California Environmental Protection Agency
Department of Toxic Substances Control

Palos Verdes Landfill
ENVIRONMENTAL INVESTIGATION UPDATE

Fact Sheet #6

September 1993

INTRODUCTION

This is the sixth fact sheet about the investigation of potential hazardous waste contamination from the Palos Verdes Landfill. This fact sheet contains an update on the investigation and announces the beginning of additional field work (see box on this page).

The environmental investigation at the landfill has been ongoing since 1990. This investigation, called a Remedial Investigation/Feasibility Study, is being performed by the County Sanitation Districts of Los Angeles County (Sanitation Districts) under the oversight of the Department of Toxic Substances Control (DTSC) of the California Environmental Protection Agency.

The pupose of this investigation is to evaluate the nature and extent of contamination present at the landfill in order to identify any areas requiring remediation. Many field samples have been collected and analyzed. Four potential pathways for contamination (air, surface water runoff, soil, and groundwater) were investigated. Contamination has been identified in groundwater near the site along Hawthorne and Crenshaw Boulevards. This groundwater is not used for drinking, agricultural, or industrial purposes. DTSC staff toxicologists have reviewed the data currently available and determined that there are no immediate health or safety threats to area residents. The possibility of long term health or safety threats is being studied and will be determined after the additional field work discussed in this fact sheet is completed.

The following sections contain more detailed information. This includes technical descriptions of the investigation status, additional field work to be completed in the next few months, selection of remedial alternatives, and community involvement. Since this investigation has been ongoing for the past three years, background and updated information has been shared with the community in five earlier fact sheets and three community meetings. If this is your first contact with the landfill and the investigation, we have included a brief history of the landfill in the box on page 2. Additional information is available from DTSC or Sanitation Districts contacts or at the local information repositories (see page 6).

FIELD WORK TO BEGIN

Field work will be performed at and around the Palos Verdes Landfill beginning in September and lasting for several months. Soil samples will be collected from the landfill's soil cover and air samples will be taken in the adjacent neighborhood to determine if there is any possible contamination. Additional groundwater monitoring wells will also be installed in the vicinity of the site to support the ongoing groundwater investigation. The air samples will be collected during the week of September 20th and additional groundwater monitoring wells will be installed during November and December.

The approximate locations of the off site activities are shown on page 3. Field operations will generally be confined to the hours of 7 a.m. to 5 p.m. Those residents in the immediate vicinity of the off site sampling locations will be notified by the Sanitation Districts directly prior to field work. While air sampling will not require installation of any permanent equipment, a drilling rig will be required for the monitoring wells.

A more detailed description of the planned activities can be found on page 2. For additional information please feel free to contact Mary Jacobs of the Sanitation Districts at (310) 699-7411, extension 2413.

INVESTIGATION STATUS

The objective of a Remedial Investigation/Feasibility Study is to gather sufficient information to support an informed risk management decision

regarding which remedy, if any, is most appropriate for a particular site. The process followed to do this type of study includes field investigations which provide the information necessary for a baseline risk assessment. The field investigations identify the types and levels of contaminants at a site. The baseline risk assessment evaluates the health risks resulting from the site based on the contaminant levels identified during the field investigations. If the baseline risk assessment indicates that risks need to be reduced, then remedial measures are identified and implemented.

Field investigations at the Palos Verdes Landfill have been conducted and a baseline risk assessment has been performed. The results are contained in the Draft Preliminary Remedial Investigation Report, prepared by the Sanitation Districts and submitted to DTSC in May 1993. DTSC is reviewing the report. Several areas which needed more information were identified in past field investigations. The upcoming field work will help to fill in these data gaps.

ADDITIONAL FIELD WORK

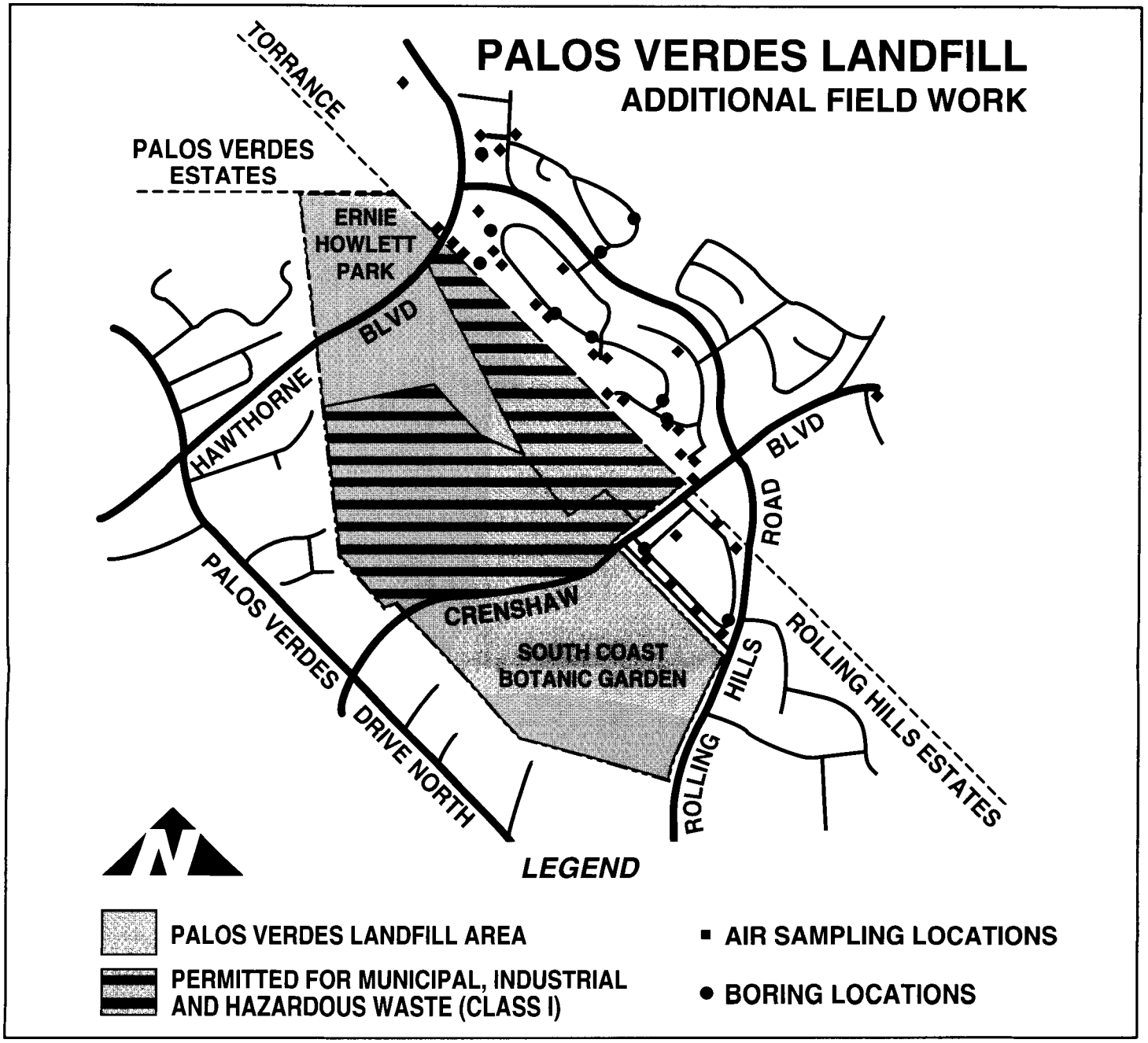
To fill in the remaining data gaps, the Sanitation Districts prepared a work plan, titled "Work Plan for Additional Remedial Investigation". This work plan has been reviewed and approved by DTSC. The scope of work required to fill the identified data gaps includes surface flux chamber sampling (air samples from the surface soil are analyzed for volatile organic compounds), installation of additional groundwater monitoring wells, and collection of additional surface soil cover samples. Surface flux chamber sampling and drilling for the installation of additional groundwater monitoring wells will occur in the neighborhood to the northeast of the landfill. Surface soil cover sampling will occur on the landfill itself. Local residents who live within a block or two of the off site sampling locations will be informed of the exact date and location of field activities at least 48 hours prior to the work.

Air Monitoring. The Sanitation Districts will perform surface flux chamber sampling to determine if contaminants are being released into the air from subsurface vapor migration from the landfill. Surface flux chamber sampling was selected as the appropriate assessment technique for this program because it provides the most sensitive detection limits for possible contaminants. Since the emission rates are likely to be very low if they can even be measured, it is important to use the most sensitive technique. A total of 32 samples will be collected from areas to the northeast of the landfill. This area was selected as representative of the neighborhoods surrounding the landfill.

Site History

- BKK Corporation operated a small landfill (about 15 acres) at the South Coast Botanic Garden site from 1952 through 1957.
- The Sanitation Districts operated the Palos Verdes Landfill, consisting of the Main Site and the areas now developed as the South Coast Botanic Garden and Ernie Howlett Park (see map, page 3) from 1957 to 1980.
- A total of 23.6 million tons of waste were disposed of at the landfill. Municipal and commercial/industrial waste constituted 96% of this total; the remaining 4% was hazardous waste.
- Hazardous waste disposal was permitted for about the eastern two-thirds of the Main Site (see map, page 3) between 1964 and 1980.
- Landfill gas collection facilities have been operated at the Palos Verdes Landfill since 1976. The current Gas-to-Energy Plant was completed in 1988.
- In 1985 an area of groundwater contamination was identified at Hawthorne Boulevard and the northern corner of the Main Site. A subsurface barrier system was installed in this area in 1986 to prevent migration of contaminated water.
- The landfill was listed on the Bond Expenditure Plan under the Hazardous Substance Clean-up Bond Act in 1986. It was listed because it received hazardous waste under permit and because of the contaminated groundwater identified at the site.
- DTSC and the Sanitation Districts entered into an Enforceable Agreement in 1988. It defined the environmental investigation to be conducted at the landfill by the Sanitation Districts under the oversight of DTSC.

The surface flux chamber samples will be collected with an apparatus that looks like a large plexiglass bowl inverted on the ground. This will not require any disturbance of the sampling area, nor any permanent equipment installation. However,



since surface flux chamber sampling requires dry ground, the Sanitation Districts will contact residents who live at the sample locations prior to the field sampling to arrange for an area to be left unwatered for 72 hours before a sample is collected. The approximate sampling locations are shown above.

Groundwater Monitoring Wells. Several borings, followed by installation of groundwater monitoring wells, will be drilled to the northeast of the landfill to complete characterization of the extent of groundwater contamination in this area and provide additional monitoring points. A maximum of eleven borings will be drilled. Each boring will take one to five days to drill, with drilling operations generally confined to the hours of 7 a.m. to 5 p.m. during weekdays. The approximate boring locations are shown above.

Surface Soil Sampling. Samples will be collected from the soil cover at the landfill to provide

Environmental Investigation Time Line

1988	DTSC and the Sanitation Districts sign Enforceable Agreement, providing for the performance of an environmental investigation by the Sanitation Districts under the oversight of DTSC.
1989	The Sanitation Districts prepare work plans for investigating air, surface water, soil, and groundwater. The plans are submitted to DTSC and approved.
1990 - 1992	The Sanitation Districts conduct field work and prepare reports of the results.
1993	The Draft Preliminary Remedial Investigation Report is submitted to DTSC by the Sanitation Districts in May.
	The Work Plan for Additional Remedial Investigation is prepared by the Sanitation Districts and submitted to DTSC. DTSC approves the work plan in August.
	Additional remedial investigation field work begins in September. Projected completion is end of year.
1994	Addendum to the Draft Preliminary Remedial Investigation Report, documenting the additional field work, is scheduled to be submitted to DTSC by the Sanitation Districts in May.

additional assurance that surface soils within the heaviest use areas of the landfill do not pose a risk, and to provide more information about one location sampled in 1990.

Eighteen samples will be collected at several of the most heavily used areas of the landfill. Six samples will be collected at the Equestrian Center on the Main Site of the landfill, six near the lake and stream at the South Coast Botanic Garden, and six along the Main Site horse trail. Four samples will be collected near one of the access roads at the northern corner of the Main Site at a location previously sampled in 1990. Low levels of contamination were detected initially at this sampling location. This location is not in a heavily used area of the landfill, and is not easily accessible to the general public.

SELECTION OF REMEDIAL ALTERNATIVES

Following completion of the remedial investigation activities at the landfill, the risk assessment will be updated to evaluate whether site conditions pose a threat to public health or the environment. This baseline risk assessment will be used to establish the remediation objectives, by determining aspects of the site which might require clean up or stabilization activities in order to reduce any possible risk.

After the remediation objectives have been determined, a feasibility study will be prepared. The feasibility study identifies and evaluates possible remedial technologies for the specific hazardous waste contamination present at a site. The alternatives will be evaluated based on the following nine criteria: 1) overall protection of human health and the environment; 2) compliance with applicable or relevant and appropriate requirements; 3) long-term effectiveness and permanence; 4) reduction of toxicity, mobility, and/or volume; 5) short-term effectiveness; 6) implementability; 7) cost; 8) State acceptance; and 9)

community acceptance.

HAWTHORNE CANYON LANDFILL

The Hawthorne Canyon Landfill, operated by the Sanitation Districts in 1968 for municipal wastes, exists in a small area to the west of the Palos Verdes Landfill between Hawthorne Boulevard and Moccasin Lane in the City of Rolling Hills Estates. While no houses were built over the landfill, some homes have backyards that extend over the wastes.

In July the Sanitation Districts and the City of Rolling Hills Estates transmitted a preliminary plan for adressing the Hawthorne Canyon Landfill to DTSC. These activities will be conducted independent of the Palos Verdes Landfill investigation. The preliminary plan consists of a soil cover and a gas collection system which would be operated and maintained by the Sanitation Districts and the City. The details of this plan are currently being discussed with the homeowners on Moccasin Lane who are directly affected by the landfill. Future updates specific to the Hawthorne Canyon Landfill will be provided to area residents separately from the Palos Verdes Landfill updates.

At the landfill, several containment measures are currently in place. A surface soil cover was placed over all wastes. A landfill gas control system has been in operation since 1976. Migration of contaminated groundwater at the northern corner of the Main Site is controlled with a subsurface barrier and upgradient groundwater extraction wells, installed in 1986. Generally, containment has been identified as the most likely response action at landfills because they often pose a low-level risk and because the volume and heterogeneity of waste within a landfill make treatment or removal impractical.

Before proceeding on to establish remediation objectives and feasibility study preparation, the remedial investigation must be approved by DTSC. Development of the draft Remedial Action Plan will follow completion of the feasibility study. The public will be notified when the draft Remedial Action Plan is available for review. A 30-day period will be provided for public comment on DTSC's proposed remedial actions included in this draft. The plan will present the preferred remedial actions and the rationale for their selection.

COMMUNITY INVOLVEMENT

We encourage you to contact either DTSC or the Sanitation Districts with any questions you may have regarding this project. DTSC and the Sanitation Districts are available to meet with homeowner groups or other interested community members. The Work Plan for Additional Remedial Investigation, which contains more details about the field work that will be done, has been placed in the project information repositories.

MAILING COUPON

If you have any comments concerning the Palos Verdes Landfill environmental investigation, or would like to be placed on the DTSC mailing list, please fill out the information below and mail it to: Ann Tanouye, Public Participation Specialist, California Environmental Protection Agency, Department of Toxic Substances Control, 245 W. Broadway, Suite 425, Long Beach, CA 90802.

NAME:_____
ADDRESS:_____
_____
TELEPHONE:_____
COMMENTS:_____
_____

FOR MORE INFORMATION

More information about the site history, current investigation, project schedule and community concerns can be found in five previously published fact sheets. To receive copies of these fact sheets, please contact DTSC or the Sanitation Districts at the numbers listed below or return the enclosed mailing list coupon and indicate that you would like to receive the earlier fact sheets.

DTSC Contacts: If at any time during the environmental investigation you have questions or comments, please contact our office.

Chris Fox
Project Officer
(310) 590-4954

Ann Tanouye
Public Participation
(310) 590-5539

California Environmental Protection Agency
Department Toxic Substances Control
245 West Broadway, Suite 425
Long Beach, CA 90802

Sanitation Districts Contact: Please feel free to contact the Sanitation Districts with any questions or comments also.

Mary Jacobs
Project Coordinator
(310) 699-7411 x 2413

County Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, CA 90607-4998

Information Repositories: All finalized site work plans, the Community Relations Plan, and other reports can be reviewed at the reference desks of the following libraries.

Peninsula Center Library
650 Deep Valley Drive
Rolling Hills Estates, CA 90274
(310) 377-9584

Torrance Civic Center Library
3301 Torrance Boulevard
Torrance, CA 90503
(310) 618-5959

California Environmental Protection Agency
Department of Toxic Substances Control
245 W. Broadway, Suite 425
Long Beach, CA 90802

Inside:
- Palos Verdes Landfill
  Update on Environmental Investigation