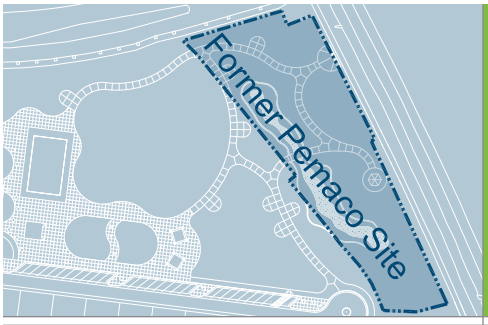


Pemaco Superfund Site Update

April 2014

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

This factsheet was prepared by the United States Environmental Protection Agency (U.S. EPA) to update the community on the progress at the Pemaco Superfund Site located at 5050 E. Slauson Blvd. (close to Alamo and Slauson) in Maywood, CA.

QUICK FACTS

- The Electrical Resistance Heating (ERH) clean-up system operated from September 2007 until April 2008 and it heated approximately 32,000 cubic yards of soil.
- The ERH system cleaned up the most contaminated portion of the Pemaco site, known as the "source area". The U.S. EPA successfully reduced contaminants to the lowest level practical using this technology.
- There are 33 groundwater extraction wells and 23 vapor extraction wells that continue to clean up soil and groundwater over several acres.
- The depth of the shallowest contamination is approximately 26 feet below the surface.
- The highest concentration of groundwater contaminants is located approximately 85 feet below the surface.
- To date, U.S. EPA has treated over 81,400,000 gallons of water, which is an average of approximately 31,800 gallons per day.

Pemaco Cleanup Update

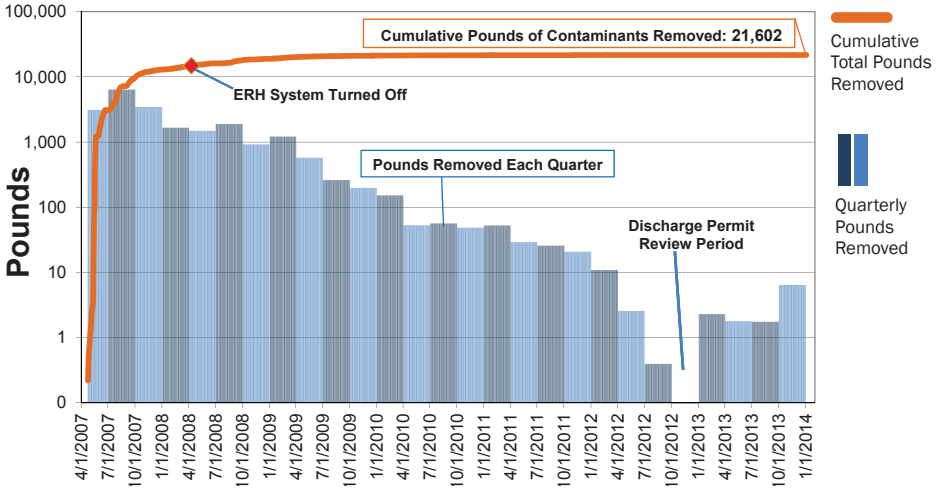
Operation of the Pemaco treatment system, which began in the Spring of 2007, has resulted in a large reduction in the amount of chemicals in groundwater and soil, as demonstrated by the following metrics:

- 21,602 pounds (lbs) of contaminants have been removed from soil and groundwater. (Graph 1)
- The size (area) of the groundwater plume has been reduced by 50% (Figures 1 and 2 on page 2) and greatly reduced the risks to the community.
- The highest groundwater concentration prior to remediation was over 20,000 micrograms per liter (µg/L). Currently, the highest groundwater concentration is 660 µg/L, a reduction of 97 percent (%).
- Chemicals of concern (COCs) have been reduced in 100 percent of the remediation wells and in the majority of the monitoring wells.

Pemaco treatment building

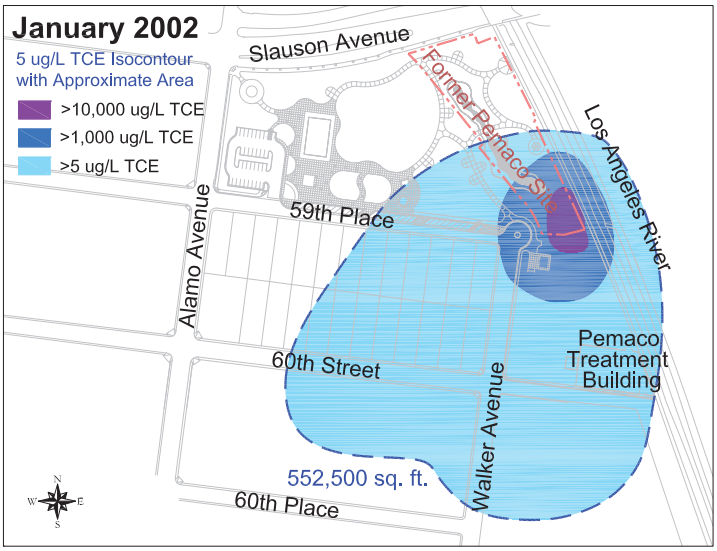
Maywood Riverfront Park

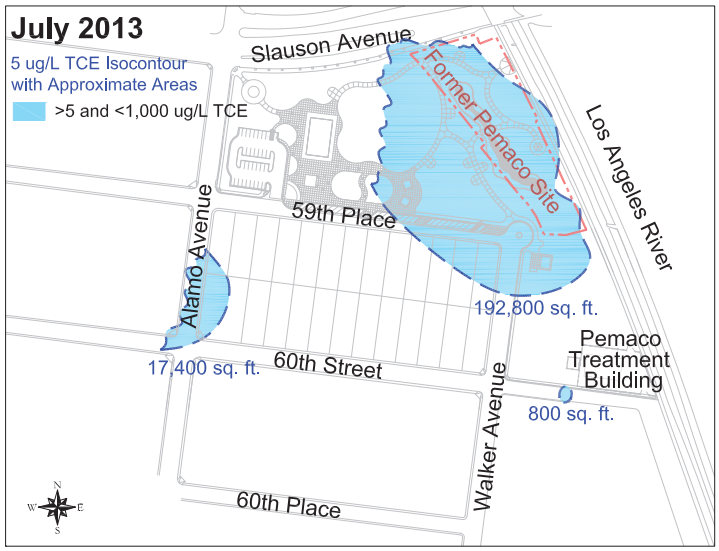
- Contamination in the upper 35 feet of soil has been reduced by 99%, and remediation is nearing completion in this zone.



Graph 1: Cumulative Pounds of Contaminants Removed Since Start-up and Quarterly Removal Rates

If you are just learning about the Pemaco Superfund Site and/or would like additional information, please visit the Maywood Cesar Chavez Public Library, visit our websites, or contact U.S. EPA at the telephone number listed in this fact sheet.





Figures 1 and 2: The size of the groundwater plume and the contaminant concentration have been reduced by 50% and 97%, respectively.

Bioremediation

Bioremediation is a treatment that uses naturally occurring organisms to break down hazardous substances into less toxic or non-toxic substances.

At Pemaco, additional bioremediation would be performed in the groundwater at locations that have been difficult to treat with the existing methods.

Bioremediation was successfully demonstrated at Pemaco during a pilot test in 2007.

Upcoming Cleanup Activities

- Groundwater and vapor extraction and treatment will continue to operate and further shrink the plume.
- The U.S. EPA is planning to use additional rounds of **bioremediation** to speed up the groundwater cleanup process.
- The ERH area (identified below) will be decommissioned in accordance with State regulations and the U.S. EPA remedy for surface soils. Coordination with the City of Maywood will take place so that the area can be returned to the Maywood Riverfront Park at the earliest possible date.
- U.S. EPA will operate the cleanup at Pemaco until August 28, 2018, at which time the Pemaco Site will be turned over to the State for operation and eventual closure.

Aerial photograph of Maywood Riverfront Park vicinity

STAYING INFORMED

Community Information Telephone Lines

A toll-free number **1-800-231-3075** has been set up for community members to call and obtain information on the Pemaco Site. The Community Information Line is set up to receive messages from the community as well as serve as an information resource with updates, emergency contact numbers, and emergency information (if needed).

Community Meetings

The community meetings will serve as a forum for community members to ask questions and express concerns. A meeting location will be secured and may change depending on the availability of a location. Meetings will be scheduled in the evenings, 7 pm to 9 pm, to accommodate daytime work schedules. The following meeting schedule is being suggested: May 1, 2014, at Heliotrope Elementary School, 5911 Woodlawn Ave., Maywood, CA.

Pemaco Information Websites

To keep the public informed, the U.S. EPA maintains the Superfund Website: **www.epa.gov/region09/pemaco** U.S. EPA websites will be updated regularly with Fact Sheets, community meeting information, monitoring reports, and progress updates.

E-mail Contact List to Save Paper

To conserve paper, we encourage those who have access to e-mail to opt-out of receiving paper copies whenever possible. To receive e-mail updates, please send an e-mail to Hafiz.Carlin@epa.gov and ask to be placed on the e-mail distribution list.

Bulletin Board

A bulletin board has been placed outside of the Pemaco treatment building for posting of site information. The most recent notices will be posted there.

New look of the soil piles

Additional Community Concerns

Soil piles – The City of Maywood hired an environmental testing company to re-sample the soil piles. The test results indicate the soil is clean, based on residential limits. The City allowed for the majority of the soil to be removed from the site for use on off-site construction projects.

Safety of park users – The entire "open" portion of the park was covered with a minimum 1 foot of certified clean soil in 2005, before it was vegetated and developed as Maywood Riverfront Park. Prior to that, contaminated soil was removed from 6 hot spots to a maximum depth of 3 feet and replaced with clean soil. The contamination associated with the Pemaco Site and the W.W. Henry Site - located immediately west of Pemaco - is deep underground and will not affect the safety of park users.

U.S. EPA is responsible for the cleanup of the Pemaco portion of the park. The Regional Water Quality Control Board (RWQCB) is overseeing the continued cleanup of the contamination beneath the former W.W. Henry Site. The W.W. Henry Site cleanup can be followed on the following website: **http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL204GF2841**

Vapor intrusion – Testing inside residences and from vapor wells on 59th Avenue show that there is no risk of vapor intrusion from the contaminants at Pemaco.

Use of Pemaco treated water for park irrigation – The U.S. EPA attempted to use the treated water for park irrigation but the idea was abandoned because of the excessive cost due to testing requirements and because a long term water supply could not be guaranteed, since the U.S. EPA must turn over site operations to the State in 2018.

Future park development in the ERH area – The expansion of Maywood Park cannot be done until all the ERH decommissioning activities are completed by the U.S. EPA. Financing of the Park expansion is the responsibility of the City of Maywood.

Opportunities for Community Participation

The U.S. EPA is planning a meeting on May 1, 2014 to ensure that community members and other interested parties are receiving updated information about the ongoing activities at the Pemaco site. Most importantly, the U.S. EPA wants to keep the community informed about the progress being made by the cleanup systems and to maintain open lines of communication. The U.S. EPA encourages members of the community to participate in community meetings and ask questions. We welcome telephone calls and will try to accommodate requests for individual or group meetings.

SUMMARY
of the chosen cleanup for PEMACO described in the ROD

- For the surface and near-surface soils (0 to 3 feet below ground surface [bgs]), a soil cover underlain by a geotextile and re-vegetation.
- For the Upper Vadose Zone soils and perched groundwater (3 to 35 feet bgs), high-vacuum dual-phase extraction - this process uses granular activated carbon [GAC] for water and vapor treatment. Initially, treatment of vapors was by flameless thermal oxidizer (FTO) and GAC; then after concentrations decreased, only GAC was required to perform treatment.
- In the Lower Vadose Zone soil and Exposition Aquifer groundwater (35-100 ft bgs): ERH (thermal treatment) with vacuum extraction of soil vapors in the source area (greater than 10,000 ppb), vacuum-enhanced groundwater extraction for the 10 to 10,000 ppb area, and monitored natural attenuation for areas of the plume that were less than 10 ppb. Treatment of extracted groundwater by GAC, treatment of vapors as stated above. In-situ treatment (e.g., bioremediation) of groundwater to augment cleanup, will be used if needed.

HISTORY:
Pemaco Superfund Site and Community Involvement Activities

The Pemaco Superfund Site is a former chemical blending facility that was contaminated by past industrial practices. For several years, the U.S. EPA studied the extent of the contamination at Pemaco and in March 2004, opened up a comment period and released a report to the community called the Pemaco Proposed Plan describing the results of the studies and suggesting a way to clean up the contamination.

In April and May of 2004, the U.S. EPA held two community meetings to share the findings and cleanup suggestions and to hear from the community. When community members expressed concerns about the proposed cleanup systems, the U.S. EPA had additional meetings to discuss these concerns and extended the comment period. After reviewing these additional comments, the U.S. EPA chose the cleanup it had proposed as the preferred cleanup option and added additional treatment technology and safety measures to the remedy to address community concerns.

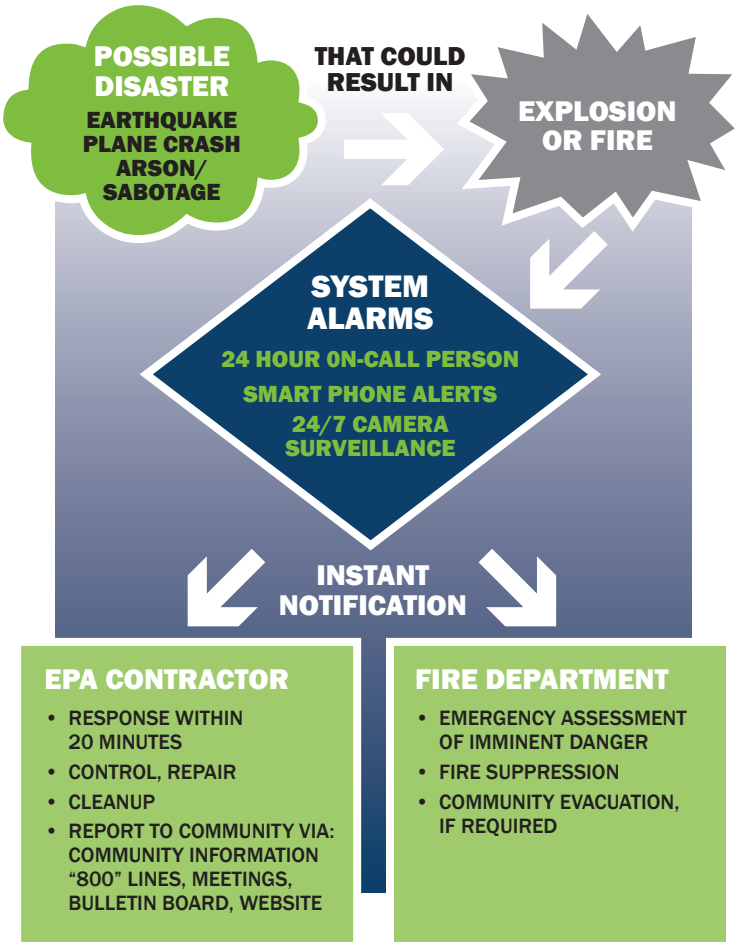
A Record of Decision (ROD) was signed January 13, 2005 making the cleanup decision formal. The U.S. EPA held another community meeting in July of 2005 to update the community and began working on the site in August of 2005 installing wells and pipelines that would be used as part of the remediation system.

Prior to the construction of the Pemaco treatment plant and the thermal remediation system, known as ERH, the U.S. EPA had community meetings in January of 2006 to update the community on the plans. In August of 2006 and March of 2007, the U.S. EPA worked with the RWQCB to meet with community and agency representatives to answer additional questions from the community.

From 2007 to the present (2014), the U.S. EPA has had meetings with the RWQCB Stakeholder group and/or other agency representatives to inform them on the progress of the Pemaco remediation. A Five-Year Review Report (September 2010) was prepared in which three representatives of the community were interviewed regarding any concerns they had that could be addressed by the U.S. EPA.

Community Emergency Response and Action Plan

The U.S. EPA has responded to members of the community about concerns over what to do in case of an emergency at the Pemaco treatment building. Although such emergency situations are not anticipated, the U.S. EPA drafted a plan that will address needs in case of emergencies. The Pemaco Treatment System Emergency Response Process Plan is represented in the figure to the right.



YOU SHOULD KNOW:

1. The Pemaco plant became safer to operate since ERH heating and the FTO were turned off in 2008.
2. There have been no emergency incidents or injuries at the Pemaco plant.
3. The plant equipment is monitored remotely by computer and smartphone when the superintendent is off site.
4. An assigned 24-hour on-call emergency response person will respond within 20 minutes in the event computer monitoring or security cameras detect a problem.

Mailing List Coupon

If you would like to receive Pemaco cleanup updates, please call 213-244-1814.
OR: Send an e-mail to Hafiz.Carlin@epa.gov with your name, address (or e-mail), and telephone number.
OR: Fill out and mail this to: Carlin Hafiz, US EPA Region 9, 600 Wilshire Blvd., Ste. 1460, Los Angeles, CA 91343

Name _____

Mailing Address _____

City, State _____ Zip Code _____

Telephone (optional) _____

E-mail (optional) _____

Affiliation (optional) _____

☐ (check box here) I would like to save paper, please only send an e-mail.

FOR MORE INFORMATION

There is an information repository at The Cesar Chavez Public Library
4323 E. Slauson Avenue, Maywood, CA 90270 • (323) 771-8600

Pemaco Superfund Site
Update

Who to contact at U.S. EPA Region 9:

Rose Marie Caraway
Remedial Project Manager
Caraway.RoseMarie@epa.gov
(415) 972-3158

Carlin Hafiz
Community Involvement Coordinator
Hafiz.Carlin@epa.gov
(213) 244-1814

Or call the toll-free community information line:

1-800-231-3075

Versión en español disponible en www.epa.gov/region09/pemaco o por petición.

EPA
United States Environmental Protection Agency Region 9
75 Hawthorne Street (SFD)
San Francisco, CA 94105
Attn: Carlin Hafiz (Pemaco 4/14)

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