



SAN FERNANDO VALLEY (VERDUGO STUDY AREA) SUPERFUND SITE

U.S. Environmental Protection Agency • Region 9 • San Francisco, CA • October 2003

U. S. EPA Proposes No Remedial Action for Verdugo Study Area - Requests Public Comment

The United States Environmental Protection Agency (U.S. EPA) has determined that conditions at the Verdugo Study Area Site, located in the Verdugo Basin, do not warrant remedial action under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 (**CERCLA or Superfund**). No action is necessary at the Site to ensure adequate protection of human health and the environment. Items that appear in **bold** are defined in the glossary on page 7.

The U.S. EPA announces a **proposed plan** to solicit public review and comment on this determination starting **November 6, 2003 to December 5, 2003**. This proposed plan summarizes the more detailed information found in the *Final Summary of Groundwater Quality, San Fernando Valley Superfund Site Area 3 (Verdugo Basin), Los Angeles, California*, dated May 20, 2003, and other documents in the **Administrative Record**. As part of its public participation responsibilities under Section 300.430(f)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan, these documents are available for review at the site's information repositories listed on page 6. The public can review these documents to gain a more comprehensive understanding of groundwater quality in the Verdugo Study Area. For more information on how to comment on this proposed plan see the box, on this page.

A public meeting will be held on **November 18, 2003** to present the plan, and to record formal comments. Public input on this proposal and its supporting documents is an important contribution to the Superfund process (see Figure 3, page 4) and can influence the U.S. EPA's decision. Therefore the public is encouraged to participate in reviewing and commenting on this plan. After the comment period ends, the comments submitted will be reviewed and considered as the U.S. EPA, in consultation with the State, makes a final decision concerning the Verdugo Study Area.

As the lead agency on the site, the U.S. EPA worked with CalEPA Department of Toxic Substances Control, the Los Angeles Regional Water Quality Control Board (RWQCB), and CalEPA Department of Health Services (DHS) during the **remedial investigation (RI)** for the Verdugo Study Area. These agencies have been consulted about this determination and agree with U.S. EPA's proposed plan.

Cont'd. on page 2

HOW CAN THE PUBLIC COMMENT?

You can attend the public meeting to find out more about the site and give your comments in person. There will be a court reporter available to record all comments. Below are the logistics for the public meeting:

Date: Tuesday, November 18, 2003
Time: 7:00 p.m. - 9:00 p.m.
Location: Verdugo Woodlands
Elementary School
1751 N. Verdugo Road
Glendale, CA

You may also send your comments in writing, postmarked *before December 5, 2003*, to:
Charnjit Bhullar (SFD-7-4)
Remedial Project Manager
U.S. EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105
Toll Free **800-231-3075** or direct dial **(415) 972-3960**
Or email your comments to him at
bhullar.charnjit@epa.gov

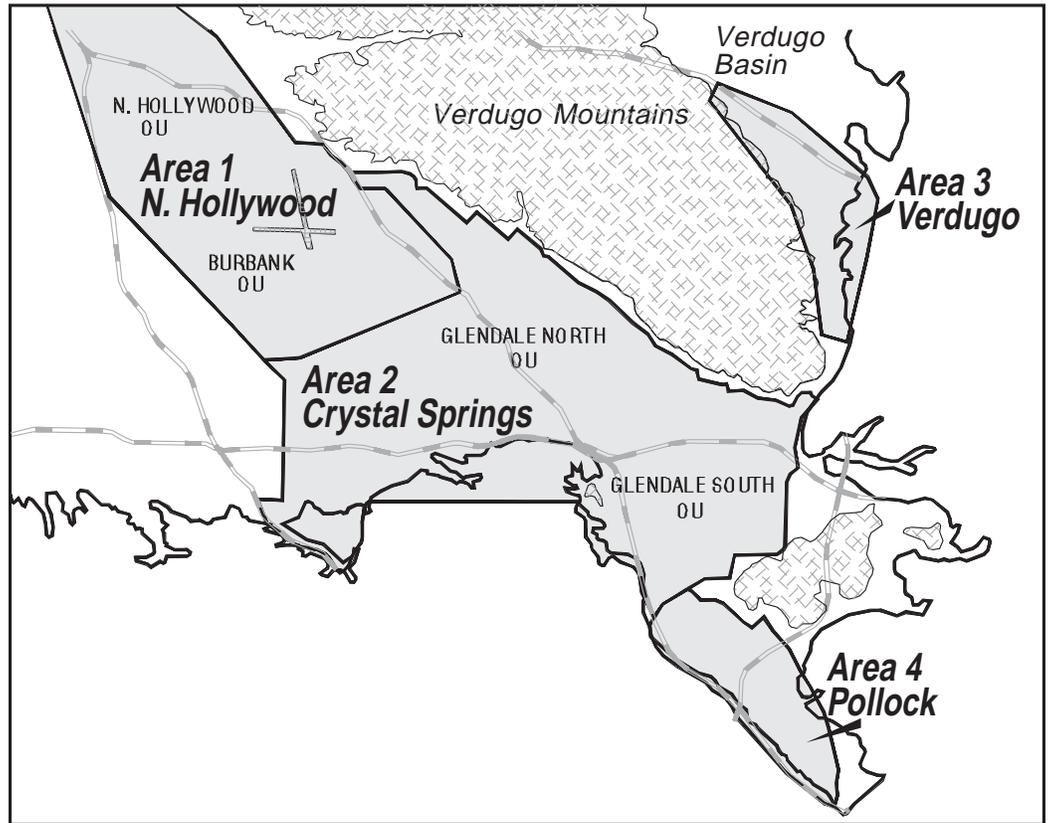


Figure 1: San Fernando Valley Superfund Site

Description of the Verdugo Study Area

The Verdugo Study Area covers an area of approximately 2,000 acres of the 4,400 acre Verdugo Basin, which is situated in the eastern portion of the San Fernando Valley Basin (SFVB) (see Figure 2, page 3). The Verdugo Basin is bounded on the northeast by the San Gabriel Mountains, on the west by the Verdugo Mountains, and on the southeast by the San Rafael Hills. All the surface water channels feed into the Verdugo Wash, which is located along the west side of the basin. Land use in the Verdugo Study Area is primarily residential along the floor of the valley, and undeveloped open space in surrounding mountains. A northwest-oriented strip of commercial development is present along Foothill Boulevard, and a commercial sector is present in the southern portion of the basin. The basin contains four scattered agricultural areas, and no industrial development.

The right to use groundwater in the Verdugo Study Area is strictly controlled by a 1979 adjudicated judicial agreement (**Judgement**) concerning water rights in the SFVB. Under the Judgement only the City of Glendale and the Crescenta Valley Water District (CVWD), formerly the Crescenta Valley County Water District, can use surface and groundwater in the Verdugo Study Area. Groundwater within the Verdugo Study Area is used as a drinking water supply by the City of Glendale and the CVWD. The CVWD operates the Glenwood and Mills well fields while the City of Glendale operates the Glorietta well field.

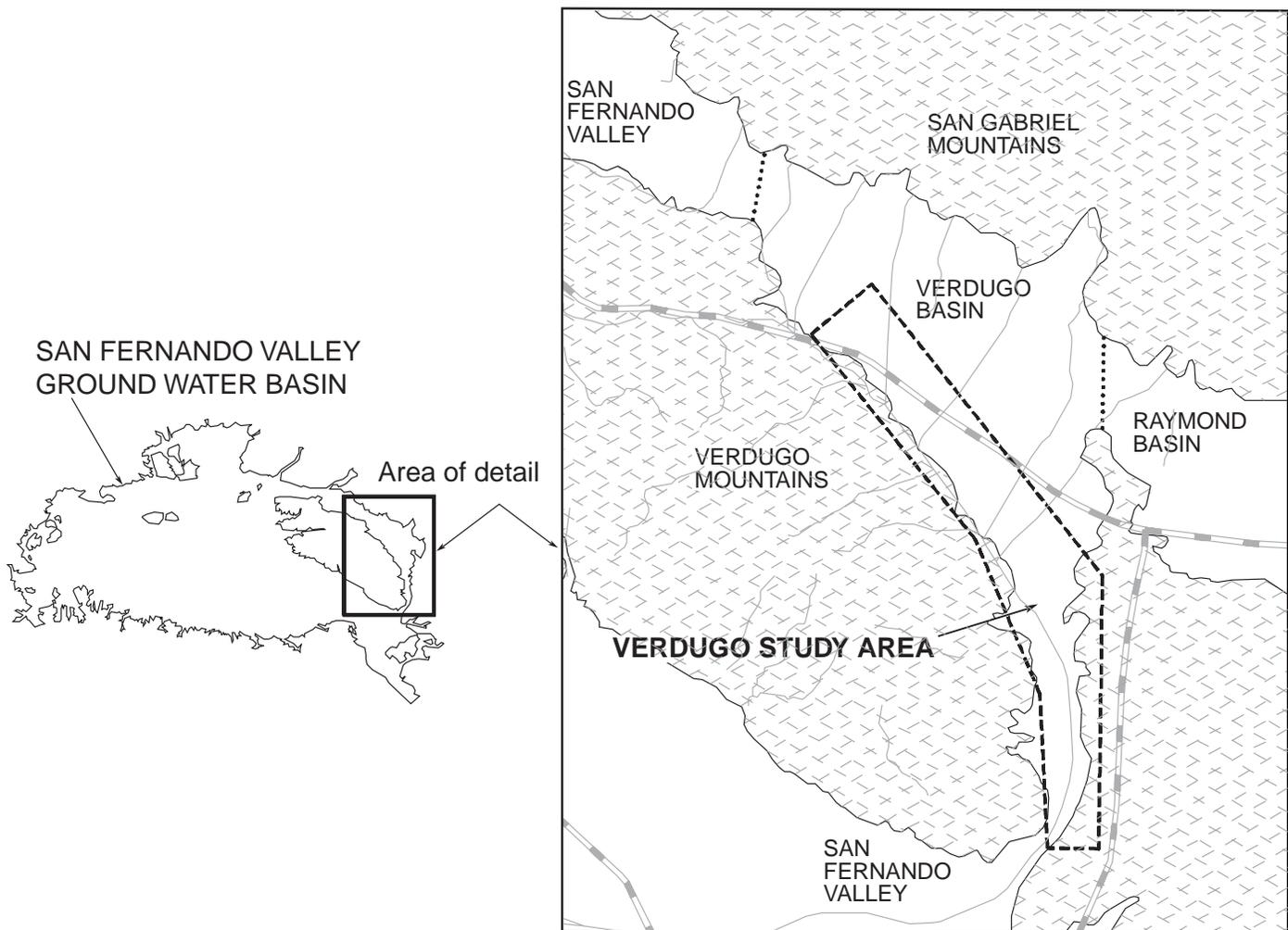


Figure 2: Verdugo Study Area and Vicinity

Investigations of Water Quality in the Verdugo Study Area

In 1981, the Los Angeles Department of Water and Power (LADWP) began a 2-year study designed to assess groundwater contamination in the SFVB. In 1983, more than 600 water supply wells within the SFVB were sampled for **volatile organic compounds (VOCs)**, **semi-volatile organic compounds**, and pesticides/herbicides as part of this basinwide program. Included in the study were wells located in the Glorietta, Glenwood and Mills well fields in the Verdugo Study Area. Results of this sampling revealed concentrations of VOCs in excess of **Safe Drinking Water Act maximum contaminant levels (MCLs)** in several water supply production wells. In 1986, at the request of the State of California, U.S. EPA placed four areas within the SFVB on the **National Priorities List (NPL)**. The San Fernando Valley Superfund sites consist of four study areas, two of which are divided into one or more **operable units**. The four areas are: North Hollywood (Area 1) containing the North Hollywood and the Burbank OUs; Crystal Springs (Area 2) containing the Glendale North and South OUs; Verdugo (Area 3); and Pollock (Area 4). The Verdugo Basin is generally considered a small tributary of the larger SFV groundwater basin (see Figure 1).

The U.S. EPA subsequently entered into a cooperative agreement with the LADWP to conduct a **Remedial Investigation (RI)** of the SFVB. The RI included a **baseline risk assessment** for the eastern portion of the SFVB. Since the completion of the RI in 1992 through 2002, the U.S. EPA has continued to monitor groundwater quality by sampling groundwater wells in the Verdugo Study Area four times a year as part of the SFVB basinwide monitoring program. Data from these sampling events, as well as groundwater data from local water-supply wells, are used to map the presence and extent of groundwater contaminants. These data are available for review as part of the Administrative Record.

The Superfund Process at San Fernando Valley - Verdugo Study Area

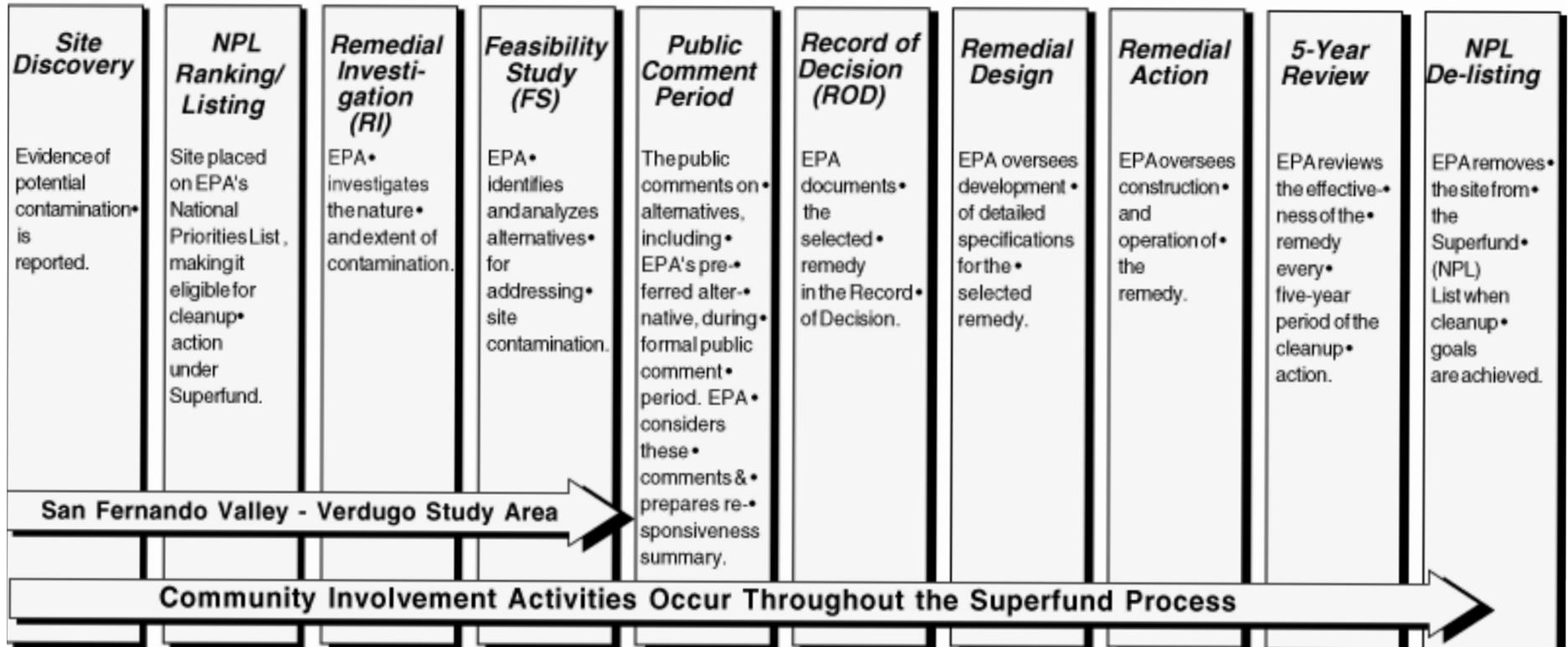


Figure 3: Superfund Process at San Fernando Valley - Verdugo Study Area

Groundwater Contaminants in the Verdugo Study Area

• Nitrate (NO₃)

Nitrate (NO₃) contamination of groundwater in excess of the State MCL of 45 **parts per million (ppm)** has been detected throughout approximately 50 to 60 percent of the Verdugo Study Area. To date, the maximum concentration of nitrate detected is 101 ppm, detected in February 1995. The most recent data (2002) indicate nitrate concentrations of less than 46 ppm in the Glorietta well field, and less than 51 ppm in the Glenwood/Mills well field. Potential sources of nitrate contamination include fertilizer applied during agricultural practices, animal waste from confined animal facilities, and septic tank effluent.

• Tetrachloroethene (PCE)

Tetrachloroethene (PCE) is the most prevalent synthetic, industrially-derived organic contaminant historically detected in the Verdugo Basin. The maximum concentration of PCE reported is 52 **parts per billion (ppb)** during June 1982. The area of greatest PCE groundwater contamination was located in and near the Glenwood well field where historic concentrations averaged between 5 ppb and 20 ppb throughout most of the 1980s. The most recent data (2002) indicate PCE concentrations of less than 1.4 ppb in the Glorietta Well Field, and less than 2.3 ppb in the Glenwood/Mills Well Field. Current PCE contaminant levels in the Verdugo Study Area are below the Federal and State MCL of 5 ppb.

• Trichloroethene (TCE)

Available data indicate that **trichloroethene** (TCE), another synthetic, industrially-derived organic contaminant, has not been detected in concentrations above the Federal and State MCL of 5 ppb in the Verdugo Study Area. Concentration plume maps have not been constructed for TCE due to the relatively low levels of this contaminant in the Study Area.

• Inorganic Compounds (chromium, nickel, thallium, antimony)

Inorganic analyses of groundwater from monitoring wells from 1992 through 2002 have occasionally displayed metal concentrations which exceeded Federal and State standards. Although initial sampling of RI monitoring wells indicated some metals concentrations exceeding their respective MCLs, subsequent re-sampling using appropriate filtering methods provided more accurate samples. Metal concentrations in these samples were below the MCLs. The U.S. EPA reviewed all of the metals sample data in the SFVB database. There were some cases where the reported concentrations and the reported **detection limit** were initially listed at above the MCL for a particular analyte; however, when the quality control methods of the laboratory were reviewed, it was determined that the samples were actually non-detect.

Treatment of Potable Water Supply

Groundwater within the Verdugo Study Area is used as a drinking water supply by two purveyors: the City of Glendale and the CVWD. The CVWD operates the Glenwood and Mills well fields, while the City of Glendale operates the Glorietta well field. To maintain adequate supplies of high quality water, both CVWD and the City of Glendale maintain facilities to treat or otherwise address nitrate contamination. Both the CVWD and the City of Glendale blend groundwater that contains nitrate with imported water to reduce the nitrate level prior to distribution to customers. CVWD is currently operating the Glenwood Nitrate Removal Facility, using an ion-exchange process for nitrate removal. The City of Glendale blends Verdugo Study Area groundwater at its Glorietta Reservoir Complex. As a part of the monitoring process, operators take six (6) daily samples at internal process points. Weekly samples from the distribution system as well as monthly samples from all District groundwater wells are also analyzed. These levels are supplied in monthly reports to DHS to verify that levels of nitrate are in the 22-28 ppm range, well below the 45 ppm State standard for drinking water.

Treatment of groundwater for VOC contamination has not been a concern due to the low concentrations present. Current available data indicate PCE concentrations of less than 1.4 ppb in the Glorietta Well Field, and less than 2.3 ppb in the Glenwood/Mills Well Fields.

Summary of Site Risks

A baseline risk assessment was conducted in conjunction with the San Fernando Valley RI in 1991. This **baseline risk assessment** was completed on a regional scale, addressing compounds in the groundwater of the entire eastern portion of the SFVB, which includes the Verdugo Basin. The levels of contaminants in the Verdugo Basin are significantly lower than the concentration levels used to calculate risk for the SFVB. In addition, a number of compounds evaluated in

the baseline risk assessment (most notably 1,1-DCE, carbon tetrachloride, 1,2-DCA, and TCE) have not been observed at concentrations exceeding their respective MCLs in samples taken from groundwater in the Verdugo Basin.

In conjunction with U.S. EPA's proposal for no remedial action for the Verdugo Basin, screening-level Human Health and Ecological Risk Assessments were conducted. Potential risks to human health associated with exposure to chemicals of potential concern in groundwater were found to be within U.S. EPA's acceptable risk management range. There were no ecological risks found for the compounds present.

During the 1991 RI sampling, nitrate was detected throughout the SFVB. Areas where nitrate was detected above its MCL were identified in the vicinity of LADWP's North Hollywood wellfields, in an area extending through Burbank into the Glendale area, and in the Pollock wellfield in the Los Angeles River Narrows. Nitrate was detected in the Verdugo Basin above its MCL in approximately half of the wells sampled during preparation of the RI. However, since nitrate is being treated and monitored for by the two water districts in the Verdugo Basin, nitrate is not considered a chemical of potential concern. Additional information for each Area within the SFVB can be located at U.S. EPA's Region 09 Web site, www.yosemite.epa.gov/r9/sfund/overview.nsf

Conclusion

Groundwater contamination in the Verdugo Study Area has been characterized by data obtained from historical sampling of production wells since the early 1980s, and by recent sampling of groundwater wells. Recent data indicates that concentrations of volatile organic contaminants have declined over time. Current PCE contaminant levels in the Verdugo Study Area are below the safe drinking water standards. TCE has never been detected in concentrations above the MCL in the Verdugo Study Area. Inorganic analyses over the years have occasionally found concentration levels of dissolved metals which exceeded Federal and State standards; however, when laboratory instrument accuracy factors were reviewed, these concentrations were determined to be non-detect. Nitrate has been detected consistently above the MCL in roughly half of the wells tested since the early 1998s; however, all groundwater extracted from the Verdugo Study Area that is used for drinking water is treated/blended by the purveyors to reduce the concentration of nitrate to levels significantly below the MCL.

As a part of the San Fernando Valley Cooperative Agreement between the U.S. EPA and California RWQCB, potential VOC source sites in the Verdugo Basin were reviewed. During the course of their inspections, it was determined that the area was not a large industrial area and that there were no major sources of PCE.

Therefore, based on the lack of significant VOC and inorganic contamination in the basin, the fact that potential risks to human health and the environment are within acceptable limits, and the required blending and treatment for nitrate, U.S. EPA has determined that groundwater conditions do not warrant remedial action under Superfund. No action under Superfund is necessary in the Verdugo Study Area to ensure adequate protection of human health and the environment.

Information Repositories

Copies of the Summary of Groundwater Quality, San Fernando Valley Superfund Site Area 3 (Verdugo Study Area), Los Angeles, California (dated May 2003) and other Superfund documents for the San Fernando Valley Superfund Site are available for review at the locations listed below. These documents are part of the Administrative Record.

U.S. EPA Superfund Records Center

95 Hawthorne Street
San Francisco, CA 94105-3901
Phone: 415-536-2000
Fax: 415-764-4963

La Canada Library

4545 Oakwood Ave.
La Canada, CA 91011
(818) 952-0603

Los Angeles Department of Water and Power

111 North Hope Street, Rm. 516
Los Angeles, CA 90012
(213) 367-1995

Glendale Public Library

222 East Harvard Street
Glendale, CA 91205
(818) 548-2021



Glossary

Administrative Record: A file that contains all the reports, studies and other site related documents that the U.S. EPA relies upon to make cleanup decisions.

Baseline Risk Assessment: An evaluation performed as part of the remedial investigation and to assess conditions at a Superfund site and determine the risk posed to public health and/or the environment.

CERCLA: The Comprehensive Environmental Response, Compensation and Liability Act, amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA). Commonly referred to as Superfund, which defined a cleanup process and authorized money for investigating and cleaning up the nation's worst hazardous waste sites.

Detection Limit (DL): The lower limit of detection for a compound using a specific analytical method.

Groundwater: In a broad sense, all subsurface water; as more commonly used, that part of the subsurface water that is in the saturated zones of soil.

Judgement: The agreement allocating the distribution of water rights in the San Fernando Basin.

Maximum Concentration Limit: The highest concentration of a contaminant allowable in drinking water

National Priorities List (NPL): A list of the top-priority hazardous substance sites in the country that are eligible for investigation and cleanup under the Superfund program.

Nitrate (NO₃): A salt of nitric acid (a colorless, corrosive acid containing nitrogen). Nitrate groundwater contamination can be caused by agricultural practices and septic systems.

Operable Unit: A distinct action taken at a Superfund site that contributes to the permanent site cleanup.

Part-per-million (ppm): Units commonly used to express low concentrations of contaminants. For example, 1 ounce of NO₃ in a million ounces of water is 1 ppm.

Part-per-billion (ppb): Units commonly used to express low concentrations of contaminants. For example, 1 ounce of trichloroethylene (TCE) in 1 billion ounces of water is 1 ppb.

Proposed Plan: This proposed plan presents the U.S. EPA's recommendation that no action is necessary under CERCLA at the Verdugo Study Area Site to ensure adequate protection of human health and the environment.

Remedial Investigation: An in-depth study designed to gather data needed to determine the nature and extent of contamination at a Superfund site.

Safe Drinking Water: A source of water that is potable and palatable for human use.

Safe Drinking Water Act Maximum Contaminant Level (MCL): Enforceable standards that apply to public drinking water supplies. The maximum permissible level of a contaminant in water delivered to any user of a public water system.

Semi-Volatile Organic Compounds: Compounds that have low pressure at ambient temperatures and low volatility. SVOCs have high-boiling points and are generally extracted from the sample with a solvent. Examples of SVOCs include pesticides and herbicides

Trichloroethene (TCE): A non-flammable liquid used commonly in industrial processes and to remove grease from metal. It is a suspected carcinogen.

Tetrachloroethene (PCE): Also called Perchloroethylene. A non-flammable solvent used commonly in dry cleaning operations and to remove grease from equipment. It is a suspected carcinogen.

Volatile Organic Compounds: Volatile Organic Chemicals (VOCs) are carbon-containing compounds that evaporate easily at normal air temperatures. VOC's are chemicals that are colorless, odorless and tasteless and are found in paint thinner, cleaning fluid and other solvents.

PUBLIC MEETING SAN FERNANDO VALLEY VERDUGO STUDY AREA

November 18, 2003 • 7:00 - 9:00 p.m. (see page 1)

At this meeting U.S. EPA representatives will be present to discuss groundwater quality in the Verdugo Study Area and U.S. EPA's proposal to take no action. Community members will have the opportunity to ask questions and give written and verbal comments on U.S. EPA's proposal. U.S. EPA encourages comments on this proposed plan during the public comment period (**November 6, 2003 to December 5, 2003**). Comments may be submitted verbally or in writing at the community meeting or by mail, fax, or Email to: Charnjit Bhullar. (See page 1.)

For Additional Information

For additional copies or for other information on the proposed plan for the San Fernando Valley Superfund Site, Area 3 (Verdugo Study Area), please contact.

Charnjit Bhullar

Remedial Project Manager
U.S. EPA Region 9 (SFD-4)
75 Hawthorne Street
San Francisco, CA 94105
Phone: (415) 972-3960
Fax: (415) 947-3526
Email: bhullar.charnjit@epa.gov

Jackie Lane

Community Involvement Coordinator
U.S. EPA Region 9 (SFD-3)
75 Hawthorne Street
San Francisco, CA 94105
Phone: (415) 972-3236
Fax: (415) 947-3825
Email: lane.jackie@epa.gov

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ԱՄՆ EPA-ի Առաջարկում է Ոչ Մի Նորոգման Քայլի Ծրագիր
Վերդուգո Ուսումնասիրական Շրջանի Վերաբերյալ
Խնդրվում է Հանրային Տեսակետ Այս Վճռի Ծուրջ

Միացյալ Նահանգների Միջավայրի Պահպանության Գործակալությունը (ԱՄՆ ՄՊԳ- The United States Environmental Protection Agency-U.S. EPA) վճռել է, որ Վերդուգոյի Ավազանում գտնվող Վերդուգո Ուսումնասիրական Շրջանի Տեղանքի պայմանները չեն արդարացնի դարմանական քայլեր՝ համաձայն Միջավայրային Ամբողջական Արձագանք, Հատուցման և Պատասխանատվության Ակտի (Comprehensive Environmental Response, Compensation and Liability Act [Superfund Law]) Տեղանքում ոչ մեկ քայլ անհրաժեշտ չէ՝ ապահովելու մարդկային կյանքի և միջավայրի պատշաճ պահպանությունը:

ԱՄՆ ՄՊԳ-ն հայտարարում է մի առաջադրված ծրագիր՝ այս վճռի շուրջ ձեռք բերելու հանրային վերաքննություն և տեսակետներ, սկսած **6 նոյեմբեր 2003 թվից և մինչև 5 դեկտեմբեր 2003 թ.:** Առաջադրված ծրագրի իրողությունների թերթիկը ամփոփում է ավելի մանրամասնված տեղեկությունները, որոնք գտնվում են հետևյալ փաստաթղթում՝ Վերջնական Ամփոփում Գետնաջրի Որակի, Սան Ֆերնանդո Հովտի Սուպերֆանդի Տեղանքի 3-րդ Շրջան (Վերդուգոյի Ավազան) [Final Summary of Groundwater Quality, San Fernando Valley Superfund Site Area 3 (Verdugo Basin)], Լոս Անջելես, Կալիֆորնիա, 20 մայիս 2003 թ.: Իրողությունների թերթիկի, այս տեղեկանքի և **Վարչական Տեղեկանքների** այլ փաստաթղթերի պատճենները գտնվում են ներքևը նշված տեղանքային գրասպահոցներում:

ՀԱՆՐՈՒԹՅՈՒՆՆ ԻՆՉՊԵՐՍ ԿԱՐՈՂ Է ՏԵՍԱԿԵՏ ՀԱՅՏՆԵԼ

Դուք կարող եք մասնակցել հանրային հավաքին՝ տեղանքի մասին հավելյալ տեղեկություն ձեռք բերելու և անձամբ ձեր տեսակետ(ներ)ը հայտնելու համար: Տեղում կգտնվի դատական թղթակից, որը կգրառի բոլոր տեսակետները: Ներքևում տրվում է վայրն ու թվականը հանրային հավաքի՝

Թվական՝ 19 նոյեմբեր 2003
Ժամ՝ Երեկոյան 7:00-ից 9:00-ը
Վայր՝ Վերդուգո Վուդլանդս Նախակրթարան
Verdugo Woodlands Elementary School
1751 North Verdugo Road
Glendale, CA

Դուք կարող եք ձեր տեսակետները նաև ուղարկել գրավոր, դրանք թղթատարին հանձնած լինելով ոչ ավելի ուշ քան տեսակետների հայտնման ավարտի թվականը՝
5 դեկտեմբեր 2003՝

Charnjit Bhullar, SFD-7-4
Remedial Project Manager
U.S. EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105
Անվճար 800-231-3075 կամ ուղղակի (415) 972-3960 հեռախոսահամարներ
Զեր տեսակետները է-նամակով ուղարկեք՝ bhullar.charnjit@epa.gov

Տեղանքի Տեղեկությունների Գրասպահոցներ

ԱՄՆ EPA-ի Սուպերֆանդի Արձանագրությունների Կենտրոն
(U.S. EPA Superfund Records Center)

95 Hawthorne Street
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Los Angeles Department of Water and Power
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111 North Hope Street, Rm 516
Los Angeles, CA 90012
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