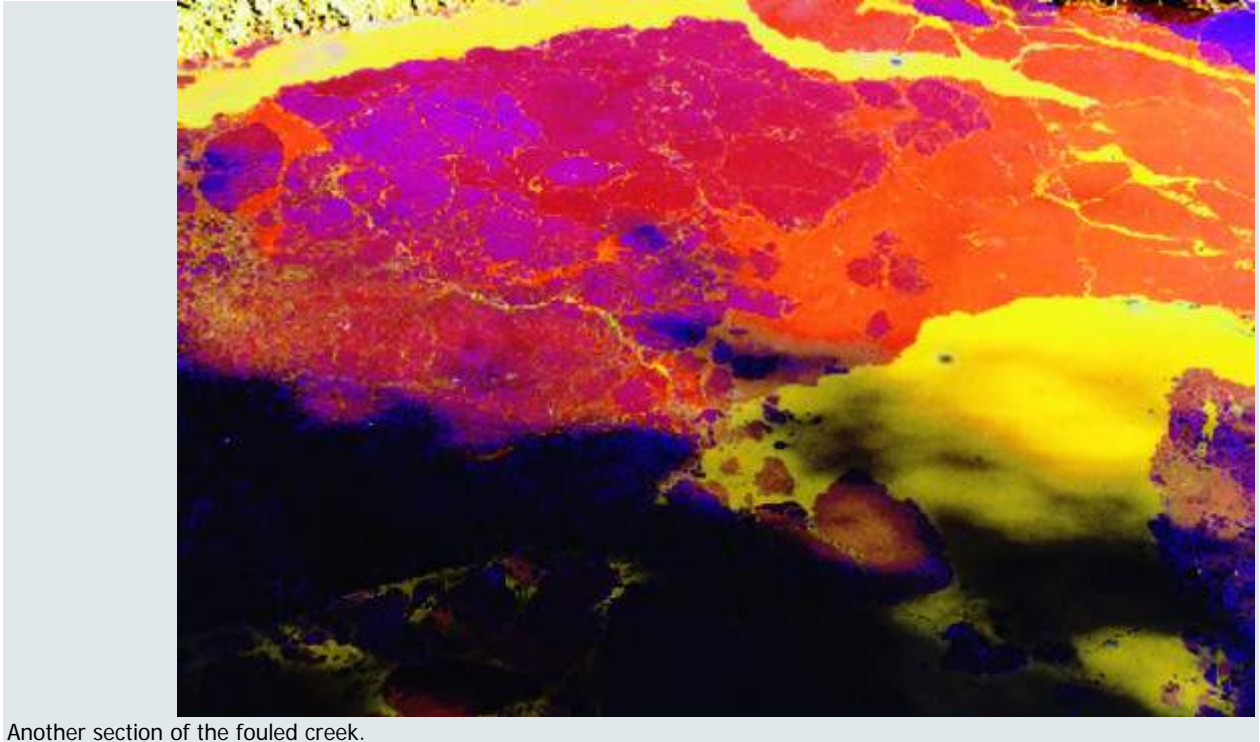


# TOXIC MINE SITE IN LODE NEEDS FIX

*Water leaking into landfill at heart of '90s cleanup*



Crusty mineral formations cover rocks next to a creek flowing with discolored water below a landfill where 350,000 cubic yards of waste from a former mine are stored near Camanche Reservoir.



Another section of the fouled creek.



The upper arm of Camanche Reservoir close to Penn Mine near Campo Seco.

CALIXTRO ROMIAS/The Record

## Still toxic

The Penn Mine, one of the largest hazardous waste cleanups in California history, is still leaking more toxic water than expected, state water pollution regulators say. A \$1.2 million repair to seal water outside of the landfill holding the mine's tailings will be conducted this fall.



Source: Central Valley Regional Water Quality Control Board

The Record

By **Dana M. Nichols**

August 15, 2013

Record Staff Writer

CAMPO SECO - Cottonwoods now grow in the once-barren gulch leading from the Penn Mine, and fish no longer die by the thousands when rain runoff washes from the mine into nearby Camanche Reservoir.

But there's still plenty of evidence of the mine's toxic past, including crusty mineral formations along creeks and bright red and orange water trickling down the gulch that leads from the place where 350,000 cubic yards of waste from the former copper and zinc mine lie buried in a landfill.

That landfill is the heart of a \$16.5 million cleanup completed in the late 1990s by state water pollution regulators and the East Bay Municipal Utility District. Now, officials say water is somehow leaking into the landfill, and this fall, they will need to do a \$1.2 million repair to the plastic "geomembrane" wrapped around the mine waste.

The California Water Resources Control Board is expected next week to approve contributing \$400,000 in state funding to that cleanup.

"There is no groundwater problem at the moment, but we want to make sure it doesn't become a problem in the future," said Ken Landau, assistant executive officer of the Central Valley Regional Water Quality Control Board.

Bill Brattain, a water resource control engineer for the Regional Water Quality Control Board, said engineers know about the leak because of the amount of water collecting in a sump below the bottom of the landfill. They had expected it to be a very small amount, fewer than 2,000 gallons a year. That would have required only one tanker truck trip per year to ship the liquid 500 miles to a hazardous-waste disposal site in Nevada. Instead, the trips have been happening once a month during the rainy season, Brattain said.

EBMUD and Shaw Environmental will each contribute \$400,000 toward the cost of the repair work.

Shaw Environmental is the successor to OHM Remediation Services Corp., the firm that constructed the mine waste landfill at the Penn Mine in 1998. Shaw had the contract to haul away any water leaching from the landfill, but ended up losing money on the deal because flows were larger than expected, Brattain said.

In exchange for a contract modification that will allow Shaw to be paid more for any waste hauling work it does, Shaw agreed to contribute a third of the cost of the repairs.

The landfill site looks like a grassy hilltop surrounded by a barbed-wire-topped chain link fence. Beneath the grass and a layer of soil is a heavy-duty plastic geomembrane similar to that used to line municipal dumps.

The top geomembrane layer simply overlaps the plastic membrane that covers the side of the landfill, much like the folding closure used in old-fashioned plastic sandwich bags.

The repairs to be done this fall will require digging up the overlapped geomembranes and bonding them together so it won't be possible for water to leak through. Shaw will do that work and will also rebuild a system of V-shaped drains around the edge of the top of the landfill.

"We want to get it done this fall before the rainy season. It should take about five or six weeks for the work," Brattain said.

The Penn Mine produced copper and zinc from 1861 to 1956. After the site was abandoned by its owners, EBMUD attempted to limit spills from the mine by creating waste ponds. Those ponds, however, allowed waste to concentrate, resulting in further spills and fish kills.

Lawsuits filed by environmentalists in the 1980s eventually forced EBMUD and the state to do a thorough cleanup.

Troubles caused by waste in the area are not yet over. An additional 50,000 tons of waste believed to be from the Penn Mine remain at an open site called Poison Lake about a mile to the east on the other side of Camanche Lake in Amador County.

Officials with the federal Bureau of Land Management, which manages the Poison Lake Mill Tailings Site, and EBMUD, which seeks to protect the waters of nearby Camanche Reservoir, will hold a public meeting to discuss options for remediating the mine waste next Thursday.

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### **Poison Lake Mill Tailings Site cleanup meeting**

Representatives of the U.S. Bureau of Land Management and East Bay Municipal Utility District will hold a public meeting to discuss options for cleaning up toxic mine waste at Poison Lake in Amador County.

The meeting will be from 7 to 8 p.m. next Thursday in McLean Hall at EBMUD's Pardee Center, 3535 Sandretto Road, Valley Springs.

Copies of an engineering report and cost analysis on cleanup options can be viewed at Amador County Library in Jackson and the Lone Library in Lone.

The deadline for public comments on the report is Sept. 23. Send comments to Peter Graves, AML/Hazmat Program Lead, BLM California State Office, 2800 Cottage Way, Suite W-1623, Sacramento, CA 95825 or [p15grave@blm.gov](mailto:p15grave@blm.gov).

Officials believe the mine waste at Poison Lake originally came from the Penn Mine a mile to the east on the other side of Camanche Reservoir in Calaveras County.

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