

**Selected AMLU Abandoned Mine Remediation Projects (2009)**

(Click on pictures below or scroll down for more information)

	<p>Partner(s): Bureau of Land Management (BLM) Barstow Field Office          Closure type: Cupola          Location: San Bernardino County          Completed: June 2009</p>
	<p>Partner(s): U.S. Forest Service (USFS) Inyo National Forest          Closure type: Bat Gate          Location: Mono County          Completed: June 2009</p>
	<p>Partner(s): California Department of Parks and Recreation          Closure type: Backfills          Location: Kern County          Completed: May 2009</p>
	<p>Partner(s): Department of Fish and Game          Closure type: Fences and signs          Location: Santa Cruz County          Completed: April 2009</p>
	<p>Partner(s): BLM Barstow Field Office          Closure type: Cupolas and grate          Location: San Bernardino County          Completed: January and February 2009</p>

## Cupola Installed at Abandoned Goat Basin Mine, Bureau of Land Management (BLM) Barstow Field Office, San Bernardino County, June 2009

The U.S. Bureau of Land Management (BLM) and Abandoned Mine Lands Unit (AMLU) in the California Department of Conservation's Office of Mine Reclamation (OMR) partnered to seal the hazardous Goat Basin Mine to protect public safety and wildlife. The site of the abandoned gold mine, located near Twentynine Palms less than one mile from Joshua Tree National Park, is frequented by four-wheel drive recreationalists and hikers. In 1991, an accident at the mine claimed the life of a man who had lowered himself into the mine shaft on some chains. When the chains broke, he fell to his death.

A U.S. Department of the Interior Office of Inspector General (OIG) audit in July 2008 described the Goat Basin Mine as follows:

"The opening at the mine is extremely dangerous and there was evidence that visitors were passing within feet of the opening on off-road vehicles. The edges of the opening have eroded, creating an "ant trap;" once a visitor goes over the edge, there is no way to stop falling into the hole."

The cupola replaced a wire fence that BLM had installed around the shaft. Funding for the closure was secured in part by U.S. Senator Dianne Feinstein as part of the Consolidated Appropriations Act of 2008.



Open mine shaft at the Goat Basin Mine where a visitor died. (OIG Photo)

*"Through a cooperative effort between OMR and BLM, this steel enclosure called a "cupola" over the 400-square-foot mine shaft opening allows the bats that live inside to enter and leave while keeping out curious and adventurous humans. This cooperative abandoned mine lands closure effort also extends throughout the desert from Twentynine Palms through Barstow, and into the Ridgecrest area."*

--Sterling White, BLM California Desert District Environmental Protection Specialist



**AMLU's 600<sup>th</sup> Remediation Project: Bat Gate Installed on Historic Adit, Inyo National Forest, Mono County, June 2009**

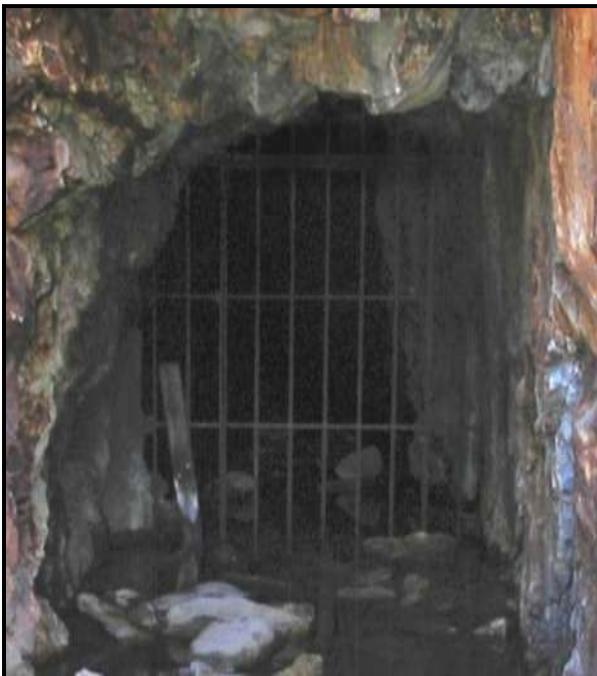
In June 2009, the AMLU completed its 600<sup>th</sup> physical hazard remediation project since it began funding such projects in 2002: the installation of a bat-compatible gate on a hazardous, abandoned gold mine in the Inyo National Forest near Mammoth Lakes.

The Mammoth Consolidated Mine and Mill is a 1920s-era gold mine that has become an interpretive center. It includes an assay building, bunk houses, cookhouse and superintendent's house as well as the mine, which has two adits (tunnels with one opening) that tend to attract the curious. During the summer months, hundreds of people are in the vicinity of the interpretive site daily, enjoying outdoor recreation. The site is adjacent to the Coldwater Campground, which has 75 campsites and is usually full in peak season, and a well-traveled trail that provides entrance into the John Muir Wilderness. Project work was completed in conjunction with the U.S. Forest Service to ensure the safety of visitors.

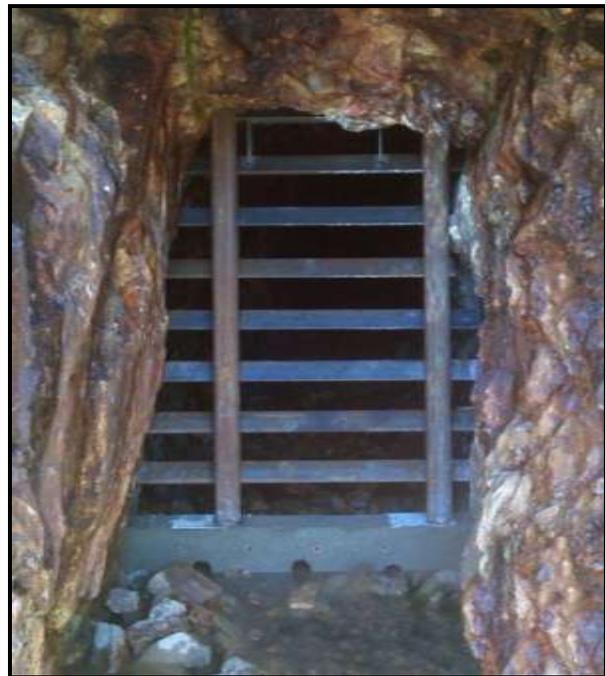
The adits were gated in the 1980s but had been repeatedly vandalized. The gate on the lower adit is in place and functioning, but the gate on the upper adit was dilapidated and in need of complete replacement. An OMR contractor installed the gate to allow bats to enter and leave the adit while keeping people from getting hurt or killed in the mine.

*"The replacement of the gate addressed a dangerous safety hazard and will allow the visiting public to have a safe and enjoyable visit at this very popular site. The Inyo National Forest extends its heartfelt thanks to the California Office of Mine Reclamation for addressing this dangerous safety hazard in such a timely fashion."*

– Lynn Oliver, Minerals and Geology Program Manager, Inyo National Forest



**ADIT (with vandalized gate)**



**ADIT (with new bat gate)**

## Backfills Close Dangerous Mine Openings in Red Rock Canyon State Park, Kern County, May 2009

During ongoing inventory work on abandoned mine lands in California, AMLU staff found two areas of dangerous mine openings in Red Rock Canyon State Park. The mouth of Last Chance Canyon contained four shafts up to 60 feet deep, while the Roaring Ridge area had two other underground workings. All the features were near dirt roads in this park popular with off-highway vehicles enthusiasts. Department of Parks and Recreation (State Parks) staff install temporary fencing, and the AMLU contracted with State Parks to bring in equipment and crew from the Hungry Valley State Vehicular Recreation Area (SVRA) to provide a more permanent closure. Using their heavy equipment, the expert operators from Hungry Valley used local fill material to permanently seal the openings via backfill, eliminating the hazard.

*“The Tehachapi District of the California Department of Parks and Recreation appreciates the outstanding professionalism and dedication of the staff of the California Department of Conservation Abandoned Mines Lands Unit. Through a cooperative effort between AMLU and State Parks we were able to permanently close six dangerous abandoned mines within Red Rock Canyon State Park, including one sixty foot vertical shaft that was located adjacent to primary access road.”*

- Russ Dingman, Associate Environmental Planner, California State Parks



**STATE PARK AND AMLU STAFF INSPECT A MINE SHAFT AT LAST CHANCE CANYON MOUTH.**



**HUNGRY VALLEY SVRA STAFF BACKFILL A SHAFT WITH A DUMP TRUCK**



**MINE WORKINGS AT ROARING RIDGE WITH MUCH EVIDENCE OF FOOT TRAFFIC INSIDE.**



**HUNGRY VALLEY SVRA STAFF CLOSE UP THE OPENING WITH HEAVY EQUIPMENT.**

*(All photos courtesy of State Parks.)*

## Fences Installed at California Department of Fish and Game (DFG) Bonny Doon Ecological Reserve, Santa Cruz County, April 2009

In the aftermath of the Martin Fire of 2008, which burned approximately 80% of the Bonny Doon Ecological Reserve, DFG staff explored the Reserve for dead, standing tree hazards and found two abandoned mines and a caved-in area upslope of one of the mines. The DFG contacted the Abandoned Mine Lands Unit (AMLU), and AMLU staff visited the site, inventoried the mine features, and provided recommendations for closures to protect human health and safety and associated wildlife and cultural values. The DFG determined that fencing and signing the mines represented the best immediate option. The AMLU provided fencing materials, signs, and staff to assist DFG staff in fencing the three areas before the Reserve was reopened to the public. Additional work, such as installing bat-compatible culvert gates, may occur in the future, with AMLU staff continuing to provide assistance.

*“This is our first co-operative effort together (DFG/AMLU), and after a lot of planning, and a long field day, we completed a lot of work. Sharing staff, materials, and resources helped us with this project and also helps with public safety. Thanks for your help.”*

–Laurie Briden, Senior Wildlife Biologist, DFG Bay-Delta Region



**SHAFT BEFORE FENCING**



**SHAFT – FENCED AND SIGNED**



**SUBSIDENCE NEAR WALKING TRAIL**



**SUBSIDENCE FENCED AND SIGNED**

## Cupolas Installed on Mine Shafts, BLM, San Bernardino County, January and February 2009

In January and February 2009, the AMLU partnered with the BLM Barstow Field Office to install four cupolas and a grate on abandoned mine shafts near the city of Barstow, CA. These hazardous shafts are located in an area with lots of public visitation. Bat compatible closures were installed to preserve habitat while protecting the public from these hazardous features.



*“The California Desert offers a myriad of recreational activities to thousands of people. Unfortunately, there are also a large number of hazards that can affect visitors as well. Working with the knowledgeable state AMLU crew, we were able to pool our resources to effect more closures than would have otherwise been possible.”*

-- Mickey Quillman, BLM Barstow Field Office

