



**KENNY C. GUINN**  
*Governor*

STATE OF NEVADA  
COMMISSION ON MINERAL RESOURCES  
DIVISION OF MINERALS

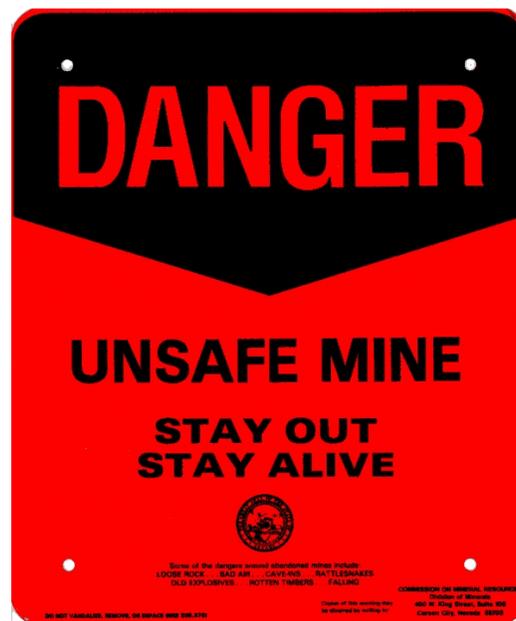
400 W. King Street, Suite 106  
Carson City, Nevada 89703  
(775) 684-7040 • Fax (775) 684-7052  
<http://minerals.state.nv.us/>

**Las Vegas Branch:**  
1771 E. Flamingo Rd.  
Suite 120-A  
Las Vegas, Nevada 89119  
(702) 486-4343  
Fax (702) 486-4345

**ALAN R. COYNER**  
*Administrator*

**COMMISSION ON MINERAL RESOURCES  
DIVISION OF MINERALS**

**NEVADA ABANDONED  
MINE LANDS REPORT  
2001**



by  
**Bill Durbin - Chief, Abandoned Mine Lands Program**  
**Alan R. Coyner - Administrator**

**February, 2002**

# NEVADA COMMISSION ON MINERAL RESOURCES

## Division of Minerals

The Nevada Division of Minerals, a part of the Commission on Mineral Resources, is responsible for administering programs and activities to promote, advance, and protect mining and the development and production of petroleum and geothermal resources in Nevada. The Division's mission is to conduct activities to further the responsible development and production of the State's mineral resources to benefit and promote the welfare of the people of Nevada. The seven-member Commission on Mineral Resources is a public body appointed by the Governor and directs mineral-related policy for the Division and advises the Governor and Legislature on matters relating to mineral resources. The Division focuses its efforts on three main areas: Industry relations and public affairs; regulation of oil, gas, and geothermal drilling activities and well operations; and abandoned mine lands.

The agency is involved in a wide array of activities relating to mineral development. Staff compiles annual data on all active mines in Nevada and maintains the State's mine registry. Information concerning mining operations and production is made available to the public through this yearly publication. Educational documents and materials concerning many aspects of the minerals industry are also produced. The Division participates in governmental activities affecting policies and laws concerning the minerals industry and resource development. The Division administers the State's reclamation bond pool.

The Division is responsible for permitting, inspecting, and monitoring all oil, gas, and geothermal drilling activities on both public and private lands in Nevada. Staff also monitors production of oil, gas, and geothermal resources to insure proper management and conservation. The Administrator is the Governor's Official Representative to the Interstate Oil and Gas Compact Commission.

The Division's abandoned mine lands program provides for public safety by identifying and ranking dangerous conditions at mines that are no longer operating, and by securing dangerous orphaned mine openings. The program continually urges the public to recognize and avoid hazardous abandoned mines.

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Alan Coyner, Administrator, Division of Minerals  
Doug Driesner, Director, Mining Services  
Walt Lombardo, Chief, Southern Nevada Operations, Sr. Geologist  
Bill Durbin, Chief, Abandoned Mine Lands  
John Snow, Program Manager, Oil, Gas, and Geothermal  
Linda Wells, Program Assistant, Oil, Gas, and Geothermal  
Wanda Martin, Program Officer II  
Deborah Selig, Program Assistant, Las Vegas Office  
George Bishop, Field Specialist, Abandoned Mine Lands

Additional copies of this report may be obtained from the Division of Minerals.  
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## Executive Summary

The State of Nevada's Abandoned Mine Lands (AML) program entered its 14<sup>th</sup> year in 2001. Highlights for the program in 2001 include the following:

- No injuries or fatalities related to hazards at abandoned mines were reported to the Division in 2001.
- The total number of AML sites discovered and ranked since the beginning of the program reached 8,525 sites. The total number of sites secured reached 6,332.
- 449 sites were discovered and ranked in 2001, a 10.0% increase over 2000. This increase is due primarily to an expansion of the summer intern program.
- 474 sites were secured in 2001, a 17.3% increase over 2000. 188 sites were secured by mining claimants and private property owners. 286 orphan sites were secured by NDOM staff and volunteers, a record amount of securings.
- Public awareness activities included 68 classroom presentations to approximately 2,800 students. Students and teachers were given brochures, bumper stickers, magnets, and pencils bearing the "Stay Out and Stay Alive" message. 60,100 AML brochures were distributed to every 4<sup>th</sup> and 8<sup>th</sup> grade student in the state and the "Stay Out and Stay Alive" video was sent to all new schools in the state.
- The Las Vegas AML Backfill Project, which is a cooperative project between the Division, the Bureau of Land Management, the Nevada Mining Association, and Clark County, permanently closed 22 sites in Clark County in 2001 compared to 13 sites in 2000 and 6 in 1999. The further expansion of this program has been impacted by the cost of biological and cultural surveys associated with permitting surface disturbance activities on public lands.
- The Summer Intern Program was expanded from 2 students in 2000 to 4 students in 2001. All four students were recruited from the Mackay School of Mines at the University of Nevada Reno.
- 39 sites were secured and 9 sites were repaired by 6 Eagle Scout candidates in 2001. Since 1992, 23 Eagle Scout projects have been completed resulting in 135 secured hazards.

- The Division continued its role as the principal facilitator of the state's AML Environmental Task Force. Six field projects and an AML database project were initiated in 2001, primarily through funding provided by the U.S. Army Corps of Engineers.
- The Division exceeded both of the performance measures approved by the state legislature. Total secured sites divided by total discovered sites was 74.0% (70% required) and total public awareness presentations was 12.1 per staff member (12 required).
- Total dedicated funding from mining claim filings and permitted surface disturbance associated with new mining operations on public lands totaled \$282,465 in 2001, as compared with \$173,590 in 2000. The increase in revenue was due primarily to booking a \$120,000 BLM grant in calendar year 2001, which may include calendar year 2002, and a small increase in claim fees passed by the CMR in July, 2001.

## **Program Background**

Nevada's geology provides ideal conditions for the deposition of a large variety of valuable and useful minerals. These mineral deposits have attracted the attention of miners and prospectors for over 150 years. The hearty souls who searched across the state exploring for this vast mineral wealth left behind a legacy of shafts, adits, glory holes, stopes, mill sites and other features that are potentially dangerous to unwary or curious people and to wild and domestic animals. Over time, most of the mine openings have become unstable because of exposure to the elements and decay of support timbers. It is estimated that 200,000 to 300,000 of these mining-related features exist in the state. Of these, the Division estimates that 50,000 are significant hazards that require some type of securing. Appendix A lists the sites discovered and sites secured by the AML program from 1987 through 2001.

The State of Nevada AML program was created by the legislature in 1987 in response to a number of incidents, both fatal and nonfatal, that had occurred in abandoned mine openings. Table 1 shows a 30 year history of known incidents related to abandoned mines. The legislation placed the program with the Division of Minerals and mandated two primary functions: 1) Investigation and inventory of mining-related openings and structures at mining sites that are currently idle or abandoned, and 2) Development and maintenance of an aggressive public awareness campaign to educate the public about dangerous conditions that exist as a result of historic mining activities. The primary Nevada Revised Statutes (NRS) governing the AML program can be found in Appendix B.

In 1989 the legislature expanded the program to include the responsibility of securing hazardous conditions on open public lands where no claimant or property owner could be

identified (so-called “orphan” mine openings). The legislation also provided an opportunity for companies, individuals, and civic groups to voluntarily assist the program in securing orphan mine openings under a designated Good Samaritan law (NRS 41.0331).

**Table 1. Reported AML Incidents from 1987 through 2001.**

<b>NEVADA DIVISION OF MINERALS Reported Abandoned Mine Lands Incidents</b>		
<b>Date</b>	<b>Incident</b>	<b>County</b>
5/71	Male juvenile (15) injured in fall down 200 ft. deep mine shaft	Carson City
4/75	Two male juveniles killed when motorcycles fall into mine shaft near Searchlight	Clark
12/78	Juvenile killed in fall down mine shaft (Ninety-Nine Mine), body never recovered	Clark
4/79	Two teenagers killed in fall down mine shaft (Oest Mine)	Lyon
9/88	Body of elderly male found at bottom on mine shaft	Lyon
9/89	Male adult seriously injured in fall down internal winze in mine near Henderson	Clark
3/90	Male juvenile lost for 19 hours in mine shaft near Tonopah	Nye/Esmeralda
5/90	Dog killed in mine shaft	Humboldt
2/91	Male adult (40) killed in fall down internal mine winze	Douglas
5/91	Male juvenile (13) injured (minor) in fall down 20 ft. deep mine shaft	Washoe
12/91	Male adult (44) killed in fall down internal mine winze	Lyon
9/92	Female adult (28) injured (cuts and bruises) in fall down mine shaft	Douglas
10/92	Male adult (27) news reporter injured in dynamite blast in mine	Humboldt
11/93	Dog rescued from 30 ft deep mine shaft	Storey
6/95	Male adult (30) killed while scuba diving in mine shaft filled with water	Humboldt
3/96	Male adult (31) injured in fall down internal mine winze on west side of Las Vegas	Clark
9/96	Two male adults (35) killed in mine adit near Virginia City by suffocation	Storey
4/97	Two male adults (50's) injured in fall down hand dug well in town of Luning	Mineral
7/98	Male adult (20's) slightly injured in fall down internal mine winze in Brougher Divide Mine near Tonopah, another adult male lost for 7 hours, total of 6 adult males in mine	Esmeralda
9/98	Dog rescued from 20 ft deep mine shaft	Douglas
10/98	Two male adults seriously injured in fall down 50 ft. deep internal mine winze near Las Vegas	Clark
10/99	Female juvenile (11) killed in fall down 130 ft. deep mine shaft near Beatty	Nye
11/00	Dog rescued from fall down 40 ft. mine shaft. Moderate injury to hip	Storey
12/00	Dog rescued from fall down 60 ft. winze. Minor injury to hip	Pershing

The AML program is administered under Nevada Administrative Code (NAC) 513. The pertinent regulations can be found in Appendix C. Sections 513.320 through 513.360 provide for the openings or structures to be given a hazard ranking based on the location and type of feature. The regulations also require that land ownership status be conducted at the county courthouse to

determine whether a current claimant or landowner is responsible for abating hazardous conditions on lands under their control.

The AML program is funded by fees on mining claim filings collected on behalf of the Division by the individual counties. The program is also funded by a fee paid by mining companies or individuals for new operations or expansions occurring on public lands. In 1995, the Division entered into a cooperative agreement with the Bureau of Land Management (BLM). Under this agreement the BLM has provided a yearly assistance grant to enhance and accelerate both field investigation activities and work performed by staff and volunteers to secure orphan hazards.

In compliance with NRS 513.094.2, the Division notifies county commissions of hazardous conditions discovered in their counties, on an on-going basis by: 1) Providing copies of notification letters sent to claimants requesting that hazardous conditions located on their claims or property be secured, and 2) Providing documentation of orphan hazards identified and ranked within a week of determination of orphan status.

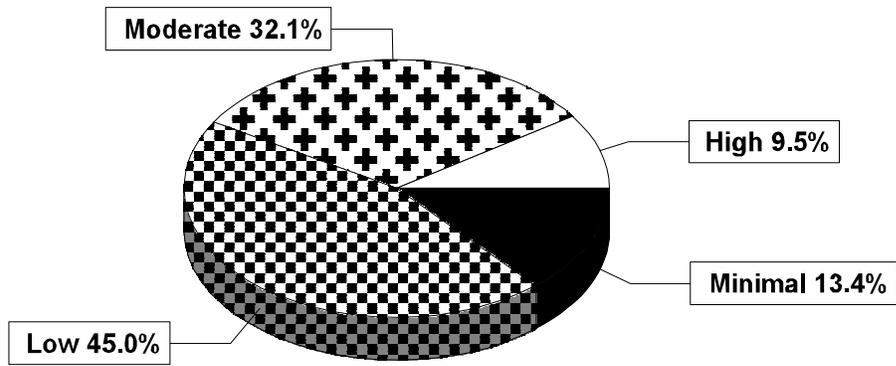
If a claimant fails to notify the Division of completion or of their intention to secure hazards within 60 days of the date of the notification letter, their file is turned over to the appropriate county commission. The county is authorized to take appropriate enforcement action, which may including warnings issued by the county Sheriff, securing work performed under direction of the county at the owner's expense, and possible fines of up to \$250.

### **Discovery and Securing**

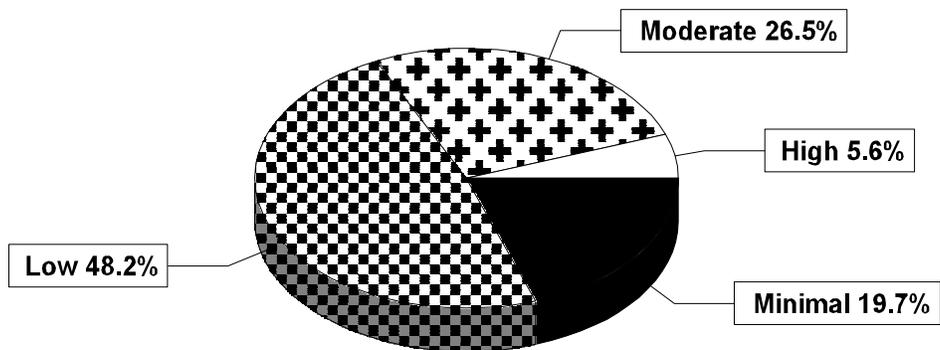
From the beginning of the AML program through December 31, 2001, 8,525 hazards have been discovered and ranked and 6,332 hazards (claimed, owned, and orphans combined) have been secured. Table 2 is a county-by-county listing of hazards discovered and secured since the beginning of the program.

Of the 6,332 hazards secured, 604 (9.5%) were ranked high, 2,032 (32.1%) were ranked moderate, 2,849 (45%) were ranked low, and 847 (13.4%) were ranked minimal. Figure 1 is a pie chart showing the percentage distribution of secured mine openings by hazard rank.

Of all the hazards secured, 1,602 (25.4%) are orphans and they ranked as follows: 90 (5.6%) high, 425 (26.5%) moderate, 772 (48.2%) low, and 315 (19.7%) minimal. Figure 2 is a pie chart showing the percentage distribution of secured orphan mine openings by hazard rank. The difference between total securings and orphan securings is 4,730 sites, which represent the significant contribution to the program by the mining industry and other individual owners.



**Figure 1. Distribution of secured mine openings by hazard rank 1987 through 2001.**



**Figure 2. Distribution of secured orphan mine openings by hazard rank 1987 through 2001.**

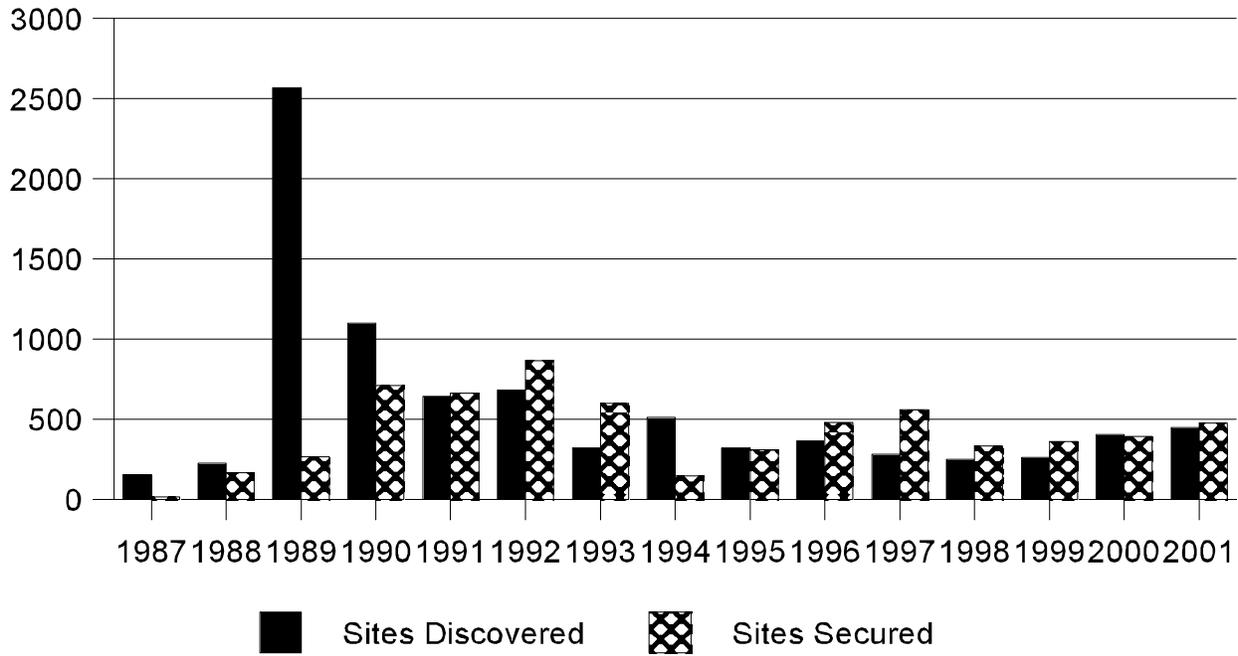
**Table 2. County-by-County Hazards Discovered and Secured from 1987 through 2001.**

<b>COUNTY</b>	<b>SITES DISCOVERED</b>	<b>SITES SECURED</b>
Carson City	72	69
Churchill	312	233
Clark	1,503	884
Douglas	132	107
Elko	301	205
Esmeralda	1,003	831
Eureka	523	456
Humboldt	302	265
Lander	321	237
Lincoln	313	226
Lyon	677	516
Mineral	750	593
Nye	853	573
Pershing	685	435
Storey	129	106
Washoe	302	283
White Pine	347	313
<b>TOTAL</b>	<b>8,525</b>	<b>6,332</b>

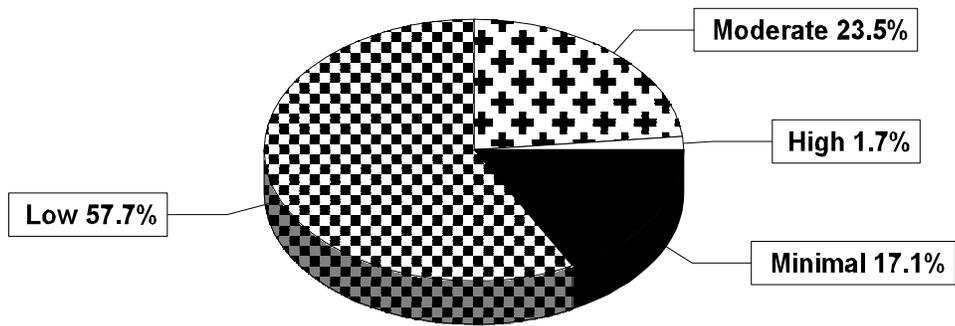
The total number of hazards discovered and ranked during 2001 was 449 and the number secured was 474. This compares with 404 discovered and ranked and 392 secured in 2000. Figure 3 is a graph of sites discovered and ranked and sites secured for 1987 through 2001.

Of the total hazards secured in 2001, 188 hazards were secured by claimants and owners of patented claims and private land, and 286 hazards were orphan mine openings secured by NDOM staff and volunteers. The orphan hazards represent 60.3% of 2001 securings. 207 of the orphans were secured by NDOM, 39 hazards were secured and 9 vandalized hazards were re-secured during 6 Eagle Scout projects in Clark and Lyon counties, and 40 hazards were secured by members of the Gold Searchers of Southern Nevada in Clark County.

Orphan securing work during calendar year 2001 resulted in the abatement of 5 hazards with a ranking of high (1.7%), 67 with a ranking of moderate (23.5%), 165 with a ranking of low (57.7%), and 49 with a ranking of minimal (17.1%). Figure 4 is a pie chart showing the percentage distribution of secured orphans by hazard rank in 2001.



**Figure 3. Sites discovered and sites secured from 1987 to 2001.**



**Figure 4. Distribution of secured orphan mine openings by hazard rank 2001.**

## **Public Awareness**

In the public awareness arena, the theme is “Stay Out and Stay Alive.” This message is carried to the public through several channels including; an 11- minute video of the same name which has been distributed to every school and library in Nevada, informational brochures, mini-unit curriculum guides targeting 4<sup>th</sup> and 8<sup>th</sup> grade students, TV and radio public service announcements, highway billboards and handouts that include bumper stickers, magnets and pencils. These materials reach tens of thousands of people every year.

In 2001, staff made 68 classroom presentations to approximately 2,800 students in Battle Mountain, Carson City, Fallon, Fernley, Las Vegas, and Reno-Sparks. Students, teachers, and parent helpers were all given brochures, bumper stickers, magnets, and pencils to use and share with family members and friends. On at least four occasions, NDOM received information from students or parents that led to the discovery and securing of hazards.

The “Stay Out and Stay Alive” message was spread through other venues, as well:

- Presentation made to grade level 4-5 teachers at the annual Las Vegas Minerals Education workshop, and the summer Minerals Education workshop in Fallon (total of 50 teachers),
- 2 Presentations to the Gold Searchers of Southern Nevada at regular monthly meetings (estimated attendance of 100-125 per meeting),
- Presentation to the Mackay Club at University of Nevada, Reno,
- National Engineering Week display at the Grant Sawyer Building, Las Vegas - approximately 100 visitors to display, and
- Earth Day celebrations in Reno and Las Vegas - estimate 2,000 to 3,000 attendees in each location.

Also in 2001, 60,100 brochures were mailed out during January and February to 4<sup>th</sup> and 8<sup>th</sup> grade students in Nevada public and private schools. Mini-unit curriculum guides were sent to all new schools and to all public or private schools that added additional 4<sup>th</sup> or 8<sup>th</sup> grade classes to their schedule. “Stay Out and Stay Alive” videos were sent out to all new schools.

## **Backfill Projects**

In 1999, NDOM, the Nevada Mining Association (NvMA), Bureau of Land Management (BLM) and Clark County came together to develop a plan to backfill mine hazards close to residential areas and recreation areas in Clark County. Areas targeted included hazards in the Alunite mining district just south of Henderson and hazards in the Goodsprings mining district 30 miles southwest of Las Vegas. The Henderson area has experienced tremendous growth in the past 10 years. Hazardous mine openings that were once six miles from town were found to be

less than a mile from new housing tracts. The Goodsprings area is heavily visited by tourists and off-road vehicle enthusiasts and has a mining history of well over 100 years. Over 700 hazards have been logged in the district.

Funding, personnel (engineering and equipment operators), and equipment for the backfill projects has been provided by NvMA and its member companies. The projects require extensive cultural and biological resource studies and surveys before actual backfill work can be authorized. The studies were conducted in part by the Harry Reid Center for Environmental Studies at UNLV with funding provided by NvMA.

Three Clark County backfill projects have been completed resulting in 41 hazards permanently secured. The first project took place in December of 1999 near Henderson and 6 hazards were backfilled. The second project took place in September of 2000 in the vicinity of Henderson and Black Mountain and 13 hazards were backfilled.

The third Clark County backfill project was completed in August, 2001. 22 orphan hazards were backfilled in the Goodsprings area, 19 of which had been previously fenced by NDOM, former claimants, and volunteers. Staff from Chemical Lime at Apex provided the engineering staff and an equipment operator. Cashman Equipment provided heavy equipment, transportation and fuel. Figure 5 shows work in progress at the backfill project.

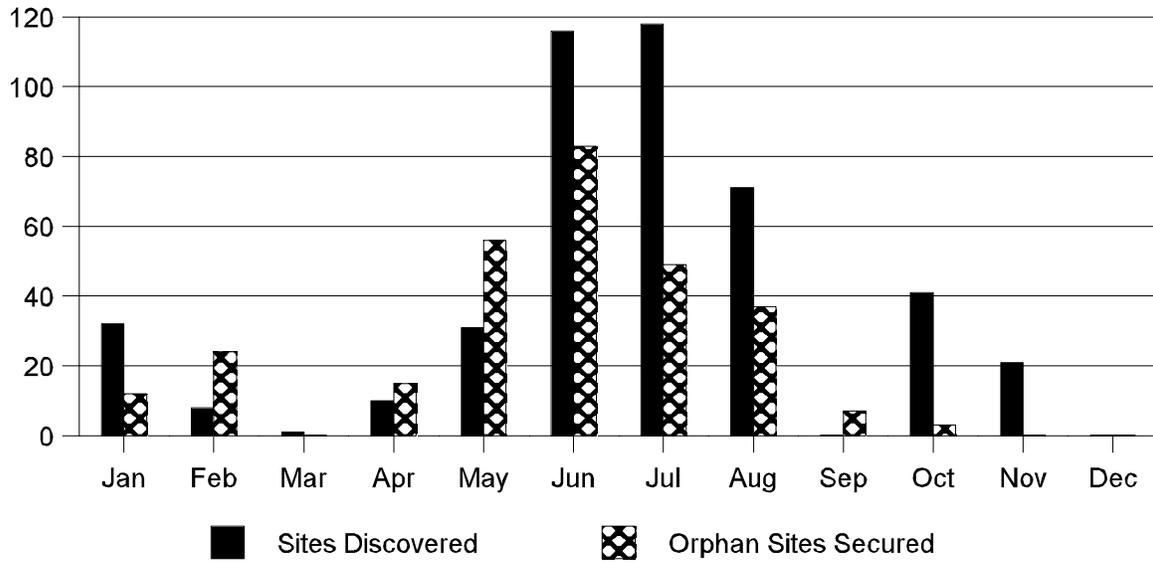
Also in 2001, staff from the Barrick Bullfrog Mine backfilled 13 orphan mine openings in and around Beatty, near the Bullfrog mine site, and near Rhyolite. The Rhyolite townsite is in the process of being upgraded by the BLM into a recreation site. The Division is actively coordinating with the BLM to perform additional securings at this area and other designated recreation sites around the state.

### **Summer Intern Program**

The Division completed a second summer intern program in 2001. Four students from the Mackay School of Mines were hired. The students, Ryan Hoerth, Nick Keller, Shiloah Manuel, and Jesse Ruzicka, performed very well in the 11 weeks they were with NDOM. This program not only helped to advance the AML program, but also provided the students valuable field experience in map reading, data collection, land status research, and geological investigation. Figure 6 is a chart illustrating the monthly hazard discovery and orphan securing efforts made during 2001. It is very clear the interns' presence during the May-August time frame had a marked positive impact on the program. Figure 7 shows an intern at work.



**Figure 5. Clark County backfill project.**



**Figure 6. Sites discovered and orphan sites secured 2001.**



**Figure 7. Summer intern at work in Lyon County.**



**Figure 8. Clark County Eagle Scout securing project.**

## **Eagle Scout Projects**

In 1992, a young Eagle Scout candidate presented NDOM with a proposal to secure mine openings for his Eagle Service project. This volunteer effort was very successful and has led to several other projects throughout Nevada. Through 2001, 23 Eagle Scout projects have been completed resulting in 135 orphan hazards secured and 11 previously secured hazards re-built or restored in Carson City, Clark, Douglas, Lyon, and Washoe Counties. Figure 8 shows an Eagle Scout project in Clark County. Appendix D lists the accomplishments of the Eagle Scouts in the AML program.

## **Nevada AML Environmental Task Force**

In March of 1999 the BLM initiated the formation of a Nevada Abandoned Mine Land Environmental Task Force to begin the remediation of environmental problems associated with abandoned and inactive mines in Nevada. The task force is comprised of 13 federal and state agencies in order to foster regulatory cooperation, identify priority sites for cleanup, and provide administrative oversight for funded projects. The Division has taken the role of lead coordinator in this effort.

In 2001 the Division was instrumental in obtaining a \$5 million congressional appropriation, of which \$2.2 million came to Nevada, to support the development of closure plans, and small, innovative, on the ground demonstration/study projects related to abandoned mine cleanup. The money, administered through the Army Corps of Engineers, is being used on six sites in Nevada for which co-funding is available. These sites are the Rip Van Winkle Mine in Elko County, the Golden Butte Mine and Easy Junior Mine in White Pine County, the Elder Creek Mine in Lander County, the Perry Canyon Mine in Washoe County, and the Veta Grande Mine in Douglas County. Also included in the Corps of Engineers' Restoration of Abandoned Mine Sites (RAMS) program is funding for an AML Technology database and an AML GIS database.

## **Performance Measures**

The Legislature requires state agencies to have performance measures in place for all of their major programs. For the AML program the Division has two performance indicators: 1) maintain the number of secured hazardous mine openings to the number of hazardous mine openings identified, logged and ranked at a minimum of 70%, and 2) maintain the number of public awareness and education presentations concerning the Nevada mineral industry and abandoned mines per staff member at 12 per year. The Division has consistently exceeded these goals for the past four years.

## Funding

The Division's AML program is funded by three major revenue sources: 1) mining claim fees, 2) surface disturbance fees paid on new mining plans of operations on public lands, and 3) grants from the Bureau of Land Management. As of July 16, 2001, \$1.50 of every mining claim filing collected by the county on behalf of the Division is dedicated to the AML program (NAC 513.315). The Division collects a one-time fee of \$20 per acre for every acre of permitted disturbance associated with new mining operations on public lands. The Division has a memorandum of understanding with the Bureau of Land Management which provides for a grant of approximately \$60,000, which is year-to-year dependent. Table 3 shows the revenues received by the Division from these three revenue sources for the years 1997 through 2001.

**Table 3. Revenues to the AML program for the years 1997 through 2001.**

Year	BLM grants	Mining Claim Fees	Disturbance Fee	Total
1997	*a \$117,000	\$129,333	\$157,711	\$404,044
1998	60,000	136,514	66,812	263,326
1999	*b 100,000	125,985	106,380	332,365
2000	40,000	113,430	20,160	173,590
2001	*c 120,000	140,635	21,830	282,465
Total	\$437,000	\$645,897	\$372,893	\$1,455,790

\*a = includes \$60,000 grant from fiscal year 1996 that was received in calendar year 1997.

\*b = includes \$30,000 urban interface grant and \$70,000 AML Environmental Task Force grant.

\*c = may include \$60,000 grant for calendar year 2002

AML revenue is used to pay salary expenses, travel expenses, the summer intern program, vehicle expenses, and field supplies such as fence posts, signs, and barbed wire. The revenue is also used to support the AML public awareness program through school presentations, video distributions, brochures, magnets, pencils, and other means of outreach.

## Summary

The AML program continues to make good progress in the discovery and securing of abandoned mine hazards across Nevada. The combined help of the Nevada mining industry, the federal land management agencies, the summer intern program, and many volunteers has greatly enhanced the efforts of the NDOM staff.

The total number of sites discovered and secured has increased in each of the last three years. This has occurred in a time when industry activity, as measured by the number of active mining claims, has decreased. The Division also recognizes that many of the sites near the population centers have been logged and much of the remaining work is located in the more remote, less accessible areas of the state.

The public awareness program has reached over 6,000 people directly through personal interaction with students and members of civic groups and organizations. Many thousands of others may have been impacted through a “Stay Out and Stay Alive” public service announcement on television or reading an AML brochure brought home by a student.

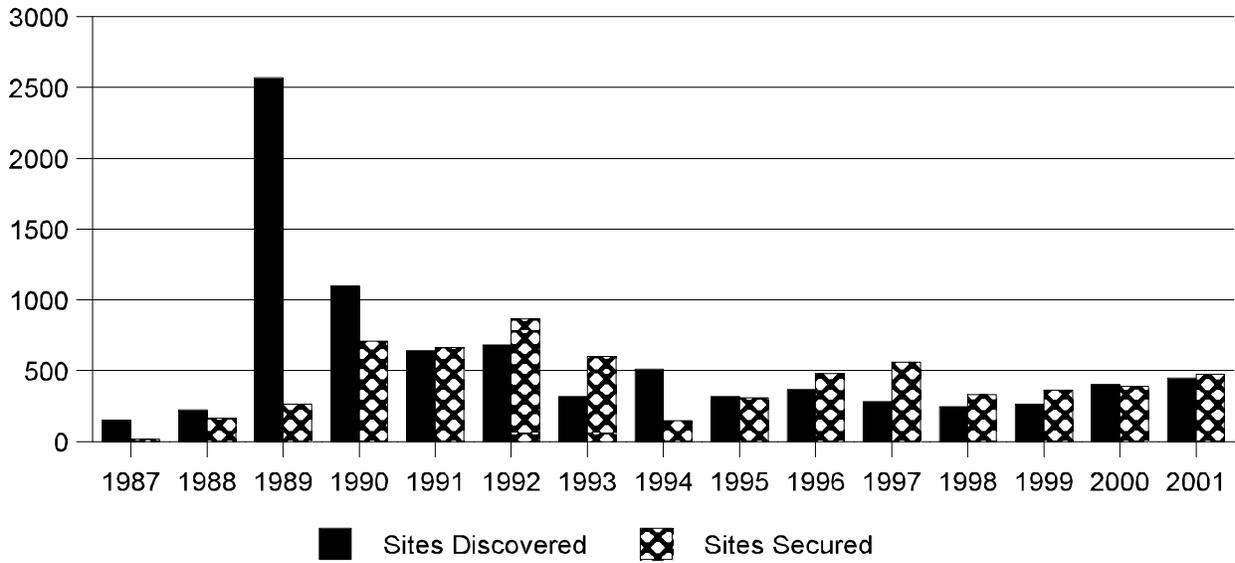
Despite Nevada’s tremendous population growth and the growing number of visitors that recreate in Nevada, there has been no apparent increase in the number of injuries or fatalities related to abandoned mine hazards. It is the sincere hope of the NDOM staff that the fences, barricades and signs, and the awareness brought to people through the “Stay Out and Stay Alive” message are factors that contribute to keeping the incident rate as low as possible.

The Commission on Mineral Resources and the Nevada Division of Minerals will continue to aggressively support the AML program through field work and public awareness because the only satisfactory number of abandoned mine injuries or fatalities is **ZERO!!**

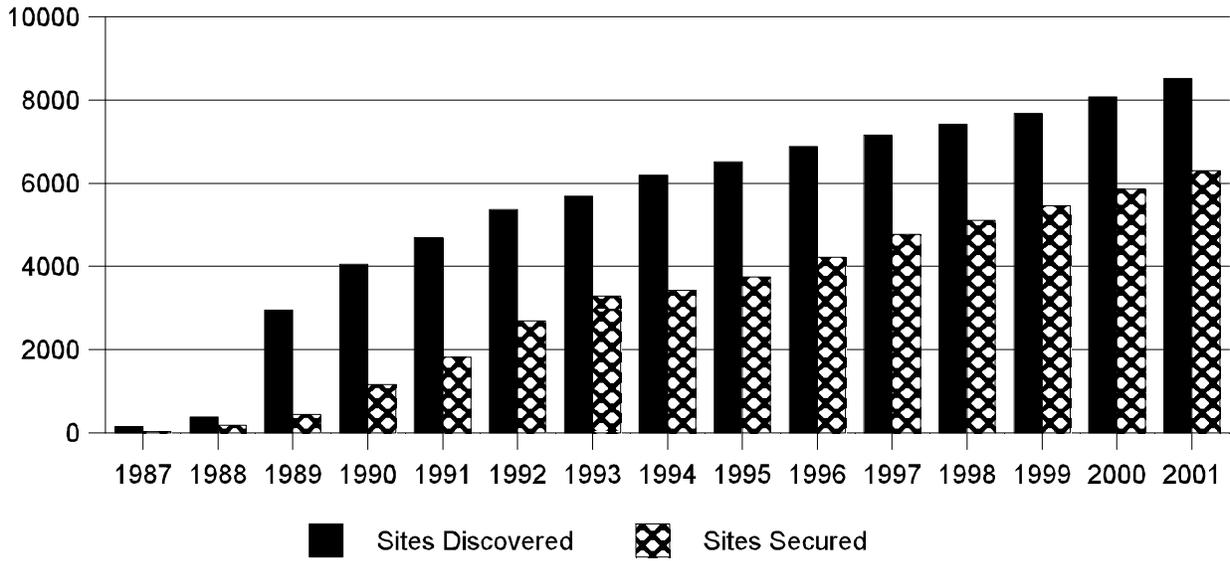
**Appendix A. Sites Discovered and Sites Secured from 1987 through 2001.**

<b>Year</b>	<b>Sites Discovered</b>	<b>Cumulative Sites Discovered</b>	<b>Orphan Sites Secured</b>	<b>Non-Orphan Sites Secured</b>	<b>Sites Secured</b>	<b>Cumulative Sites Secured</b>
<b>1987</b>	153	153	0	16	16	16
<b>1988</b>	223	376	13	153	166	182
<b>1989</b>	2,569	2,945	28	235	263	445
<b>1990</b>	1,099	4,044	79	631	710	1,155
<b>1991</b>	642	4,686	66	598	664	1,819
<b>1992</b>	683	5,369	46	819	865	2,684
<b>1993</b>	319	5,688	87	513	600	3,284
<b>1994</b>	510	6,198	36	109	145	3,429
<b>1995</b>	318	6,516	162	144	306	3,735
<b>1996</b>	365	6,881	209	269	478	4,213
<b>1997</b>	282	7,163	168	391	559	4,772
<b>1998</b>	248	7,411	93	239	332	5,104
<b>1999</b>	261	7,672	91	271	362	5,466
<b>2000</b>	404	8,076	238	154	392	5,858
<b>2001</b>	449	8,525	286	188	474	6,332

**Appendix A (continued)**

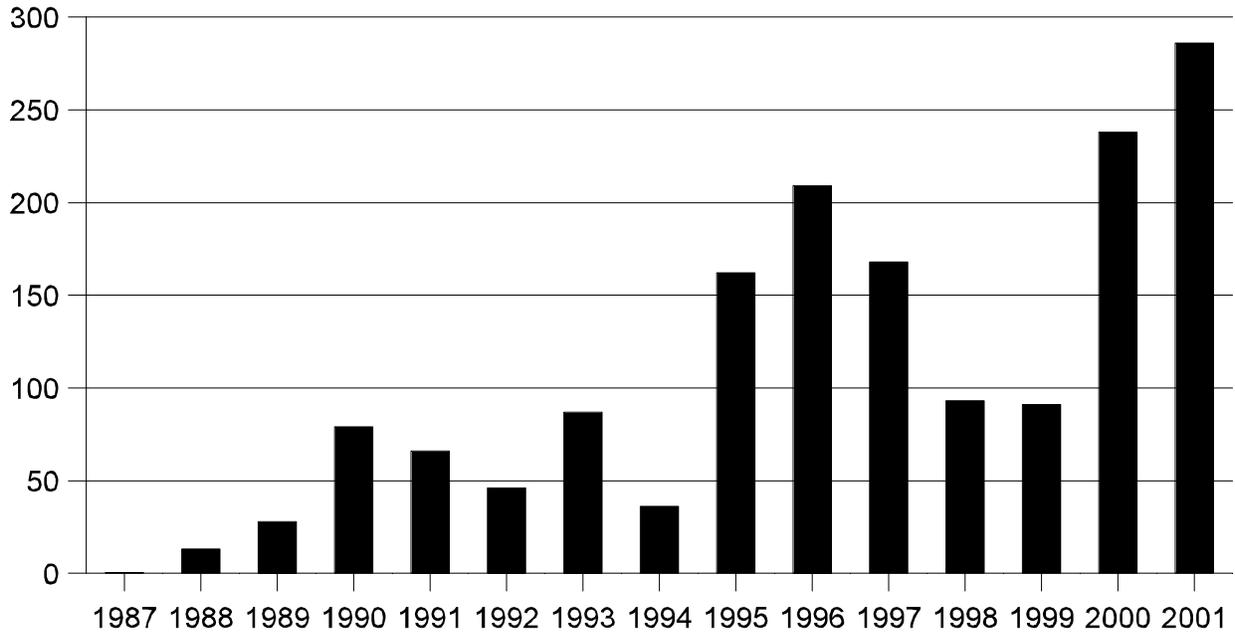


**Sites Discovered and Sites Secured from 1987 to 2001.**

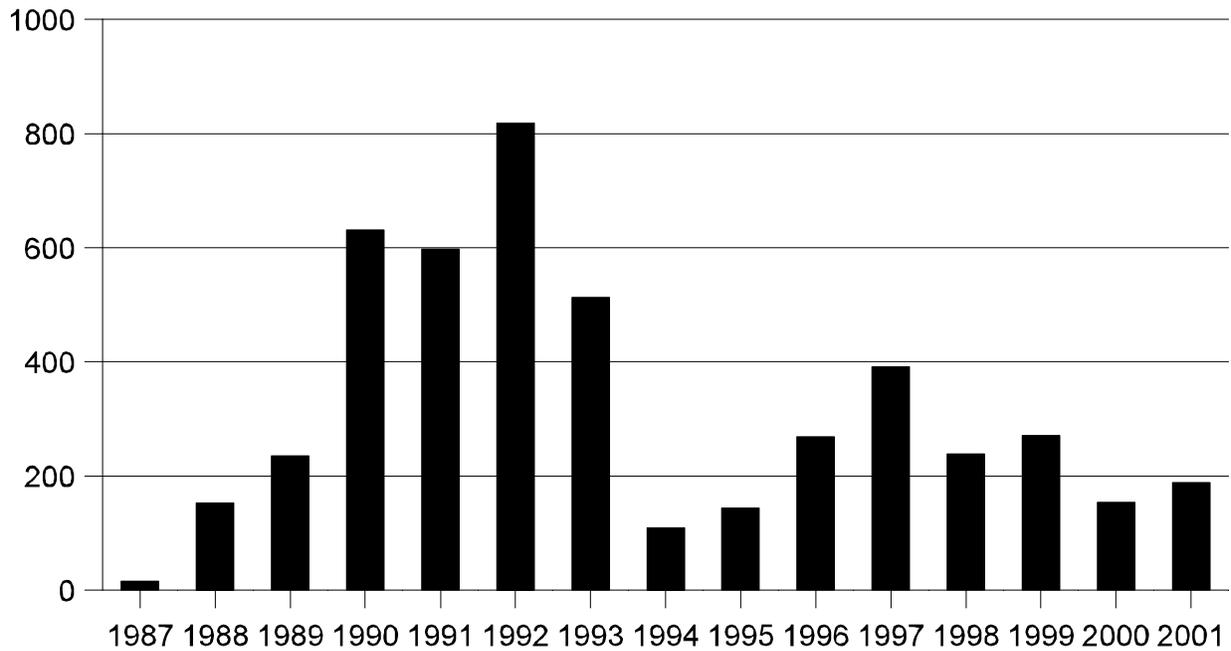


**Cumulative Sites Discovered and Secured 1987 through 2001.**

**Appendix A (continued)**



**Orphan Sites Secured 1987 through 2001**



**Non-Orphan Sites Secured 1987 through 2001**

## Appendix B. Nevada Revised Statutes (NRS) pertinent to the AML Program

NRS 455.030 Board of county commissioners to transmit information concerning dangerous condition at mine no longer operating to sheriff or constable; service of notice upon owner or responsible person.

1. If a board of county commissioners receives information from the division of minerals of the commission on mineral resources that there is in the county a dangerous condition that results from mining practices which took place at a mine that is no longer operating, if the information identifies a person responsible for the condition, the board shall transmit this information to the sheriff or the constable of the township where the condition exists.
2. Upon receipt of information pursuant to subsection 1 or upon the filing of the notice, as provided for in NRS 455.020, the sheriff or constable shall serve a notice, in the same manner and form as a summons, upon each person identified as owner or otherwise responsible.

[3:16:1866; B §§ 111; BH §§ 292; C §§ 273; RL §§ 3235; NCL §§ 5632]—(NRS A 1983, 905; 1987, 1869; 1993, 1625; 1999, 3624)

NRS 513.094 Additional fee; administrator to establish program to discover dangerous conditions of nonoperating mines; employment of qualified assistant; regulations.

1. An additional fee, in an amount established pursuant to subsection 4, is imposed upon all filings to which NRS 517.185 applies. Each county recorder shall collect and pay over the additional fee, and the additional fee must be deposited in the same manner as provided in that section.
2. The administrator shall, within the limits of the money provided by this fee, establish a program to discover dangerous conditions that result from mining practices which took place at a mine that is no longer operating, identify if feasible the owner or other person responsible for the condition, and rank the conditions found in descending order of danger. The administrator shall annually during the month of January, or more often if the danger discovered warrants, inform each board of county commissioners concerning the dangerous conditions found in the respective counties, including their degree of danger relative to one another and to those conditions found in the state as a whole. In addition, the administrator shall work to educate the public to recognize and avoid those hazards resulting from mining practices which took place at a mine that is no longer operating.
3. To carry out this program and these duties, the administrator shall employ a qualified assistant, who must be in the unclassified service of the state and whose position is in addition to the unclassified positions otherwise authorized in the division by statute.
4. The commission shall establish by regulation:
  - (a) The fee required pursuant to subsection 1, in an amount not to exceed \$4 per claim.
  - (b) Standards for determining the conditions created by the abandonment of a former mine or its associated works that constitute a danger to persons or animals and for determining the relative degree of danger. A condition whose existence violates a federal or state statute or regulation intended to protect public health or safety is a danger because of that violation.
  - (c) Standards for abating the kinds of dangers usually found, including, but not limited to, standards for excluding persons and animals from dangerous open excavations.

(Added to NRS by 1987, 1867; A 1993, 298, 1683; 1995, 579; 1999, 890, 3627; 2001, 66)

NRS 519A.250 Operator to provide division of minerals copy of filing of plan of operation or amended plan of operation; fee; refunds; use of money collected; division to file report with governor and legislature.

1. An operator who is required by federal law to file a plan of operation or an amended plan of operation with the United States Bureau of Land Management or the United States Forest Service for operations relating to mining or exploration on public land administered by a federal agency, shall, not later than 30 days after the approval of the plan or amended plan, provide the division of minerals of the commission on mineral resources with a copy of the filing and pay to the division of minerals a fee in an amount established pursuant to subsection 5 for each acre or

part of an acre of land to be disturbed by mining included in the plan or incremental acres to be disturbed pursuant to an amended plan.

2. The division of minerals shall adopt by regulation a method of refunding a portion of the fee required by this section if a plan of operation is amended to reduce the number of acres or part of an acre to be disturbed pursuant to the amended plan. The refund must be based on the reduced number of acres or part of an acre to be disturbed.

3. All money received by the division of minerals pursuant to subsection 1 must be accounted for separately and used by the division of minerals to create and administer programs for:

(a) The abatement of hazardous conditions existing at abandoned mine sites which have been identified and ranked pursuant to the degree of hazard established by regulations adopted by the division of minerals; and

(b) The education of the members of the general public concerning the dangers of the hazardous conditions described in paragraph (a).

All interest and income earned on the money in the account, after deducting applicable charges, must be deposited in the account for the division of minerals created pursuant to NRS 513.103.

4. On or before February 1 of each odd-numbered year, the division of minerals shall file a report with the governor and the legislature describing its activities, total revenues and expenditures pursuant to this section.

5. The commission on mineral resources shall, by regulation, establish the fee required pursuant to subsection 1 in an amount not to exceed \$30 per acre.

(Added to NRS by 1989, 1286; A 1989, 2063; 1991, 1780; 1993, 210, 211, 1687; 1995, 511; 1999, 891, 3631; 2001, 66)

## **Appendix C. Nevada Administrative Code (NAC) pertinent to the AML Program**

### DANGEROUS CONDITIONS CREATED BY ABANDONMENT OF MINES

NAC 513.200 Definitions. (NRS 513.094) As used in NAC 513.200 to 513.390, inclusive, unless the context otherwise requires, the words and terms defined in NAC 513.205 to 513.290, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88; A by R069 -99, 8-19-99)

NAC 513.205 “Administrator” defined. “Administrator” means the administrator of the division.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88) (Substituted in revision for NAC 513.250)

NAC 513.210 “Animal” defined. “Animal” means any member of the bovine, equine, porcine or caprine species as well as dogs, cats or other animals under the restraint or control of a person.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.220 “Commission” defined. “Commission” means the commission on mineral resources.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.230 “Dangerous condition” defined. “Dangerous condition” means a condition resulting from mining practices which took place at a mine that is no longer operating or its associated works that could reasonably be expected to cause substantial physical harm to persons or animals.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.240 “Division” defined. “Division” means the division of minerals of the commission on mineral resources.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.260 “Fence” defined. “Fence” has the meaning ascribed to it in subsection 5 of NRS 207.200.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.270 “Owner” defined. “Owner” means the owner of real property who is shown to be the owner on records located in the courthouse of the county in which the real property is located.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.280 “Person” defined. “Person” means a natural person.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.290 “Responsible person” defined. “Responsible person” means the owner of a patented claim or the claimant of an unpatented claim.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.300 Scope. The provisions of NAC 513.200 to 513.390, inclusive, apply to all owners or other responsible persons for dangerous conditions on private or public land.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.310 Waiver of provisions. Upon the approval of the administrator, the division may grant a waiver from any provision of NAC 513.200 to 513.390, inclusive, if the waiver does not defeat the purpose of NRS 513.094. (Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.315 Additional fee. (NRS 513.094) The amount of the additional fee that is imposed on filings pursuant to subsection 1 of NRS 513.094 is \$1 per claim. (Added to NAC by Commission on Mineral Resources by R069 -99, eff. 8-19-99)

NAC 513.320 Assignment of points to dangerous condition. The administrator or his representative shall assign a dangerous condition one to five points for the location of the condition and an additional one to five points for the degree of danger associated with the condition. The condition must then be ranked according to the total number of points for location and degree of danger. (Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.330 Rating of location. The location of a dangerous condition must be rated in the following manner:

1. One point must be assigned to a dangerous condition located at least 5 miles from an occupied structure or a public road maintained by some governmental entity.
2. Two points must be assigned to a dangerous condition located between 1 and 5 miles from an occupied structure or a public road maintained by some governmental entity.
3. Three points must be assigned to a dangerous condition located ½ to 1 mile, inclusive, from a town.
4. Four points must be assigned to a dangerous condition located not more than ½ mile from a town or not more than 1 mile from an occupied structure or a public road maintained by some governmental entity.
5. Five points must be assigned to a dangerous condition located within a town or within 100 feet of an occupied structure or a public road maintained by some governmental entity.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.340 Rating of degree of danger. The degree of danger for a dangerous condition must be rated in the following manner:

1. One point must be assigned to a dangerous condition consisting of:
  - (a) A vertical or near vertical hole 8 to 20 feet, inclusive, in depth and highly visible upon approach;
  - (b) An inclined hole less than 50 feet deep from which a person could climb out;
  - (c) A horizontal hole with no associated stopes, winzes or raises; or
  - (d) A high wall of an open pit.
2. Two points must be assigned to a dangerous condition consisting of:
  - (a) A vertical or near vertical hole 8 to 20 feet, inclusive, in depth which is not visible upon approach;
  - (b) Any vertical or near vertical hole 20 to 50 feet, inclusive, in depth; or
  - (c) Any inclined hole greater than 50 feet deep from which a person could climb out with no associated stopes, winzes or raises.
3. Three points must be assigned to a dangerous condition consisting of:
  - (a) Any vertical or near vertical hole 50 to 100 feet, inclusive, in depth; or
  - (b) Any horizontal or inclined hole with associated stopes, winzes or raises with less than a 20 -foot vertical opening.
4. Four points must be assigned to a dangerous condition consisting of:
  - (a) Any vertical or near vertical hole which is at least 100 feet deep and visible upon approach; or
  - (b) Any horizontal or inclined hole with associated stopes, winzes or raises with a vertical opening greater than 20 feet.
5. Five points must be assigned to a dangerous condition consisting of any vertical or near vertical hole which is at least 100 feet deep and not visible upon approach.

The administrator or his representative may assign a higher degree of danger to a dangerous condition if other factors such as loose ground or the presence of water increase the danger, but the degree of danger for a single dangerous condition may not be scored higher than five points.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.350 Dangerous condition causing fatality or injury. Any dangerous condition that has been the cause of a documented fatality or injury must be ranked as a high hazard, regardless of its numerical score.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.360 Rating of dangerous condition. Dangerous conditions must be rated as follows:

1. A dangerous condition with a total number of 2 or 3 points is a minimal hazard;
2. A dangerous condition with a total number of 4 or 5 points is a low hazard;
3. A dangerous condition with a total number of 6 or 7 points is a moderate hazard; and
4. A dangerous condition with a total number of at least 8 points is a high hazard.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.370 Posting warning sign. A dangerous condition regardless of its ranking must be posted with a warning sign mounted on an orange post. The sign must be posted within 30 days after the responsible person is notified by the county sheriff of the existence of the condition.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.380 Period after notification to secure dangerous condition. Upon notification of the existence of a dangerous condition, the responsible person shall:

1. Secure within 180 days a dangerous condition rated as a low hazard;
  2. Secure within 120 days a dangerous condition rated as a moderate hazard; and
  3. Secure within 60 days a dangerous condition rated as a high hazard,
- in the manner prescribed in NAC 513.390.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.390 Methods for securing dangerous condition. A dangerous condition must be secured by one or more of the following:

1. A barricade made of wood, metal or plastic, set in place in a solid manner with an orange warning sign attached.
2. A fence constructed to prevent a person or animal from accidentally exposing himself to the dangerous condition.
3. Permanently anchored seals constructed of material not subject to rapid decomposition and, if used to secure a vertical opening, strong enough to support the weight of any person or animal.
4. Backfilling so that no void spaces remain.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

#### FEE FOR FILING PLAN OF OPERATION

NAC 519A.634 Amount of fee. (NRS 519A.250) The amount of the fee that an operator must pay pursuant to subsection 1 of NRS 519A.250 is \$20 per acre or part of an acre.

(Added to NAC by Commission on Mineral Resources by R069 -99, eff. 8-19-99)

NAC 519A.635 Refund of portion of fees.

1. The division will refund to an operator a portion of the fees required by NRS 519A.250 according to the following schedule:

(a) For an amended plan:

(1) That reduces the number of acres or part of an acre to be disturbed from the original number of acres or part of an acre to be disturbed; and

(2) For which a fee has been paid to the division pursuant to NRS 519A.250, the refund is \$15 for each acre or part of an acre removed from planned disturbance by the amendment.

(b) For a plan, there is no refund.

(c) For a notice, there is no refund.

2. An operator who wishes to receive a refund must send to the administrator a written request and a copy of the approved amended plan showing the reduction in acreage. Within 20 business days after receiving a valid written request for a refund and a copy of the amended plan, the administrator or his designee will request that the state controller issue a check to the operator in an amount calculated pursuant to paragraph (a) of subsection 1.

3. For the purposes of this section:

(a) "Notice" means a notice of intent to conduct activities that disturb the surface which is filed with the United States Bureau of Land Management or the United States Forest Service.

(b) "Operator" includes a person who is required by federal law to file a plan, an amended plan or a notice with the United States Bureau of Land Management or the United States Forest Service.

(c) "Plan" means a plan of operation filed with and approved by the United States Bureau of Land Management or the United States Forest Service.

(Added to NAC by Department of Minerals, eff. 10-9-90)

## Appendix D. Eagle Scout Projects

NEVADA AML SECURING PROGRAM - EAGLE SCOUT PROJECTS					
<u>NAME OF EAGLE SCOUT</u>	<u>DATE(S) OF PROJECT</u>	<u># SITES SECURED</u>	<u># SITES REPAIRED</u>	<u>COUNTY</u>	<u>ID NUMBERS OF SECURED SITES</u>
1. David Loring	Sept. 12 & 26, 1992	8		WASHOE	WA-10, 31, 32, 82, 109, 110, 112, 113
2. Tom Hawke	Oct. 24, 1992	5		WASHOE	WA-103, 143, 144, 145, 146
<b>1992 Total</b>		<b>13</b>	<b>0</b>		
3. Chris Johnson	Sept. 4 & 11, 1993	5		WASHOE	WA-114, 116, 117, 118, 119
4. Eric Bowman	Oct. 3, 23, & 24, 1993	7		CARSON CITY	CC-13, 14, 27, 28, 31, 65, 69
<b>1993 Total</b>		<b>12</b>	<b>0</b>		
5. Josh Johnson	Nov. 12, 1994	4		CLARK	CL-1407, 1408, 1409, 1425
<b>1994 Total</b>		<b>4</b>	<b>0</b>		
6. Nate Burnett	Aug. 10, 1996	7		WASHOE	WA-210, 211, 220, 221, 227, 228, 232
7. Cory Miller	Dec. 14, 1996	6		WASHOE	WA-212, 222, 223, 224, 225, 226
<b>1996 Total</b>		<b>13</b>	<b>0</b>		
8. Tony Kopp	Jan. 31, 1998	9		CLARK	CL-567, 940, 1338, 1339, 1340, 1341, 1342, 1343, 1386
9. Nathen Berger	July 18, 1998	4		CARSON CITY	CC-39, 40, 48, 49
10. Jason Smith	Aug. 22, 1998	6		DOUGLAS	DO-46, 47, 48, 50, 99, 100
11. Danny Miller	Oct. 24, 1998	3		WASHOE	WA-241, 253, 254
12. Logan Nordyke	Nov. 7 & Dec. 12, 1998	3		CARSON CITY	CC-52, 54, 61
<b>1998 Total</b>		<b>25</b>	<b>0</b>		
13. James Smith	Jan. 17 & May 15, 1999	2	2	WASHOE	WA-49, 256 + repairs to 57, 58
14. Daniel Murrell	April 10, 1999	7		CLARK	CL-46, 47, 48, 49, 50, 51, 1434
15. Steven Scheetz	Sept. 25, 1999	6		DOUGLAS	DO-51, 52, 53, 54, 55, 131
<b>1999 Total</b>		<b>15</b>	<b>2</b>		
16. Jason Hayes and Peter Peterson	Oct. 20 & 21, 2000	7		CLARK	CL-688, 689, 690, 691, 692, 693, 694
17. Glen Farnsworth	Dec. 1 & 2, 2000	7		WASHOE	WA-280, 281, 287, 288, 289, 295, 296
<b>2000 Total</b>		<b>14</b>	<b>0</b>		
18. Richard Dwyer	Jan. 13 & 14, 2001	10	2	CLARK	CL-38, 39, 41, 42, 43, 58, 59, 708, 709, 1471 + repairs to 35, 36
19. Colby Cole	February 24, 2001	6	6	CLARK	CL-543, 544, 546, 547, 551, 1479 + repairs to 545, 548, 549, 550, 552, 553
20. Blake Kalmes	April 7, 2001	7	1	CLARK	CL-1464, 1465, 1466, 1467, 1469, 1470, 1480 + repairs to 1416
21. William Bunch	December 8, 2001	5		CLARK	CL-1331, 1332, 1333, 1334, 1335 - sites previously secured very poorly
22. Shawn Holloman	July 14, 2001	6		LYON	LY- 322, 323, 324, 325, 326, 327
23. Travis Jarland	Aug. 11, 2001	5		LYON	LY-373, 592, 593, 594, 597
<b>2001 Total</b>		<b>39</b>	<b>9</b>		
<b>GRAND TOTAL</b>		<b>135</b>	<b>11</b>		