



# Omega Chemical Superfund Site

U.S. ENVIRONMENTAL PROTECTION AGENCY • REGION 9 • AUGUST 2005

## Proposed Plan for Interim Groundwater Action

The United States Environmental Protection Agency (EPA) and a group of potentially responsible parties (PRPs) have been conducting an investigation of the **groundwater\*** and soil contamination at the Omega Chemical Superfund Site in Whittier, CA. The EPA requests public comments on the **Proposed Plan** to contain groundwater contamination associated with the property formerly used by the Omega Chemical Corporation (Omega).

The 30-day public comment period will begin on August 8, 2005 and end on September 7, 2005. On August 22, 2005 the EPA will have a public meeting to present the Proposed Plan, answer questions, and receive public comments on the Proposed Plan. In the box below, you will find the time and place for the public meeting and how the public can comment in writing.

This fact sheet summarizes the EPA's preferred cleanup alternative and other alternatives evaluated. The public can review the detailed July 2005 **Engineering Evaluation/Cost Analysis Report** (EE/CA) and other site documents at the Site's information repositories (see page 5 for locations).



### Introduction

To better handle large site cleanups, EPA often separates the cleanup actions into parts called Operable Units. At the Omega Chemical Superfund site, Operable Unit One (OU-1) includes soil and groundwater contamination on and near the former Omega property. Operable Unit Two (OU-2) includes groundwater contamination that has migrated **downgradient** (southwest) of OU-1 (see Figure 1, page 2). The EPA is continuing to assess the nature and extent of groundwater contamination within OU-2.

### Comment Period

The EPA encourages the public to comment on this proposed interim groundwater cleanup action at the Omega Chemical Superfund Site. The comment period is August 8, 2005 through September 7, 2005. You can comment in person at the public meeting and in writing to the remedial project manager.

Please send comments, postmarked no later than September 7, 2005 by mail, fax, or email to:

**Christopher Lichens**, Remedial Project Manager  
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[Lichens.Christopher@epa.gov](mailto:Lichens.Christopher@epa.gov)

### Public Meeting

**DATE:** ..... August 22, 2005

**TIME:** ..... 7:00 PM to 9:00 PM

**LOCATION:** .... Presbyterian

Intercommunity Hospital  
12401 Washington Blvd.  
Whittier, CA 90602-1006



\*All words in **bold** are defined in the Glossary on page 5.

## Scope and Objectives of this Proposed Action

This Proposed Plan presents EPA's preferred alternative for the initial groundwater cleanup in OU-1, which is being conducted as a **non-time-critical removal action**. It is also an interim action, meaning that a more comprehensive groundwater cleanup alternative will be implemented at a later date. The primary goal, or Removal Action Objective (RAO), of this interim action is to contain contaminated groundwater within OU-1 and prevent its migration to OU-2 until a permanent cleanup remedy is selected for the Site. The **Engineering Evaluation/Cost Analysis (EE/CA)**, a report prepared by OPOG, evaluates potential removal actions which could contain contamination within the OU-1 area. These potential removal actions are the alternatives evaluated in the EE/CA.

The purpose of this Proposed Plan is to summarize the alternatives considered in the EE/CA so that the public can provide comments. The Proposed Plan and the EE/CA report are both included in the Administrative Record file, located in the information repositories.

At the end of the public comment period, EPA will review the comments and make a final decision on the interim cleanup plan. The EPA will memorialize its decision in an **Action Memorandum** that will include a **responsiveness summary** addressing comments submitted by the public. The Action Memorandum will be placed in the information repositories and notice of its availability will be announced in the local newspaper.

## Contaminants of Concern

The **contaminants of concern** at the Omega Site are **volatile organic compounds (VOCs)**. The primary VOCs of concern are tetrachloroethene (PCE), trichloroethene (TCE), and 1,1-dichloroethene (1,1-DCE). PCE and TCE are solvents that have been widely used by industry as cleaning and degreasing agents. 1,1-DCE is not commonly used in commercial products but can be formed when

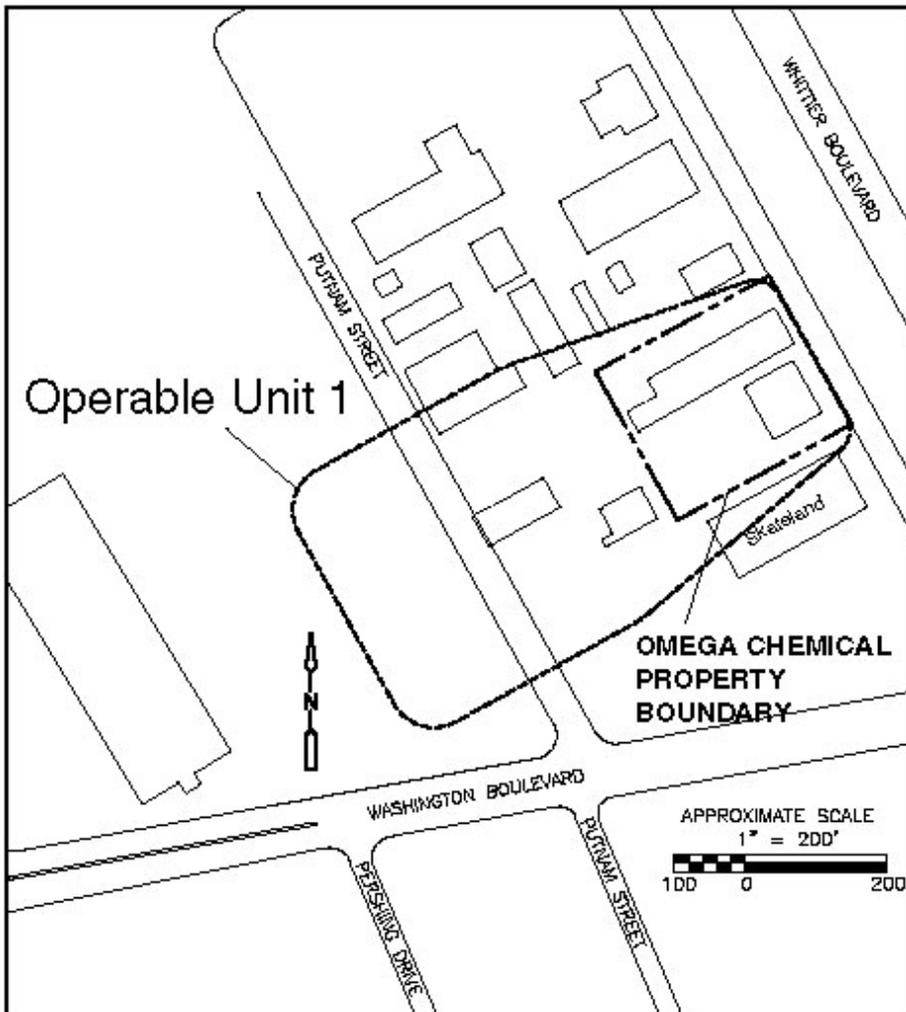


Figure 1: Location of Omega Chemical Superfund Site, showing Operable Unit 1

In 2001, the EPA signed a settlement agreement called a Consent Decree (CD) with the Omega Chemical Site PRP Organized Group (OPOG) to investigate soil and groundwater contamination within OU-1. The CD also specifies that OPOG will implement an interim remedy to contain the existing contaminated groundwater within OU-1. OPOG is conducting the work required by the CD under EPA's oversight.

In addition to the groundwater investigation, OPOG is conducting a soil **remedial investigation and feasibility study (RI/FS)** within OU-1. This RI/FS will evaluate the nature and extent of soil contamination associated with the property and provide EPA with the basis for selecting an appropriate cleanup alternative. When the RI/FS is complete, EPA will present the proposed soil cleanup action to the public for comment before selecting the remedy.

other VOCs degrade. Another group of VOCs, freons, are also contaminants at the Omega Site. Freons are used as coolants and pressurizers in spray can products.

## Cleanup Alternatives

Using data and other information gathered through investigation of the Omega Site, removal action alternatives were identified to contain contaminated groundwater and remove contaminant mass. Each alternative would require construction and operation of a groundwater extraction and treatment system. For non-time-critical removals, which are usually interim actions, alternatives are evaluated based on three primary criteria: 1) effectiveness in achieving removal action objectives, 2) implementability under specific conditions at the site, and 3) estimated cost. The specific alternatives evaluated are as follows:

**Alternative 1: Source Area Contaminant Mass Removal from Groundwater.** This alternative includes groundwater extraction and treatment from fourteen wells in the suspected source area on the Omega property, where the highest contaminant concentrations have been found. Treatment to remove VOCs will include a combination of an advanced oxidation process (AOP), using hydrogen peroxide and ozone, and granular activated carbon. Following treatment, groundwater would likely be discharged under a National Pollutant Discharge Elimination System (NPDES) permit to the storm drain or sanitary sewer. Re-injection of treated water would be considered if a suitable location can be identified. The estimated total cost to implement this alternative is \$7.6 million over 30 years; this includes \$3.5 million in capital costs and \$4.1 million in operation and maintenance costs. All costs are in 2005 dollars.

**Alternative 2: Putnam Street Hydraulic Containment of Groundwater.** This is the EPA's preferred alternative. It calls for groundwater extraction and treatment from five wells along Putnam Street. The treatment and discharge processes would be the same as for Alternative 1. By installing the wells on Putnam Street, groundwater can be captured and contained over a larger area than Alternative 1 allows. In other words, the objective of containing contaminated groundwater within OU-1 is more completely achieved. The estimated total cost to implement this alternative is \$6.4 million over 30 years; this includes \$2.7 million in capital costs and \$3.7 million in operation and maintenance costs.

**Alternative 3: Putnam Street Hydraulic Containment of Groundwater with Re-injection for Enhanced Anaerobic Biodegradation.** This alternative also includes groundwater extraction and treatment from five wells along Putnam Street. After treatment to remove VOCs, most of the water would be discharged to the storm drain or sanitary sewer under an NPDES permit. Approximately one-quarter of the treated water would be combined with an additive, which would then be re-injected into the area of highest contaminant concentrations. The additive would modify groundwater conditions to stimulate anaerobic biodegradation of VOCs and reduce the mass of the primary contaminants of concern.

Treated water would be re-injected into a 75-foot deep trench on the former Omega property. The estimated total cost to implement this alternative

## SITE HISTORY

The former Omega property is located at 12504 and 12512 East Whittier Boulevard in the City of Whittier, Los Angeles County, California. The property is approximately 40,000 square feet in area. From 1976 to 1991, the Omega Chemical Corporation operated a used solvent and refrigerant recycling and reformulation treatment facility. The facility primarily handled chemicals used in refrigerator and freezer coils and chlorinated solvents that included degreasing chemicals and dry-cleaning chemicals.

In the late 1980s, the Los Angeles County Department of Health Services, Public Works Department and the Fire Department investigated the Omega facility. Contamination was found in shallow soil at depths less than 3.5 feet below ground surface and at concentrations up to 1000 parts per million (ppm). The site was referred to the EPA's Emergency Response Section in 1995. Also in 1995, the EPA issued a Unilateral Administrative Order to over 170 potentially responsible parties (PRPs) to remove contaminants that posed an immediate or substantial threat to public health and the environment. This included removal of grossly contaminated soil and more than 2700 drums from the property. In 1999, EPA added the Omega Site to the National Priorities List (NPL). In 2001, EPA entered into the Consent Decree with OPOG to conduct the groundwater and soil investigations discussed above.

is \$9.0 million over 20 years; this includes \$3.9 million in capital costs and \$5.1 million in operation and maintenance costs.

**Comparative Analysis of Alternatives.** The primary goal of this interim action is to control migration of contaminated groundwater. Alternatives 2 and 3 would be the most effective in accomplishing this goal; Alternative 1 would be less effective than the other two because groundwater containment would be focused on the source area on the Omega property itself.

Alternatives 1 and 3 would remove more contaminant mass from the subsurface than Alternative 2 because they include extraction closer to the source area (Alternative 1) and facilitate biodegradation (Alternative 3).

Alternative 2 would be the easiest to implement because extraction wells would be installed within a public right of way, with less disruption to surrounding properties. Alternatives 1 and 3 each call for construction on private commercial property. Alternatives 1 and 2 likely include discharge of treated water to the storm drain or sanitary sewer, which is easier to implement than re-injection (Alternative 3).

Alternative 2 has the lowest estimated cost, followed by Alternative 1, and Alternative 3.

Alternative 2 is EPA's preferred alternative because it is effective in achieving removal action objectives, it is more

easily implemented, and it has the lowest estimated cost. The following table summarizes each alternative's rating with regard to effectiveness, implementability, and cost. A "high" rating is most favorable and a "low" rating is least favorable.

## Next Steps

The public comment period on this Proposed Plan will run until September 7, 2005 (See box on page 1). After EPA evaluates all public comments and prepares the Action Memorandum, OPOG will proceed with the design of the selected alternative and prepare a Removal Action Plan. Field implementation, or construction, will begin after EPA approves this document. Construction is expected to begin in early 2006.

## Technical Assistance Program

A Technical Assistance Grant (TAG) is available for citizens who live near a **Superfund** site. The grant helps qualified citizen groups affected by a Superfund site to hire an independent technical advisor to help interpret and comment on site-related information. An initial grant of up to \$50,000 is available. For further information about the grant, please call us and request an application (toll-free 800-231-3075) or get it from the TAG web page by going to the EPA website [www.epa.gov](http://www.epa.gov), then typing "TAG" in the search box and pressing "GO."

Alternative	Effectiveness	Implementability	Cost	Overall
1. Source Area Contaminant Mass Removal	Low	Low	\$7.6 million (30 years)	Low
2. Putnam Street Hydraulic Containment	High	High	\$6.4 million (30 years)	High
3. Putnam Street Hydraulic Containment with Re-injection	High	Low	\$9.0 million (20 years)	Medium

## Site Information Repositories

EPA maintains site information repositories at the Whittier Public Library and at the EPA Superfund Records Center. These repositories contain project documents, fact sheets, and reference materials. EPA encourages you to review these documents to gain a more complete understanding of the site. The information repository's locations are listed below. EPA also has a site information web page at [www.epa.gov/region09/waste/sfund/](http://www.epa.gov/region09/waste/sfund/). Choose Superfund Site from the menu on the left, scroll down and choose Site Overviews, then scroll to the Omega Chemical Corporation.

**U.S. EPA Superfund Records Center**  
95 Hawthorne Street  
San Francisco, CA 94105  
(415) 536-2000



**Whittier Public Library**  
7344 S. Washington Avenue  
Whittier, CA 90602  
(562) 464-3450

## GLOSSARY OF TERMS

**Action Memorandum:** An EPA document that describes a selected removal action.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):** A federal law first passed in 1980 and subsequently amended that created a trust fund, known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites.

**Contaminants of concern:** Site-specific chemicals that exceed regulatory levels or pose a potentially significant risk to human health and the environment.

**Downgradient:** In the direction of groundwater flow.

**Engineering Evaluation/Cost Analysis (EE/CA):** A document that evaluates alternatives to accomplish removal action objectives.

**Feasibility Study:** An EPA study that determines the best way to clean up environmental contamination.

**Granular Activated Carbon:** Pure carbon that can adsorb pollutants.

**Groundwater:** The supply of water found below the ground surface, usually in aquifers.

**Non-time-critical removal action:** Removal actions for situations where there is at least a six-month planning

period available before on-site activities must be initiated to address a threat to public health or the environment.

**Proposed Plan:** A document that summarizes all of the cleanup alternatives that were studied as part of EE/CA process, and identifies the preferred cleanup alternative for a site.

**Remedial Investigation:** The CERCLA process of determining the type and extent of hazardous material contamination at a site.

**Responsiveness Summary:** A written summary of oral and/or written comments, criticisms, and new relevant information received by EPA during a public comment period and EPA's responses to these comments. A responsiveness summary is an appendix to an Action Memorandum.

**Superfund:** The common name for the process established by CERCLA to investigate and clean up abandoned or uncontrolled hazardous waste sites.

**Volatile Organic Compounds:** Carbon-containing chemical compounds that evaporate readily at room temperature.

## U.S. EPA Contacts • 75 Hawthorne Street • San Francisco, CA 94105

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# PROPOSED PLAN FOR INTERIM GROUNDWATER ACTION AT OMEGA

See EPA's Web site:

<http://www.epa.gov/region9/waste/sfund/>



Public Comment  
and  
Meeting Information  
Inside

**Estimado residente:** Si prefiere este folleto (“**Plan propuesto para la acción del agua subterránea del intermediario**”) en español, por favor llame al 1-800-231-3075 y deje su nombre y domicilio. Se lo enviaremos inmediatamente.

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San Francisco, CA 94105-3901  
Attn: Jackie Lane (Omega 8/05)

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