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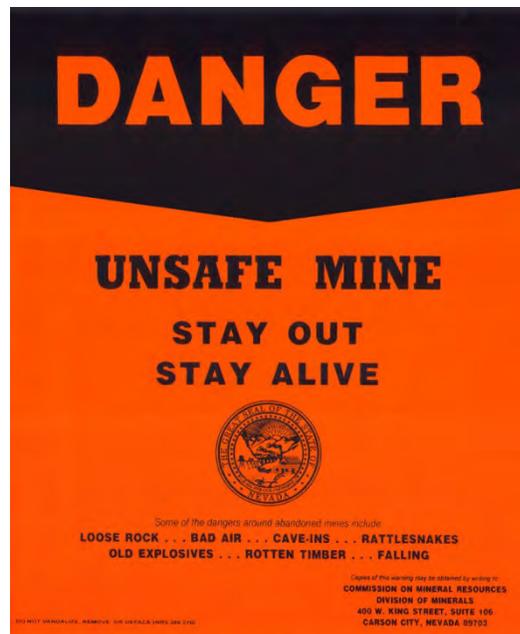


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**COMMISSION ON MINERAL RESOURCES  
DIVISION OF MINERALS**

**NEVADA ABANDONED  
MINE LANDS REPORT  
2014**



By  
**Robert Ghiglieri - Chief, Abandoned Mine Lands Program**  
**Richard Perry - Administrator**

**June 2015**

## NEVADA COMMISSION ON MINERAL RESOURCES

### Division of Minerals

The Nevada Division of Minerals, a part of the Commission on Mineral Resources, is charged by statute to encourage and assist in the responsible exploration for and the production of minerals, oil, gas, and geothermal energy which are economically beneficial to the State. The seven-member Commission on Mineral Resources is a public body appointed by the Governor which adopts regulations, and formulates administrative policies for the Division and advises the Governor and Legislature on policy relating to mineral resources. The Division focuses its efforts on four main areas: Industry relations and public affairs; minerals education, abandoned mine lands, and regulation of oil, gas, and geothermal drilling activities and well operations.

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 administers the State's reclamation bond pool.

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.

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.

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## Executive Summary

The State of Nevada's Abandoned Mine Lands (AML) program finished its 28<sup>th</sup> year in 2014. Key points for the program in 2014 include the following:

- There were NO reported abandoned mine incidents.
- 945 hazards were secured in 2014. Mining claimants and private property owners secured 327 hazards. 273 orphan hazards were recorded as secured and 172 of the 273 were secured by Nevada Division of Minerals (the Division) staff, contractors and volunteers.
- 784 hazards were discovered and ranked.
- Permanent AML closure projects took place in 11 of the 17 Nevada counties.
- 586 hazards were revisited.
- Eight summer interns secured 284 hazards.
- The US Army Corps of Engineers awarded a contractor out of Las Vegas a contract to build a new AML web-implemented database.
- 49 hazards were secured and 7 previously secured hazards were repaired by eight Eagle Scout candidates. Since 1992, 154 Scout projects have been completed resulting in 696 hazards secured and 125 hazards repaired.
- The Division surpassed both of the AML performance indicators approved by the State Legislature. Total secured hazards divided by total discovered hazards was 80.3% (70% required) and total public awareness presentations averaged 17 per staff member (12 required).
- Dedicated funding for the AML program includes: mining claim filing fees, fees on permitted surface disturbance associated with new mining operations on public lands, and Bureau of Land Management (BLM) and United States Forest Service (USFS) Assistance Agreements. No state general funds are used in the program.
- The total number of AML hazards discovered and ranked since the beginning of the program reached 18,656 hazards. The total number of hazards currently recorded as secured reached 14,974.
- The Division reached over 87,500 citizens in 2014, either through one of the 186 AML or minerals education presentations or the annual brochure mail out campaign.

## Program Background

Nevada's geology provides ideal conditions for the deposition of a large variety of valuable and useful minerals, and has attracted the attention of miners and prospectors for over 150 years. The prospectors 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 people and wild and domestic animals. Over time, most of the mine openings have become unstable due to inadequate construction methods and exposure to the elements and decay of support timbers. It is estimated that over 200,000 of these mining-related features exist in the state. Of these, the Nevada Division of Minerals (the Division) estimates that 50,000 are significant hazards that require some type of securing. Appendix A lists the hazards discovered and the hazards secured by the Abandoned Mine Lands (AML) program from 1987 through 2014. It includes a map showing the location of hazards discovered, revisited, and secured in 2014.

The State of Nevada AML program was created by the Nevada Legislature in 1987 in response to incidents, both fatal and nonfatal, that had occurred at abandoned mines. Table 1 shows the 53-year history of reported incidents related to abandoned or idle mines. In 1987 the legislation placed the AML program with the Division and mandated two primary functions: 1) 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 apply a hazard ranking based on the location and type of feature; and 2) Develop an aggressive public awareness campaign to educate the public about dangerous conditions that exist as a result of historic mining activities. The Statutes governing the AML program can be found in Appendix C.

In 1989, the Nevada 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. These are "orphan" mine openings. The legislation also provided an opportunity for companies, individuals, and civic groups to voluntarily assist the program in the construction of a fence or other safeguard around a dangerous condition at an abandoned mine opening under a designated Good Samaritan law (NRS 41.0331 Appendix C).

The AML program is administered under Nevada Administrative Code (NAC) 513. Chapter 513 can be found in Appendix D. 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 AML program is primarily funded by fees on mining claim filings. County recorders collect the fees at the time the claims are filed and when annual claims maintenance fees are paid. The program is also funded by a one-time fee paid by mining companies or individuals for approved surface disturbance at new mining operations or expansions occurring on public lands. The Division has cooperative agreements in place with both the Bureau of Land Management (BLM) and the United States Forest Service (USFS). Under these agreements, the BLM and USFS may provide financial assistance to enhance and accelerate both field investigation activities and work performed by staff, contractors, and volunteers to secure orphan hazards.

In compliance with NRS 513.094.2, the Division notifies claimants and property owners of hazardous conditions on their claims or property, and their responsibility to secure the hazards. The Division also notifies county commissions of hazardous conditions discovered in their counties at least once a year. The appropriate county commission is notified if a claimant fails to notify the Division of completion, or of their intention to secure hazards within the timeframe specified in NAC 513.380. The county is authorized per NRS 455.030 and 455.040 to take appropriate enforcement action, which may include 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 per violation.

## Abandoned Mine Incidents in 2014

There were NO reported abandoned mine Incidents in 2014 (see Table 1).

**Table 1: History of Nevada AML Incidents Since 1961**

Date	Incident	County
Sep-13	17 year old male received minor injuries in fall down 60-foot deep mine shaft (rider on motorcycle)	Lyon
Nov-12	Adult male (33) received moderate injuries after falling 35' down a winze	Clark
Jul-11	Dog fell down shaft, rescued 8 days later	White Pine
Mar-11	Adult male (28) suffered fatal injuries after falling 190 feet down a shaft	Pershing
May-09	Dog fell down inclined shaft, rescued 10 days later	Esmeralda
Oct-08	Adult male (62) suffered fatal injuries after falling 60' down a winze	Lyon
Sep-08	Dog reportedly fell down 100' shaft, not recovered	Washoe
Aug-08	Adult male (58) injured in 50' fall down inclined winze	Esmeralda
May-07	Adult male (mid-20's) injured in fall down ~200' inclined winze	Clark
May-07	Adult male (63) suffered fatal injuries after rolling his jeep ~450' into the Loring Pit in Virginia City	Storey
May-06	Dog rescued from 22 foot-deep mine shaft	Washoe
May-05	Woman of unknown age, received cuts and bruises from fall down a 35 ft. winze	Carson
Apr-04	30 year-old man received moderate injuries from fall down 25 ft. winze near Las Vegas	Clark
Jan-03	Dog fell down shaft	Humboldt
Jan-03	62 year-old man received minor injuries from fall down 25 ft. winze (same as 10/2002)	Clark
Oct-02	37 year-old CA male received severe injuries from fall down 25 ft. winze	Clark
Jul-02	41 year-old male drowned swimming in open pit lake	Storey
Dec-00	Dog rescued from fall down 60 ft. winze. Minor injury to hip	Pershing
Nov-00	Dog rescued from fall down 40 ft. mine shaft. Moderate injury to hip	Storey
Oct-99	Adult male (62) killed in mine cave-in	Lyon
Oct-99	Female juvenile (11) killed in fall down 130 ft. deep mine shaft near Beatty	Nye
Jun-99	Male juvenile (15) drowned swimming in open pit lake	Lander
Oct-98	Two male adults seriously injured in fall down 50 ft. winze near Las Vegas	Clark
Sep-98	Dog rescued from 20 ft. deep mine shaft	Douglas
Jul-98	Male adult (20's) slightly injured in fall down mine winze in Brougner Divide Mine near Tonopah, another adult male lost for 7 hours, total of 6 adult males in mine	Esmeralda
Apr-97	Two male adults (50's) injured in fall down hand dug well in town of Luning	Mineral
Oct-96	Male juvenile (16) injured in fall down 19 ft. deep hole in concrete at American Flats millsite	Storey
Sep-96	Two male adults (35) killed in mine adit near Virginia City by suffocation	Storey
May-96	Male adult (44) fatally injured in fall off ATV at American Flats millsite	Storey
Mar-96	Male adult (31) injured in fall down mine winze on west side of Las Vegas	Clark
Jun-95	Male adult (30) killed scuba diving in mine shaft filled with water at the old Crown Copper Under Ground Mine.	Humboldt
Nov-93	Dog rescued from 30 ft. deep mine shaft near Iron Mtn. Estates	Storey
Jan-93	Dog rescued from 25 ft. deep shaft	Humboldt
Oct-92	Male adult (27) news reporter injured in dynamite blast at Happy Creek in the Jackson Mountains.	Humboldt
Sep-92	Female adult (28) injured (cuts and bruises) in fall down mine shaft Hot Springs Mtn.	Douglas

Dec-91	Male adult (44) killed in fall down a mine winze at an abandoned copper mine in the Malachite Mason Valley Mines west of Yerington.	Lyon
May-91	Male juvenile (13) injured (minor) in fall down 20 ft. deep mine shaft	Washoe
Feb-91	Male adult (40) killed in fall down mine winze	Douglas
May-90	Dog killed in mine shaft at the MGL Mine near Winnemucca Dry Lake	Pershing
Mar-90	Male juvenile lost for 19 hours in mine shaft at Mizpah mine in Tonopah	Nye/ Esmeralda
Sep-89	Male adult seriously injured in fall down a mine winze near Henderson	Clark
Sep-88	Body of elderly male found at bottom of mine shaft	Lyon
May-87	Female child (5) injured in fall down 35 ft. deep mine shaft	Washoe
Feb-86	Young adult male (20) killed in fall down a mine winze	Lyon
Apr-79	Two teenagers killed in fall down mine shaft at the Oest Mine	Lyon
Dec-78	Juvenile killed in fall down mine shaft (Ninety-Nine Mine), body never recovered	Clark
Apr-75	Two male juveniles killed when motorcycles fell into mine shaft near Searchlight	Clark
May-71	Male juvenile (15) injured in fall down 200 ft. deep mine shaft on Duck Hill	Carson City
Nov-70	Male juvenile (12) injured in fall down 110 ft. deep mine shaft	Washoe
Jan-61	Male juvenile (15) injured in 50 ft. fall down mine ventilation shaft	Storey

## Discovery and Securing

From the beginning of the AML program in 1987 through December 31, 2014, 18,656 hazards have been discovered and ranked and 14,974 hazards (claimed, owned, and orphans combined) have been recorded as secured. Figure 1 is a graph of hazards discovered and ranked and hazards secured for 1987 through 2014. Table 2 is a county-by-county listing of hazards discovered and secured since the beginning of the program. The number of hazards listed as secured at the end of 2014 represents 80.3% of all hazards discovered to date.



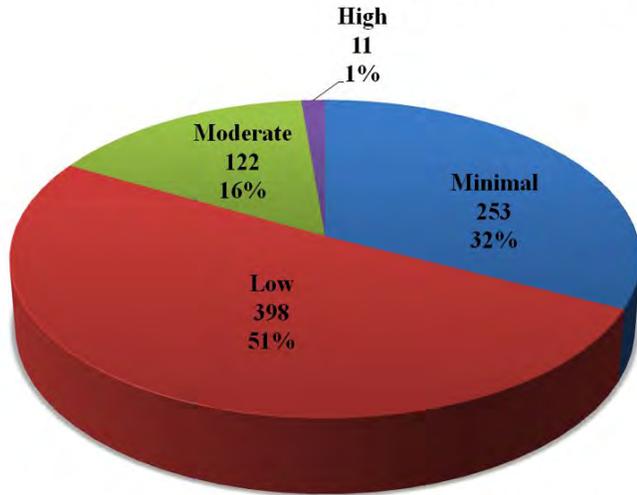
<b>COUNTY</b>	<b>SITES DISCOVERED</b>	<b>SITES SECURED</b>	<b>% SECURED</b>
Carson	76	76	100.0%
Churchill	707	570	80.6%
Clark	2,151	1,684	78.3%
Douglas	204	201	98.5%
Elko	783	579	73.9%
Esmeralda	2,793	2,376	85.1%
Eureka	774	709	91.6%
Humboldt	797	700	87.8%
Lander	591	508	86.0%
Lincoln	722	576	79.8%
Lyon	1,035	962	92.9%
Mineral	1,620	1,352	83.5%
Nye	2,614	1,953	74.7%
Pershing	1,593	1,133	71.1%
Storey	197	188	95.4%
Washoe	445	402	90.3%
White Pine	1,554	1005	64.7%
<b>TOTAL (Since 1987)</b>	<b>18,656</b>	<b>14,974</b>	<b>80.3%</b>

The total number of hazards discovered and ranked during 2014 was 784. Of the 784 hazards discovered, 227 were determined to be orphans, 584 were determined to be on Federal claims or private property, and 12 require additional ownership research. Of the 784 hazards discovered in 2014, 11 were ranked high, 122 moderate, 398 low, and 253 minimal (see Figure 2a).

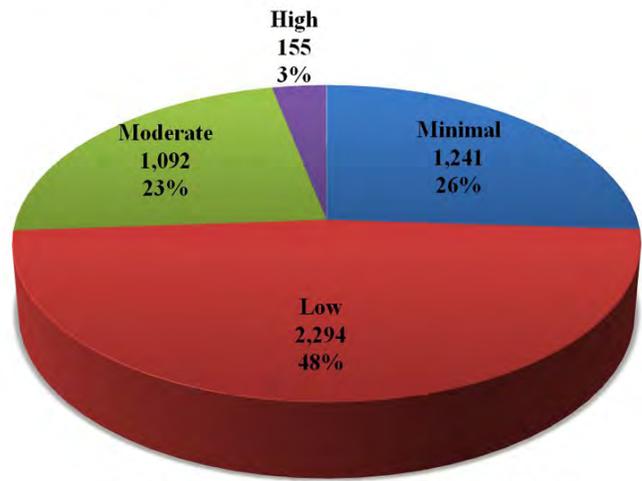
The total number of hazards secured during 2014 was 945, the fourth highest amount of securing since the start of the program. The substantial increase of hazards secured in the past four years is due to the positive response to a new notification campaign instituted in 2011. Bulk mailings occurred twice a year, notifying claimants and property owners of existing unsecured hazards on their property.

Of the 945 hazards secured in 2014, 254 were secured by the Division staff, 327 were secured by claimants and owners of patented claims and private land, 48 were secured by volunteers and other Good Samaritans, 81 were secured by a contractor for the Division, 100 were secured by the Bureau of Land Management/Bureau of Reclamation, 82 were secured by U. S. Forest Service personnel, 7 were secured by the Nevada Department of Wildlife, and 43 were found to be secured by natural effects. Figure 1e shows the distribution of securing work by group, as recorded by the Division for 2014. A total of 275 of the hazards secured in 2014 were orphans. Figure 2d shows the methods used for securing.

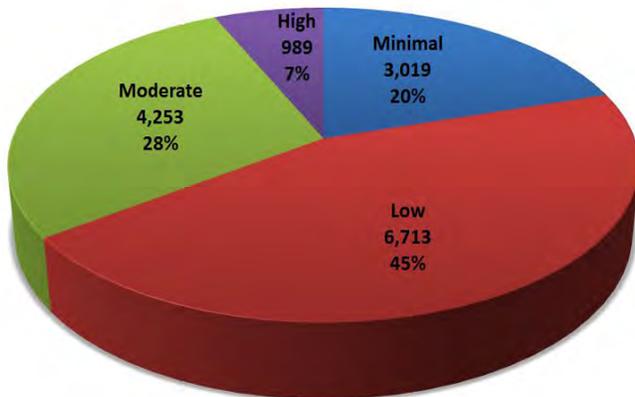
Figure 2: AML Inventory and Securing Statistics



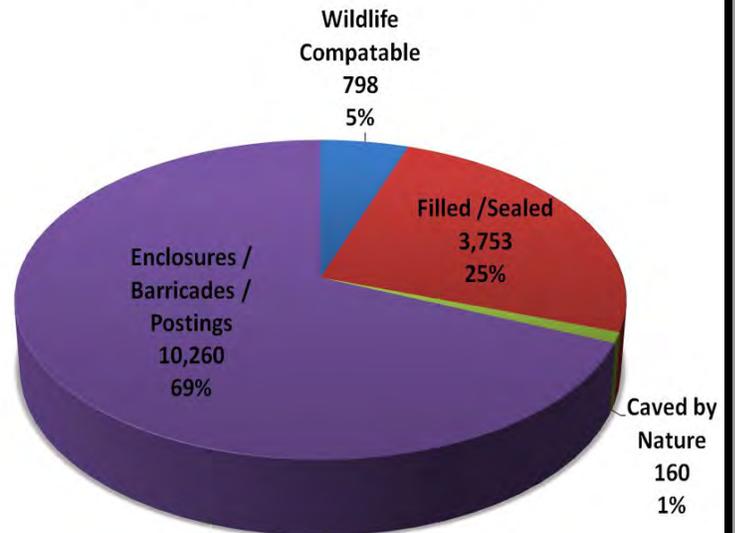
a. 2014 Hazards Inventory by Rank (n=784)



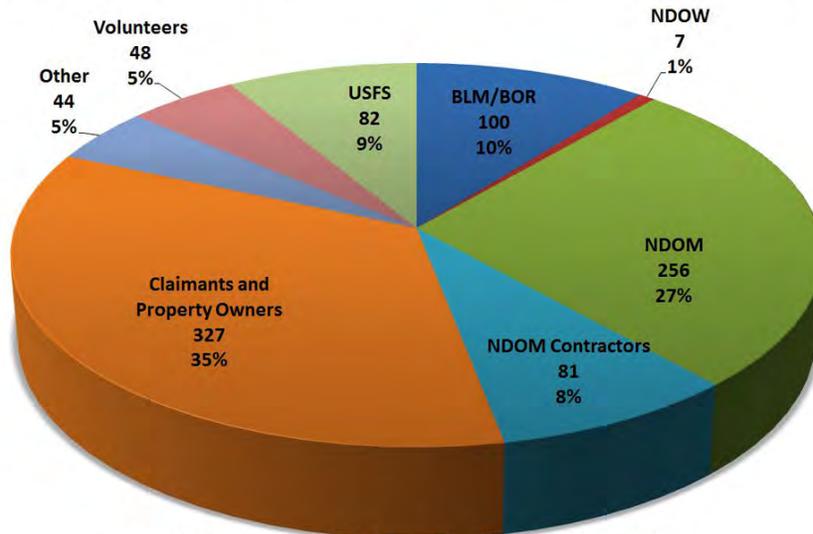
b. Orphan Securings by Rank (n=4,782)



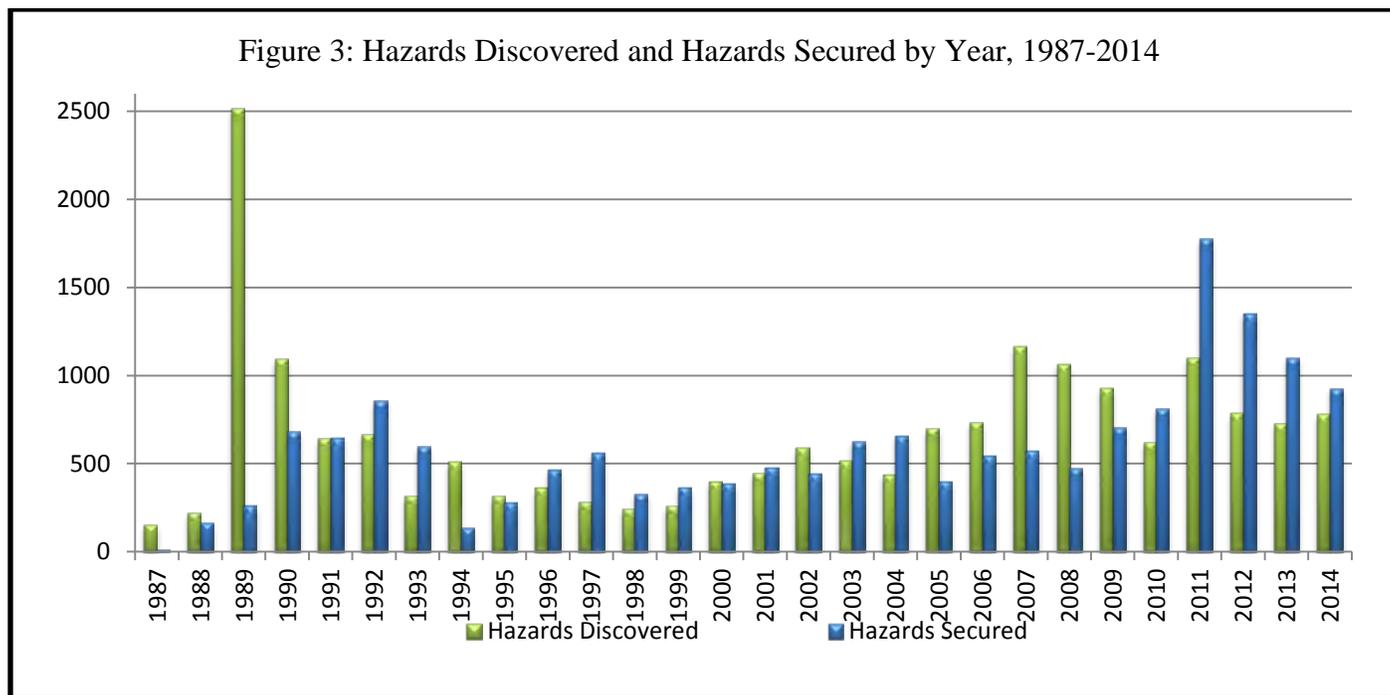
c. Hazard Secured by Rank ( n=14,974)



d.. Hazards Securing Methods (n=14,974)



d. 2014 Securings by Agency or Group (n=945)



## Public Awareness

In the area of public awareness, the theme is “Stay Out and Stay Alive.” This message is carried to the public through several mediums. 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 7<sup>th</sup> grade students, and handouts that include bumper stickers, hard hat stickers, squeeze bats, magnets, pencils, temporary tattoos and coffee mugs. These materials reach thousands of Nevada school children and adults each year.

In 2014, the Division staff conducted 186 presentations in Carson, Clark, Douglas, Elko, Eureka, Humboldt, Lander, Lyon, Nye, Storey and Washoe counties to more than 7,400 students, teachers and members of the public. The presentations target elementary, “science nights”, student career fairs and Nevada Day events, prospector club meetings, county commissions, professional association meetings, outdoor recreation events, and the annual Earth Science Education workshops for teachers, co-sponsored by the Division and the Nevada Mining Association. In 2014, 80,283 brochures and 2,686 AML study-units were mailed out to 4<sup>th</sup> and 7<sup>th</sup> grade public and private schools. “Stay Out and Stay Alive” videos (DVD format) are made available to all public and private schools and public libraries across Nevada. Table 3 highlights a selection of the Outreach and Education events from 2014.

Table 3: Locations of 2014 Staff Presentations	
Location	Number of Presentations
Las Vegas Schools	61
Southern Nevada Groups	30
Rural Nevada Groups	21
Northern Nevada Schools	46
Northern Nevada Groups	26
Out of State Presentations	2

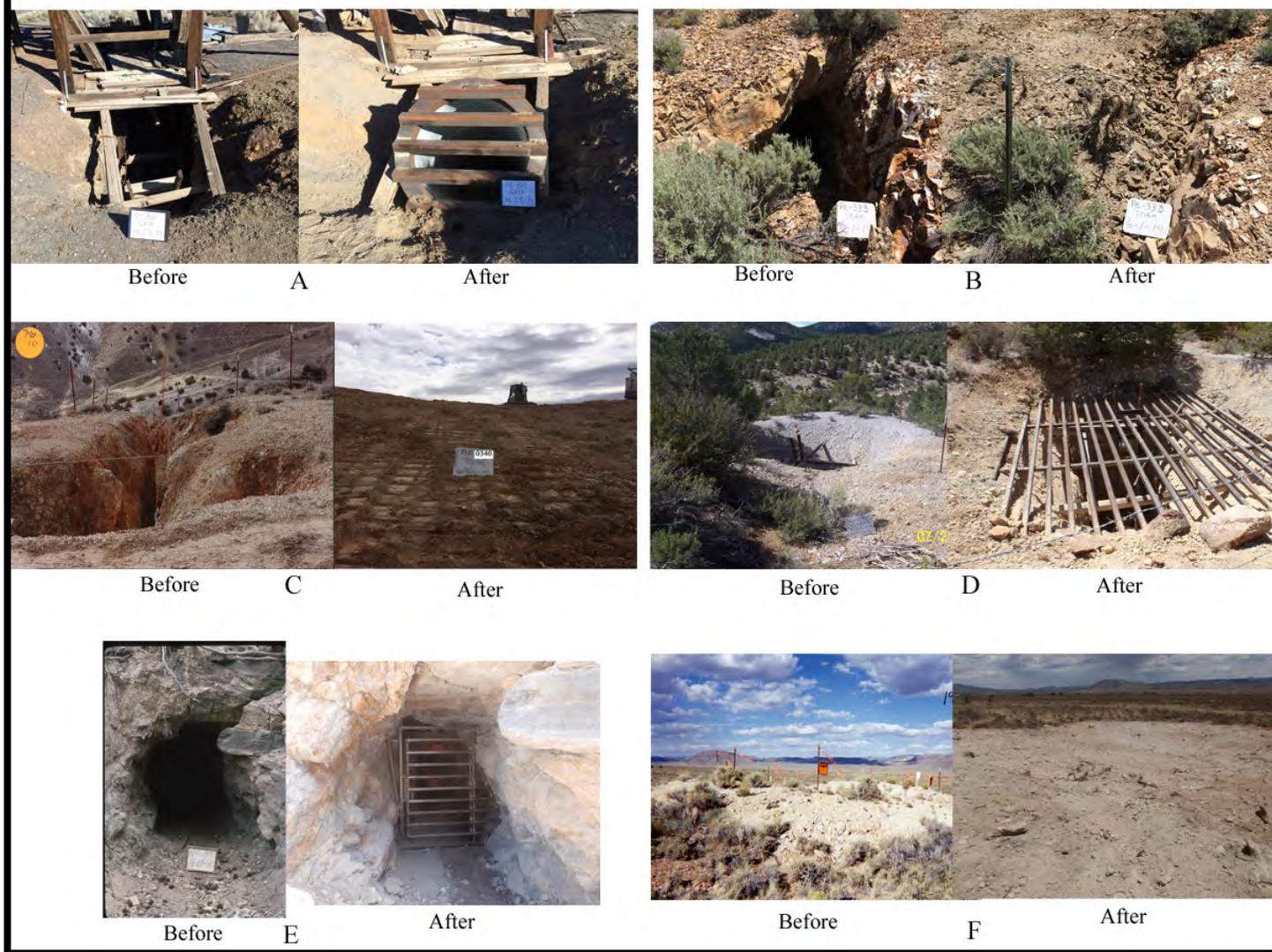
Figure 4: 2014 Earth Science Workshops (clockwise from top left) Teachers working together to resolve a question; Bill Durbin instructing his Rocks class; John Price leading his Geologic Mapping class at the DRI campus; The results from the “How do we get metals” class



## Permanent Closure Projects

The permanent closure of abandoned mine hazards may employ methods such as backfilling with suitable fill material, the construction of bat-compatible closures including gates, culvert gates, cupolas, bat grates, and the use of polyurethane expansive foam (PUF) plugs, or a combination of these methods. Unlike fence or barricade construction, permanent closure of an abandoned mine opening may result in alteration of the landscape and character of the site. Under the guidelines of the National Environmental Policy Act (NEPA), all mine openings proposed for permanent closure must be evaluated for cultural and biological resource potential. Closure methods are determined based on the outcome of the resource surveys and the public safety hazard potential.

Figure 5: Photos of permanent closures: A-C Bureau of Land Management closure projects performed by the Bureau of Reclamation; D-F US Forest Service projects



In 2014, 242 hazards were recorded as permanently secured on public lands in Nevada, including 100 by the BLM, 82 by the USFS, 25 by State contractors and 35 by owners or claimants. The amount of overall permanent closure numbers reflecting the continued strong working relationship by state and federal agencies to more permanently eliminate the physical safety risks these features present to the public.

#### Wildlife Friendly Closure Projects

The Division works with several State and Federal agencies to identify adits and shafts suitable for bat habitat that would benefit from bat-compatible closures. Prior to any permanent closure, pre-closure surveys are performed to confirm that the closure will not negatively impact significant biological habitat. These surveys are conducted by biologists working for the Nevada Department of Wildlife, Bureau of Land Management, or US Forest Service. During 2014, a total of 86 bat gates, grates, culverts, or cupolas were constructed, 68 by state and federal agencies, 9 by the Division and NDOW, and 9 by property owners.

### Backfill and Polyurethane Foam Plug Closures

For those hazards determined to have no significant wildlife habitat potential, backfill or poly urethane foam (PUF) plug closures were employed. In 2014, a total of 101 hazards were recorded as backfilled and 45 were closed with PUF plugs. Table 3 summarizes backfill projects from 1999 through 2014.

Figure 6: Two before and after photos of permanent closures by the Division of Minerals



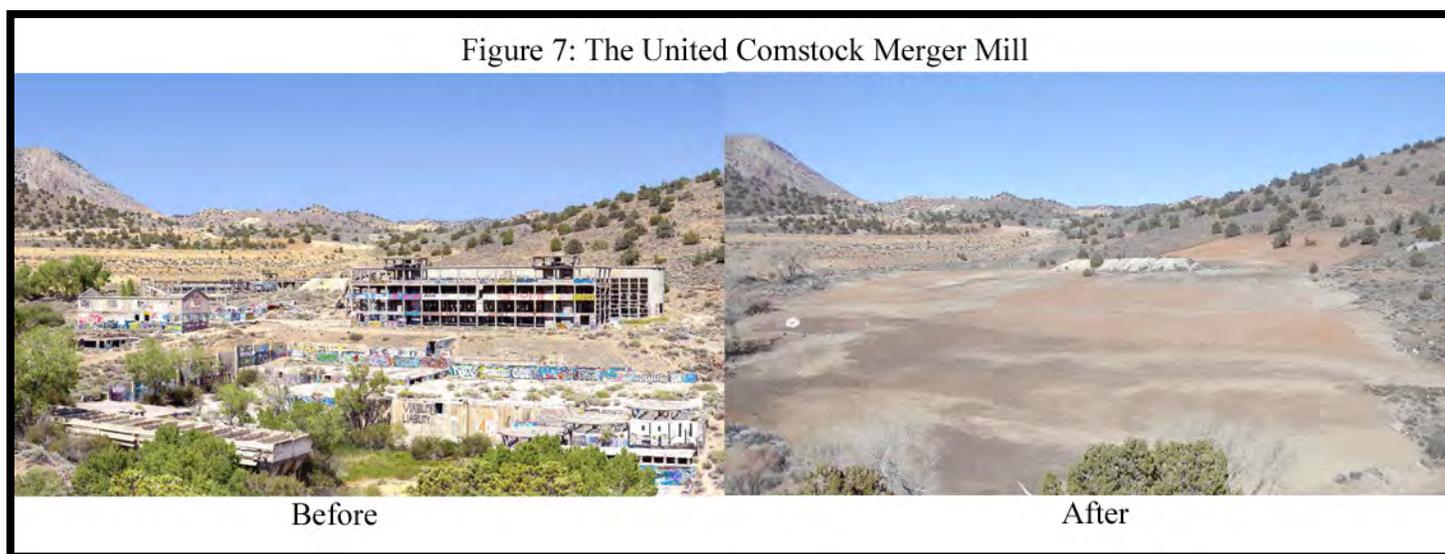
### Clark County Closure Project

The original Clark County AML closure project was completed in August of 2011 with funding from the Southern Nevada Public Land Management Act (SNPLMA). A total of 347 sites were permanently secured. Since 2011, the BLM and the Division continuously collaborated to add sites to the closure list that is funded by SNPLMA. In 2013 a high-priority list of 30 were identified in the Searchlight area. Cultural and biological resource surveys were in-progress through much of 2013 and in early 2014 44 Searchlight district sites and one Goodsprings district site were secured. An additional 127 sites were identified in the Goodsprings district and where cultural and wildlife surveys are in progress.

### United Comstock Merger Mill (American Flats)

The United Comstock Merger Mill operated from 1922 to 1926 processing local gold and silver ore for the Comstock Lode, and was considered the largest cyanide mill in the United States at that time. The tallest of the eight structures stood over four stories high, occupied 16,000 square feet and was constructed using more than 10,000 tons of reinforced concrete. The old abandoned mill had become a dangerous attraction in recent years, with hazards posed by unsafe structures, confined spaces, holes between floors, and flooded basements. There had been at least one fatality at the site, and a number of reported injuries, some serious. An audit of the site by the Department of the Interior, Office of Inspector General in 2008 found the property to be a high-risk liability to the U.S. Government as it is on Federal Land.

The BLM received funding in June 2014, to demolish the mill. The United Comstock Merger Mill demolition contract started in December 2014 and was completed on March 6, 2015. The project was completed 34% under budget, four weeks ahead of schedule and achieved better than expected results.



<u>Yr</u>	<u>#</u>	<u>Location (Lead Agency and Partner)</u>
2014	66	Clark, Pershing, Storey and Washoe counties (BLM/BOR)
	38	Lyon, Nye and White Pine counties (USFS)
	14	Carson & Washoe counties (the Division)
2013	148	Clark, Elko, Nye, Pershing, and White Pine counties (BLM/BOR)
	28	Nye and White Pine counties (USFS)
	16	Douglas and Pershing counties (the Division)
2012	132	Esmeralda, Humboldt, Lander, Lincoln, Pershing, White Pine (BLM)
	39	Elko, Humboldt, Nye, White Pine (USFS)
	21	Clark, Esmeralda, Humboldt, Nye, and Washoe counties (the Division)
2011	124	Clark, Elko, Humboldt, Lander, Lincoln, Washoe, and White Pine counties (BLM)

	33	Clark, Elko, Humboldt, Nye, and White Pine counties (USFS)
2010	160	Clark, Elko, Esmeralda, Eureka, Lincoln and Nye counties (BLM)
	28	Clark, Nye and White Pine counties (USFS)
2009	49	Clark, Elko, Eureka and White Pine counties (BLM)
	30	Clark, Lander and Nye counties (USFS)
2008	89	Clark and Washoe counties (BLM)
	13	Humboldt, Washoe and White Pine counties (USFS)
2007	108	Douglas, Esmeralda and Washoe counties (BLM)
2006	53	Nye County (BLM and NVMA)
2005	55	Nye and Washoe counties (BLM and NVMA)
2004	45	Esmeralda and Nye counties near Tonopah (BLM and NVMA)
2003	41	Searchlight and Nelson areas of Clark County (BLM and NVMA)
2002	21	Near Goodsprings, Clark County (BLM and NVMA)
	7	Peavine Mountain, Washoe County (USFS and Q&D Construction)
2001	22	Near Goodsprings, Clark County (BLM and NVMA)
2000	13	Near Henderson, Clark County (BLM and Nevada Mining Association (NVMA))
1999	6	Near Henderson, Clark County (BLM and Cashman Equipment Company)
TOTAL	<b><u>1104</u></b>	<b><u>TOTAL BLM THROUGH 2014</u></b>
	<b><u>216</u></b>	<b><u>TOTAL USFS THROUGH 2014</u></b>
	<b><u>51</u></b>	<b><u>TOTAL The Division 2012-2014</u></b>

## Summer Intern Program

The Division completed its 15<sup>th</sup> summer intern program in 2014. The program is intended to continue inventory and closures during summer months and provide field training for Nevada college students pursuing degrees in natural resources. The Division appreciates the great work they performed during the 13 weeks of the program, see Figure 8. This program helps to advance the AML program, as well as provides the students with valuable field experience in map reading, data collection, fence building skills, and valuable group and leadership experience. Figure 9 is a chart illustrating the monthly hazard discovery, securing and orphan securing efforts made during 2014. Working in 13 counties with over 25,000 miles traveled, the interns visited 4,012 mine features.

Figure 8: 2014 Summer Interns Performing Inventory and Securing Work Throughout Nevada.

## Nevada Division of Minerals Abandoned Mine Lands 2014 Summer Intern Program

**2014 Accomplishments:**  
Logged 2,945 Non-Hazards  
Identified 451 New Hazards  
Secured 284 Hazards  
and Revisited or Repaired 332 Hazards

**Many Thanks to These Hard Working Students:**

Ralston Pedersen	Sean Diggins	Nolan Weintz
Vince Ugalde	Alain Nowakowski	Alex Wheatley
Sarah Ullrich		Gunnar Young

Flat tire...the impossible is happening

Figure 9: Hazards Discovered, Secured and Orphans Secured by the Division Staff and the Division Contractors in 2014.

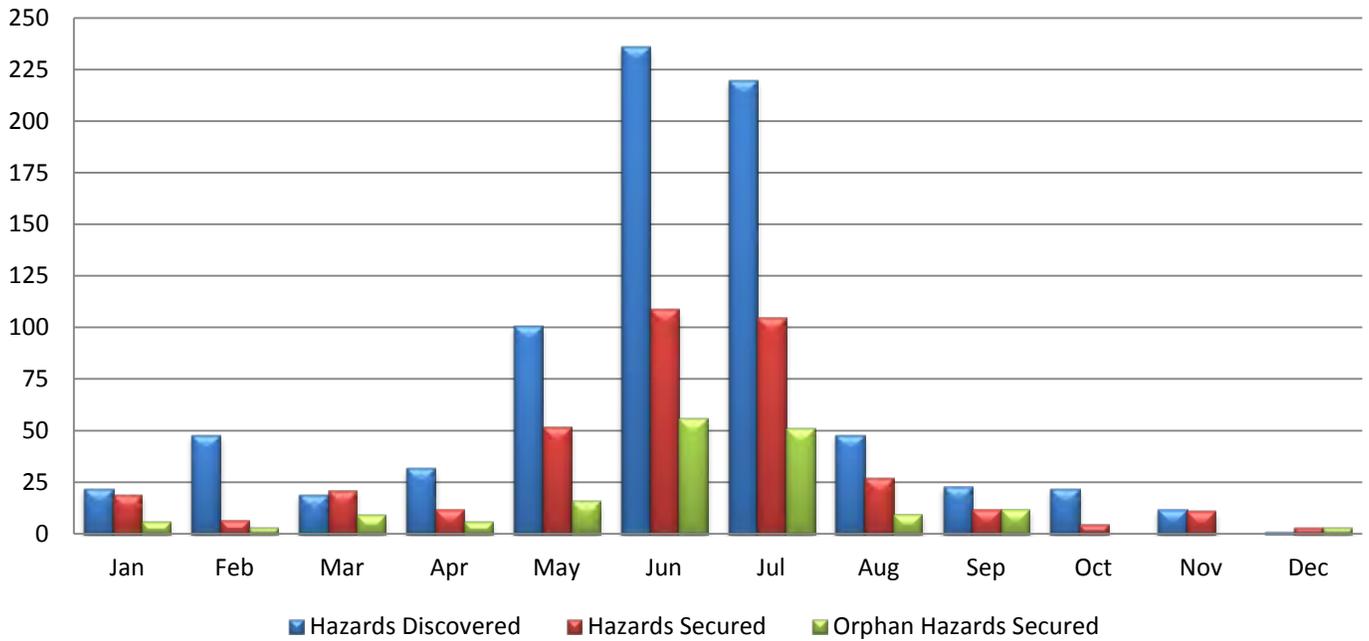


Figure 10: Assorted loggings and securings by the 2014 summer interns

## Contracted AML Work

Environmental Protection Services, worked as a contractor for the Division performing general inventory and securing work throughout Nevada. During 2014, EPS inventoried 147 new AML hazards, revisited 121 and secured 88 (81 for the Division and seven for NDOW). EPS is also the primary bat gate, backfill, and poly urethane foam plug contractor for State of Nevada agencies. EPS built nine bat-compatible gates and backfilled or polyurethane foam plugged 14 closures in 2014.

Figure 11: Environmental Protection Services completing various AML securings.



Before and after of the first owl/bat compatible cupola in Nevada with a close up of the owl window



Polyurethane foam plug (PUF) from start to finish



Before and two after photos of a barbed wire enclosure fence

## Scout Projects

Figure 12: 2014 Eagle Scout AML securing projects (top to bottom) Ryan Newman in Washoe County, Mark Bowler in Clark County, Ryan Lucky in Douglas County, and Kason Horlacher in Clark County



In 1992, a young Eagle Scout candidate presented the Division with a proposal to secure mine openings for his Eagle Scout Service Project in Washoe County. In 2014, 13 Eagle projects were completed in Clark and Washoe counties resulting in 49 mine openings secured and 7 repairs made to previously existing fences. Through 2014, 154 Eagle Scout projects have been completed resulting in 696 orphan hazards secured and 125 previously secured hazards re-built or restored. Table 5 lists the accomplishments of Scouts in the Nevada AML program and Figure 12 shows several Eagle Scout AML securing projects in Nevada.

Year	# of Projects	# of Sites Secured	# of Sites Repaired
1992	2	13	0
1993	2	12	0
1994	1	4	0
1996	2	13	0
1998	5	25	0
1999	3	15	0
2000	2	14	0
2001	6	39	0
2002	4	35	0
2003	7	61	3
2004	7	47	4
2005	11	50	8
2006	16	78	5
2007	10	21	24
2008	16	61	5
2009	14	57	8
2010	8	34	6
2011	8	21	19
2012	9	20	25
2013	8	27	11
2014	13	49	7
<b>Total</b>	<b>154</b>	<b>696</b>	<b>125</b>

The Division would like to thank the Boy Scouts of America for their assistance in Nevada’s AML Program.

## Performance Indicators

The Legislature requires state agencies to have performance indicators in place for all of their major programs. For the AML program, the Division has two performance indicators:

- 1) Maintain the percentage of secured hazardous mine openings relative to the number of hazardous mine openings investigated and ranked at a minimum of 70%.
- 2) Maintain the number of public awareness and education presentations concerning the Nevada mineral industry and abandoned mines at a minimum of 12 per year per staff member.

The Division surpassed these goals in 2014 with an 80.3% securing rate and average of 17 presentations per staff member.

## Funding

No state general funds are used to operate this program. The AML program is funded from these three sources:

- 1) \$2.50 of every mining claim filing collected by the county is dedicated to the Division AML program (NAC 513.315).
- 2) The Division collects a one-time fee of \$20 per acre for every acre of permitted disturbance associated with new or amended mining operations on public lands.
- 3) The Bureau of Land Management and US Forest Service provide funding through assistance agreements.

AML revenues are used to pay salaries, travel expenses, required office supplies/software, 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, bumper and hard hat stickers, and other means of outreach. Table 6 shows the revenues received by the Division from these three revenue sources for the State of Nevada fiscal years 2007 through 2014.

**Table 6: Dedicated Revenue to the AML program for the fiscal years 2007 through 2014**

Year	BLM/USFS Assistance Agreements	Mining Claim Fees	Disturbance Fees	Total
2014	\$92,002	\$487,585	\$125,300	\$704,887
2013	\$69,031	\$546,018	\$228,220	\$843,269
2012	\$31,670	\$561,930	\$9,800	\$603,400
2011	\$0	\$481,584	\$139,360	\$620,944
2010	\$75,000	\$463,236	\$41,008	\$579,244
2009	\$110,000	\$455,223	\$148,180	\$713,403
2008	\$50,000	\$317,625	\$4,080	\$371,705
2007	\$10,000	\$278,493	\$34,126	\$322,619

## Restoration of Abandoned Mine Sites (RAMS)

In March 2014 the US Army Corps of Engineers notified the Division of funding through the RAMS program for the first time since 2009. The Division applied for assistance to contract a new web implemented

AML geo-database. This geodatabase will greatly increase productivity in the office and eventually allow full digital field work. Once the digital field work is introduced it will increase efficiency in the field and reduce the amount of hand data entry. A contract was awarded to TerraSpectra Geomatics by the US Army Corps of Engineers in October 2014. TerraSpectra worked with the Division in 2008 and 2009 to digitize all existing Division AML data to incorporate ESRI ArcMap software. The initial Beta launch of the new database is planned for spring 2015 and the final release will be in summer 2015. The digital field application will be developed and tested in summer 2015 with an expected release in late Q4, 2015.

## Future Program Goals

In 28 years the Division has inventoried 18,656 AML hazards leaving an estimated amount of nearly 32,000 left to be inventoried. In 2011 the introduction of a bi-annually AML notification campaign to claimants and property owners effectively doubled the amount of securings. Cooperation between the claimants and property owners will always be a goal. Over the last decade the advancements of remote sensing such as, unmanned aircraft systems (UAS) with high-resolution aerial photography and 3-D mapping, and LIDAR surveys have significantly decreased in costs making it a viable option for improving logging techniques.

## Summary

The Nevada Division of Minerals' Abandoned Mine Lands program continues to have success in the discovery and securing of abandoned mine hazards due to the combined efforts of the federal land management agencies, the summer intern program, Division contractors, the Nevada mining industry, and many volunteers.

The public awareness program reached over 87,000 people in 2014, through the Division's annual brochure mail out, or directly through personal interaction with students, teachers, parents, members of civic groups, professional organizations, and the media. The Division provides the public the ability to report of an AML hazard with the form in Appendix B, also available on-line.

Despite the large and growing number of citizens that recreate in Nevada, there has been no significant increase in the number of injuries or fatalities related to abandoned mine hazards in Nevada. Appendix A shows a comparison table of AML incidents vs. population growth. It is clear that the awareness brought to people through the "Stay Out and Stay Alive" message is contributing to reducing the incident rate at abandoned mines.

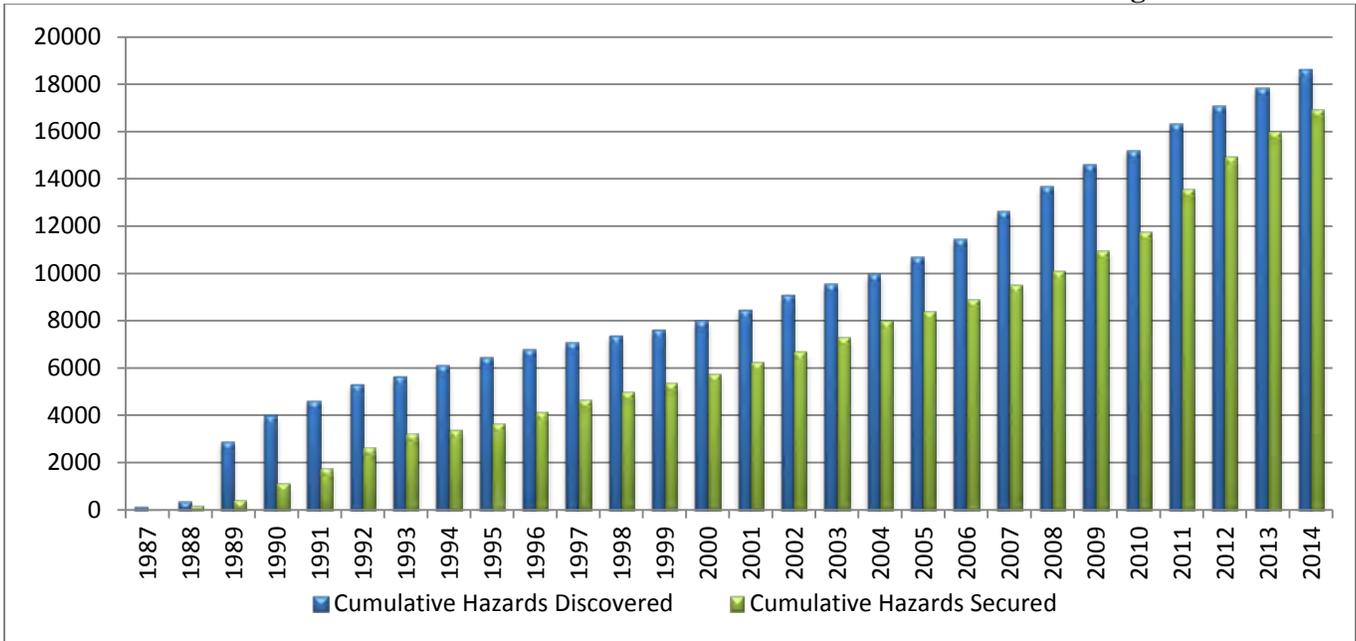
The Commission on Mineral Resources and the Nevada Division of Minerals will continue to aggressively support the AML program through fieldwork and public awareness because the only satisfactory number of abandoned mine injuries or fatalities is **ZERO!**

## Acknowledgements

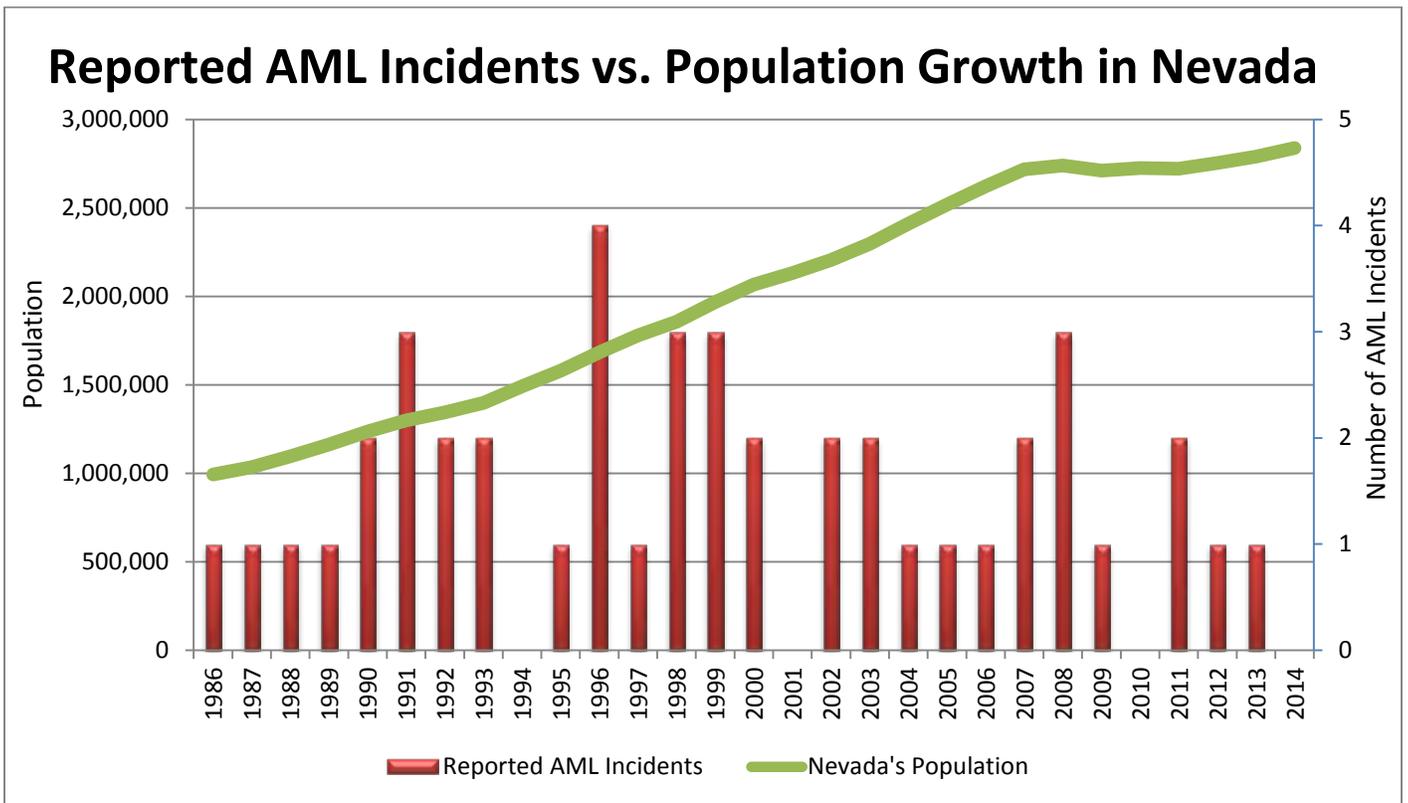
The authors would like to draw attention to the many efforts of those at the Division and other Federal agencies who provide integral support to the AML Program. 2014 marked the end of a 20 year NDOM AML career for George Bishop and we would like to thank George for all of his hard work. John Callan and the entire Nevada BLM AML programs assistance and closures performed every year. Dan Erbes, BLM Sierra Front Field Office, for the American Flats information. Ken Maas, Humboldt-Toiyabe National Forest, for all of his inventory and closures work on USFS land. The last and most important message of all, **STAY OUT and STAY ALIVE!**

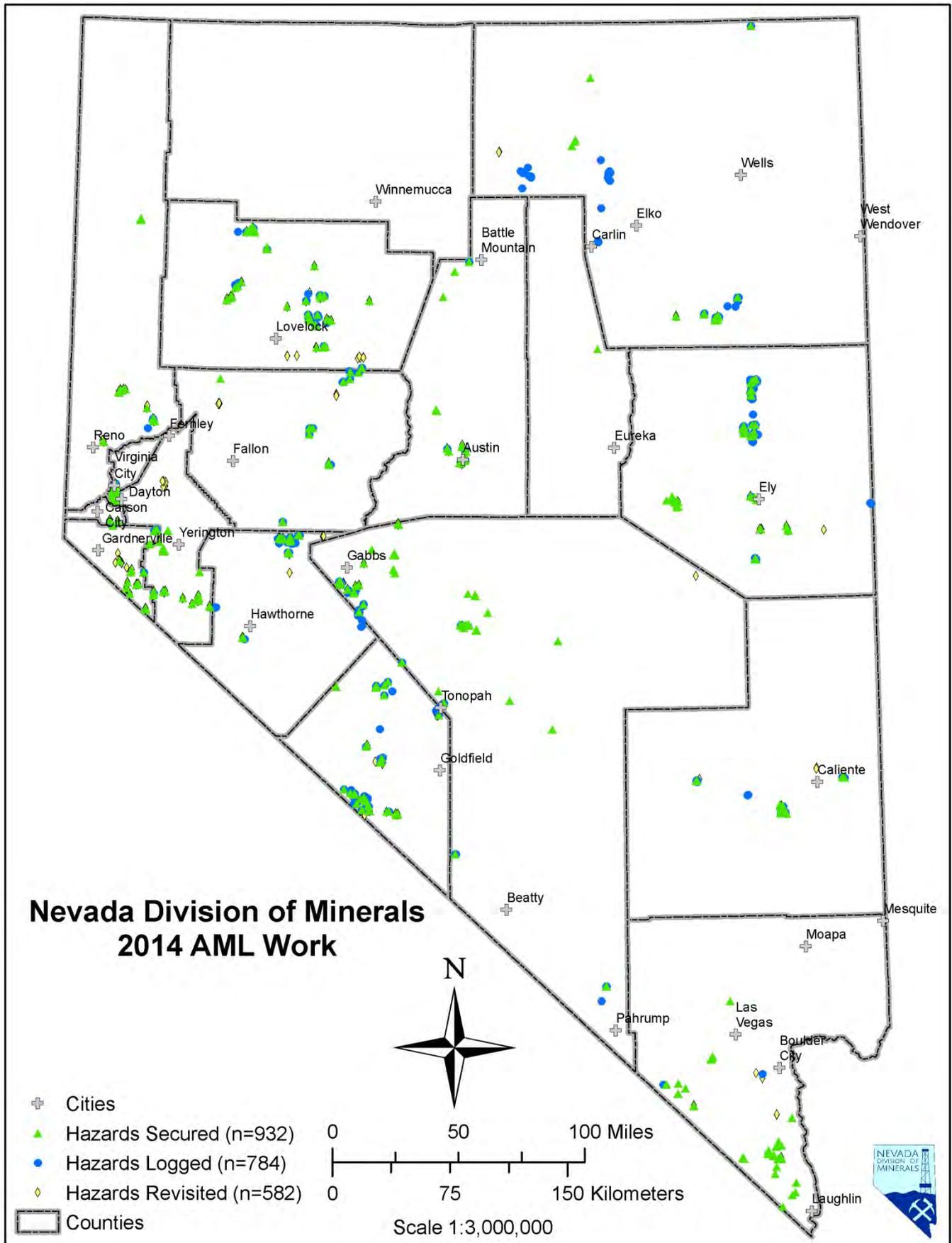
## Appendix A

**Cumulative Hazards Discovered and Secured on an Annual Basis 1987 through 2014**



**Reported AML Incidents vs. Population Growth in Nevada**





## Appendix B

**State of Nevada**  
Abandoned Mine Lands  
**Report of Abandoned Mine Land Hazard**

Person Reporting the Hazard:

Name: \_\_\_\_\_

Please keep my name confidential:

Phone #: \_\_\_\_\_

E-mail: \_\_\_\_\_

Date Found: \_\_\_\_\_

County Hazard is Located In: \_\_\_\_\_

Hazard Location \_\_\_\_\_ UTM E/Long. \_\_\_\_\_ UTM N/Lat.

(Coordinate Type - Select One):  UTM NAD27  UTM NAD83 (WGS84)

Longitude/Latitude  Do Not Know

Photo or Image of Hazard is Enclosed/Attached

Additional Comments or Information (if desired):

Please send this form along with any photos (If available) to:

**Attention: Abandon Mine Lands**

**Nevada Division of Minerals**

400 W. King St. #106

Carson City, NV 89703

Phone: 775-684-7040

Fax: 775-684-7052

Email: [ndom@minerals.nv.gov](mailto:ndom@minerals.nv.gov)

or

or

or

2030 E. Flamingo Rd. #220

Las Vegas, NV 89119

702-486-4343

702-486-4345

[ndomlv@minerals.nv.gov](mailto:ndomlv@minerals.nv.gov)

## Appendix C: Nevada Revised Statutes (NRS) pertinent to the AML Program

NRS 455.010 Erection of fence or other safeguard around excavation, hole or shaft required. Any person or persons, company or corporation, who shall dig, sink or excavate, or cause the same to be done, or being the owner or owners, or in the possession under any lease or contract, of any shaft, excavation or hole, whether used for mining or otherwise, or whether dug, sunk or excavated for the purpose of mining, to obtain water, or for any other purpose, within this State, shall, during the time they may be employed in digging, sinking or excavating, or after they may have ceased work upon or abandoned the same, erect, or cause to be erected, good and substantial fences or other safeguards, and keep the same in good repair, around such works or shafts, sufficient to guard securely against danger to persons and animals from falling into such shafts or excavations.

NRS 41.510 Limitation of liability; exceptions for malicious acts if consideration is given or other duty exists.

1. Except as otherwise provided in subsection 3, an owner of any estate or interest in any premises, or a lessee or an occupant of any premises, owes no duty to keep the premises safe for entry or use by others for participating in any recreational activity, or to give warning of any hazardous condition, activity or use of any structure on the premises to persons entering for those purposes.

2. Except as otherwise provided in subsection 3, if an owner, lessee or occupant of premises gives permission to another person to participate in recreational activities upon those premises:

(a) The owner, lessee or occupant does not thereby extend any assurance that the premises are safe for that purpose or assume responsibility for or incur liability for any injury to person or property caused by any act of persons to whom the permission is granted.

b) That person does not thereby acquire any property rights in or rights of easement to the premises.

3. This section does not:

(a) Limit the liability which would otherwise exist for:

(1) Willful or malicious failure to guard, or to warn against, a dangerous condition, use, structure or activity.

(2) Injury suffered in any case where permission to participate in recreational activities was granted for a consideration other than the consideration, if any, paid to the landowner by the State or any subdivision thereof. For the purposes of this subparagraph, the price paid for a game tag sold pursuant to [NRS 502.145](#) by an owner, lessee or manager of the premises shall not be deemed consideration given for permission to hunt on the premises.

(3) Injury caused by acts of persons to whom permission to participate in recreational activities was granted, to other persons as to whom the person granting permission, or the owner, lessee or occupant of the premises, owed a duty to keep the premises safe or to warn of danger.

(b) Create a duty of care or ground of liability for injury to person or property.

4. As used in this section, "recreational activity" includes, but is not limited to:

(a) Hunting, fishing or trapping;

(b) Camping, hiking or picnicking;

(c) Sightseeing or viewing or enjoying archaeological, scenic, natural or scientific sites;

(d) Hang gliding or paragliding;

(e) Spelunking;

(f) Collecting rocks;

(g) Participation in winter sports, including cross-country skiing, snowshoeing or riding a snowmobile, or water sports;

(h) Riding animals, riding in vehicles or riding a road or mountain bicycle;

(i) Studying nature;

(j) Gleaning;

(k) Recreational gardening; and

(l) Crossing over to public land or land dedicated for public use.

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 455.040 Contents of notice; judgment; criminal penalty.

1. The notice served pursuant to subsection 2 of NRS 455.030 must require the person or persons to appear before the justice of the peace of the township where the hole, excavation, shaft or other condition exists, or any municipal judge who may be acting in his place, at a time to be stated therein, not less than 3 days nor more than 10 days from the service of the notice, and show, to the satisfaction of the court, that the provisions of NRS 455.010 to 455.180, inclusive, or the standards established by the commission on mineral resources for the abatement of dangerous conditions have been complied with, or if he or they fail to appear, judgment will be entered against him or them for double the amount required to abate the condition.

2. All proceedings had therein must be as prescribed by law in civil cases.

3. Such persons, in addition to any judgment that may be rendered against them, are liable and subject to a fine not exceeding the sum of \$250 for each violation of the provisions of NRS 455.010 to 455.180, inclusive, which judgments and fines must be adjudged and collected as provided for by law.

[4:16:1866; B § 112; BH § 293; C § 274; RL § 3236; NCL § 5633]—(NRS A 1979, 1476; 1987, 1869; 1993, 881)

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 513.103 Account for the Division of Minerals: Creation; sources, lapse and use of money in Account.**

1. The Account for the Division of Minerals is hereby created in the State General Fund.

2. The following special fees and money must be deposited in the Account:

(a) All fees collected pursuant to NRS 513.094, 517.185 and chapter 522 of NRS.

(b) All money collected pursuant to NRS 235.016.

(c) Any money received by the Division from a county pursuant to NRS 513.108.

(d) All fees collected pursuant to NRS 534A.080.

(e) Any money appropriated to the Division from the State General Fund.

3. No money except that appropriated from the State General Fund lapses to the State General Fund.

4. The money in the Account is appropriated to the Division. The money deposited in the Account pursuant to paragraph (a) of subsection 2, and the interest earned thereon, must be expended for the purposes of administering chapter 522 of NRS and the provisions of this chapter, except for NRS 513.108. The money deposited pursuant to paragraphs (b) and (c) of subsection 2, and the interest earned thereon, must be distributed to the counties pursuant to NRS 513.108, except that portion required to pay the cost of administering the provisions of that section. All interest earned on the Account must remain in the Account.

(Added to NRS by 1983, 2070; A 1985, 303; 1987, 1868; 1989, 141; 1991, 1779; 1993, 111, 1684; 1995, 509)

#### **NRS 513.108 Abatement of dangerous condition of non-operating mines; reimbursement of Division.**

1. The board of county commissioners in each county may apply to the Division for money to abate a dangerous condition resulting from mining practices which took place at a mine that is no longer operating.

2. The Division shall, within the limits of the money available pursuant to paragraphs (b) and (c) of subsection 2 of NRS 513.103, provide counties with money to abate such dangerous conditions based on the relative degree of danger of those conditions.

3. If a county which receives money from the Division subsequently receives monetary compensation from the mine owner or other person responsible for the existence of the dangerous condition, it shall reimburse the Division to the extent of the compensation

received. Any money received by the Division pursuant to this subsection must be deposited in the Account for the Division of Minerals created pursuant to NRS 513.103. (Added to NRS by 1989, 141; A 1991, 1780; 1993, 1684)

**NRS 235.016 Royalties for medallions and bars; reports by Director; deposit of money collected.**

1. The Director shall set and collect a royalty for the use of The Great Seal of the State of Nevada from the mint which produces the medallions or bars. The amount of the royalty must be:

- (a) Based on the usual and customary fee charged as a commission by dealers of similar medallions or bars; and
- (b) Adjusted at least once each year to ensure it is competitive with the usual and customary fee.

2. The Director shall report every 6 months to the Legislature, if it is in session, or to the Interim Finance Committee, if the Legislature is not in session. The report must contain:

- (a) The amount of the royalties being charged; and
- (b) The information used to determine the usual and customary fee charged by dealers.

3. The money collected pursuant to this section must be deposited in the Account for the Division of Minerals created pursuant to NRS 513.103.

(Added to NRS by 1989, 140; A 1991, 1758; 1993, 1537; 1999, 3620)

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)

NRS 41.0331 Construction of fence or other safeguard around dangerous condition at abandoned mine. A person, the State of Nevada, any political subdivision of the state, any agency of the state or any agency of its political subdivisions is immune from civil liability for damages sustained as a result of any act or omission by him or it in constructing, or causing to be constructed, pursuant to standards prescribed by the commission on mineral resources, a fence or other safeguard around an excavation, shaft, hole or other dangerous condition at an abandoned mine for which the person, state, political subdivision or agency is not otherwise responsible.

(Added to NRS by 1989, 1556)

## Appendix D: 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 \$2.50 per claim. (Added to NAC by Commission on Mineral Resources by R069 -99, eff. 8-19-99; A by R199-08, eff. 8-14-2008)

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 an orange warning sign mounted on a 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. As used in 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.

(Added to NAC by Department of Minerals, eff. 10-9-90; A by Comm'n on Mineral Resources by R080-1, 1-16-2002, R066-02, 8-23-2002)