

O.C. REGISTER - 9/14/94

NEWS FOCUS

# TEAMING UP FOR CLEANUP

## ENVIRONMENT: O.C. Water District and the Marines may join forces to reclaim water that's never been tapped.

By MARY ANN MILBOURN  
The Orange County Register

**T**he chart spread out on the conference room table in front of William R. Mills Jr. looked like a weather map. Solid and dotted black lines curved across the page, outlining what looked like bad weather coming.

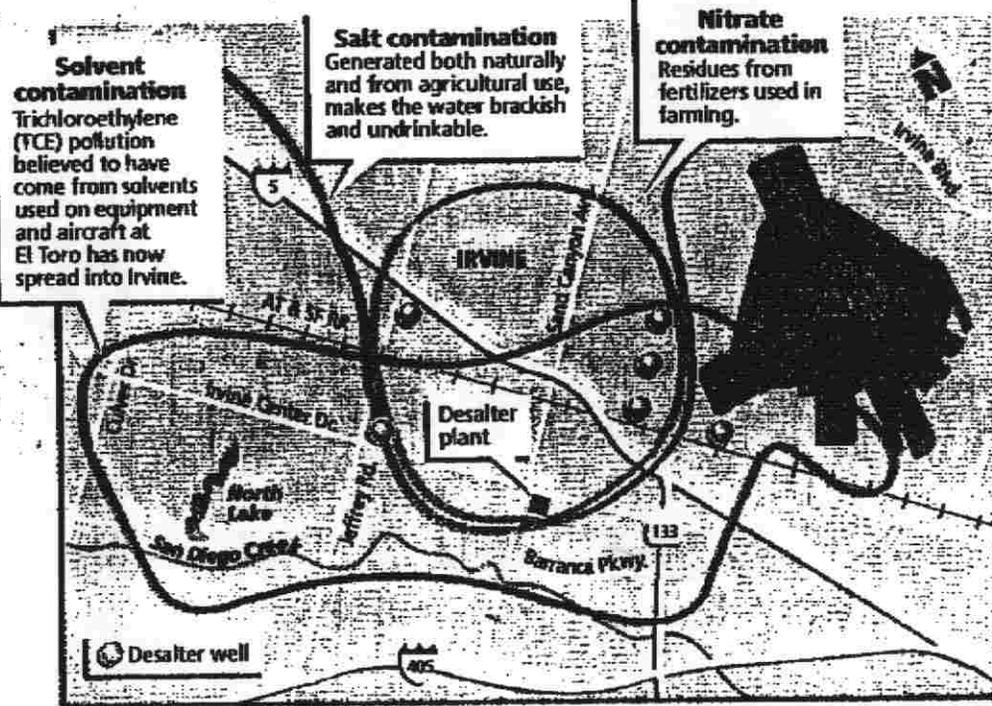
It wasn't a weather map, but the forecast was equally dire for Mills, general manager of the Orange County Water District. The chart showed a large and growing area of water pollution under and around El Toro Marine Corps Air Station and the city of Irvine.

Contamination from solvents that appear to have come from the Marine base was detected eight years ago. High levels of salts and nitrates from longtime agricultural use also have made the water undrinkable.

But after years of working on a cleanup plan, water officials say they are ready to move forward on a first-of-its-kind joint venture with the military to build a \$106 million purification plant.

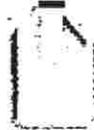
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Please see **CLEANUP** Page 2



## CLEANUP FACTS

- ▶ An estimated 150,000 acre-feet of water is contaminated.
- ▶ 150,000 acre-feet would supply water to half the residents of Orange County for a year.
- ▶ Approximately 8 million gallons will be pumped daily.
- ▶ 7 million gallons will be cleaned daily to meet drinking water standards. The rest will be brine, which will be transported by sewer to the ocean.
- ▶ It will take an estimated 40 years to treat 150,000 acre-feet twice.



## WASHING THE WATER: REMOVING NITRATES, SALTS AND SOLVENTS

Solvent vapor is caught in filters, which are discarded.

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## ELECT V: I and Hispanic are angered GOP plan.

By JEAN O. PASCO  
and JEFF KRAMER  
The Orange County

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The Orange County Register

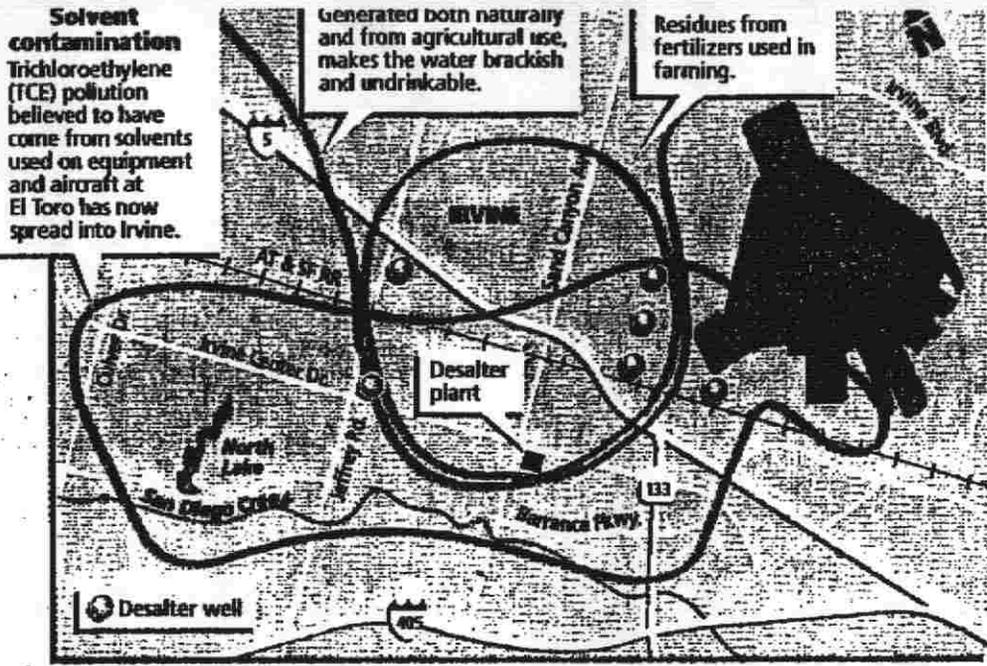
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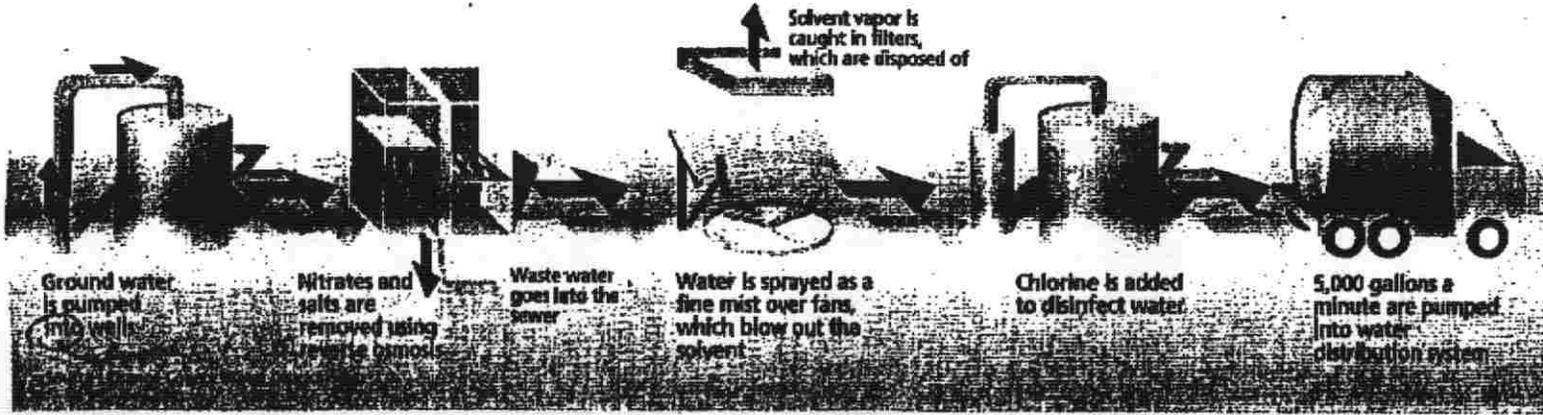


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### WASHING THE WATER: REMOVING NITRATES, SALTS AND SOLVENTS



MARY PRESTON/The Orange County Register

and Hispanic are angry at GOP plan.

By JEAN O. PACE and JEFF KRAMER  
The Orange County Register

Republican place poll was held in precincts in San Diego because they are being closed by at least 10 precincts.

The possibility of a recall in the 69th Assembly District met with opposition from Hispanic and white residents. A statement of support from the Orange County Sheriff's Office was issued in 1988. A majority of District 69 voters would be recalled.

The Election Registrar would be recalled. Registrar of Voters Mark Thompson is expected to review voter registration in the district to purge illegal voters. Jim Morrissey, Roy's, faces 11 charges. Metzler and Reiss.

Morrissey and Mark Thompson concerns about voter registration legislation. The signatures of voters at precincts with irregularities have been reviewed.

He heatedly defended his campaign against harassment. "Mickey made people come in on their own terms," Thompson is going to say, "Are you a voter?" The registration service will be available on Tuesday. Conroy aide Morrissey supported how best to

## CLEANUP

FROM: [REDACTED]

If the project works as planned, it will mean that someday Irvine residents will be able to drink water literally from under their feet rather than having to import it from faraway and increasingly limited sources.

It also would be a major achievement for local cleanup efforts.

"Usually when there's a cleanup, everyone waits for the federal government to do it — and it takes forever," Mills said. "It's important, as a demonstration project to show a local agency can proceed in cooperation with the federal government to do cleanup."

Water officials first became aware of the seriousness of the El Toro contamination in 1986, when trichloroethylene, more commonly known as TCE, was discovered in wells off Irvine Center Drive. Tests for TCE, a probable human carcinogen unknowingly used in solvents for many years, showed levels 10 times the maximum state health standard.

The first thing officials needed to do was determine the source of the pollution and the extent of contamination. The results were unsettling.

Contamination appeared to begin in the southwest corner of the Marine base near the runway and extend northwest into Irvine. Even as testing took place, the pollution was spreading by an estimated 1 to 2 feet a day.

Water-well tests mapped out an amoebalike plume of TCE contamination stretching beyond Culver Drive on the west and Alton Parkway on the south and along the railroad right of way almost as far as Trabuco Road on the north.

While the TCE contamination was in fairly shallow water on the Marine base, it plunged as deep as 200 feet in the Woodbridge area of Irvine, where the rock in the aquifer is more porous.

Contamination has been found as deep as 500 feet. Tests indicated TCE had poisoned an estimated 150,000 acre feet of water — enough to supply half the county's population for one year. A well drilled in 1989 appears to have stopped further spread.

Testing also showed heavy concentrations of salts extending in a loop south of Irvine Center Drive to the foothills in the north. High levels of nitrates formed a circle in the middle of the area, overlapping both the salt and TCE contamination.

The district had experience removing nitrates at its Garden Grove water-treatment plant. The district's Riverside-Arlington plant and facilities in Tustin treat nitrate and salts. Orange has a plant to eliminate TCE.

But the water district never had designed a plant that removed all three contaminants.

The plan calls for a desalter plant near Sand Canyon Avenue and Irvine Center Drive. The plant would process about 8 million gallons of water a day from seven wells in the most polluted area.

Up to 7 million gallons would come out as fresh, potable water that would be sold to the Irvine Ranch Water District. The remainder would be untreatable brine that would be sent through a sewer via Orange County Sanitation Districts to the ocean.

Officials say treating the large amounts of water will be a long and expensive process. They estimate it will take up to 40 years — treating 150,000 acre feet of water twice — to clean the aquifer. Total cost is projected to be \$106 million.

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# ORANGE COUNTY WATER DISTRICT

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Fountain Valley, CA 92728-8300  
Telecopier: (714) 378-3373

## TELECOPY TRANSMITTAL COVER SHEET

DATE: 9/16/94

TO: ANDY PISEKIN

COMPANY NAME: SWDIV

FAX NUMBER: (619) 532-1242

FROM: ROY HERNDON

Pages to be transmitted 3 plus cover sheet.

Comments: Andy - Cut and paste away!

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