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Hot Zone

Santa Clara residents have a different reason for opposing development in their back yards—they say it's a toxic disaster

By Vrinda Normand

Photograph by Felipe Buitrago

Weak links: Lucianna Barsanti looks through her chain fence at the BAREC property. A lab test of the soil at the border between her back yard and BAREC revealed the presence of the DDT-like dieldrin, which she believes is connected to her lymphoma.

JOE Sunseri's father died in his arms four months ago. The cancer started in the older man's nasal cavities and eventually spread to his pancreas. By January, even drugs couldn't stop the pain.

The one thing that gives the 57-year-old Sunseri solace is remembering that he stayed with his father until the end in their house on Dorcich Street in Santa Clara, where his family has lived since 1974.

"That's what I wanted," he says. "We moved here to stay for the rest of our lives."

But lately, Sunseri has begun to question the safety of his home and the surrounding neighborhood where both of his brothers also live. Their backyards face the former Bay Area Research and Extension Center (BAREC), a 17-acre research farm that was run by the University of California until 2003.

The old agricultural center, literally across the street from Valley Fair mall on Winchester Boulevard, is prime real estate that Palo Alto–based Summerhill Homes plans to develop—but not until all of the dust has cleared.

The story of BAREC is a complicated one, but it really boils down to the dirt. For decades, the soil on this land was sprayed with toxic pesticides for experimental gardening. It was tilled and churned and irrigated for so long that experts believe dangerous chemicals now banned in the United States could be embedded deep in the earth and may become airborne when construction crews start breaking up the ground to build foundations.

It hasn't escaped Sunseri's attention that two of the chemicals identified in BAREC's soil are probable carcinogens (cancer-causing). His 80-year-old mother was diagnosed with breast cancer in 2005. Could living only a few feet away from soil contaminated with cancer-causing pesticide for over 30 years be to blame for her illness? And is it possible that the same chemicals contributed to his father's death?

He's spent many late nights in the past few months trying to answer those questions, which is why his voice quivers now with a combination of anguish and anxiety.

"I've been pushing myself to the limit on this whole thing," he says, "My whole immediate family is going to be in danger."

With a group of other concerned neighbors, Sunseri is fighting to keep the BAREC development proposal from going any further. They're pushing for more rigorous testing of the agricultural property to determine the extent of contamination before more houses get built—and before they all start breathing toxic dust.

Diagnosing the Neighborhood

Angela D'Orfani launched a grassroots cancer survey last year by knocking on doors in her neighborhood next to the old research farm. She documented 49 cases of breast cancer, lymphoma, prostate cancer, kidney cancer, ovarian cancer, lung cancer, melanoma, colon cancer and leukemia. Most of the affected men and women had called the area home for 20 to 40 years.

The data startled D'Orfani and her neighbors and got them all to take a tougher look at the empty 17 acres behind their backyard fences.

One of them, Luciana Barsanti, 77, had a professional laboratory test the dirt right at the border between her yard and BAREC. She discovered a carcinogenic chemical called dieldrin present at levels over six times the amount considered acceptable by the Environmental Protection Agency.

Dieldrin, which is related to DDT, was used as an insecticide from the 1950s to 1974, when it was banned for agricultural use because of its environmental impact and threat to human health. The stubborn chemical was an extremely effective pesticide because it breaks down very slowly, sticking to the soil and gradually evaporating into the air. It can be stored for long periods of time in plants and body fat.

Incidentally, Barsanti was diagnosed with lymphoma four years ago. "I think it's definitely connected to the dieldrin," she says. "There are cancer cases up and down my street. It's very frightening."

On Deaf Ears

She and several other cancer survivors have voiced their concerns to the Santa Clara City Council, which is in charge of approving zoning for the development, and the California Department of Toxic Substances Control, the oversight agency that must sign off on the BAREC cleanup plan. They haven't gotten anywhere.

"Because the input item is not specifically related to the project site, it is not relevant," wrote Santa Clara planning director Kevin Riley in response to Barsanti's comments about her health and backyard tests at a June hearing on BAREC. Shortly after, the city approved the final Environmental Impact Report without any further study of the potential cancer connection.

BAREC neighbors got the same disinterested response at a DTSC hearing in April of 2006.

"The Department of Toxic Substances Control is not a health agency," said unit chief Karen Toth, according to official transcripts of the meeting. She added that the cancer cluster "doesn't change how we make our decision," and directed the residents to the Northern California Cancer Center.

Representatives from Santa Clara and the DTSC have offered speculative alternative explanations for the alarming backyard test results.

"This was all farmland once upon a time," says Riley. "We don't know if properties next to BAREC would be different from properties a mile away."

He also pointed out that dieldrin might be present in back yards because it was formerly used to kill termites.

But Barsanti, like most of her neighbors, says she built her house next to BAREC in 1953, either before or roughly the same time that dieldrin was introduced as a pesticide. And she never had her house fumigated.

She fingers the most obvious source of dieldrin in her backyard: the research farm that lies less than a foot away from where she had her soil tested.

Who's the Expert?

Scientists hired by the state of California have found dieldrin and arsenic, another carcinogen, present on BAREC in a survey to prepare the land for development. But residents, backed by an attorney and an independent environmental consultant, say the testing done so far is inadequate and fails to capture the true extent of BAREC's problems.

Riley from Santa Clara planning says he "can certainly understand them being afraid," but he adds that he has full confidence in Environ, the consulting firm hired to evaluate BAREC's soil. "I don't know that the person who lives next door is more of an expert than the person who's been doing this for 20 years."

The state Department of General Services (which owns BAREC and plans to sell it for at least $44 million) is paying for Environ—a client relationship that critics are calling a conflict of

interest because the state is regulating itself in a real estate transaction that becomes more profitable the less cleanup is required.

DGS representative Paula Gutierres counters that her department has no influence over the environmental testing protocol. The Removal Action Workplan prepared by Environ, she says, follows standards set by the DTSC. She adds that the DGS and DTSC "are completely separate bodies with totally different missions."

"The bottom line is that the state will clean that property to unrestricted residential standards," Gutierres says, although state officials say they have chosen a cleanup plan that best fits the development project timeline and is limited to $1 million. The current proposal is estimated to cost about $800,000.

Scientists working for Environ tested 60 soil samples on BAREC's 17 acres, all at six inches below the surface. They detected unsafe levels of dieldrin in only three samples, which they dubbed "hot spots" for the clean-up effort.

The consultants also obtained 72 soil samples at depths below two feet, which were only evaluated for arsenic. They found two small hot spots of the chemical, which they plan to clean up by removing a few feet of topsoil in the affected areas.

But San Francisco attorney John Farrow and his consultant ETIC Engineering (both hired by residents opposed to the BAREC development) call Environ's RAW "seriously flawed."

"Failure to conduct broad spectrum analyses at this research facility where numerous unknown pesticides were used is a critical omission," Farrow wrote in a letter to the DTSC. He also warned that the study "underestimates potential health risks to future site occupants."

Specifically, Farrow points out that dieldrin was only tested for at six inches below the surface, while arsenic was evaluated at depths greater than two feet.

Mrs. Barsanti, whose backyard soil test showed dieldrin levels nearly as high as the "hot spot" Environ located on BAREC, wasn't the only neighbor who suspected that the contamination might be worse below surface soils. Two other neighbors also had independent tests taken near the BAREC fence at 12 inches below the soil surface. They discovered levels of dieldrin four and five times the maximum accepted by the EPA.

"That's pretty strong evidence that this stuff has migrated," says Ted Smith of the Silicon Valley Toxics Coalition. He explains the common "game" that happens when companies or agencies are faced with cleaning up a toxic site. "They want to do testing in the most limited way possible because they don't want to get bad results," he says, "They have a strong financial interest to do as little as possible."

Toxins From Above

Why did the DGS and its consultant Environ choose not to test for dieldrin below six inches? The answer is unclear, especially since an early assessment prepared by Environ noted: "pesticides could have percolated to deeper soils and groundwater."

BAREC was used for agricultural research since the 1920s, well before harmful chemicals were identified and restricted by regulatory agencies. The government didn't even require pesticide use documentation until 1979, so there is no record of what went into the research farm's soil in its first 60 years of operation.

Longtime residents remember crop-dusting planes flying over BAREC in the 1950s and 1960s, spraying pesticide chemicals that could have drifted outside the property boundaries and possibly into back yards.

Pesticide records after 1979 are spotty because the Santa Clara County Division of Agriculture only keeps current pesticide use reports. But Environ compiled data on at least 90 chemicals applied to BAREC soil between 1979 and 2002. Furthermore, soil lab tests revealed the presence of dozens of other chemicals that weren't documented. The attorney Farrow argues that most of these chemicals haven't been thoroughly evaluated on BAREC.

Karl Tupper, a staff scientist with the San Francisco–based Pesticide Action Network, says 60 soil samples on 17 acres "doesn't really give the full picture." He also pointed out that testing for dieldrin at a uniform depth of six inches "does not characterize the situation."

San Jose's Approach

In fact, Environ's less-than-rigorous analysis of BAREC's ground contamination pales in comparison to another cleanup effort under way in San Jose's Watson Park.

The popular recreational area served as a municipal dump and incinerator until the 1930s, when it was demolished and turned into a park. Then in 2004, construction crews digging for a new skateboard ramp hit a layer of ash and debris. Soil tests revealed the presence of toxic substances such as lead and burnt ash nearly 100 times what is considered safe for human health.

The city of San Jose immediately closed the park and has been in the process of charting its contamination and cleanup plan ever since.

The city's environmental consultant Susie Vedantham says she took over 500 soil samples throughout 32 acres of the park—and she didn't stop at the property boundaries. When her tests revealed lead or burnt ash close to the fence line, she got permission from neighbors to

go into their back yards. Sure enough, she discovered that the contamination had spread to nine bordering properties.

Soon after, the city paid for those back yards to be cleaned up by having the top three feet of soil replaced.

The larger park is still awaiting remediation, but Vendantham is determined to document the full "horizontal and vertical" extent of the contamination. She has dug as deep as 30 feet and tested multiple layers of earth. She's made borings at every 200 feet of the park's surface and dug 23 large test pits.

"We footed the bill; there was no developer," explains San Jose's deputy city manager, Deanna Santana, about the Watson Park cleanup process. "It was driven by a community effort. We wanted to do the right thing."

Going to Court?

So far, San Jose has avoided major lawsuits from residents near Watson Park since making a decisive action to clean up the bordering back yards. But California and Santa Clara officials may end up facing some unhappy BAREC neighbors in court if the current situation escalates without a resolution.

"They're not concerned about us," Mr. Sunseri says heatedly. "We can't do anything. The city of Santa Clara is supposed to take care of their people."

A growing contingent opposed to the BAREC development is pushing for a referendum to overturn the city's recent approval of the EIR. They've already involved an attorney in their struggle, who has helped them appeal to the DTSC.

The state's oversight agency is currently evaluating those public comments, and spokeswoman Angela Blanchette says a final response will be completed by the end of this month. After that, the DTSC will make a final decision on the RAW, which means they may give a go-ahead for the BAREC cleanup plan.

That could start another round of protests from neighbors who believe that Environ's proposed dust control measures (wetting the soil and erecting a fence) won't fully protect them from contaminated dirt particles made airborne by the wind.

"The pollution problem is huge because it represents a public health concern by disturbing the soil at all," says environmental scientist Cameron Colson. He explains that the dust can drift, get inhaled or be transported from whatever hard surface it settles on.

"If there is a known pollutant on that site and it escapes, [elected officials] need to understand what they're exposing the public to," he says.

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