

# *Five-year review of landfill remedial systems*

## Department of Toxic Substances Control (DTSC)

DTSC is one of six  
Boards and  
Departments  
within the  
California  
Environmental  
Protection Agency.  
The Department's  
mission is to  
restore, protect,  
and enhance the  
environment, to  
ensure public  
health,  
environmental  
quality and  
economic vitality,  
by regulating  
hazardous waste,  
conducting and  
overseeing  
cleanups, and  
developing and  
promoting  
pollution  
prevention.

State of California



California  
Environmental  
Protection Agency



This month the Department of Toxic Substances Control (DTSC) is beginning a formal five year review of the remedial and monitoring systems at the Palos Verdes Landfill to ensure that safety systems in place are effective in protecting public health and the environment from landfill waste, as outlined in the 1995 Remedial Action Plan (RAP).

This review, scheduled to start February 2004, takes place five years after the date DTSC certified the site. It is the first in a series of reviews that will be conducted every five years.

This fact sheet describes the review, the type of remedial and monitoring equipment presently being used, history of the landfill, and lets you know how you can get involved.

## **How the review process works**

The review process will consist of the following six steps:

### ***Step 1: Community involvement and notification***

As required by law, DTSC will publish a public notice at the beginning and end of the five year review period. In addition, this fact sheet and attached survey will be mailed to local residents living in close proximity to the landfill. Further, throughout the review period, the Department will present updates of the review at local Community Advisory Group (CAG) meetings. For further information, contact Tim Chauvel at (714) 484-5487

### ***Step 2: Document review***

All relevant documents and data will be reviewed in order to assess the performance of the response action.

### ***Step 3: Data review and analysis***

A thorough review of the sampling and analysis plans and results from monitoring activities, operation and maintenance reports will be conducted.

#### ***Step 4: Site inspections***

A site inspection will be conducted to gather information about the site's current status and to visually confirm and document the conditions of the remedy, the site, and surrounding area.

#### ***Step 5: Interviews***

As necessary, interviews with landfill operations staff may be conducted to provide additional information about the site's status and/or identify remedy issues.

#### ***Step 6: Assess protectiveness of remedy***

The purpose of the five year review is to determine whether the remedy at the site is protective of human health and the environment. This will be determined by answering the following three questions:

1. Is the remedy functioning as intended?
2. Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives still valid?
3. Has any other information come to light that could call into question the protectiveness of the remedy?

### **Description of the landfill**

The Palos Verdes Landfill is 291 acres in size and lies partly in the city of Rolling Hills Estates and partially in an unincorporated area of Los Angeles County. It has been closed since 1980. It is now capped with a soil cover planted with grass, trees, and shrubbery. Parts of it are used as a park and a botanic garden.

The largest portion of the landfill, called the "main site," is in the center and lies between Hawthorne and Crenshaw Boulevards. This area has horse and hiking trails. In addition, the Sanitation Districts

of Los Angeles County operate a recycle center on Crenshaw Blvd. The eastern portion is now the site of the South Coast Botanic Garden. The western portion is now the site of Ernie Howlett Park.

### **Who's in charge of the landfill—the State and County agency roles**

The Sanitation Districts of Los Angeles County are responsible for operating and maintaining the environmental control systems at the landfill. With DTSC's oversight, they operate various systems to prevent any hazardous waste from reaching the environment. The County of Los Angeles, the City of Rolling Hills Estates and the Sanitation Districts of Los Angeles County each own one or more of the six discreet parcels that make up the landfill property. Contact information for these agencies is listed at the end of this fact sheet.

### **The landfill operated from 1952 to 1980, and received non-hazardous and hazardous waste**

The landfill began operation in 1952 with the BKK Corporation as a 15-acre site at what is now the South Coast Botanic Garden.

The Sanitation Districts took over the site from BKK Corporation in 1957 and expanded the landfill to its current boundaries, finally closing it in 1980.

According to available records, during operations, the landfill received approximately 23.6 million tons of solid and liquid waste. The eastern and western portions of the site (now the Botanic Gardens and Howlett Park) received only non-hazardous waste. At the main site in the center area, some of the waste was hazardous. This hazardous waste included chemicals such as solvents, acids,

alkalines, and pesticides, and metals such as lead. Most of this hazardous waste came from local refineries, crude oil unloading terminals, and oil fields.

## **What the five year review will look at**

The Palos Verdes Landfill has systems in place to keep gas and hazardous chemicals from the buried waste from escaping into the environment. The following information gives an overview of the systems that will be reviewed under the five year review which will include looking at the soil cover, gas collection system, groundwater extraction and treatment system, an underground groundwater barrier, and landscaping features to prevent surface water runoff from washing away the landfill cover.

Between 1990 and 1995, DTSC and the Sanitation Districts engaged in a lengthy study to identify the nature and extent of contamination from the site and any associated health risks. The study found that the health risks were below State of California levels of concern. However, as a result of the study, the Sanitation Districts enhanced the groundwater extraction system by installing additional groundwater extraction wells to control and remove contaminated groundwater.

## **Above ground pipe systems to collect landfill gas**

The natural breakdown of material in a landfill creates a gas made up mostly of carbon dioxide, methane, and some volatile organic compounds (VOCs). This gas can be harmful if it gets into the air where people and animals might breathe it, and it can cause explosions if it is allowed to build up in closed spaces. The Sanitation Districts use a gas collection system at the landfill to capture this gas and burn it as fuel.

The gas is pulled into slotted pipes that lie within the landfill waste and around the perimeter of the landfill. From these pipes the gas is drawn through a vacuum into a collection system. The Sanitation Districts then send the collected gas to their Gas-to-Energy plant where it is cleanly burned to produce electrical power.

To prevent gas from escaping into the air from the landfill, there are 256 gas monitoring probes around the perimeter of the site. These probes are tested monthly. Also, technicians take air samples along the surface of the landfill on a quarterly basis, in accordance with the rule 1150.1 of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is the air pollution control agency for Los Angeles County.

## **Grading, storm drains, and berms to prevent water runoff**

The Sanitation Districts use several methods to prevent rain and water runoff damage. To keep water from running onto the site from other areas, the landfill cover is graded (sloped) away from the landfill. Berms and storm drains on the site also keep water away.

## **Plants to prevent soil erosion**

Erosion of the soil cover on the landfill can expose the buried waste. To prevent this, the Palos Verdes Landfill cover is planted with grass, trees, shrubs, and various ground cover plants. Stopping erosion is also important to protect surface water quality because it reduces the amount of sediment in surface water runoff.

## **Studying the possible risks to human health and the environment**

In 1995 the Sanitation Districts, under DTSC oversight, performed a study on the

possible risks to people's health from the hazardous materials in the landfill. The results of this study, called a Health Risk Assessment, showed that the Palos Verdes Landfill did not pose a significant health risk to workers or people in the area – as long as the gas collection systems and other safety measures remain effective.

### **How our agency oversees the hazardous waste containment systems at the landfill**

In 1998, the Sanitation Districts entered into an enforceable agreement with DTSC to operate and maintain the hazardous waste containment systems. The Sanitation Districts give us summary reports every three months that describe activities at the site, and show the results of the groundwater monitoring for that quarter.

The five-year reviews are another way our agency can continue to monitor the effectiveness of the containment systems.

### **Get more information at two local libraries and at our office**

Reports, studies, and other project documents related to the Palos Verdes Landfill are available at the following three locations:

- Peninsula Center Library, 650 Deep Valley Drive, Rolling Hills Estates
- Torrance Civic Center Library (also known as the Katy Geissert Library), 3301 Torrance Boulevard, Torrance
- Department of Toxic Substances Control (DTSC) 5796 Corporate Avenue, Cypress.

To review information at DTSC, please call Julie Johnson, File Room Coordinator, at (714) 484-5337 for an appointment.

### **Who to contact for more information**

#### **Department of Toxic Substances Control**

Daniel Zogaib, Project Manager  
Phone: (714) 484-5483  
[dzogaib@dtsc.ca.gov](mailto:dzogaib@dtsc.ca.gov)

Tim Chauvel  
Public Participation Specialist  
Phone: (714) 484-5354  
[tchauvel@dtsc.ca.gov](mailto:tchauvel@dtsc.ca.gov)

Jeanne Garcia  
Public Information Officer  
(Media inquiries only)  
Phone: (818) 551-2176  
[Jgarcia1@dtsc.ca.gov](mailto:Jgarcia1@dtsc.ca.gov)

*For more information about our agency, please visit our website at [www.dtsc.ca.gov](http://www.dtsc.ca.gov)*

#### **Sanitation Districts of Los Angeles County**

Dave Snyder, Project Coordinator  
Phone: (562) 699-7411  
[dsnyder@lacsdc.org](mailto:dsnyder@lacsdc.org)  
<http://www.lacsdc.org/>

#### **NOTICE TO THE HEARING IMPAIRED**

You can obtain additional information on the Palos Verdes Landfill by using the California State Relay Service at 1-888-877-5378 (TDD). Ask them to contact Tim Chauvel, Public Participation Specialist at (714) 484-5487.



**State of California  
Department of Toxic Substances Control  
March 2004**



**PALOS VERDES LANDFILL  
Rolling Hills Estates, California, 90021**

**FIVE YEAR REVIEW  
COMMUNITY SURVEY QUESTIONNAIRE**

Para información en español por favor comuníquese con Leticia Hernández al número (714) 484-5488.

**We would like to receive your comments concerning our five year review of the Palos Verdes Landfill.** The survey asks questions that relate to the review only, questions concerning the proposed development of the landfill will not be addressed. Please mail the survey back to: Tim Chauvel, Public Participation, DTSC, 5796 Corporate Avenue, Cypress, CA 90630.

**1. How long have you lived or worked in the area?**

\_\_\_ 0-5 years      \_\_\_ 6-12 years      \_\_\_ 13-20 years      \_\_\_ 21 or more years

**2. What is your current level of interest in this landfill?**

\_\_\_ None      \_\_\_ Low to moderate      \_\_\_ Moderate to high

**3. Have you ever noticed anything out of the ordinary regarding the landfill? If so, did you report the information? Please explain who you contacted, and why (use extra paper if needed):** \_\_\_\_\_

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\_\_\_\_\_  
\_\_\_\_\_

**4. Do you have any other comments that will assist DTSC in undertaking the five year review of the landfill?** \_\_\_\_\_

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**5. Did you find the information contained in this fact sheet useful?**      \_\_\_ Yes      \_\_\_ No

**Please explain:** \_\_\_\_\_  
\_\_\_\_\_

**PLEASE PROVIDE YOUR ADDRESS SO THAT WE CAN ADD YOU TO THE FACILITY MAILING LIST**

Name: \_\_\_\_\_ Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

**TICK BOX IF YOU WOULD LIKE TO BE TAKEN OFF THE MAILING LIST**

*Please note: While mailing lists are solely for Agency use, they are considered a public record and may be subject to release upon request.*