

The Silver State May Become the Solar State

Nevada is known as the Silver State, even though its gold production ranks fourth in the world. As renewable energy development takes center stage, Nevada may soon be defined by terms like megawatts, photovoltaics, wind turbines and geothermal applications. Although Nevada's name comes from the Spanish meaning "snow-covered," after the Sierra Nevada mountain range, the state's name couldn't be more misleading as it has become known in recent years as the land of opportunity for solar, wind and geothermal energy. As Nevada becomes a hotbed for renewable energy exploration and development, the BLM's responsibilities have increased and adjusted to accommodate the exponential growth in demand for leases and rights-of-ways.

Solar Energy

Solar rights-of-way, or ROW, are a fairly new arena for BLM. While there are several technological methods to produce solar energy, BLM's responsibility is not to direct the type of technology proposed, but to: analyze the impacts to the resources of the proposed action itself; disclose the information to the public; request and consider all public and other agency comments; identify mitigation measures using "Best Management Practices" for each resource program; make a decision to go forward and issue land use authorizations or to reject the application; to monitor the construction of any authorized facilities; and to monitor the operation, and eventual termination of, the authorization and reclamation of the land.

Currently, BLM Nevada has 75 pending solar ROW applications for about 627,000 acres of public land in the Southern Nevada, Battle Mountain, Carson City and Ely district office areas, and primarily all are at the initial ap-

plication processing stage. Nevada is working with other BLM offices in California, Arizona, New Mexico and Washington, D.C. to process applications consistently and improve processing efficiencies. In general, solar projects are evaluated through the Environmental Impact Statement (EIS) process. Efficiencies in processing, for instance, would be to analyze all the ancillary facilities involved in the entire project, not just the footprint of the solar field. This fully discloses the proposed action in one environmental document, thereby eliminating the time it would take to perform any additional environmental analyses later.

BLM and the Department of Energy (DOE) are developing a joint programmatic Environmental Impact Statement (EIS) to analyze solar energy development in six western states: Nevada, Arizona, California, Colorado, New Mexico and Utah.

According to the DOE's National Renewable Energy Laboratory, the southwestern United States has some of the finest solar energy resources in the world. The BLM manages nearly 120 million surface acres in these six states. The EIS will establish a process for accepting future applications, possibly through a competitive process, which is likely to attract companies with the experience and resources necessary to quickly deploy solar energy projects. The measures adopted as a result of the EIS will provide consistency and certainty for solar energy development and will help expedite environmental analysis for site-specific projects in the future. BLM will

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State Director's Column

The past year saw a lot of changes and improvements to how BLM will address the growing need for renewable energy development. Renewable energy has been, and will continue to be, in the limelight. Wind energy led the way in terms of BLM management when a Final Programmatic

Environmental Impact Statement, or EIS, on Wind Energy Development on BLM-Administered Lands in the Western United States was prepared by BLM and the U.S. Department of Energy (DOE), and the Record of Decision was signed in 2005.

Geothermal and solar have followed suit: a National Programmatic Solar EIS is underway between BLM and DOE and a Record of Decision and Approved Resource Management Plan Amendments for Geothermal Leasing was just published. Additionally, in one of the last measures taken by the 110th Congress, critical tax incentives for promoting the development of renewable energy and energy efficiency were extended.

Nevada is sometimes called the "Saudi Arabia of renewable energy" because BLM public lands, which make up about 67 percent of Nevada's land base, offer excellent opportunities for solar, wind, geothermal and biomass energy.

Geothermal lease sales and development are leading the way in Nevada. Ninety percent of America's geothermal resources are found on Federal lands, and facilitating their leasing and development is crucial to supplying the secure, clean energy American homes and businesses need. A new geothermal plant is being built in Salt Wells, near Fallon, with more proposed in that area. The State of Nevada enacted a renewable portfolio standard, which requires NVEnergy—the state's utility company—to use eligible renewable energy resources to supply 20 percent of the electricity they sell by 2015, with five percent of that being solar power. At the rate the geothermal industry is growing in Nevada, I am confident that public land resources will enable Nevada to reach that renewable portfolio goal.

Solar and wind projects are receiving a lot of interest, too. In the northeastern corner of the state, and overlapping into Idaho, the China Mountain Wind Energy Project is being proposed. This year, BLM has received applications for projects throughout the state.

In the biomass arena, BLM has partnered with the Fuels for Schools Program in Ely, where David E. Norman Elementary School has installed a biomass fired steam heating plant to provide heat for the original school building and two building additions. BLM has donated tons of biomass from fire fuels reduction projects in the Mount Wilson area, 93 miles from Ely, for use at the school.

And speaking of partnerships, BLM is part of the Governor's Renewable Energy Transmission Access Advisory Committee, or RETAAC, which is tasked with making recommendations for improved access to the grid system by which renewable energy industries can set up and have market access in Nevada and neighboring states. Additionally, we are involved with a new Federal-State agency transmission working group formed by Senator Harry Reid to identify energy zones and renewable energy transmission line routes to ensure efficiency for energy developers and stakeholders.

As we embark on a new year full of changes, BLM Nevada remains committed to making public lands available to meet the state's growing renewable energy needs.

Additionally, I will be serving as acting BLM director/deputy director in the Washington Office during the transition to a new administration, until a new director and deputy director are named. My detail may last up to four months. Amy Lueders, the Nevada Associate State Director, will serve as acting state director in my absence.

— Ron Wenker

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continue to accept and process applications for future potential solar development on the public lands during the development of the EIS.

Five Nevada counties (Churchill, Clark, Nye, Pershing and Washoe), the Nevada Association of Counties and the State of Nevada Department of Wildlife have requested Cooperating Agency status. For more information about the solar energy EIS, including scoping comments, go to: <http://solareis.anl.gov/>.

Wind Energy

Wind power uses the naturally occurring energy of the wind for practical purposes like charging batteries, generating electricity or pumping water. Wind turbines capture the kinetic energy in the wind and convert it into electrical energy. For over a decade, wind energy has been the fastest growing energy technology worldwide, achieving an annual growth rate of more than 30 percent. In the United States, the current total installed capacity is approximately 19,500 megawatts (MW) of wind projects. Approximately 330 MW of this installed capacity is located on Federal lands in the western U.S. managed by BLM.

BLM Nevada has 37 pending wind energy applications on 275,000 acres of public land across the state for monitoring and testing sites, as well as for wind development. There are a handful of applicants ready to start processing wind energy developments in Elko, Carson City, Ely and Southern Nevada. One interstate project on the Idaho-Nevada border, the China Mountain Wind Project, involves nearly 1,000 acres of public land in northeastern Nevada. The schedule for the EIS and additional information about the project can be found at: www.blm.gov/id/st/en/prog/planning/china_mountain_wind.html.

Geothermal Energy

The BLM leases lands it manages and other Federal lands, including National Forest Service lands, for geothermal exploration and development and supervises operations of the leases. In December, BLM published the Record of Decision and Approved Resource Management Plan Amendments for Geothermal Leasing in the Western United States to make more than 190 million acres of federal lands available for leasing and potential development of geothermal energy resources. The approved development scenario, which was analyzed in

the Final Programmatic Environmental Impact Statement, anticipates a potential 5,500 MW of new electric generation capacity from resources in the 12 western states, including Alaska, by 2015. It also estimates an additional 6,600 MW by 2025 for a total of 12,100 MW.

In Nevada, BLM's competitive geothermal lease sale in August brought in a record-breaking \$28.2 million. Half the revenue from geothermal leases goes to the state, a quarter goes to the counties where the land is located and a quarter goes to BLM. The next competitive lease sale is scheduled for July 14, 2009 at the BLM Nevada State Office in Reno. A qualified company or individual may nominate lands for competitive sale by submitting an applicable BLM form. The BLM may also include lands in a competitive sale on its own initiative.

There are 10 geothermal power plants that utilize federal resources from BLM leases in Nevada. The exploration and development of BLM-issued leases is booming—Nevada received 57 geothermal drilling permits in 2008.

— Heather Emmons
Nevada State Office

Governing Documents for Solar and Wind

Solar: Title V of the Federal Land Policy and Management Act of October 21, 1976, is the authority for rights-of-way for solar development, and 43 CFR 2800 and 2920 are the regulations. BLM and Department of Energy are developing a Solar Energy Development Programmatic PEIS.

Wind: A Final Programmatic EIS on Wind Energy Development on BLM-Administered Lands in the Western United States was prepared by BLM and the U.S. Department of Energy, and the Record of Decision was signed on December 15, 2005. This document identified Best Management Practices and mitigation measures that would need to be incorporated into project specific plans and stipulations. This document also amended 52 BLM land use plans in nine of the states in the study area—including Nevada. Any additional environmental analyses will be tiered to the programmatic EIS.



Coal-Fired Electricity Generating Power Plants on Track to Provide New Sources of Domestic Energy

America's energy needs will most likely be best met with a variety of new domestic energy sources that include oil, oil-shale, natural gas, nuclear, ethanol, coal-fired electricity generation, geothermal, solar and wind.

Three coal-fired power plant proposals in eastern Nevada continue to move through the National Environmental Protection Act process. Combined, the total output of the three facilities could provide the electricity equivalent to power two million homes.

White Pine Energy Station (WPES)

The WPES preferred location is 34 miles north of Ely. If constructed, the WPES would produce up to 1,590 megawatts (MW) of energy. BLM signed the Record of Decision to authorize granting rights-of-way for the construction of the project. The proponent of the WPES is White Pine Energy Associates, a division of independent energy producer LS Power, LLC.

Ely Energy Center (EEC)

The EEC preferred location is 20 miles north of Ely. If constructed, the EEC would produce 1,500 MWs of energy. The EEC draft environmental impact statement will be available for a 90-day public comment period. Public meetings are tentatively slated for early 2009. Public utility NV Energy is the proponent of the EEC.

Toquop Energy Project (Toquop)

Toquop would be located 120 miles south of Ely, in Lincoln County. Toquop's top generating capacity would be 750 MWs of energy. BLM anticipates releasing the Toquop final EIS by mid-2009. Toquop is a Sithe Global proposal.

Support for the projects comes primarily from local communities that stand to benefit economically from plant construction and operation. Regardless, air quality, climate change and greenhouse gas emissions remain a public concern.

— **Chris Hanefeld**
Ely District Office

Building Power Transmission Infrastructure SWIP Could Help Nevada Meet Renewable Energy Requirements

There is a significant gap in the West's electric power grid. The Southwest Intertie Project (SWIP), a proposed 520-mile, 500 kV electrical transmission line from Las Vegas to Burley, Idaho, could close that gap and encourage renewable energy development in eastern Nevada. SWIP would be able to deliver electricity to consumers in Nevada and neighboring states.

With as many as 15 potential renewable energy proposals

in Lincoln and White Pine counties, it is possible that the line will someday carry electricity generated by wind and solar facilities to meet Nevada's renewable energy requirements.

The project has been under consideration for a number of years. BLM granted a right-of-way (ROW) in 1994 after signing a record of decision to amend land use plans designating new corridors or modifying existing

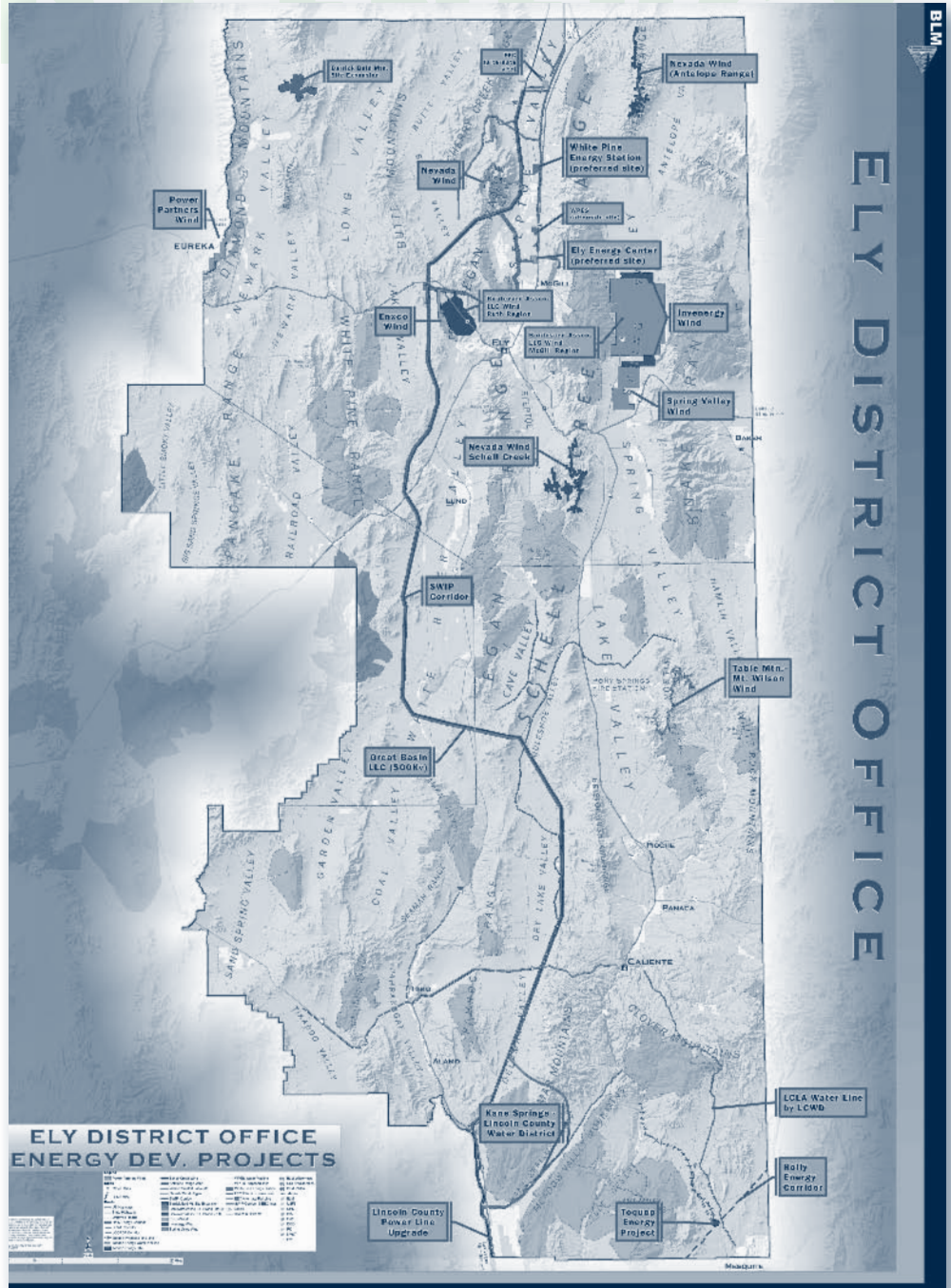
NEVA ENERGY

or proposed transmission line corridors. Modifications requested to the original ROW permit made it necessary to conduct additional National Environmental Protection Act analysis through an environmental assessment (EA). The Ely District Office issued a Finding of No Significant Impact and Decision Record on the southern portion of the corridor in July 2008. The EA and maps are available online at: www.blm.gov/nv and click on the Ely District.

Great Basin Transmission, a division of LS Power, is the proponent of the SWIP. They have completed a construction, operation and maintenance plan and as soon as BLM grants the ROW and issues a notice to proceed, construction can begin on the southern portion. The SWIP is a connected action of the White Pine Energy Station, a coal-fired electricity generating power plant proposed by White Pine Energy Associates, a division LS Power.

BLM's Elko District Office is reviewing the 1994 environmental impact statement (EIS) to make a determination of adequacy for the northern portion of the project.

— **Chris Hanefeld**
Ely District Office



SILVER STATE

BLM Nevada Reaches Millionth Mining Claim

Since 1976, when BLM became the official recording agency for mining claims, Nevada has been serving the public's mining claim needs and leads the country with almost half of all mining claims processed bureauwide. It took 32 years and numerous hours by the diligent staff in the Nevada State Office's Minerals Division to reach the monumental milestone of one million claims issued. Not only do these employees adjudicate all the paperwork and the \$125 annual claim fees, but they are also responsible for processing more than \$1 billion in active bond money that is held for potential land reclamation at mining sites.

"Serving as the recording agency for Nevada's mining claims is the largest workload for the Minerals Adjudication Branch," said Atanda Clark, branch chief of minerals adjudication. "And it's important work, because it ensures rights of possession to mine on those particular pieces of land."

Although it is known as the "silver state" because of its rich silver resources, Nevada produces about three quarters of all gold in the U.S., and by itself is the fourth largest gold producer in the world. Although the rise and fall of gold prices over the years almost directly correlates with the rise and fall of mining claims filed each year, the filings never cease since Nevada produces a myriad of other important metals

and minerals, including gypsum, copper, lead, lithium, quartz and clay.

Not only does the Minerals Division process all the mining claims, but they also are a resource for all kinds of claim-related information, such as where claims are precisely located or how long people have had the same claim. For instance, Nevada's Battle Mountain area—located on the north end of the state—is home to the very first claim filed at BLM as well as the earliest recorded claim (1977) that is still active today.

As 2008 drew to a close, the Minerals Division kept a countdown to the millionth mining claim, but no one could predict when the day would come since they could receive a large batch of claims in one day if a mining company such as Barrick or Newmont, filed that day.

The amount of claims filed from one day to the next is as unpredictable as Nevada's weather, but every claim is treated the same—from the individual miner who simply enjoys getting outdoors and exploring Nevada, to the large companies that mine truck loads on an hourly basis.

"Reaching the millionth mining claim is a big deal to us," Clark explained. "It reflects how important mining is in our state, and marks a significant pinnacle for BLM Nevada's contribution to mining."

– Heather Emmons
Nevada State Office





Public Lands Provide Much-needed Minerals

MINING CLAIMS

Anyone living in, or visiting, Nevada has probably noticed a popular bumper sticker emphatically stating: **“If it isn’t grown, it has to be mined!”** There is an enormous demand for the metals and minerals mined in Nevada, according to the Nevada Mining Association. Over the course of a lifetime, every American baby born will need:

- **1390 lbs. of copper**
- **1.279 troy ounces of gold**
- **20,226 lbs. of clays**
- **29,336 lbs. of salt**
- **65,543 lbs. of cement**
- **1.55 million lbs. of stone, sand and gravel**

Some Minerals Produced in Nevada and Some of Their Uses:

BARITE

drilling muds, manufacture of rubber, bowling balls, medical purposes

CLAYS

cooking utensils

GOLD

dentistry and medicine, scientific and electronic instruments (computers, telephones, vehicle airbags, cameras, televisions, video cassette recorders, compact discs), jewelry and arts, medallions and coins

GYPSUM

prefabricated wall board, industrial or building plaster, cement manufacturing, agriculture

LEAD

lead batteries, gasoline additives, solders, seals and bearings, TV tubes, TV glass, construction,

communications, protective coatings, ceramics and crystal glass, tubes or containers, type metal or foil, X-ray and gamma radiation shielding, soundproofing material in construction, ammunition

LIMESTONE

concrete aggregate, lime - the chief raw ingredient in cement, fertilizer and soil conditioner, a flux in the melting of iron, paints, plastics, livestock feed as a source of calcium

LITHIUM

ceramics, glass, aluminum production, in the manufacture of lubricants and greases, rocket propellants, vitamin A synthesis, silver solders, underwater buoyancy devices, batteries

MOLYBDENUM

in alloy steels to make automotive parts, construction equipment, gas transmission pipes, stainless steels for water distribution systems, chemical processing equipment, home, hospital and laboratory requirements, tool steels bearings, dies, machining components

PETROLEUM

diesel, kerosene, stove oil, and asphalt

SILVER

photography, chemistry, electronics, currency, alloy, lining vats and other equipment for chemical reaction vessels and water distillation, jewelry, batteries, table cutlery, dental, medical and scientific equipment

TUNGSTEN

metalworking, construction and electrical machinery and equipment, transportation equipment, as filament in light bulbs, as a carbide in drilling equipment, in heat and radiation shielding, textile dyes, enamels, paints and for coloring glass

EXTREME MUSTANG

Extreme Mustang Makeover

Two Nevada horse trainers showcase value of mustangs at Extreme Mustang Makeover

The skill of two Nevada horse trainers, Matt Replogle of Las Vegas and Tom King of Winnemucca, showed brightly at the second annual Extreme Mustang Makeover in Fort Worth, Texas, last September. Replogle placed second with his saddle-trained horse, Johnny Landers, and King placed fourth overall with his yearling, Brown Derby, but most importantly, both trainers found homes for their horses.

The Mustang Heritage Foundation, in cooperation with the BLM, created the Extreme Mustang Makeover event to recognize and highlight the value of mustangs through a national training competition. The purpose of the Extreme Mustang Makeover is to showcase the beauty, versatility and trainability of the rugged horses that roam freely on public lands throughout the West, where they are protected by the BLM under federal law. With 100 days to tame wild to mild, 200 trainers from across America signed up to gentle 200 wild Nevada mustangs and compete for \$50,000. At the conclusion of the event, the newly trained mustangs are available for adoption by competitive bid.

King participated in the first makeover, but 2008 was more challenging. He took on training two mustangs—a saddle-trained horse named Duel in the Sun for the

Extreme Makeover and a yearling named Brown Derby for the “Mission: 007 Yearling Edition,” a new contest with yearling mustangs born in 2007.



Matt Replogle jumps his mustang, Johnny Landers

“I enjoyed this year as much, if not more, than last year,” said King. “The horses were better overall and the youth who competed in their division did a great job with their horses. I hope to compete next year in both classes again.”

King adopted Brown Derby and will continue training him, while Duel in the Sun was adopted by an attendee at the event.

ANG MAKEOVER

Las Vegas trainer Matt Replogle went to extremes by making the trip to the competition almost entirely on horseback. After completing the 1,200-mile journey, Replogle placed second in the Idols Division. Trainers participating in the saddle-trained portion chose the division in which they wanted to compete, based on the ability of the trainer and the mustang. The added purse corresponded with the level of difficulty for the divisions, with the Stars Division at \$6,000, the Idols Division at \$17,500 and the Legends Division at \$25,000.

Replogle found out about the Extreme Mustang Makeover competition when he saw footage of last year's event on RFD-TV, the nation's first 24-hour-a-day, seven-days-a-week television network dedicated to rural America which features equine programming. Like King, Replogle had participated in one of the Mustang Heritage Foundation's regional makeovers, which also involved training a mustang in 100 days.

"I will definitely participate again next year," said Replogle, "but I think I will only do one of the events, instead of two. I loved how the Texas event was set up, and I had a great time."



Tom King shows off his yearling, Brown Derby

Replogle's mustang was adopted by some new friends he made along his journey to the competition who had allowed Replogle to stay with them, as they had been considering adopting a mustang after attending last year's event.

The overall goal of the event—to place all 286 mustangs and yearlings in good homes—was achieved, with the highest bid for a single horse being \$5,500.

— **Heather Emmons**
Nevada State Office



El Paso Corporation, Newmont Mining Corporation Receive Nevada Excellence in Mine Reclamation Awards

The Nevada Excellence in Mine Reclamation Awards were presented last fall at the annual Nevada Mining Association Convention in Stateline. El Paso Corporation, based out of Colorado Springs, Colo., received the Leadership in Reclamation award for its cooperative work with the BLM-Carson City District Office at the Comstock Mill Site in Storey County. Newmont Mining Corporation won an award in the category of Wildlife Habitat Enhancement for its work at the Lone Tree Mine in Humboldt County near Winnemucca.

The Comstock Mill Site

The Comstock Mill Site, located in American Flat about three miles southwest of Virginia City and directly visible from the restored Virginia & Truckee Railroad, has been abandoned since 1982. Gold mining and milling activities have been conducted in the area of American Flat since the early 1920s, with most operations utilizing a cyanide process of extracting gold ore. The U.S. Environmental Protection Agency (EPA) identified the site as having environmental contamination problems that could impact groundwater and surface water, plus the site had become an attractive nuisance with meth lab activity, illegal occupancy and physical safety concerns.

In 1997, El Paso Corporation contacted BLM to inform the agency that it may have inherited a limited liability at the Comstock Mill Site because of its merger earlier that

year with another company. Even though El Paso never operated the mill site and was not under any Federal or state order to reclaim the property, it voluntarily came forward and worked closely with BLM to successfully perform the reclamation of the site.

All mill buildings (some with asbestos contamination problems), structures and underground features were demolished and removed. This resulted in more than 661 tons of scrap metal being recycled! The tailings impoundment was regraded and capped with clean soil. The entire 10-acre buildings site was graded to blend with the natural topography of the area and fully reseeded with native vegetation. Finally, more than 76,000 cubic yards of clean fill was placed over the old tailings to retain what little precipitation the site gets and promote vegetation growth.

Note: the old mill building south of the El Paso rehabilitation project is on BLM land and still poses a hazard. It is fenced and “do not enter” signs are posted. Old mining buildings, shafts and the like are scattered all over Nevada, so stay out and stay alive.

The Lone Tree Reclamation Project

Newmont is completing reclamation earthwork on the waste rock disposal facilities at the Lone Tree Reclamation Project, 34 miles east of Winnemucca. The facilities have

ATION AWARDS



been capped and contoured to blend in with the surrounding topography and create wildlife habitat, while maintaining the facilities' long-term integrity. The facilities cover 1,220 acres, or 28 percent of the site's total disturbance acreage. The Lone Tree Reclamation Project consists of an open pit, waste rock facilities, active heap leach pads, solution ponds, processing facilities and a tailings storage area. The site is visible from Interstate 80, but contour and re-vegetation efforts allow many motorists to pass by without notice of the operations.

Newmont received the Wildlife Habitat Enhancement

award for its designed landforms and attention to detail for wildlife elements that were incorporated into the reclamation project. The facilities are now host to a variety of wildlife, including mule deer, chukar, bobcat, antelope and a large variety of songbirds and raptors.

BLM salutes El Paso Corporation and Newmont Mining Corporation for successful and visible reclamation projects that are a positive example to others.

The Nevada Excellence in Mine Reclamation Awards are given cooperatively by the Bureau of Land Management, USDA Forest Service, Nevada Division of Minerals, Nevada Division of Environmental Protection, and the Nevada Department of Wildlife. Sixty-one projects have been recognized since the awards program began in 1990.

— **Mark Struble & Terry Neumann**, Carson City District Office
— **Heather Emmons**, Nevada State Office

Wildcatters on the Prowl: Will One of Them Strike it Rich in Nevada?

Wild-cat-ter: noun 1. An oil prospector. 2. A person who drills oil wells in areas that are not in advance known to be oil fields. 3. One who is engaged in speculative mining or well drilling in areas not known to be productive.

Part of Nevada's allure lies in the fact that anyone "of age," from anywhere in the world, can legally gamble, beat the odds and strike it rich. But rarely have those terms been associated with oil and gas exploration within the Silver State. Few have ventured out into Nevada's great expanses of undeveloped land and have hit the jackpot. Whether because of its elusive geological nature or its remote geography, few strike it rich by discovering oil, or "black gold," while many come up empty handed, drilling dry holes. However, with growing interest in developing domestic sources, will there be renewed interest in searching for Nevada's elusive fields of black gold? Will wildcatters take a bigger gamble on Nevada now?

Nevada is not usually thought of as an oil-rich state—it ranks 26th out of 31 oil-producing states, but exploration for oil in Nevada is more than a century old, beginning in 1907. It continued until 1954, when the first discovery well was drilled by Shell Oil near Carrant, 50 miles southwest of Ely. It was the highest producing well in the United States

for several years. Since that time, Nevada has contributed to domestic oil production, with nearly 50 million barrels produced to date.

Lately, oil production has declined due to lack of new field discoveries and the ever-present high risk of drilling a dry

hole. Fewer than 1,000 wells have been drilled in the state which leaves a large part of Nevada un-explored territory ripe for wildcat drilling. The challenges of drilling in Nevada are monumental and expensive to overcome: there are no oil or service companies located within the state that have the capability of taking an oil and gas lease from beginning to end; drilling techniques that might work elsewhere

don't work in Nevada because of the complex geology; and most prospective drill sites lack infrastructure such as roads and water.

Despite Nevada's obstacles, companies are looking to other states for possible associations to Nevada reservoirs. Wolverine Gas & Oil made a near-billion barrel discovery in western Utah in late 2003, shocking many in the industry as to the untapped potential buried in the Great Basin, of which Nevada is a part.

Operators are relying on technological advances to map



A drilling operation exploring for oil and gas at Pancake Summit northwest of Ely. Photo courtesy of: Plains Exploration and Production Co.

out the geological puzzle and are spending more money on up-front data research as compared to drilling. Prospectors are leaving no stone unturned—literally—and they are using every possible approach, theory, technique and tactic to unravel the mystery of where Nevada’s oil is hiding. Satellite imagery, sound waves and gravity and seismic data are analyzed. Additionally, prospectors continue to try different approaches, like drilling holes closer together and analyzing source rock that could be hosting major oil pools.

Some say the types of rocks themselves are an indicator of what lies underground: a beige source rock rampant in Nevada, called Chainman Shale, may hold the key, some say. A Florida

oilman says Chainman Shale runs rampant in Nevada—and wherever there’s Chainman Shale, there’s oil, he said during an interview for a Las Vegas television station. And Nevada has this shale like nowhere else outside the Middle East. However, because of fractured volcanic rock layers underground, the beige source rock can be difficult to find.

So place your bets to see if, and when, the combination of new technology and added revenue will result in someone striking it rich somewhere in the vast open ranges of Nevada. Stay tuned. . .

— **Heather Emmons**
Nevada State Office

Nevada NPLD Days Volunteers Improve Public Lands by Leaps and Bounds

National Public Lands Day (NPLD) is the nation’s largest hands-on volunteer effort to improve and enhance the public lands. This year marked the 15th year of this annual event, which is usually held on the last Saturday of September, though some events are held on alternate days.

In 2008, 474 volunteers joined together at 10 designated places throughout the state to volunteer their time doing a variety of activities including removing trash, weeds, debris and hazardous materials, re-seeding and planting trees, repairing broken or missing fences and accessible ramps, constructing and painting walkways, installing signs, performing trail maintenance and restoring wilderness routes. The events were planned by BLM district and field office staff.

Collaboration among other federal, state and local agencies and private organizations made this year’s event successful. In appreciation, volunteers were given free food, refreshments, NPLD t-shirts and volunteer coupons for a free entry into their favorite federal public land area that has entrance fees. To view the list of events held in Nevada, go to www.blm.gov/nv/st/en/res/national_public_land.html. To volunteer or for more information, go to www.publiclandsday.org.



NPLD Event: Rhyolite Historic Townsite - Installing Signs

— **Rochelle Ocava**
Nevada State Office

Young Nevadans Help Public Lands While Helping Themselves

According to the University of Nevada Cooperative Extension, Nevada has one of the highest rates in the nation of youth who are not successfully making the transition from high school to further education or work. To address the situation, Cooperative Extension developed "Bootstraps," a program partly funded by the BLM, to change that statistic by providing work experience to struggling youth.

"The program helps to build relationships with communities as well as with local, state and federal partners," Mike Stamm, BLM wildlife biologist and co-creator of the Bootstraps program said. "Most importantly, the program provides young adults their first real-life work experience and an introduction to natural resource issues and problems."

Over the past summer, the program focused on chainsaw removal of encroaching pinion and juniper from prime sage grouse and mule deer habitats in the Roberts Mountains and weed inventory and control in Tonopah.

"The Bootstraps program is an effective way to accomplish this work," Stamm said.

The regular work week for the crew starts on Monday at 8 a.m. with four hours of job and life skills training.

"We discuss basics, like how much money do you need to move out and pay rent," said Rod Davis, Cooperative Extension educator.

The class also covers communication, conflict resolution and training associated with the work. Job coaches are on site working directly with the crew, weaving the curriculum taught in the Monday class into real life.



Part of the 2008 Bootstraps crew clears pinyon-juniper areas by chainsaw thinning

"The coaches are more than just a boss," Davis said. "A lot of the time they become mentors. They look for teachable moments. They carry the curriculum to the field."

After the Monday class, the crew travels to the work site and works four ten-hour shifts.

"It's hot, difficult work," said Stamm. "The crews camp on site and have completed an impressive list of projects. They've been

able to work and camp in some remote but beautiful country."

Past participants of the Bootstraps program have gone on to get jobs with Cortez and Newmont mines and BLM.

"For the most part, those who want to move on have found the support they need," Davis said.

To find out more about the Bootstraps program go to the University of Nevada Cooperative Extension website at www.unce.unr.edu.

— Katie Hoops, Student Intern
Nevada State Office

The Challenges of Pinyon-Juniper Encroachment



Though you won't see it covered on the nightly news, the encroachment of two common western evergreen trees—singleleaf pinyon pine and juniper—into wildlife habitat is a huge problem for wildlife throughout much of the Intermountain West, out competing valuable sagebrush and mountain brush communities.

In many parts of the West, large areas of bitterbrush on mule deer winter ranges will be lost to pinyon-juniper encroachment over the next several decades. As trees begin to dominate sites, the shrub-grass-forb understory is essentially lost or greatly reduced through a variety of inhibitive processes. Once this pinyon-juniper domination

has occurred, conversion back to more diverse plant communities is extremely difficult and expensive.

Chainsaw thinning is the most cost effective solution, and incorporating it as part of the Bootstraps program is a great model that could be widely duplicated across the West.

— **Mike Stamm**
Battle Mountain District

Eight Volunteers Receive Lifetime Achievement Awards in Southern Nevada

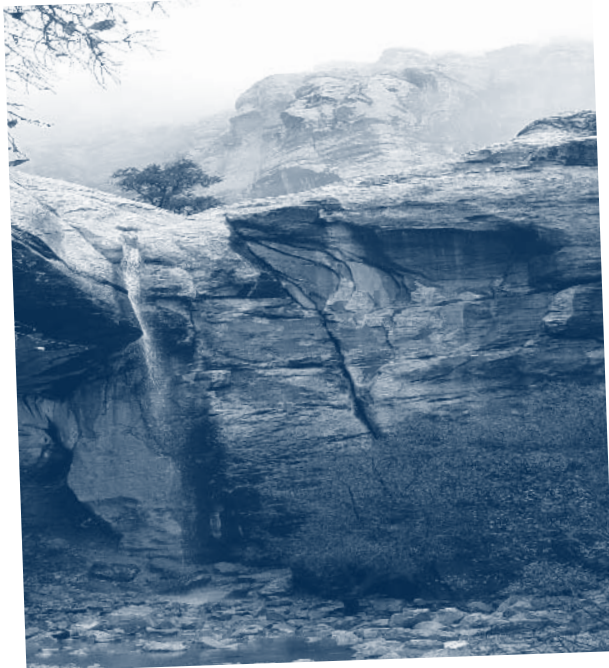
The Southern Nevada District Office distributed Take Pride in America Lifetime Achievement Awards to eight volunteers who donated more than 1,000 lifetime volunteer hours each through the Friends of Red Rock Canyon. In fiscal year 2008 alone, volunteers from Friends of Red Rock Canyon donated 18,100 hours of volunteer service—the equivalent to more than \$353,000.

"We are fortunate to have such dedicated volunteers," said District Manager Mary Jo Rugwell. "Their efforts assist our staff in providing a positive experience to Red Rock visitors."

The eight volunteers—Chris Dempsey, Thomas Hughes, Mark Beauchamp, Clara Hatz, Donald Powers, Lois and Mort Utah and Lorrie Vavak—helped out in a variety of areas, including natural resource protection, hike leader, horticulture expert, information desk, trails rehabilitation, Junior Ranger program, event management and cultural resource monitoring.

Since 1984, volunteers from the Friends of Red Rock Canyon have contributed more than 360,000 volunteer hours and almost \$1.3 million in financial support that directly benefits Red Rock Canyon National Conservation Area.

— **Kirsten Cannon**
Southern Nevada District Office



IMAGES OF RED ROCK

Photo contest winners for Red Rock Canyon National Conservation Area were unveiled at the Lloyd D. George Courthouse in downtown Las Vegas in November. Ron Hawkins, BLM review appraiser, won the employee category (winning photo seen here). More than 200 entries were received in seven categories: general, creative, kids, wildlife, teen, black/white and employee. Photos will be displayed at the courthouse and the Red Rock Canyon Visitor Center and used in BLM publications.

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