐ Location shown on site map ☒ No evidence of slope instability

B. Benches ☐ Applicable ☒ N/A

(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

C. Letdown Channels ☐ Applicable ☒ N/A

(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)

Remarks_____

_____

D. Cover Penetrations ☒ Applicable ☐ N/A

1. **Gas Vents** ☐ Active ☒ Passive

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition

☐ Evidence of leakage at penetration ☒ Needs Maintenance

☐ N/A

Remarks: Nine (9) passive gas vents were observed; however, the locations shown in the last Five Year Review map are incorrect. In the attached map, gas vents labeled LG-5, LG-6, and LG-7 were not found. All vents are located near buildings 2100, 2130 and 2150. In addition, three of the passive gas vents (LG-2, LG-4, and D) were observed to not be able to spin freely as noted in the attached site map.

2. **Gas Monitoring Probes**

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition

☐ Evidence of leakage at penetration ☐ Needs Maintenance ☒ N/A

Remarks_____

_____

3. **Monitoring Wells** (within surface area of landfill)

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition

☐ Evidence of leakage at penetration ☐ Needs Maintenance ☒ N/A

Remarks_____

_____

4. **Leachate Extraction Wells**

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition

☐ Evidence of leakage at penetration ☐ Needs Maintenance ☒ N/A

Remarks_____

_____

5. **Settlement Monuments** ☐ Located ☐ Routinely surveyed ☒ N/A

Remarks_____

_____

E. Gas Collection and Treatment	☐ Applicable ☒ N/A
F. Cover Drainage Layer	☐ Applicable ☒ N/A
G. Detention/Sedimentation Ponds	☐ Applicable ☒ N/A
H. Retaining Walls	☐ Applicable ☒ N/A
I. Perimeter Ditches/Off-Site Discharge	☐ Applicable ☒ N/A
VIII. VERTICAL BARRIER WALLS	☐ Applicable ☒ N/A
IX. GROUNDWATER/SURFACE WATER REMEDIES	☐ Applicable ☒ N/A
***X.* OTHER** REMEDIES	☐ Applicable ☒ N/A

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).

The remedy at the Santos Landfill, as it applies to the Bixby Technology Center, is to encapsulate the asbestos-containing materials, inspect and maintain the cap, protect workers when the cap is penetrated during construction, and provide notice to future property owners/users regarding the history of the Bixby Technology Center. Overall, the remedy is effective and functioning.

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

There were cracks and degradation of paved areas. In order to maintain the integrity of the cap and the protectiveness of the remedy, the cracks and degradation must be fixed.

C. Early Indicators of Potential Remedy Problems

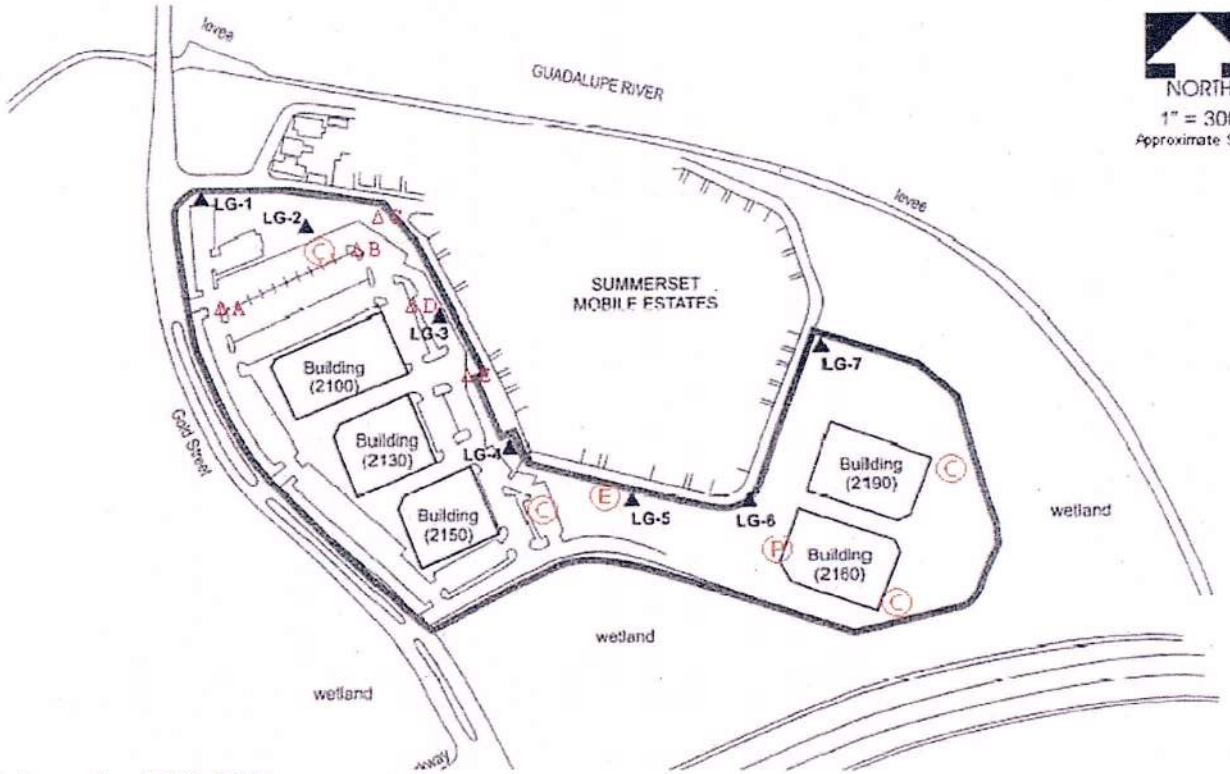
Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future.

None observed.

Opportunities for Optimization

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.

No opportunities for optimization are identified at this time.



Five Year Review Site Inspection 10 February 2015 Observations
Santos Landfill Map with Bixby Tech Center and Summerset Mobile Estates
South Bay Asbestos Site, Alviso, California
Source: Third Five-Year Review Report 2010

CDM

Five-Year Review Site Inspection Checklist

I. SITE INFORMATION	
Site name: South Bay Asbestos Summerset Mobile Estate – located on the Santos Landfill	**Date of inspection:** Tuesday, 10 February 2015
Location: Alviso, CA, Region 9	**EPA ID:** CAD980894885
Agency, office, or company leading the five-year review: United States Army Corps of Engineers – Seattle District	**Weather/temperature:** Sunny – approximately 70°F

Remedy Includes: (Check all that apply)

- ☒ Landfill cover/containment
- ☐ Monitored natural attenuation
- ☐ Access controls
- ☐ Groundwater containment
- ☒ Institutional controls
- ☐ Vertical barrier walls
- ☐ Groundwater pump and treatment
- ☐ Surface water collection and treatment
- ☐ Other: *e.g. Groundwater monitoring*

_____

Attachments: ☐ Inspection team roster attached ☐ Site map attached

Inspection Team Roster:

Roxanne Grillo – USACE San Francisco District – Five Year Review Site Inspection Lead – *roxanne.grillo@usace.army.mil* – (415) 503-6859

Mariam Fawaz – EPA Region 9 –Remedial Project Manager – *fawaz.mariam@epa.gov* – (415) 972-3078

Treat Suomi – Skeo Solutions – Senior Associate (gathering data for the EPA on redevelopment of Superfund Sites) – *tsuomi@skeo.com* – (719)256-4674

Shanna Murtagh – Embarcadero Capital Partners LLC – Property Manager – *smurtagh@ecp-llc.com* – (650) 494-6113

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** _____ ___

Name Title Date

Interviewed ☐ at site ☐ at office ☐ by phone Phone # _____

Problems, suggestions; ☐ Report attached

III. ON-SITE DOCUMENTS & RECORDS VERIFIED ☒ N/A

IV. O&M COSTS

1. **O&M Organization**

☐ State in-house ☐ Contractor for State

☐ PRP in-house ☐ Contractor for PRP

☐ Federal Facility in-house ☐ Contractor for Federal Facility

☒ Other Tried to check in at the Summerset Mobile Home Estates office, but it was closed.

2. **O&M Cost Records – None Available**

V. ACCESS AND INSTITUTIONAL CONTROLS ☒ Applicable ☐ N/A

A. Fencing

1. **Fencing damaged** ☐ Location shown on site map ☐ Gates secured ☒ N/A

There are no fences or gates preventing site access to the public. The team observed a four foot deep swimming pool behind the office building.

B. Other Access Restrictions

1. **Signs and other security measures** ☐ Location shown on site map ☒ N/A

C. Institutional Controls (ICs)

1. **Implementation and enforcement**

Site conditions imply ICs not properly implemented ☐ Yes ☒ No ☐ N/A

Site conditions imply ICs not being fully enforced ☐ Yes ☒ No ☐ N/A

Type of monitoring (*e.g.*, self-reporting, drive by) Site Inspections

Frequency Every 30 months

Responsible party/agency EPA

Reporting is up-to-date ☒ Yes ☐ No ☐ N/A

Reports are verified by the lead agency ☒ Yes ☐ No ☐ N/A

Specific requirements in deed or decision documents have been met ☒ Yes ☐ No ☐ N/A

Violations have been reported ☐ Yes ☐ No ☒ N/A

2. **Adequacy** ☒ ICs are adequate ☐ ICs are inadequate ☐ N/A

Remarks: A Land Use Covenant is in place for the Summerset Mobile Home Estates portion of the Santos Landfill. A soil management plan must be developed for any potential cap disturbance.

D. General

1. **Vandalism/trespassing** ☐ Location shown on site map ☒ No vandalism evident

2. **Land use changes on site** ☒ N/A

3. **Land use changes off site** ☒ N/A

VI. GENERAL SITE CONDITIONS

A. Roads ☒ Applicable ☐ N/A

1. **Roads damaged** ☐ Location shown on site map ☒ Roads adequate ☐ N/A

B. Other Site Conditions

Remarks: Roads are in excellent condition.

VII. LANDFILL COVERS ☒ Applicable ☐ N/A

A. Landfill Surface

1. **Settlement** (Low spots) ☐ Location shown on site map ☒ Settlement not evident

   Areal extent_____ Depth_____

   Remarks:

2. **Cracks** ☐ Location shown on site map ☒ Cracking not evident

   Lengths_____ Widths_____ Depths_____

   Remarks: No cracking or other notable damage was observed by the site visit team.

3. **Erosion** ☐ Location shown on site map ☒ Erosion not evident

4. **Holes** ☐ Location shown on site map ☒ Holes not evident

5. **Vegetative Cover** ☐ Grass ☐ Cover properly established ☒ No signs of stress

   ☒ Trees/Shrubs (indicate size and locations on a diagram)

6. **Alternative Cover (armored rock, concrete, etc.)** ☒ N/A

   Remarks: An asphalt paving surface and vegetative cover comprise the alternative cover for the Summerset Mobile Estates property.

7. **Bulges** ☐ Location shown on site map ☒ Bulges not evident

   Areal extent_____ Height_____

   Remarks: No significant bulging noted.

8. **Wet Areas/Water Damage** ☒ Wet areas/water damage not evident

   ☐ Wet areas ☐ Location shown on site map Areal extent_____

   ☐ Ponding ☐ Location shown on site map Areal extent_____

   ☐ Seeps ☐ Location shown on site map Areal extent_____

   ☐ Soft subgrade ☐ Location shown on site map Areal extent_____

9. **Slope Instability** ☐ Slides ☐ Location shown on site map ☒ No evidence of slope instability

B. Benches ☐ Applicable ☒ N/A

C. Letdown Channels ☐ Applicable ☒ N/A

_____

D. Cover Penetrations ☐ Applicable ☒ N/A

1. **Gas Vents** ☐ Active ☐ Passive

   ☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition

   ☐ Evidence of leakage at penetration ☐ Needs Maintenance

   ☒ N/A

2. **Gas Monitoring Probes**

   ☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition

   ☐ Evidence of leakage at penetration ☐ Needs Maintenance ☒ N/A

   _____

3. **Monitoring Wells** (within surface area of landfill)

   ☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition

   ☐ Evidence of leakage at penetration ☐ Needs Maintenance ☒ N/A

   _____

4. **Leachate Extraction Wells**

   ☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition

   ☐ Evidence of leakage at penetration ☐ Needs Maintenance ☒ N/A

   _____

5. **Settlement Monuments** ☐ Located ☐ Routinely surveyed ☒ N/A

   _____

E. Gas Collection and Treatment	☐ Applicable ☒ N/A
F. Cover Drainage Layer	☐ Applicable ☒ N/A
G. Detention/Sedimentation Ponds	☐ Applicable ☒ N/A
H. Retaining Walls	☐ Applicable ☒ N/A
I. Perimeter Ditches/Off-Site Discharge	☐ Applicable ☒ N/A
VIII. VERTICAL BARRIER WALLS	☐ Applicable ☒ N/A
IX. GROUNDWATER/SURFACE WATER REMEDIES	☐ Applicable ☒ N/A
X. OTHER REMEDIES	☐ *Applicable* ☒ *N/A*

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

The remedy at the Santos Landfill, as it applies to the Summerset Mobile Estates, is to encapsulate the asbestos-containing materials, inspect and maintain the cap, protect workers when the cap is penetrated during construction, and provide notice to future property owners/users regarding the history of the Summerset Mobile Estates. Overall, the remedy is effective and functioning.

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

No disturbance to the landfill cover was observed; therefore, the remedy continues to be protective.

C. Early Indicators of Potential Remedy Problems

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future.

None observed.

Opportunities for Optimization

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.

No opportunities for optimization are identified at this time.

Five-Year Review Site Inspection Checklist

I. SITE INFORMATION	
Site name: South Bay Asbestos Legacy America Center – located on the former Marshland Landfill	**Date of inspection:** 10 February 2015
Location: Alviso, CA, EPA Region 9	**EPA ID:** CAD980894885
Agency, office, or company leading the five-year review: United States Army Corps of Engineers – Seattle District	**Weather/temperature:** Sunny – approximately 70°F

Remedy Includes: (Check all that apply)

- ☒ Landfill cover/containment
- ☐ Access controls
- ☒ Institutional controls
- ☐ Groundwater pump and treatment
- ☐ Surface water collection and treatment
- ☐ Other:
- ☐ Monitored natural attenuation
- ☐ Groundwater containment
- ☐ Vertical barrier walls

Attachments: ☐ Inspection team roster attached ☐ Site map attached

Inspection Team Roster:

Roxanne Grillo – USACE San Francisco District – Five Year Review Site Inspection Lead – *roxanne.grillo@usace.army.mil* – (415) 503-6859

Mariam Fawaz – EPA Region 9 –Remedial Project Manager – *fawaz.mariam@epa.gov* – (415) 972-3078

Treat Suomi – Skeo Solutions – Senior Associate (gathering data for the EPA on redevelopment of Superfund Sites) – *tsuomi@skeo.com* – (719)256-4674

Ed Schreiner – San Jose Local Enforcement Agency – *edward.schreiner@sanjoseca.gov*

Mark Wheeler – Crawford Consulting – O&M Site Manager – *mark@crawfordconsutling.com* – (408) 287-9934

Sarah Thomson – Crawford Consulting – *sarah@crawfordconsulting.com*

Cassidy Valenzuela – Crawford Consulting – *Cassidy@crawfordconsulting.com*

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** Mark C. Wheeler | Consultant for Owner (Professional Geologist) | 10 Feb 2015

Name | Title | Date

Interviewed ☒ at site ☐ at office ☐ by phone Phone # _____

Problems, suggestions; ☐ Report attached Mr. Wheeler has been working on this site since the 1980s. He is a consultant for the America Center Maintenance Association (the owner of the landfill is a part of the association). He indicated that there have been no problems with the cap. He had no suggestions for improvement to the remedy or site management.

2. **O&M staff** Sarah Thomson/Cassidy Valenzuela | Consultant for Owner (works with Mr. Wheeler) | 10 Feb 15

Name | Title | Date

Interviewed ☒ at site ☐ at office ☐ by phone Phone # _____

Problems, suggestions; ☐ Report attached Both Ms. Thomson and Ms. Valenzuela indicated that there have been no problems with the cap. They had no suggestions for improvement to the remedy or site management.

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency: City of San Jose, Local Enforcement Agency

Contact: Edward Schreiner | Inspector | 10 Feb 2015 | Edward.schreiner@sanjoseca.gov

Name | Title | Date | Email

Problems; suggestions; ☐ Report attached

Similar to the O&M Consultants, Mr. Schreiner indicated that there have been no problems with the cap. He had no suggestions for improvement to the remedy or site management.

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)				
1.	**O&M Documents**			
	☐ O&M manual	☐ Readily available	☐ Up to date	☒ N/A
	☐ As-built drawings	☐ Readily available	☐ Up to date	☒ N/A
	☐ Maintenance logs	☐ Readily available	☐ Up to date	☒ N/A
	Remarks: Any activities that may disturb the cap must implement the established site soil management plan. For example, currently, the construction of the new hotel, Aloft, is being conducted in accordance with the site soil management plan.			
2.	**Site-Specific Health and Safety Plan**	☐ Readily available	☐ Up to date	☒ N/A
3.	**O&M and OSHA Training Records**	☐ Readily available	☐ Up to date	☒ N/A
4.	**Permits and Service Agreements**			
	☐ Air discharge permit	☐ Readily available	☐ Up to date	☒ N/A
	☐ Effluent discharge	☐ Readily available	☐ Up to date	☒ N/A
	☐ Waste disposal, POTW	☐ Readily available	☐ Up to date	☒ N/A
	☐ Other permits_____	☐ Readily available	☐ Up to date	☒ N/A
5.	**Gas Generation Records**	☐ Readily available	☐ Up to date	☒ N/A
6.	**Settlement Monument Records**	☐ Readily available	☐ Up to date	☒ N/A
7.	**Groundwater Monitoring Records**	☒ Readily available	☒ Up to date	☒ N/A
8.	**Leachate Extraction Records**	☐ Readily available	☐ Up to date	☒ N/A
9.	**Discharge Compliance Records**			
	☐ Air	☐ Readily available	☐ Up to date	☒ N/A
	☐ Water (effluent)	☐ Readily available	☐ Up to date	☒ N/A
10.	**Daily Access/Security Logs**	☐ Readily available	☐ Up to date	☒ N/A

IV. O&M COSTS

1. **O&M Organization**

☐ State in-house ☐ Contractor for State

☐ PRP in-house ☐ Contractor for PRP

☐ Federal Facility in-house ☐ Contractor for Federal Facility

☒ Other__Crawford Consulting, property management company for Legacy America Center_____

2. **O&M Cost Records – None Available.**

V. ACCESS AND INSTITUTIONAL CONTROLS ☒ Applicable ☐ N/A

A. Fencing

1. **Fencing damaged** ☐ Location shown on site map ☐ Gates secured ☒ N/A

B. Other Access Restrictions

1. **Signs and other security measures** ☐ Location shown on site map ☐ N/A

Remarks: Signs have been installed to curtail off-road driving. Off-roading occurs infrequently. Signs read, "Keep Out, Burrowing Owl Nesting Habitat Area, Protected Species, Violators will be prosecuted to the full extent of the law." Most of the signage observed is located in the south and east areas of the site just outside of the parking lot.

C. Institutional Controls (ICs)

1. **Implementation and enforcement**

Site conditions imply ICs not properly implemented ☐ Yes ☒ No ☐ N/A

Site conditions imply ICs not being fully enforced ☐ Yes ☒ No ☐ N/A

Type of monitoring (*e.g.*, self-reporting, drive by) Site Inspections

Frequency Quarterly for City of San Jose, Local Enforcement Agency; Every five years for EPA Five-Year Review Report

Responsible party/agency City of San Jose – Local Enforcement Agency (LEA); EPA

Contact Edward Schreiner Inspector 10 Feb 2015 Edward.schreiner@sanjoseca.gov

Name Title Date Email

Reporting is up-to-date ☒ Yes ☐ No ☐ N/A

Reports are verified by the lead agency ☒ Yes ☐ No ☐ N/A

Specific requirements in deed or decision documents have been met ☒ Yes ☐ No ☐ N/A

Violations have been reported ☐ Yes ☐ No ☒ N/A

Other problems or suggestions: ☐ Report attached

The institutional controls at the Legacy America Center/Marshland Landfill have met both the Water Board Waste Discharge Requirements and CalRecycle Titles 14 and 27 regulations.

2. **Adequacy** ☒ ICs are adequate ☐ ICs are inadequate ☐ N/A

Remarks The landfill final cover is in place and being maintained.

D. General

1. **Vandalism/trespassing** ☐ Location shown on site map ☒ No vandalism evident

Remarks _____

_____

2. **Land use changes on site** ☐ N/A

Remarks: In 2010, the property was developed with two six-story office buildings, asphalt-covered parking lots, and landscape vegetation. Since the last Five-Year Review, the Aloft hotel is currently in the process of being constructed in the western area of the site, near the site entrance. The largest area of the site (including the two six-story buildings and parking lots) is owned through four property titles. The Aloft hotel is owned by a different party, possibly CalTex Hospitality, Inc.

In addition, a burrowing owl habitat has been installed in the southeastern part of the site. Additional clean soil was formed into mounds and installed on top of the cap to provide foraging and nesting habitat for burrowing owls.

3. **Land use changes off site** ☒ N/A

VI. GENERAL SITE CONDITIONS

A. Roads ☒ Applicable ☐ N/A

1. **Roads damaged** ☐ Location shown on site map ☒ Roads adequate ☐ N/A

B. Other Site Conditions

Remarks: Mr. Wheeler indicated that Title 27 required the cap to be at least 4 feet; however, the cap is about 5-7 feet in the developed areas of the site. Both of the six-story buildings are equipped with continuous indoor air quality monitors in the first floor and sub-slab venting.

The Aloft hotel pilings extend through the landfill into native soil.

VII. LANDFILL COVERS ☒ Applicable ☐ N/A

A. Landfill Surface

1. **Settlement** (Low spots) ☐ Location shown on site map ☒ Settlement not evident

Remarks: Mr. Wheeler indicated that settlement is expected to be about 1.5 to 2 feet near the buildings. To mitigate for this, pavers have been installed in sand adjacent to the buildings. Surveyors routinely inspect this area to add more sandy fill material when needed to prevent the development of tripping hazards. All utilities are contained in vaults underneath the buildings and lines/piping has been installed above the cap. Installed flexible utility connections to each building help prevent negative impacts due to potential expected settlement.

2. **Cracks** ☐ Location shown on site map ☒ Cracking not evident

Remarks: Mr. Wheeler stated that there has been no significant cracking.

3. **Erosion** ☐ Location shown on site map ☒ Erosion not evident

Remarks: Mr. Wheeler stated that there have been no slope failures and no significant signs of erosion have been observed.

4. **Holes** ☐ Location shown on site map ☐ Holes not evident

Remarks: Ms. Thomson indicated that site inspectors monitor ground squirrel activity to protect the cap. However, Ms. Fawaz observed ground squirrel holes in the grassy area north of the southeastern parking lot.

5. **Vegetative Cover** ☐ Grass ☐ Cover properly established ☒ No signs of stress

6. **Alternative Cover (armored rock, concrete, etc.)** ☐ N/A

Remarks: The minimum landfill cover is 4 feet of clean soil and it is usually between 5-7 feet in developed areas at Legacy America Center.

7. **Bulges** ☐ Location shown on site map ☒ Bulges not evident

8. **Wet Areas/Water Damage** ☒ Wet areas/water damage not evident

9. **Slope Instability** ☐ Slides ☐ Location shown on site map ☒ No evidence of slope instability

B. Benches ☐ Applicable ☒ N/A

(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

C. Letdown Channels ☐ Applicable ☒ N/A

(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)

D. Cover Penetrations ☒ Applicable ☐ N/A

1. **Gas Vents** ☐ Active ☒ Passive

☐ Properly secured/locked ☒ Functioning ☐ Routinely sampled ☒ Good condition

☐ Evidence of leakage at penetration ☐ Needs Maintenance

☐ N/A

Remarks: Landfill gas venting lines and pipes were installed above the cap and are located in the parking lot areas.

2. **Gas Monitoring Probes**

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition

☐ Evidence of leakage at penetration ☐ Needs Maintenance ☒ N/A

3.	**Monitoring Wells** (within surface area of landfill)			
	☒ Properly secured/locked	☒ Functioning	☒ Routinely sampled	☒ Good condition
	☐ Evidence of leakage at penetration		☐ Needs Maintenance	☐ N/A
	Remarks: Groundwater monitoring wells are sampled twice per year and depth to groundwater is checked quarterly. Sampling results are sent to both the Regional Water Quality Control Board and the City of San Jose LEA.			
4.	**Leachate Extraction Wells**			
	☐ Properly secured/locked	☐ Functioning	☐ Routinely sampled	☐ Good condition
	☐ Evidence of leakage at penetration		☐ Needs Maintenance	☒ N/A
5.	**Settlement Monuments**	☐ Located	☐ Routinely surveyed	☒ N/A
E. Gas Collection and Treatment		☐ Applicable	☒ N/A	
F. Cover Drainage Layer		☐ Applicable	☒ N/A	
G. Detention/Sedimentation Ponds		☐ Applicable	☒ N/A	
H. Retaining Walls		☐ Applicable	☒ N/A	
I. Perimeter Ditches/Off-Site Discharge		☐ Applicable	☒ N/A	
VIII. VERTICAL BARRIER WALLS		☐ Applicable	☒ N/A	
IX. GROUNDWATER/SURFACE WATER REMEDIES		☐ Applicable	☒ N/A	
X. OTHER REMEDIES		☐ *Applicable*	☒ *N/A*	
XI. OVERALL OBSERVATIONS				
A.	**Implementation of the Remedy**			
	Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).			
	The remedy at the Legacy America Center at Marshland Landfill is to encapsulate the asbestos-containing materials, inspect and maintain the cap, protect workers when the cap is penetrated during construction, and provide notice to future property owners/users regarding the history of the Legacy America Center. Overall, the remedy is effective and functioning.			

B.	**Adequacy of O&M**
	Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. No disturbance to the landfill cover was observed; therefore, the remedy continues to be protective. Ground squirrel holes need to be directly addressed through ground squirrel pest control until there is data showing that burrowing owls live on site and kill the ground squirrels on site. The property manager installed signs to prohibit off road vehicles, which appears to address the minor issue of tire tracks in the vegetative area.
C.	**Early Indicators of Potential Remedy Problems**
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future. None observed.
D.	**Opportunities for Optimization**
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. No opportunities for optimization are identified at this time.