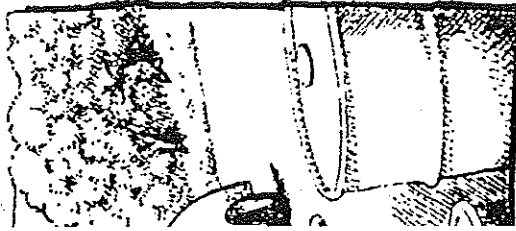


Is contaminated ground water a problem?



PRO

We'd better act,
because future
is threatened

By Ted Smith

Ted Smith is executive director of the Silicon Valley Toxic Coalition, a citizens' watchdog group.

ONE HUNDRED AND THIRTY FIVE years ago, President Franklin Pierce offered to buy Indian land in Washington State. Chief Seattle, in a beautiful and profound response, replied in part: "This shining water that moves in the streams and the rivers is not just water but the blood of our ancestors. If we sell you land, you must remember that it is sacred, and you must teach your children that it is sacred. ..." He then issued this prophecy: "The Whites, too, shall pass; perhaps sooner than all other tribes. Contaminate your bed, and you will one night suffocate in your own waste."

Ten short years ago, there was still reason to believe that the high-tech revolution would be different than earlier waves of new technologies. There was hope that the "clean industry" would overcome Chief Seattle's prophecy. But the toxic chemical leaks discovered in the early 1980s shattered the clean-industry myth.

Today, as the statistics accumulate, the feelings of shock that have sent residents of the Santa Clara Valley reeling are beginning to sink in; we now are able to start assessing the damage to our natural and human environment. Residents in most parts of Santa Clara County depend on ground water for half of their drinking water. The most recent county-wide statistics indicate that more than 40 public and more than 200 private drinking water wells have been contaminated by toxic leaks and spills. Contaminants include carcinogens, mutagens, reproductive toxins and neurotoxins, such as the industrial cleaning solvents trichloroethylene, perchloroethylene, dichloroethylene and trichloroethane. Many of these wells remain in service, however, since the government has determined that the threat to our health does not pose a "significant risk."

AS OF JAN. 17, 1988, the California Regional Water Quality Control Board reported 173 cases of industrial contamination in Santa Clara County, 153 involving contaminated ground water. Among these cases, 132 remain active or are in review. This same report documented 29 federal Superfund sites in the county, far more than any other county in the country. The problems are distributed widely around the county. Santa Clara has 26 active contamination sites, Sunnyvale 25, Palo Alto 17,

Please see SMITH, A-13

CON

Not as long as
drinking water
remains safe

By Jacqueline A. Bogard

Jacqueline A. Bogard is director of environmental programs for the Santa Clara County Manufacturing Group. She also is director of the Clean Water Task Force, sponsored by the manufacturing group.

THERE IS A CLEAR PERCEPTION by the citizens of Santa Clara County that their health is at risk because of the well-publicized "leaking tanks" that have contaminated ground water in the county. Is this concern justified?

From a public health perspective, groundwater contamination in the Silicon Valley is not a significant problem. Drinking a liter of water from the most "contaminated" well in Silicon Valley is 1,000 times safer than drinking two glasses of wine and 15 times safer than breathing indoor air for a day. Nor is it a significant problem in the rest of the United States, according to the Environmental Protection Agency. In a report issued by the EPA entitled "Unfinished Business: A Comparative Assessment of Environmental Problems," the EPA reports that risks "related to ground water consistently rank medium or low."

IT IS IMPORTANT TO UNDERSTAND the difference between ground water and drinking water. Ground water is any subsurface source of water. Ground water that also is used for drinking water must be of high quality and meet federal and state drinking water standards. The quality of ground water can differ dramatically in Santa Clara County, depending on the depth of the source. Most public drinking water wells are more than 200 feet deep; many are 500, 600 or even 700 feet deep. On the other hand, most of the contamination sites in the county are at a depth of 50 feet or less. In other words, most contamination is in shallow, often saline aquifers, whereas drinking water comes from deep, fresh-water aquifers. To ensure that unhealthy levels of materials do not contaminate our public wells by migration or other paths, they are frequently tested.

Because we often link groundwater contamination with a concern for our drinking water, it's important to point out that the public drinking water supplies in Santa Clara County are safe.

THEY ARE FREQUENTLY TESTED to ensure

Please see BOGARD, A-13



SMITH

Continued from A-11

fact remains that the effort has been too little and too late. At most of the sites, cleanup is either in very preliminary stages or hasn't yet begun; and the most distressing fact is that in only a handful of the active cases has the spread of contaminants been contained. Consequently, in most of the remaining cases, the chemicals are continuing to "seep in peace," undisturbed by any sign of cleanup. At this point, no responsible official even dares to predict how many more deep aquifers will be contaminated via conduit wells as these "plumes" continue to spread.

As the costs of cleanup continue to escalate, an effort has been launched by some in industry and government to suggest that the costs of cleanup may be exceeded by the benefits, and that cleanup efforts should be scaled back just as they are finally getting under way. We are hearing more about why people should adopt an "acceptable risk" approach to toxics in our ground water and in our lives, as industry concentrates more on what now is called "risk communication" in order to pacify the public.

The proponents of "acceptable risk" usually fall to mention, however, that the enormous scientific uncertainty involved in "risk assessment" requires public vigilance in the demand for an "extra margin of safety" in the struggle to preserve safe drinking water. While some try to belittle the health significance of 1 part per billion of TCE in one liter of drinking water, this nevertheless represents a concentration of 1 million billion molecules. Since no scientist knows how many molecules of TCE it takes to cause cancer or to cross the placenta in the first trimester of pregnancy as carcinogens. In both cases, the plumes continue to spread — toward Barton Park in Palo Alto and to the day in Mountain View. The Palo Alto plume already has affected seven private wells and has contaminated Maladero Creek in concentrations that exceed the "safety levels" by more than 30 times. Cleanup progress remains a glimmer of hope rather than a reality; the extent of the contamination hasn't even been defined. A recent order from the State Health Department — brought about after much effort by the Barton Park Association — now requires the companies to develop a plan and to establish a cleanup schedule. Cleanup has finally started at the Mountain View site, but EPA estimates it might take 300 years to complete.

WHILE SOME COMPANIES have taken prompt action upon the discovery of contamination on their sites, and in some cases have spent significant amounts of money in cleanup efforts, the unfortunate dash into the nano-second world, where the products generators, or to charge full-steam ahead on our mad fronting us — to take to heart the wisdom of the We in Silicon Valley have an important choice con- was loaned to us by our children.

Earth well. It was not given to us by our parents; it was loaned to us by our children.

people of Kenya have a proverb that states: "Treat the least the next seven generations. In a similar vein, the what they believed would benefit their people for at stions to the elders, who reached decisions based on North America, the Iroquois people of what now is New York state entrusted the most important deci- ed Maladero Creek in concentrations that exceed the "safety levels" by more than 30 times. Cleanup progress remains a glimmer of hope rather than a reality; the extent of the contamination hasn't even been defined. A recent order from the State Health Department — brought about after much effort by the Barton Park Association — now requires the companies to develop a plan and to establish a cleanup schedule. Cleanup has finally started at the Mountain View site, but EPA estimates it might take 300 years to complete.

BOGARD

Continued from A-11

that they meet federal and state drinking water standards. For example, the San Jose Water Company ran 15,000 tests on 10,000 water samples last year. Many water purveyors are providing information on water quality with their water bills. If citizens have a question, they should call their water company.

Because we have such sensitive instrumentation, we are able to find many contamination sites and some trace of chemicals virtually everywhere there has been human activity, including our own back yards. Our concern, however, should focus on whether these materials are at levels and exposure that threaten our health, not on their mere existence.

The EPA report ranked 31 environmental problem areas with respect to four types of risk: cancer risks, non-cancer health risks, ecological effects and welfare effects. "Areas of high EPA effort but relatively rare effects," RCRA sites; Superfund; medium or low risks include: RCRA sites; Superfund; underground storage tanks; and municipal non-hazardous waste sites. "These are potential sources of groundwater contamination. Even though they do not pose a significant health risk, Santa Clara County industry is committed to cleaning up past problems.

THE REPORT ALSO STATES: "Overall, EPA's priorities appear more closely aligned with public

THIS SIMPLY IS NOT TRUE. Industry just happens to be one of the most visible components of our society and, therefore, an easy target. Industry also is the most regulated segment of society.

I am looking out my office window as I write this. The nearby East Bay hills and neighborhoods are totally obscured by air pollution. Indeed, an EPA study on the "Integrated Environmental Management Project" pointed out that the greatest threat to public health in Silicon Valley is from air pollution from automobiles and fireplaces. We cannot eliminate risk. However, we can stop focusing our attention on what makes the best headlines and, instead, work on solving the real problems at hand.

Radio Shack

A DIVISION OF TANDY CORPORATION

SPECTACULAR MONTH END

SALE

AND SPECIAL PURCHASES

Easy-to-Use Tandy® 1000 HX

3-Way Speaker