2021

Nevada Abandoned Mine Lands Physical Hazards Report

Commission on Mineral Resources

Division of Minerals

July 2022

State of Nevada

Commission on Mineral Resources

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Photo 1 – Intern, Hannah Potts, logging a hazard in Elko County.

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Cover Photo: Helicopter-aided hard closure in the Aurora District, Mineral County, NV.
Additional copies of this report may be obtained from the Division of Minerals' offices or may be downloaded from the Division's website at https://minerals.nv.gov/Programs/AML/AML/

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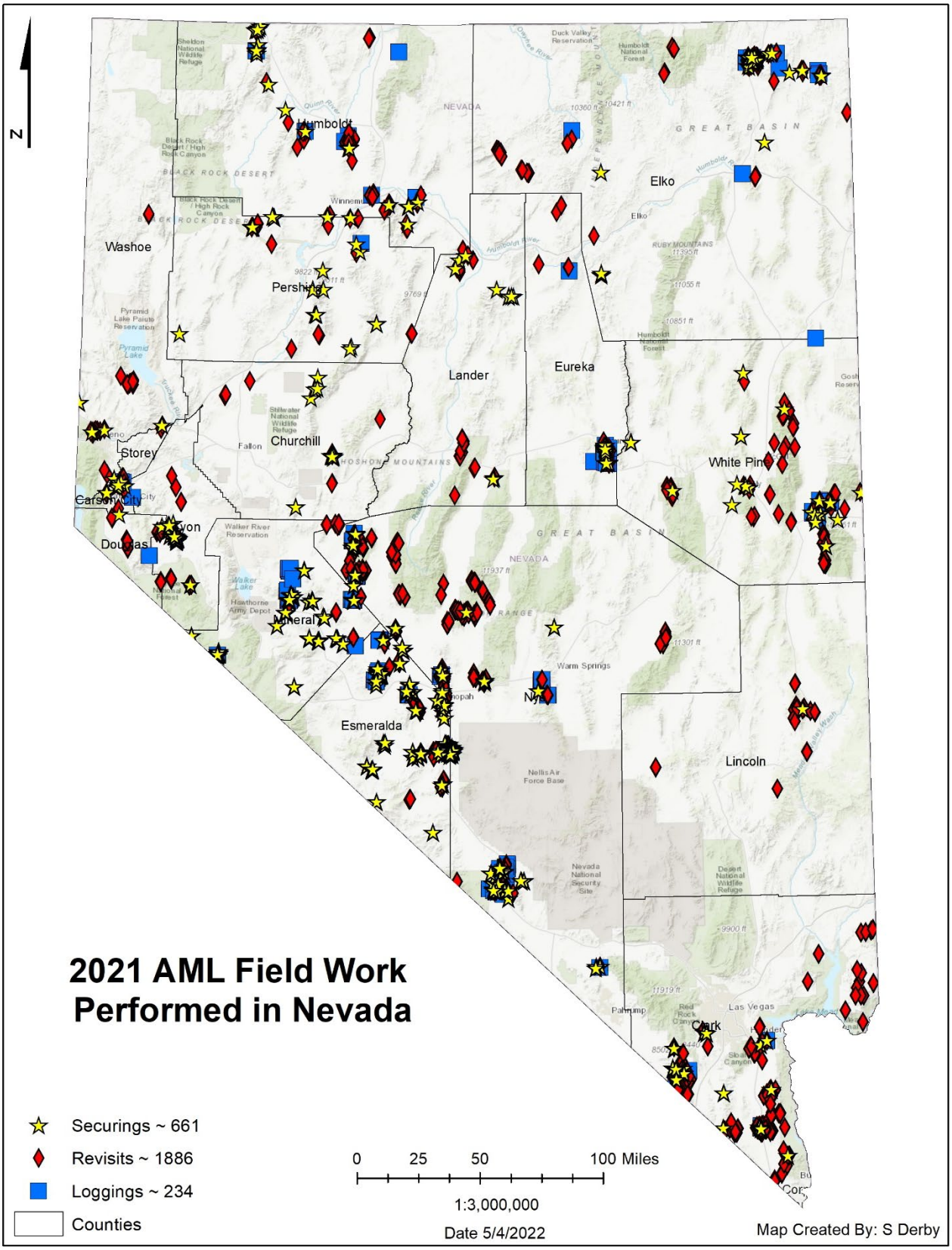


Map 1 – Map showing AML field work performed in Nevada during the 2021 calendar year.

1. Executive Summary

The State of Nevada's Abandoned Mine Lands (AML) program, operated by the Nevada Division of Minerals (the Division), finished its 35th year in 2021. Details and milestones include:

- No reported abandoned mine incidents in 2021.
- Over 145,000 historic mining related features cataloged since the inception of the AML program in 1987.
- 23,962 total hazards discovered and ranked since the beginning of the program; 19,753 hazards are currently recorded as secured.
- 234 new hazards discovered and 661 hazards secured in 2021.
- 338 hazards were secured by the Division, 200 by mining claimants and private property owners, 52 by federal agencies, and 71 were documented as naturally mitigated.
- 1,886 known hazards were revisited to confirm securing status and make repairs if necessary.
- 137 permanent closures were completed in 12 of the 17 Nevada counties; 51 of which were completed by the Division's contractor, Environmental Protection Services.
- $520,940 expended towards contracted closures statewide, of which $222,157 was funded by partner organizations.
- Exceeded the performance indicators required by the State Legislature, with 84% of discovered hazards secured and public-awareness presentations (an average of 24 per staff member) for the year.
- Collaborated with the Bureau of Land Management (BLM), Nevada Department of Wildlife (NDOW), National Park Service (NPS), Nevada State Parks, Nevada State Historic Preservation Office, and the US Forest Service (USFS) to secure abandoned mine land hazards across the state.

Photo 2 – AML Staff installing SOSA billboard in downtown Tonopah, Nye County.

Photo 3 – Illegal mining operation at AML Site, White Pine County.

2. The Commission on Mineral Resources

The Nevada Division of Minerals, a part of the Commission on Mineral Resources (the Commission), is charged by statute to encourage and assist in the responsible exploration for, and the production of, minerals, oil, gas, and geothermal energy that are economically beneficial to the State; to provide for public safety by identifying, ranking and securing dangerous conditions at mines that are no longer operating; and to collect and disseminate information on exploration, production, and related topics. The seven-member commission is a public body appointed by the Governor to adopt regulations, formulate administrative policies for the Division, and advise the Governor and Legislature on policy relating to mineral resources. The Division focuses its efforts on four main areas: collection and dissemination of information; inventory and securing of abandoned mine hazards; regulation of oil, gas, geothermal drilling activities and dissolved mineral resource exploration; and the Nevada Reclamation Performance Bond Pool.

3. Background

Nevada's geology and tectonic setting create the ideal conditions for a full range of mineral commodities and has attracted the attention of miners and prospectors for over 150 years. Prior to the enactment of reclamation laws, the prospectors who traveled across the state exploring for this vast mineral wealth left behind a legacy of mining shafts, adits, glory holes, stopes, mill sites and other features that are potentially dangerous to people and animals. It is estimated that over 300,000 mining-related features exist in the state. Of these, the Division estimates at least 50,000 features present a significant physical safety hazard and require some form of exposure mitigation.

The Division's AML program was created by the Nevada Legislature in 1987 in response to incidents, both fatal and nonfatal, that had occurred at abandoned mines. The legislature placed the program within the Division and mandated two primary functions, enacted by Nevada Revised Statute (NRS) Chapter 513 (see Appendix A):

1) Establish a program to discover dangerous conditions that result from mining practices that took place at a mine that is now no longer operating; identify the owner or other person responsible for the condition, if feasible; and apply a hazard ranking.

2) Develop a public awareness campaign to educate the public about dangerous conditions that exist as a result of historic mining activities.

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 referred to as "orphan" abandoned mine hazards. The legislature 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 A).

The AML program is administered under Nevada Administrative Code (NAC) Chapter 513, (see Appendix B). Sections 513.320 through 513.360 of the chapter require that hazardous openings be given a hazard ranking based on its location and degree of danger. The Division notifies claimants and property owners of hazardous abandoned mining features on their claims or property and informs them of their responsibility to secure the hazards. The Division also notifies each board of county commissioners of hazardous conditions discovered within their respective counties. The appropriate county is also notified if a claimant fails to confirm the

completion of securing to the Division or fails to make clear their intention to secure hazards within the timeframe specified by NAC 513.380. The county is authorized 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.

No state general funds are used to operate this AML program. It is funded from the following three sources:

1. A $4 fee collected by county recorders and remitted to the Division for every unpatented mining claim filed or retained on Federal land, (NAC 513.315).
2. A one-time fee of $20 per acre for every acre of permitted disturbance associated with new or amended mining or exploration plans of operation on public lands (NRS 519A.250).
3. Assistance agreements in place with multiple partnering organizations including the Bureau of Land Management (BLM), the United States Forest Service (USFS), National Park Service (NPS), United States Army Corps of Engineers (USACE) which provide financial assistance to enhance and accelerate both field investigation activities and work performed by staff, contractors, and volunteers to secure hazards.

Collected revenues are used for contracted closures, fencing, and inventory work; field supplies such as fence posts, signs and barbed wire, travel and vehicle expenses; and required office supplies, hardware and software. The revenue is also used to support the AML public awareness program through school presentations, videos, handouts, classroom exercises, and other means of outreach. Table 1 shows the historical revenues received by the Division from each funding source.

Table 1: Dedicated revenue to the AML program for the calendar years 2010 through 2021

Year	Assistance Agreements	Mining Claim Fees	Disturbance Fees	Total
2021	$222,157	$1,105,252	$102,460	$1,429,869
2020	$19,127	$779,292	$86,860	$885,239
2020	$258,087	$792,940	$29,026	$1,080,053
2018	$359,910	$837,688	$36,630	$1,234,228
2017	$137,198	$802,372	$84,640	$1,024,210
2016	$110,448	$725,257	$5,280	$840,985
2015	$60,000	$432,242	$64,300	$556,542
2014	$84,008	$466,835	$164,740	$715,583
2013	$69,031	$494,967	$228,220	$792,218
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

The Division's AML program is separate from the Nevada Division of Environmental Protection's AML program. The Division's AML program is focused on the aspects of physical danger (falls, collapses, etc.), while the NDEP AML program is responsible for aspects of environmental safety.

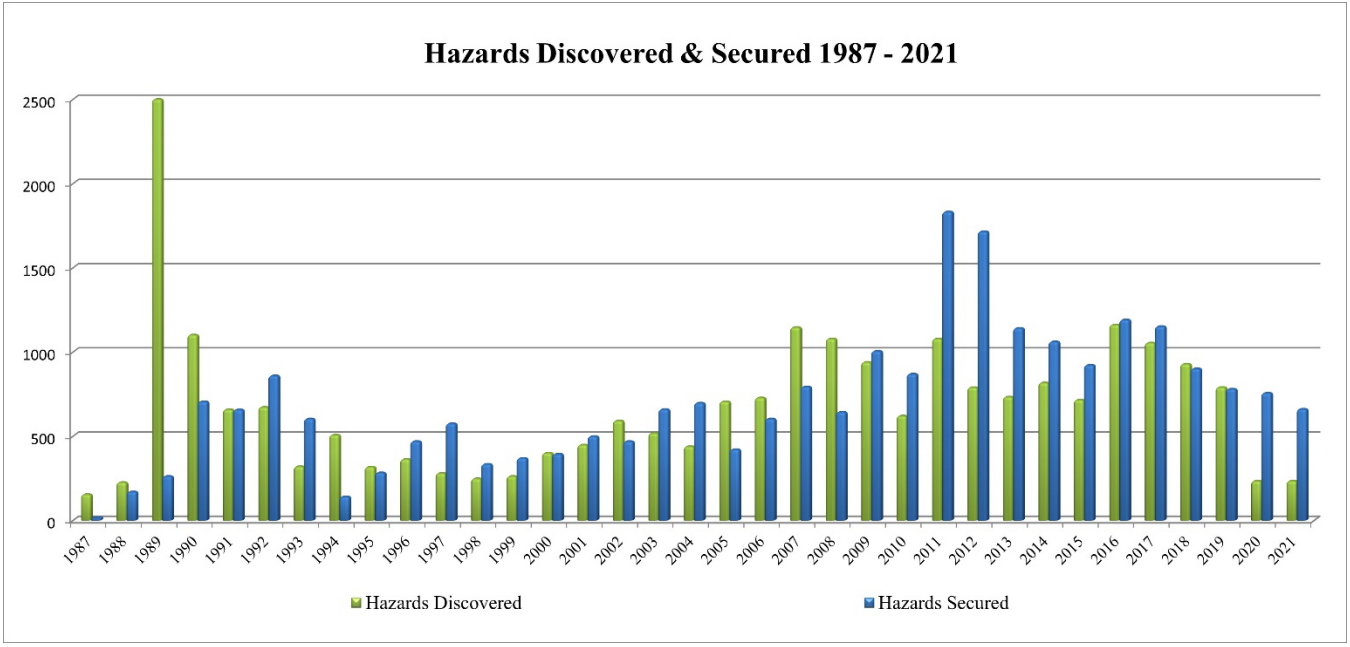


Figure 1 - Annual progression of hazards secured versus hazards discovered from 1987 – 2021.

Both programs urge the public to recognize and avoid hazardous abandoned mines.

4. Abandoned Mine Incidents in 2021

This was the ninth consecutive year without an abandoned-mine-related death in Nevada. AML incidents in Nevada began occurring in the early 1860s right after Bonanza-era mining started in the Virginia City area. The first known incident was documented in an article of the Red Bluff Independent in 1861, "A man named Kelly, who left Gold Hill on horseback, during a storm on Monday last, was found on Thursday, together with his horse, in a shaft one hundred feet deep, about a mile from town." Six more lethal events were recorded by local papers from 1861 to 1870. Appendix C lists a 60-year history of reported incidents related to abandoned or idle mines.

5. Inventory, Securings and Repairs

At the close of the year, the Division's cumulative totals of hazards discovered and ranked, and non-hazardous mining features characterized reached 23,962 and 121,096, respectively. Of the hazards discovered and ranked, 19,753 (84%) are currently secured. Figure 1 shows the progression of these securings by year. Table 2 lists hazards by county. Figure 2 displays all hazards by securing method, 2021 securings by type, and 2021 securings by entity.

Each year the Division utilizes its existing AML database and information on the locations of historic mining features to rank each U.S. Geological Survey 7.5' topographic map within the state to prioritize field work. (See Map 2) Annual survey work by partner agencies also plays a role in identifying locations for additional work.

Photo 4 – AML Staff revisiting hazard in Humboldt County.

Table 2: Hazards Discovered and Hazards Secured by County, as of December 31st, 2021

County	Discovered	Secured	% Secured
Carson City	85	74	87.1
Churchill	905	823	90.9
Clark	2,346	2,030	86.5
Douglas	239	208	87.0
Elko	1,033	810	78.4
Esmeralda	3,676	3,173	84.6
Eureka	1,204	916	76.0
Humboldt	1,034	863	83.6
Lander	750	627	83.4
Lincoln	1,030	889	86.3
Lyon	1,248	1,115	89.3
Mineral	2,119	1,685	79.5
Nye	3,374	2,728	80.8
Pershing	1,632	1,598	97.7
Storey	226	205	90.3
Washoe	466	425	91.2
White Pine	2,244	1,584	70.5
TOTAL (Since 1987)	23,962	19,753	84.8

In 2021, 2,779 hazardous sites were visited to catalog new hazards, conduct revisits, or secure existing hazards. Of these, 661 securings were safe-guarded: 521 by fencing or posting a warning sign, 98 by backfill or polyurethane expansive foam (PUF), 27 by bat-compatible closures (BCC), and 12 were found to be collapsed naturally. Three additional hazards were covered with steel mesh. The Division or its contractors accounted for 98% of all hazards inventoried and 77% of all securings in the state. Since 2017, the Division and its contractors have been responsible for 93% of all inventories and 55% of all securings within the state. The AML program focuses its securing efforts on hazards located on federal lands lacking an active mining claim, such sites are referred to as "orphaned hazards".

While performing field work and if possible, it is the Division's policy to secure a hazard while at the site when the feature ranks as a moderate or high hazard, regardless of ownership or land status. This is to safeguard the public from the immediate safety risks. When these securings are on

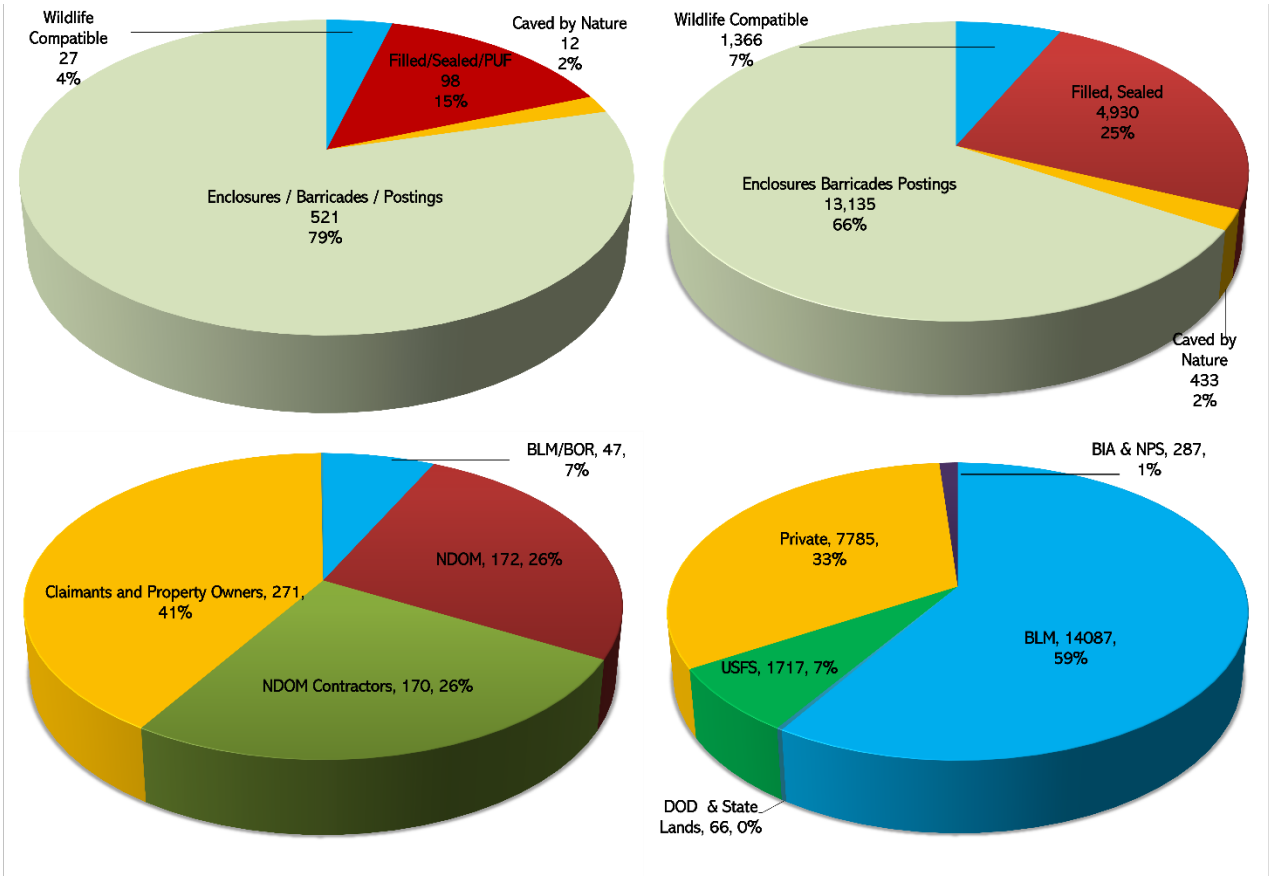


Figure 2 – 2021 Securings by Entity (Bottom-left), Total Securings by Land Status (Bottom-right), Total Securings by Type (Top-Right), and 2021 Securings by Type (Top-Left).

private land or federal land with an active claim, they are called "proactive securings".

The Division continues to incorporate new technology and systems to increase efficiencies. Recent innovations include: the use of customized digital field tablets, which have increased data quality and processing time, increased location accuracy, and decreased data entry time; and an evolving SQL database and GIS software suite. AML staff, with help from Army Corps of Engineers' contractor TerraSpectra Geomatics, continue to refine the online SOSA database to increase its utility for partner agencies. Helicopter-aided aerial surveys and GPS tracking allowed the confirmation logging of 1,800 non – hazards during just six hours of flight time. The Division is working with the Nevada Division of Forestry to create a contract for use of their pilots and helicopters in 2022. The Division acquired a UTV in 2021 which greatly increased field efficiency.

The impact of these enhancements is evident when looking at the consistent yearly increase in the recording of non-hazardous features in the Division's AML database. In 2021 alone, over 9,500 non-hazardous mining features were inventoried by staff and interns. 2021 set the yearly record for the most revisits in program history with 1,887, over two times more than the average of the previous seven years. (See Figure 4)

Tonopah NV Point Inventory Project II, Nye, and Esmeralda counties

In February 2021, the AML program continued with helicopter-aided survey work in Nye and Esmeralda counties. This type of survey was found to be especially effective in identifying AML features in basins and on alluvial fans having a high density of mapped features (NV points). AML staff compiled existing geospatial data indicating possible hazards and developed a flight plan transecting those locations. El Aero Helicopter Services and AML staff executed the flight plan and collected data points in flight. The resulting spatial data was processed and resulted in identification of 38 hazards and more than 1,800 non hazards.

US 95 Safeguarding, Mineral and Esmeralda counties

Along US 95, between Hawthorne and Coaldale, there are nine separate historic mining districts. Legacy AML

Photo 5 – Cupola constructed at historic Poinsettia Mine, Mineral County.

features are abundant in this region and well within sight of US 95. The Division was aware that this region experienced increased seismic activity during 2020, such events are known to impact existing hazards and can cause previously caved features to reopen. Using the Division's SOSA database and data provided by the UNR Seismology Department, AML staff mapped locations of secured orphaned hazards near mapped surface ruptures in this area. The Division contracted EPS to complete 60 site revisits in late February of 2021.

Gillis Range Safeguarding, Mineral County

As a result of annual database research and notifications from partner agencies, the Division became aware of a high density of hazardous sites in the historic Gillis Mining District in Mineral County. EPS was contracted to complete initial inventory and logged 36 new hazards sites and 170 non – hazard features. Follow-up safeguarding resulted in 156 sites being secured. EPS will return to the Gillis Range during the 2022 field season to continue inventory of existing undocumented hazards.

Nelson, Clark County

Nelson is a historic townsite in the Eldorado Mining District located west of the Colorado River in Clark County. Seasonal visitation as a tourist attraction brings the public in close proximity to several highly ranked hazards. The Division worked with the BLM to select appropriate sites for fencing. EPS completed the safeguarding of 26 sites at Nelson.

Southern Nevada Revisits

The Division's policy is to perform a revisit survey of previously secured sites at least every five years. This presents logistical challenges in terms of the ever-growing number of sites to return to in remote parts of the state. The Division opted to contract southern Nevada revisits to EPS. Work in 2021 was limited to Clark County but will be expanded northward in 2022. EPS revisited and/or repaired 303 sites.

NDOW BCC Revisit Project, Statewide

The Division maintains a strong working relationship with the Nevada Department of Wildlife (NDOW). Hard closure project development requires wildlife surveys at each site and NDOW has taken a proactive stance in performing wildlife surveys at proposed AML closure sites. Additionally, from 2020-2021, NDOW revisited a total of 1,015 hazards having bat-compatible closures statewide. The data collected from this project provided vital information on the effectiveness and longevity of the gates, incidents of vandalism, and contributed to increased quality of the data within the Division's AML database. This data is also very helpful in guiding selection of contract and intern project areas.

6. Permanent Closure Projects

In 2021, there were 137 hazards documented as permanently secured, including 47 by the BLM, 56 by the Division, and 31 by owners or claimants and three caved naturally. Prioritization for permanent closures is based on a risk assessment. This assessment may include a recorded accident or incident, hazard rank, and the proximity to public or recreation areas. Hazardous sites might also be considered as permanent closure candidates when exclusionary fencing or barricading has been repeatedly vandalized and is no longer a suitable securing method.

Permanent closures include backfills, bat-compatible closures, foam plugs, or a combination of these methods. Unlike fencing or barricade securings, 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 on federal lands must be evaluated for cultural and biological resource impacts. Closure methods are determined based on the outcome of the biological and cultural resource surveys, as well as the safety risk present at the site.

The Division and the BLM completed eight closure projects in 2021. Out of the 137 closed, 28 were completed as bat-compatible closures, 89 were backfilled and 10 used polyurethane foam (PUF). Contracted closure work, on behalf of the Division and NDOW, was completed by Environmental Protection Services. The Bureau of Reclamation and BLM partnered for two additional projects on federal lands.

Copper Butte, Clark County

Copper Butte was a cooperative project between the National Park Service (NPS) and the Division. Located within the Lake Mead National Recreation Area, Copper Butte hosted sporadic and limited mine development beginning in 1908. NPS conducted the surveys necessary to satisfy NEPA requirements. After drafting an approval of cooperative task agreement, NPS approved project work with the following additional goals: mitigation of public safety hazards, preservation of the specified abandoned mine sites, and maintenance of habitat for bats and other wildlife. The closure and stabilization of abandoned mines and associated lands is critical to returning disturbed areas of NPS lands to natural conditions thereby enhancing visitor experience by assuring safe conditions and elimination of possible environmental contamination. Furthermore, NPS is mandated to protect important wildlife habitat, as well as interpret and preserve cultural and historic resources within its parks. EPS completed nine wildlife-compatible closures and one PUF in January 2021. (See Photo 6)

Photo 6 – EPS staff welding steel bars on a wildlife-compatible permanent closure at Copper Butte, Clark County.

Poinsettia Mine, Mineral County

In May of 2021, the Division proposed permanent closure of four abandoned mine hazards in the vicinity of the Poinsettia Mine in Mineral County. Over the past 30 years, the Division built multiple safeguarding fences in this region and continued to revisit the mine site. More recently, reports from partner agencies and the public indicated that fencing was no longer safeguarding the hazards due to vandalism and

Photo 7 – Wildlife-compatible closure at historic Potosi Mine Site, Clark County.

weathering. In November of 2020, the Division determined that the current securing methods were not adequate due to increased recreational pressures. While the area had been maintained by local Boy Scouts it had become a popular campsite for off – roading enthusiasts, increasing the chance of an AML incident. This public interaction increased the prioritization of this project to remediate the physical safety hazards associated with these historic mines. To alleviate BLM's cultural survey workload, the Division contracted with Broadbent and Associates to perform the required cultural surveys. After review of NDOW and Broadbent's survey reports, BLM approved a CX to permanently close four sites. The project was completed by EPS in December 2021. (See Photo 5)

Potosi, Clark County

In April 2021, proposed land development near the historic Potosi Mine in Clark County, triggered a hazard and wildlife assessment of legacy mining features. Dating back to the 1850s, the Potosi Mine is the oldest mining district in Nevada and contains voluminous mine features posing great physical safety risk. According to NDOW recommendations, two sites in this area were deemed to be highly hazardous and required wildlife-compatible closures. NDOW contracted with EPS to complete these closures. (See Photo 7)

Linka Mine, Lander County

The historic Linka Mine is less than one mile east of Spencer Hot Springs in Smokey Valley. Hazards related to the site were inventoried by the Division in 2001 and subsequently built multiple safeguarding fences around the hazards. In 2019, NDOW surveyed the Linka Mine for bat habitat and notified the Division that the fencing was no longer safeguarding the hazards. In January of 2020, the Division revisited the hazards and rebuilt fences on five of the six hazards immediately near the springs. The Division determined that the current securing methods were not adequate due to the year-round visitation to the hot springs and frequent vandalization of the securings. Like Poinsettia, the frequency of public recreation had increased the likelihood of an AML injury or death at these mines. The main production shaft, LA-0305, is 210' deep and is only 50' off a well-used dirt road resulting in it being ranked as a high hazard according to NAC 513.360. Again, public interaction triggered the prioritization of this project to remediate the physical safety hazards associated with these mines.

The Division proposed construction of four bat-compatible closures (BCC) and received approval from NDOW to backfill the remaining two. The cultural and biological surveys were completed by BLM staff immediately before the closure project commenced. The Division and BLM archeological staff remained onsite to supervise the required excavation for the backfilling process. In total, two sites were backfilled, and four sites had BCCs completed in June 2021.

Aurora District, Mineral County

The Division and the US Forest Service (USFS) collaborated to plan a closure project in the Aurora Mining District. The district has hosted consistent mine development since the turn of the 20th Century. Both modern open-pit and historic narrow AML features are present and the mix of USFS land and private patents create a complex patchwork of access routes. Despite the remote location and irregular land status, off-roading enthusiasts access the area throughout the year. The USFS approached the Division to propose permanent closure of highly ranked hazards in closest proximity to the popular recreational area. Site evaluations identified 16 hazards in need of permanent closure. The USFS conducted wildlife and cultural survey work on the sites. EPS commenced project work in mid-October and completed all closures by December 2021.

Northern Nevada Revisits and Repair

Hazard sites closed by methods other than backfilling are often targeted by vandals, requiring regular revisits to assess their status. In 2021 EPS was contracted to repair 15 wildlife-compatible closures. Between February and April, 30 sites in Carson City, Churchill, Douglas, Lyon, and Washoe counties underwent reinforcement or rebuilding measures by EPS.

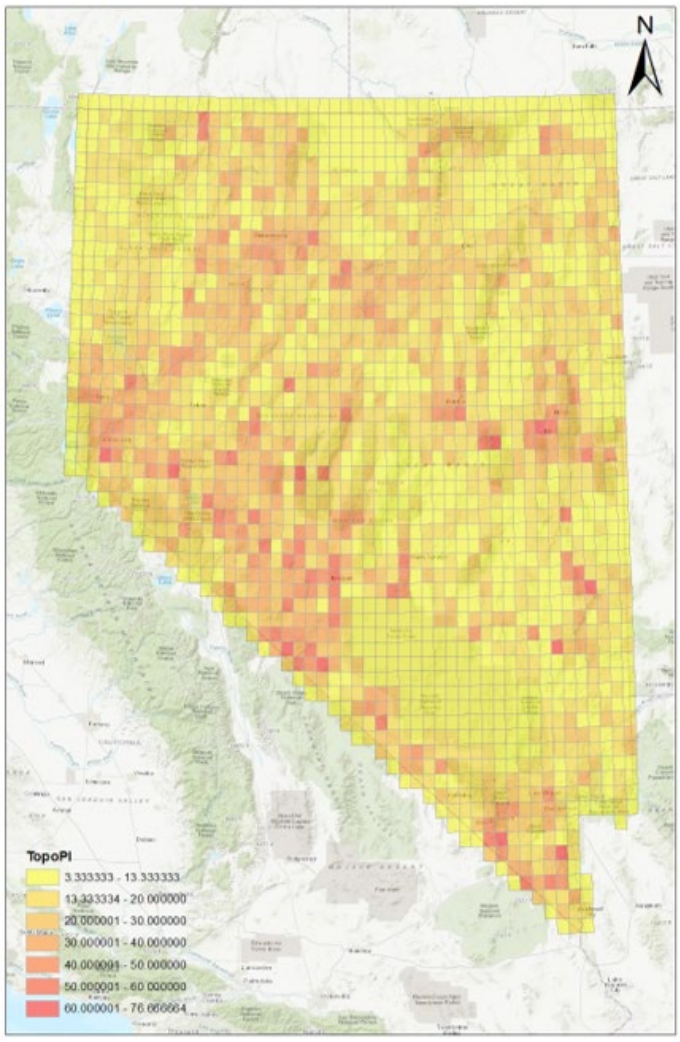
Southern Nevada Repairs

During EPS's Nelson securing visit in March of 2021, several hard closures had been noted as being vandalized. With approval from the BLM, the Division contracted EPS to repair 16 vandalized BCCs in Clark County in December of 2021.

Arden Mine, Clark County

The Arden gypsum mine, located in Clark County, operated in the early 1900s. The mine site is in the southwest corner of the Las Vegas metropolitan area. Gypsum mining here resulted in more than 47 portals and thousands of feet of underground workings. At present, several schools and housing developments are located within walking distance of the Arden Mine complex, including an elementary school less than 1,000' to the south, a middle school 0.7 miles to the north, and multiple high schools within a few miles. Development continues to encroach on the abandoned mine site. Recreationalists also use the area to mountain bike, ride OTVs and hike adjacent to the hazards. Due to the near-constant vandalization or removal of fencing and warning signage, a more permanent closure method was needed.

In 2018, the Division worked with the county and closed all 47 known hazards at the mine. Due to the significant



Map 2 – 2021 Topo Ranking Map image with rank value layer, highly ranked topos appear in red.

visitation to the area prior to the closures, the Division realized that there would be future attempts to re-enter the sites. Therefore, from 2018-2020 the Division consistently revisited the closures. In 2020, multiple attempts to dig back into the adits were noticed, but none were successful in breaching the fills due to the volume of material emplaced. Then in January 2021, the Division found the first successful breach and re-initiated approval from the BLM and Clark County to refill the breach. Repairs were completed in March 2021 utilizing nearly 100 cubic yards of polyurethane foam to fill the voids.

Duck Hill, Carson City

In December of 2021, reports from the public indicated two hazards exposed immediately north of a neighborhood in Carson City. These hazards had been backfilled after an AML incident in 1971. EPS was able to complete the closures immediately after the BLM granted an emergency CX.

7. Intern Program

The Division employs college students majoring in the geosciences and related fields to assist with inventorying, revisiting, and safeguarding of hazardous AML features throughout the state. The intern program began in 2000 and has since expanded from two to eight students in the summer and four to six in the winter. These interns are trained and supervised by Division staff throughout the program.

The summer internship lasts 13 weeks from May through August. A four-week winter program is also offered during the holiday school break. Interns in this program are trained in field safety, first aid, operation of 4WD vehicles, GPS data collection, map reading, and working in teams. The work is physically demanding and involves dry camping in remote areas for extended periods of time. A total of seven interns were hired from UNR and UNLV in 2021. Interns completed a one-week safety and program training course and began field work May 24th.

Field areas for the 2021 season were selected using a ranking system which identifies individual topo quads based on a hazard ranking, (proximity to public + potential lethality) and length of time since last visit. Using the Division's AML database, staff processed topo ranking data to develop a color-coded heat map (see Map 2). Topo quads containing high densities of hazards scoring higher in these criteria are selected as prospective intern field areas. The following field locations were selected for the 2021 season: Virginia City, Tonopah, Carson City / Dayton, Eureka, Denio, Goldfield, Gabbs, Winnemucca, Hogum, Contact, and Reno. Interns were able to complete a total of 128 securings, they logged 147 hazards, and revisited 662 known hazards, and documented 4,751 non – hazards.

Photo 8 – One of two Tonopah billboards installed in 2021, Nye County.

8. Public Awareness

The Division's message to the public regarding abandoned mines is "Stay Out, Stay Alive". This message is presented to the public through several formats, including the recently updated 10-minute "Stay Out, Stay Alive" video (available on the Division's YouTube channel), a shorter 5-minute version, a 30-second PSA, informational brochures, curriculum guides and classroom material targeting fourth-grade students. The Division used content from the updated video to design two billboard images. AML staff installed these images in Tonopah in October 2021. Three additional billboards are planned for 2022 at rural locations with a high density of hazards near recreational sites.

Overall views on YouTube for the updated "Stay Out, Stay Alive" videos came in at just over 1,000 views for 2021. While visits to the Division's online contents were up overall AML, staff recognized that online content promoting

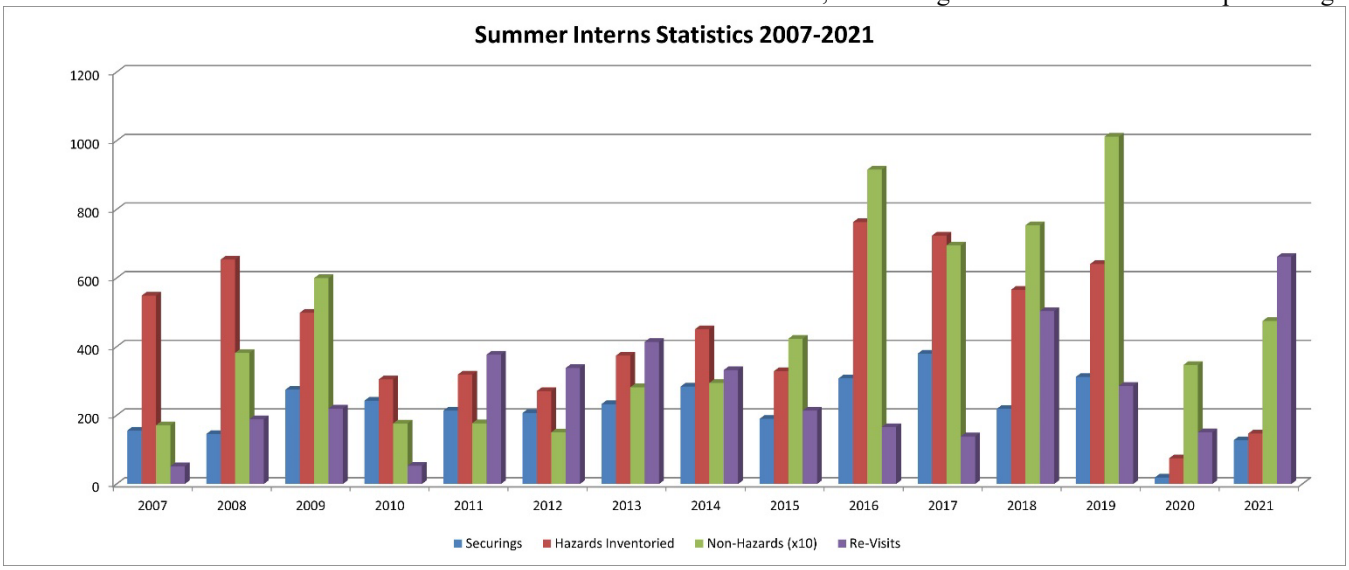


Figure 3 - Summer intern statistics from 2007 through 2021.

public access to documented AML sites in Nevada continue to far outpace agency efforts to spread the "Stay Out Stay Alive" message. AML staff received Commission approval to contract a digital marketing and content creation company in order to reach out to a target audience of individuals most likely to visit hazard sites for recreational purposes or likely to encounter hazards in rural Nevada. Project development and implementation will take place in 2022.

Fourth-grade curriculum guides are downloadable from the Division's website. The classroom materials include an AML exercise summarizing Nevada's historic mining legacy. This project-based learning module was developed in cooperation with the Alice Maxwell Elementary School in Sparks and includes applicable Nevada Academic Content Standards.

The Division's AML program continued their commitments to the citizens of Nevada. Outreach to K-12 schools and other youth avenues consisted mostly of video conferencing and included 46 separate schools visited, 5,753 students reached through 322 presentations, and 25 distance learning videos published to our YouTube channel and other online portals. Outreach to the public included an estimated audience of 19,688 citizens through 780 presentations and 457 web-hosted videos. Other audiences included conferences, trade shows, industry events, civic groups, clubs, and professional organizations.

9. Performance Indicators

The legislatively-approved performance indicators for the abandoned mine lands public safety program are:

1. Maintain a 70% securing rate, which is the percentage of secured hazardous mine openings compared to the total number of hazardous mine openings inventoried. The Division finished 2021 with 84% of hazards secured (see Table 2).
2. Maintain a minimum of 24 public awareness and education presentations per year, per staff member, including topics concerning the Nevada mineral industry and abandoned mines. Division staff averaged 70 presentations per each staff member in 2021.

10. Geologic and Cultural Contracts

Each year, the Division's submits multiple proposals to federal partners for permanent closure projects. Strong partnerships at the state and federal level have helped maintain a workflow that reflects the Division's budget and staffing available to execute such projects. However, most proposed projects require cultural survey work, typically conducted by BLM archeological staff at the district level. The COVID-19 pandemic and the BLM staffing shortages led to a backlog of all field survey work but especially impacted BLM's ability to complete cultural surveys in a timely manner. Considering this potential hindrance to the AML program's mandate and with approval from the Commission, the Division initiated a Request for Proposal for AML cultural surveys to alleviate the workload at the BLM. Broadbent and Associates, based in Reno, was awarded the contract and began work with BLM district staff to complete two cultural surveys in 2021 and will be conducting the majority of surveys planned for 2022.

With the Division's expanding capabilities for sharing geospatial data and increasing number of closure projects, it seemed appropriate that the AML program should generate

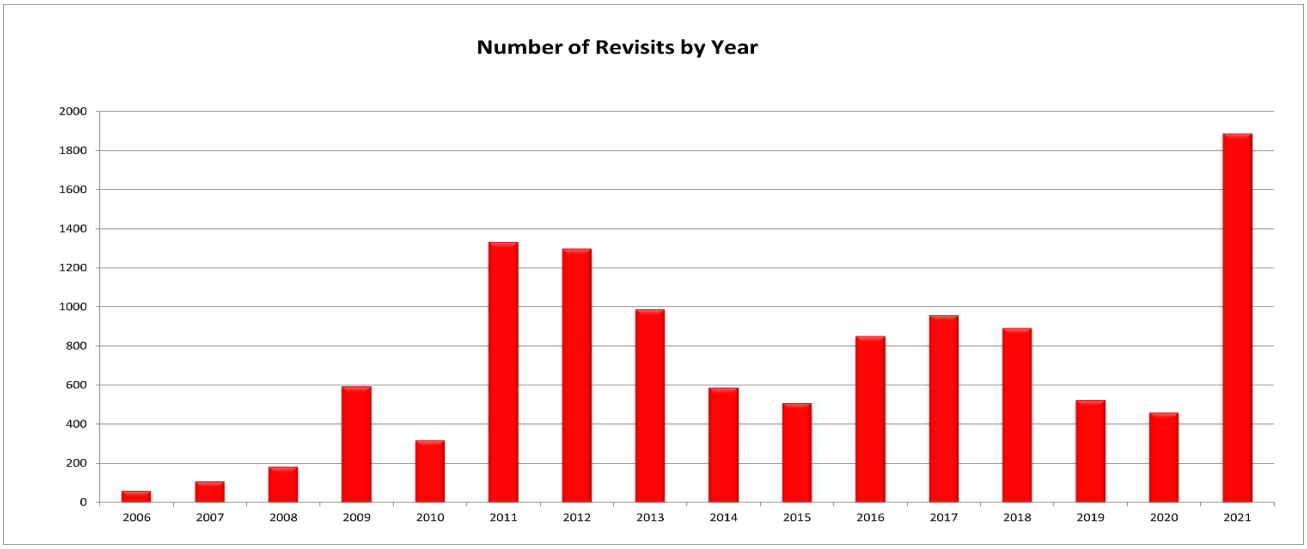


Figure 4 – AML Program enhancement and agency partnership show 3-fold gain in 2021 from previous year.

geological characterizations beneficial to future mineral exploration at AML hazards prior to being permanently closed. In October of 2021, the Division contracted with McGinley and Associates with the goal of completing geologic analysis of most hard closure project areas. This analysis includes district-wide characterizations, rock sampling, samples sites descriptions, assay information, and brief historical details on the relevant mining district. Geospatial data will accompany this reporting and all data and reporting will be made available online. The Division plans to conduct site characterization at six closure project locations in 2022.

11. Summary

In 2021, the Division's AML program remained very productive while emerging from the pandemic and exceeded all legislative mandates while enacting new initiatives to increase efficiencies in the field and greatly expand our "Stay Out, stay Alive" message to new audiences.

Data from the 2021 field season shows increases in the number of hazards revisited and non – hazards identified, however, an overall downtrend of hazards inventoried, and hazards secured has been noted since a near record in 2016. The increase in revisits and downtrend in inventory and securings is a predictable relationship since newly logged/secured orphan hazards are set to be revisited every five years. This revisit timing is factored into overall topo ranking and results in a topo ranking dataset with a high density of revisits. Considering this relationship, the AML program opted to delegate selected revisit projects to contractors (e.g., the Southern Nevada Revisit Project) in order to prevent a backlog of revisits and to allow AML staff and interns to focus on identifying and securing new hazards. The Division plans to continue delegating large-scale revisits to contractors while meeting its legislative mandate to identify and secure new AML hazards.

12. Acknowledgements

We would like to recognize: John Callan, Kurt Miers, Alicia Jensen, and the entire Nevada BLM AML team for their commitment and assistance to the State's AML program; David Risley, US Forest Service, for all his inventory and closure work completed on USFS-managed land; the AML crew of the Bureau of Reclamation for their closure work; Jason Williams and Jenni Jeffers and the entire NDOW AML team for their statewide biological survey efforts; our partners at NDEP and their contributions to AML documentation; BLM Medford Cultural Crew who aided in documenting, maintaining, and preserving our precious cultural resources; Bryan Moore, Tony Gallegos, Brett Balley and the rest of the National Park Service AML crew. Lastly, we would like to call attention to, and thank, the many claimants and landowners who work with the Division to secure AML sites statewide.

Photo 9 – AML closure by EPS for US Forest Service in Mineral County.

13. Appendix A

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)

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)

14. Appendix B

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 513.270 "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 $4 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.

The Administrator or his or her representative may assign a different rating to a dangerous condition in a location if other factors affecting accessibility warrant the modification, but the rating for a dangerous condition in a single location may not be scored higher than five points.
(Added to NAC by Commission on Mineral Resources, eff. 12-21-88; A by R127-15, 6-28-2016)

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 Ranking 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; A by R127-15, 6-28-2016)

NAC 513.380 Period after notification to secure dangerous condition. If notified by the Commission of the existence of a dangerous condition, the owner or responsible person shall:
1. Post within 180 days a warning sign in a prominent location near a dangerous condition ranked as a minimal hazard; and
2. In the manner prescribed in NAC 513.390:
(a) Secure within 180 days a dangerous condition ranked as a low hazard;
(b) Secure within 120 days a dangerous condition ranked as a moderate hazard; and
(c) Secure within 60 days a dangerous condition ranked as a high hazard .
(Added to NAC by Commission on Mineral Resources, eff. 12-21-88; A by R127-15, 6-28-2016)

NAC 513.390 Methods for securing dangerous condition; approval by Administrator to modification of method.
1. Except as otherwise provided in subsection 4, a dangerous condition ranked as a low, moderate or high hazard must be secured by one or more of the following:
(a) A barricade or other structure, including, without limitation, a structure consisting of metal posts and four strands of barbed wire, or other durable materials, constructed to prevent a person or animal from accidentally exposing himself or herself to the dangerous condition.
(b) 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.
(c) Backfilling so that no void spaces remain.
2. In addition to securing a dangerous condition pursuant to subsection 1, if the dangerous condition ranked as a low, moderate or high hazard is secured only by the method set forth in paragraph (a) of subsection 1, the owner or responsible person must post a warning sign in a prominent location near the dangerous condition. The warning sign must be posted within the period set forth in subsection 2 of NAC 513.380 for securing the dangerous condition.
3. Regardless of the method used pursuant to subsection 1 to secure a dangerous condition, the owner or responsible person shall maintain the integrity of that structure.
4. The Administrator or his or her representative may approve the modification of a method of securing a dangerous condition to accommodate features or characteristics that are specific to the location of the dangerous condition.
(Added to NAC by Comm'n on Mineral Resources, eff. 12-21-88; A by R127-15; 6-28-2016)

15. Appendix C

History of Nevada AML Incidents Since 1961		
Date	**Incident**	**County**
May ‘20	Dog fell down shaft, rescued two days later	Pershing
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-20s) 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 City
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 Brougher Divide Mine near Tonopah,	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	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	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
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

16. Appendix D

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			375 E. Warm Spring Rd. #205
Carson City, NV 89703			Las Vegas, NV 89119
Phone:	775-684-7040	or	702-486-4343
Fax:	775-684-7052	or	702-486-4345
Email:	ndom@minerals.nv.gov	or	ndomlv@minerals.nv.gov