

# Officials targeting old-mine dangers

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abandoned-mine sites safer.

But although Colorado gets about \$2.5 million a year from a federal mine-reclamation fund and uses it to barricade dangerous holes in the ground, Arizona's shoestring effort is using volunteers to find hazards and notifying abandoned-mine owners that they are responsible for fencing them off.

"Our best estimate is that there are more than 100,000 abandoned mines in Arizona," said Dave Hamm, a deputy mine-safety inspector based in Prescott.

He has been working with U.S. Forest Service officials to supervise volunteers who are helping to locate potentially hazardous abandoned mines in Prescott National Forest.

## 1 or 2 people die a year

Christianson estimates that about 40 percent of the sites in Arizona need to be secured in some way because they are life-threatening hazards.

An average of one to two people a year are killed in abandoned-mine accidents in Arizona, and five or six others are injured, he said.

Colorado officials have counted about 8,000 hazardous abandoned mines in the state, "but we know there are many more than that, perhaps several times 8,000," said Dave Bucknam, supervisor of Colorado's inactive-mine-reclamation program.

Fatal accidents at those sites average about one a year, although four people died in abandoned Colorado mines last year, he said.

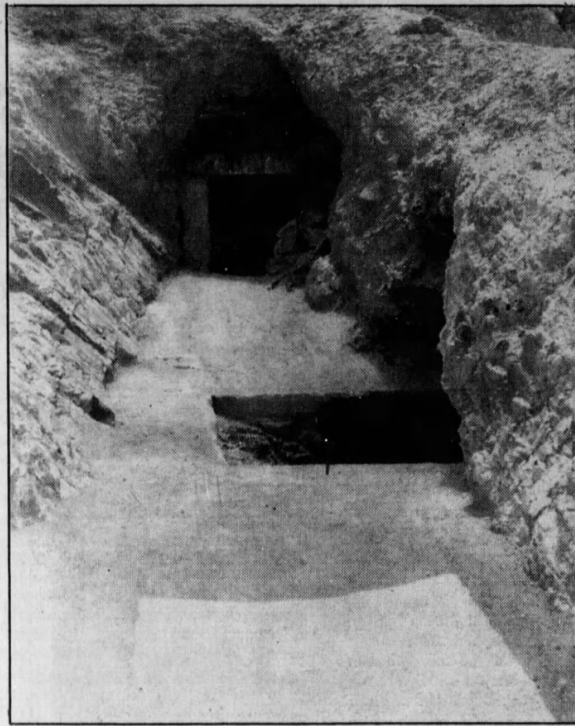
Besides the danger of falling down a shaft, the hazards of exploring old mines include harmful gases, lack of oxygen, old explosives, cave-ins from above, collapsing ground underfoot and snakes.

Federal support for Colorado's abandoned-mine safety program comes from a federal fund composed of payments from active coal-mining firms for each ton they mine. Arizona gets no share because the only coal mining in the state is on the Navajo Indian Reservation, Christianson said.

The Navajo Nation uses payments from the federal fund for reclamation projects at discontinued coal mines on the reservation, a Navajo natural-resources official said.

## Death prompted funding

After a 15-year-old Phoenix boy died three years ago in an abandoned mine near Gleason, in southeastern



Don Emple/The Arizona Republic

Two openings to an abandoned mine are kept well-swept, with carpeting near the entrance, a sign that someone apparently is using the shafts as a home.

Arizona, the Legislature appropriated \$38,800 for the Mine Inspector's Office to begin systematically identifying abandoned mines, posting them with danger signs, and telling owners to make them safe.

The office hired college students to begin the process.

For the past three summers, they have used maps, site inspection and records of property ownership and public-land mining claims to identify about 3,000 hazardous sites in southeastern Arizona and the people responsible for fencing them.

Funding for the project ended last year, however.

Hamm and the office's four other deputy inspectors around the state, whose main responsibilities are at active mines, continued to record and post signs at a few abandoned mines.

However, Hamm said, "I was getting pretty frustrated because there were so many mines and so few of us."

So, he and Cotec of the Forest Service arranged to tap into the service's existing program for recruiting and training volunteers for projects in national forests.

The volunteers, mostly amateur prospectors or rock collectors, located about 200 abandoned mines in Prescott National Forest this spring, and erected danger signs.

"If there are 20 (mines) on the map, we find about 40 when we look out on the ground," Hamm said.

Warning signs have been removed from many sites that had been posted

in the past, he said.

A similar volunteer effort is being organized for sites in Coronado National Forest in southern Arizona.

## Landowners' responsibility

Better protection comes from putting physical barriers around hazardous sites, but the state does not have money for that. Instead, it sends notices to the property owner or claimholder for each site, telling them the site is hazardous and must be made safe.

"A lot of people don't know they have this responsibility, or even that there's an abandoned mine," Hamm said.

Marsha Bornstein of Carlsbad, Calif., received a notice from the Arizona agency in February, informing her that, through her mother, she is responsible for fencing a cluster of 15 abandoned mines near Tombstone.

Bornstein said she has never been to the site, and had thought it had just one mine, already fenced off.

"It's been a big surprise and a big expense," she said.

The old fence had been knocked down. She has contracted with an Arizona firm to put up sturdier fencing, topped with barbed wire, for \$2,400.

"I was happy to be notified, though of course I'm not happy about what it's costing me," Bornstein said.

"It's an abhorrent thought to know there's a hazard like that existing on your property."

"The first thing I thought about was kids."