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 ORANGE
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 REGISTER

NEWS FOCUS

Public to comment on base cleanup

EL TORO: Plan calls for sucking hazardous chemicals out of contaminated soil.

By **MARY ANN MILBOURN**
 The Orange County Register

The El Toro Marines have come up with a plan to clean up contaminated soil on the base that would do any housekeeper proud: Vacuum it.

They want to sink dry wells and fire up a motor to create a vacuum. The so-called soil vapor extraction process will suck the toxic gases out of the ground into a filter that will be hauled away and recycled.

If it works, it will clean up the toxic soil pollution around two KC-130 aircraft hangars at the south end of the base that has produced a plume of contaminated ground water stretching three miles under Irvine's Woodbridge area.

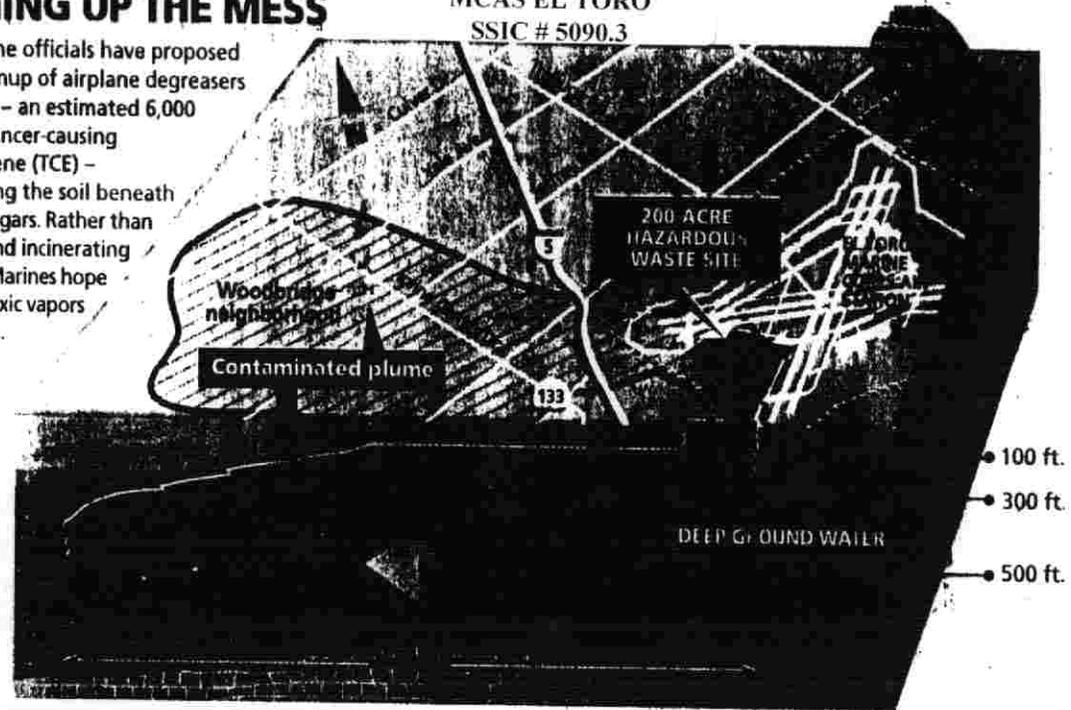
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CLEANING UP THE MESS

El Toro Marine officials have proposed a 5-year cleanup of airplane degreasers and solvents - an estimated 6,000 pounds of cancer-causing trichloroethene (TCE) - contaminating the soil beneath two base hangars. Rather than excavating and incinerating the soil, the Marines hope to suck the toxic vapors from the dirt.

Sources: Joseph Joyce, U.S. Navy Base Closure Environmental Coordinator; Wayne Lee, El Toro Air Station assistant chief of staff for environment and safety

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 MCAS EL TORO
 SSIC # 5090.3



HOW IT WORKS: SUCKING ON A LARGE STRAW

Soil vapor extraction is a relatively simple process that separates toxic chemicals from dirt. The easily evaporated gases are literally vacuumed to the surface through a network of wells and trapped in a carbon filter.

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|---|-------------------------------|---------------------------------|---|---|---|
| PERFORATED WELLS
Suck cancer-causing vapors from soil | PUMPS
Create vacuum | MOTOR
Creates suction | ACTIVATED CARBON FILTER
Captures vapors | EXHAUST FLOWER
Releases clean air to atmosphere | RECYCLE
Haul away, treat spent filter |
|---|-------------------------------|---------------------------------|---|---|---|



Graphics reporting: **BRADY MacDONALD**

JAMES ZISK/The Orange County

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EL TORO: Two-year soil cleanup could cost \$4.9 million

FROM 1

The soil cleanup plan is the first proposal from the U.S. Marine Corps for dealing with 24 El Toro base sites that were found to be such a health hazard that they qualified for the federal Superfund list for priority cleanup.

The public can learn about the Marines' plans at an informational open house in Irvine on Thursday.

Gail Reavis, a Mission Viejo resident who moved three years ago from Woodbridge, plans to be there and thinks every other Orange County taxpayer should go, too.

She wants to make sure the Marines don't leave Orange County taxpayers holding the bag for cleaning up the base.

"I think if the public doesn't get involved, the authorities will clean it only to the minimum standard," Reavis says. "If the public gets involved, they'll be forced to do more."

Thursday's open house will include experts who will explain displays showing the 24 Superfund sites targeted for cleanup. El Toro staff members will talk about their soil cleanup plan.

"People can come in, ask questions, get information and comment," said Joseph Joyce, El Toro's base environmental cleanup coordinator.

The target of the effort is a 200-acre site contaminated with chemicals from engine degreasers and other solvents that commonly were used for aircraft maintenance. They were leaked or dumped into the ground before anyone realized how toxic they were.

It's a big cleanup. Studies estimate they will have to remove 6,000 pounds of trichloroethylene, or TCE.

The soil vapor extraction system would allow them to treat the contamination in place in a process that is expected to take up to two years. Military base closure funds would cover the estimated \$4.9 million cost.

An 84-day pilot study using the process at the hangar site removed about 485 pounds of TCE, and nearly 140 pounds of other hazardous chemicals.

Officials from all the interested agencies — the county, city of Irvine, Irvine Ranch Water District, Orange County Water District and state Environmental Protection Agency — generally support the soil cleanup plan. It's been effective on other bases.

Military officials at Norton Air Force Base in San Bernardino County used soil vapor extraction to clean up the ground

around a hangar and passenger terminal that was contaminating water 100 feet underground. Over the past 19 months, the process has extracted more than 6,300 pounds of TCE.

"It performed very well and we consider it a success," said Air Force spokeswoman Linda Geissinger.

Greg Hurley, co-chairman of a citizens advisory board overseeing El Toro cleanup, said that while most of the experts agree, the public should have questions.

"I think it's assumed under the circumstances that this is the best solution," Hurley said. "But because it has worked on another similar situation, there may be a question whether this is the best solution to this specific situation."

Hurley, an environmental attorney who specializes in toxic cleanups, wants to be sure the cleanup process ensures flexibility for use of the property after the base closes.

"We very much would like the public to address these issues," Hurley said.

Wayne Lee, El Toro assistant chief of staff for environment

and safety, said no land-use restrictions are anticipated on the site after the soil vapor process is completed.

If soil vapor extraction is approved for the site, Joyce said, officials hope to get started with treatment in the fall of 1998.

Still unresolved is the larger issue of cleaning up the chemicals and agricultural fertilizers that have leached into the ground water. This is at the heart of Reavis' and others' concerns.

"It's a very real, huge issue," said Reavis, who has collected five binders of information about the water contamination.

No drinking water is drawn from the shallow ground water or deeper aquifer affected by the pollution.

But if the aquifer were completely cleaned, it could become a major source of drinking water for south Orange County, which imports most of its water.

Water and government officials are pressing for a \$34 million desalter project that would remove all the solvent pollution caused by the base as well as contaminants from fertilizers and chemicals used on nearby agricultural land.

MARINES EXPLAIN CLEANUP PLAN

The Marines are holding an open house Thursday to showcase their El Toro base toxic-cleanup plan and the proposal for removing soil contaminants that are polluting ground water under Irvine.

The displays will be open for viewing from 4:30 to 8:30 p.m. at Irvine City Hall near the intersection of Harvard Avenue and Alton Parkway.

Public input on the soil-cleanup plan will be accepted through May 30. A court reporter will record comments at the Thursday meeting. The public may also send written comments to Joseph Joyce, Base Realignment and Closure Environmental Coordinator, ACS Environment (IAU), MCAS El Toro, P.O. Box 95001, Santa Ana, CA 92709-5001 or fax them to (714) 726-6586.

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