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[Return to Contents page](#)**ENVIRONMENT****ARSENIC AND OLD MINES****As Montanans battle a new gold rush, Californians are dealing with the poisonous legacy of the past**

BY JOHN GREENWALD

In the historic gold-rush country of Northern California, Lovetta Pyle has struck a vein of woe. Shortly after moving to the town of Sutter Creek, she learned that the gray "sand" that whole neighborhoods sit on is actually mine tailings, the grit left over after gold has been extracted from the ground. In those tailings is a toxic byproduct of the mining process: arsenic, in concentrations up to 50 times higher than the level deemed safe by the government. Now Pyle finds that her house is virtually worthless; no one will buy it, and no bank will write a mortgage. "I feel trapped and stifled," says Pyle, 48, who was forced by a chronic heart ailment to take early retirement as Sutter Creek's postmaster. "You think, 'Oh, God, what if this house is killing me?'"

The trouble at Sutter Creek (pop. 2,000) has helped spread alarm throughout the Mother Lode country, one of the fastest growing parts of California. And the worries extend all the way to Montana, where a delegation from the UN agency UNESCO last week toured the site of a proposed mine just two and a half miles from Yellowstone National Park. Environmental groups oppose the project as hazardous to the park's ecosystem, and President Clinton has imposed a moratorium on new mining in the area, which could impede the project's start-up. Among the danger signs: contamination of two nearby creeks with poisons, including arsenic, from previous gold mines. The critics want UNESCO to add Yellowstone to its list of endangered sites and thereby increase pressure on Crown Butte Mines, Inc., to drop plans for the new mine. "A worse site could not have been imagined," says Sue Glidden, co-owner of the general store in nearby Cooke City. "It threatens all our community values. It is not our destiny to return to our mining roots."

Californians are discovering the poisonous persistence of those roots. Attracted by the beauty of the Sierra Nevada foothills and easy access to such cities as Sacramento and Stockton, new arrivals have swelled the population of the Mother Lode from 400,000 in 1980 to about 700,000 today, creating new boomtowns where old ones once stood. But many residents have come to view the tens of thousands of abandoned mines as health hazards. Such concerns have halted planned housing and commercial developments and raised demands for cleanup projects that could take years to complete and cost hundreds of millions of dollars.

Some residents dismiss their neighbors' fears as overblown. While arsenic can be a fast-acting killer, the form found in gold-bearing ore is far less potent than the fabled poison and remains inert until it comes into contact with air or water. And few researchers have studied—much less established—possible links between long-term exposure to gold-mine tailings and damage to human health. "It's all debatable," says Dan Ziarkowski, an expert on hazardous materials for the state Environmental Protection Agency. True, chronic exposure to arsenic has been connected to cancer and kidney disease. But, Ziarkowski says, "how that relates specifically to mine tailings, and at what level you have concern, we don't know."

Many parents fret as their children play on contaminated land. Experts say the main danger is that youngsters will inhale the arsenic or ingest it. Some forms of arsenic dissolve in water more easily than others; the greater the solubility, the greater the risk. "A small particle of arsenic that gets in your gut and is insoluble will probably be passed with little harm," says Michael Kosnett, a toxicology expert at the University of Colorado.

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That hardly comforts residents of Mesa de Oro, a Sutter Creek subdivision that sits atop an 11-acre pile of tailings that developers allegedly failed to test for arsenic. Arsenic there has since been found to be 25% soluble and thus may easily dissolve once inside the body. "My kids are 13 and nine," says Roberta Hughes, who lives near the Mesa and becomes teary eyed with frustration when she talks about the problem. "They have been here through all the construction, all the dust." Last year testers in Mesa found high levels of arsenic--even in the dust of home vacuum cleaners. They detected concentrations of nearly 1,000 parts per million, compared with an allowable ceiling of 22 p.p.m.

The Mesa findings galvanized the Environmental Protection Agency, which last month began a \$3 million effort to contain and clean up the arsenic. The work, financed by \$1.4 million in Superfund money and sums provided by Allied-Signal and other owners of mine and tailings properties, includes scraping two feet off the tops of yards at about 75 homes and putting down fresh topsoil.

Yet the cleanup may not enable homeowners like Pyle, who paid \$200,000 for her house, to recoup their investments. The arsenic saga "may affect the property value forever," says Tom Blackman, a real estate agent. The anxieties in California are mirrored in Montana, in spite of Crown Butte's promise not to harm the area surrounding its mines in their projected 10- to 15-year life-span. Says Jim Barrett, chairman of the anti-mine Beartooth Alliance: "When [the company] gets the gold, they'll be gone, but we will be here tomorrow. We will suffer forever."

Reported by Dan Cray/Sutter Creek and Richard Woodbury/Yellowstone National Park

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