



The Online Division of The Sacramento Bee

This story is taken from [Asbestos](#) at sacbee.com.

Asbestos raises red flags in state

El Dorado concerns have prompted tough rules statewide for construction, mining

By Chris Bowman -- Bee Staff Writer

Published 2:15 am PDT Tuesday, June 28, 2005

Not every asbestos fiber resides in El Dorado County.

At times it may seem so, with media and regulatory attention glued to the foothills construction in naturally occurring veins of asbestos. But public health concerns are emerging in several Northern California communities in scenarios as varied as the landscape.

"El Dorado County has plenty of asbestos, but there are plenty of other places that are just as much of a concern," said Rick Fears, a state geologist with a new program that inspects proposed school sites for the fibrous minerals and other toxic substances.

While the focus in El Dorado County's chaparral hills is large-scale housing tracts, asbestos in the jam-packed Bay Area is more often a red flag in redevelopment projects and underground work.

In northwestern California, the issue is the many miles of backroads surfaced with crushed asbestos-containing rock called serpentine, which is native to the Klamath Mountains.

On the Central Coast, the Salinas Valley topsoil so hospitable for lettuce and broccoli also hosts an abundance of asbestos fibers that eons of erosion have washed down the western slope of the Diablo Range, creating a potential breathing hazard for farmers tilling fields.

On the east side of the Diablos, near Coalinga, air pollution regulators are worried for the thousands of off-roaders roaring about the federal Clear Creek Management Area, near the world's largest known asbestos deposit.

Earlier this month, federal land managers closed 30,000 acres of the popular dirt-bike playground during the dry season at the urging of the U.S. Environmental Protection Agency. Recent EPA air tests indicate that motorcyclists are inhaling asbestos levels as high as nine times the legal exposure limits for industry.

In the past five years, the concerns in El Dorado have prompted agencies to adopt policies governing construction and mining statewide.

As a result, asbestos protection in California has widened considerably. What had been almost exclusively a worker safety issue in the demolition and remodeling of old buildings with asbestos-containing construction materials has expanded to a health issue for the public at large in breaking ground for new development.

State environmental regulators routinely screen for asbestos at proposed public school sites within 10 miles of areas state geologists have flagged "asbestos hazard zones."

Asbestos has turned up at 11 of 14 proposed school sites sampled so far, according to the state Department of Toxic Substances Control. Results on 12 more are expected later this year.

Developers planning to excavate more than an acre in an asbestos zone must test for the minerals and have a dust-mitigation plan approved by local air pollution regulators before breaking ground.

El Dorado County supervisors are scheduled today to vote on a stricter measure that would impose asbestos dust-controls on projects as small as a backyard swimming pool.

And, as of 2001, gravel sold for covering roads, playgrounds, parking lots and other surfaces must be verified as virtually asbestos-free by a state-certified testing laboratory.

Not long ago the California Geological Survey issued site-investigation guidelines to geologists who increasingly are asked to inspect properties for asbestos prior to land-use decisions, property acquisitions and development.

Last week, state Sen. Deborah Ortiz, D-Sacramento, chairwoman of the Senate Health committee, amended a bill to require that cities and counties address naturally occurring asbestos in general plans that guide land-use decisions. Ortiz also added a requirement that state geologists compile maps identifying "asbestos hazard zones."

"More and more we are being asked, 'Does it occur here?'" said John Clinkenbeard, geologist with the California Geological Survey, which does the mapping.

Another amendment would require property sellers within the asbestos zones to disclose the designation to prospective buyers.

Asbestos is a family of silicate minerals that readily separate into thin but strong fibers remarkably resistant to heat. The invisible, needle-like fibers are hazardous because they can be inhaled deeply, penetrate lung tissue and even migrate through the wall of the lungs and stomach. The fibers can remain in the body for decades and eventually cause diseases - including mesothelioma, a lethal tumor of the lining of the chest and abdominal cavities; asbestosis, a widespread scarring of the lungs; and lung cancer.

In California, asbestos typically occurs in and around serpentine, a greenish rock with a waxy luster used as a decorative stone in landscaping.

Serpentine and other rocks in the ultramafic group are the predominant but not exclusive source of asbestos, distributed mostly along the Sierra Nevada foothills north of Yosemite, the Coast Ranges and the Klamaths.

Air pollution officials in serpentine regions said that new rules requiring builders to monitor dust levels, watering down sites and covering exposed veins when they are done can vastly reduce asbestos exposure.

As the East Bay Municipal Utility District bores a water supply tunnel through the Berkeley Hills, excavators are wearing respirators, air monitors and white protective clothing in the event their drills tear into asbestos veins. Likewise, every truckload of dirt is sampled and all tires are sprayed clean before leaving the site of the \$33 million project - a bypass replacing the section of Claremont Tunnel that crosses the active Hayward Fault.

"We're going by a conservative approach, assuming it is there," said Susan Suzuki, a health and safety specialist with the utility.

Halfway through the dig, the air and soil analyses have yet to find the mineral fibers, utility officials said.

Bridge contractors employed many of the same safeguards in recent earthquake safety work at the base of the Golden Gate's southern approach, where serpentine is abundant, according to records filed at the Bay Area Air Quality Management District.

One mile south, in the Presidio, hazardous materials workers cleaning up an old Army dump a few years ago were instructed to remove and contain not only buried building debris that contained asbestos but also the underlying natural deposits of asbestos.

Similarly, developers of a 27-acre South San Francisco business park, to be leased by the biotechnology giant Genentech, have naturally occurring asbestos to worry about in addition any chemical contamination remaining from more than a century of paint manufacturing that had occurred there on Oyster Point.

These are among the 22 construction projects within the broken belts of serpentine ringing the Bay Area that air-quality regulators have monitored in the past few years. The hundreds of acres of artificial fill rimming the bay itself also contains asbestos from crushed serpentine, including some from the rubble removed after the 1906 earthquake, according to air district records.

None of the Bay Area investigations on record has turned up the particularly toxic amphibole asbestos - mainly tremolite and actinolite - that has been found along with the more common chrysotile type in portions of El Dorado County and elsewhere in the Sierra foothills.

The finding of amphibole asbestos - namely the tremolite and actinolite varieties - was a key driver in the federal EPA's choice of El Dorado Hills for its largest investigation of the fibrous minerals in California, said Dan Meer, an EPA official who supervised the tests, which showed significant exposures to children riding bikes and playing baseball.

"We are not aware of any other place in the state where you have this converge of rapid development and large-scale disturbance of tremolite-bearing terrain," Meer said.

But the Bay Area regulations are no less protective for chrysotile, which scientists say is harmful but significantly less potent than amphibole asbestos in causing mesothelioma.

When the wind speed exceeded 25 mph, builders of the newly finished Ramblewood Park School in San Jose had to shut down, said Larry Aceves, superintendent of the Franklin-McKinley School District.

Unlike their counterparts in the Sierra foothills, school officials in the fully developed Bay Area usually can't turn to an alternative, asbestos-free site.

Workers had to haul off hundreds of truckloads of soil and replace it with clean fill. Street sweeper trucks continuously cleansed the residential streets. The asbestos-mitigation work accounted for \$4 million of the \$16 million cost to build the elementary school, he said,

"I didn't mind going the extra yard for these kids," Aceves said.

[Graphic: Asbestos in California](#) [116k JPG]

About the writer:

- The Bee's Chris Bowman can be reached at (916) 321-1069 or cbowman@sacbee.com.

Go to: [Sacbee](#) / [Back to story](#)

This article is protected by copyright and should not be printed or distributed for anything except personal use.
The Sacramento Bee, 2100 Q St., P.O. Box 15779, Sacramento, CA 95852
Phone: (916) 321-1000

[Copyright © The Sacramento Bee](#)

