



UPDATE ON ENVIRONMENTAL RESTORATION PROGRAM AT MARINE CORPS AIR STATION EL TORO

Fact Sheet

January 1999

Marine Corps to Proceed with Interim Remedial Action at Site 24

The U.S. Marine Corps announces its intent to start Remedial Action at Installation Restoration Program Site 24, Volatile Organic Compound (VOC) Source Area, by the end of March 1999. Soil Vapor Extraction (SVE) will be utilized to remediate the VOC-contaminated soil at the site.

Site Background

Site 24, VOC Source Area, comprises approximately 200 acres and is located in the southwest quadrant of the Station. Aircraft and support vehicle maintenance utilizing industrial solvents were conducted at Site 24 from the late 1940s to the mid-1970s. Solvents, including trichloroethene (TCE), and other VOCs were used for degreasing parts, paint stripping, and aircraft washing. Releases of VOCs at the site contaminated the subsurface soils (vadose zone) in the vicinity of two large aircraft hangars Buildings 296 and 297. VOCs in the soil have, over time, migrated down into the shallow aquifer, creating a VOC plume in the groundwater that extends approximately 3 miles to the west from Site 24 (see map below).

Interim Remedial Action Objective

The Interim Remedial Action objective at Site 24 is to reduce the concentration of VOCs in the soil to prevent or significantly minimize further impact to groundwater. The term "interim" is used because only soil remediation is addressed in this remedial action. Groundwater remediation at Site 24 will be accomplished in a subsequent remedial action.

Soil Vapor Extraction (SVE) Technology

The Marine Corps' preferred technology for remediating the soil contamination at Site 24 is Soil Vapor Extraction, also called SVE. VOCs are removed from the vadose zone by applying a vacuum to a network of underground extraction wells and pulling the vapors to the surface. Vapors are then passed through an activated carbon treatment system (to remove the contaminants from the vapor stream) prior to discharge to the atmosphere as clean air. Regularly scheduled air quality monitoring will verify the effective operation of the carbon treatment system.

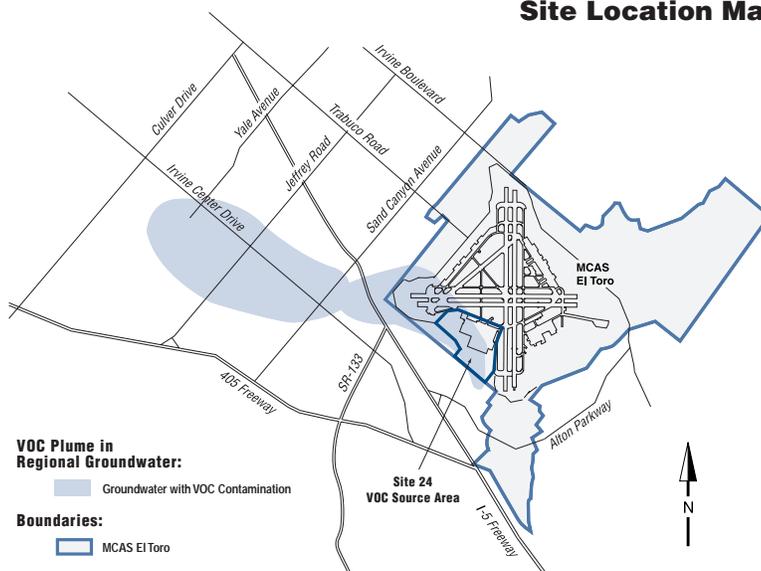
Pilot Tests Conducted

SVE pilot tests were conducted at the site from 1996-1998 to evaluate the feasibility of using this technology at Site 24. Twenty-one SVE wells were tested for 2 to 12 week intervals and approximately 870 pounds of TCE were removed from the vadose zone, confirming that SVE is a viable technology to remediate soil at Site 24.

Remedial Design Completed

Remediation of the site will be conducted in accordance with the Proposed Plan, Record of Decision and Remedial Design documents that underwent regulatory agency review and concurrence. The Remedial Design phase was recently completed when the *Draft Final Engineering Design Report (EDR), Vadose Zone Remediation, Site 24 (December 1998)* was finalized with concurrence by the U.S. EPA and Cal-EPA's Department of Toxic Substances Control and the Regional Water Quality Control Board. This report describes how SVE will be implemented at MCAS El Toro.

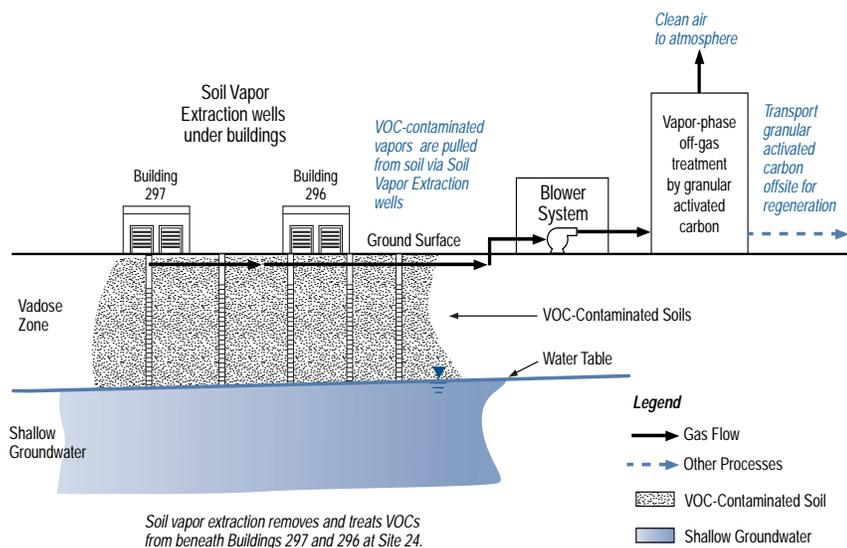
Site Location Map



SVE Treatment System

MCAS El Toro will utilize the same SVE treatment system that was successfully used to remediate VOC-contaminated soils at Norton Air Force Base in San Bernardino, California. Assembly of the system at Building 296 has been completed. Testing and treatment system optimization on ambient air is currently ongoing. When remediation of Site 24 soil begins, the SVE treatment system will be connected to a pre-determined number of extraction wells. Vacuum pressures, air flow rates, vapor concentrations and other performance parameters will be measured and evaluated. Additional wells will be installed and connected to the system, in multiple phases, based on system performance and rate of remediation. The system is scheduled to be operational by the end of March 1999 and will operate until the remedial action objectives have been met. The remediation phase is expected to take about 2 years to complete at an estimated cost of \$5 million dollars.

SVE Treatment Process – Site 24



Project Updates

Periodic reports will document remediation progress. Updates will be provided at Restoration Advisory Board (RAB) meetings. The community-based RAB brings together the diverse interests of the community to discuss key aspects of MCAS El Toro's Installation Restoration Program. Meetings are open to the public and scheduled from 6:30-9:00 p.m. on the last Wednesday of the month (bimonthly) at the Irvine City Hall Conference and Training Center. RAB meetings are currently scheduled for March 31, May 26, and July 28, 1999.

Where to Get More Information

Copies of documents that support the remediation efforts at Site 24, including the Proposed Plan, Record of Decision, Remedial Design documents, and the Remedial Investigation and Feasibility Study Reports, are available at the following locations:

- Heritage Park Regional Library, 14361 Yale Avenue, Irvine, CA 92714, (949) 551-7151
- MCAS El Toro Administrative Record File, Environment and Safety Department, Contact: Mr. Joseph Joyce (see below)

Project Contacts:

- Mr. Joseph Joyce, BRAC Environmental Coordinator, MCAS El Toro (949) 726-3470
- Lt. Adrienne Dewey, BRAC Public Affairs Officer, MCAS El Toro (949) 726-3853
- Mr. Glenn Kistner, Remedial Project Manager, U.S. EPA (415) 744-2210
- Mr. Andrew Bain, Community Involvement Coordinator, U.S. EPA 1-800 231-3075
- Ms. Marsha Mingay, Public Participation Specialist, Cal-EPA, Dept. of Toxic Substances Control (714) 484-5416

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