

2013



# ANNUAL REPORT

New Mexico Energy, Minerals & Natural Resources Department



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New Mexico Energy, Minerals and Natural  
Resources Department



2013

ANNUAL REPORT



Photo by: MMD Staff



# Energy, Minerals and Natural Resources Department

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## Vision

A New Mexico where individuals, agencies and organizations work collaboratively on energy and natural resource management to ensure a sustainable environmental and economic future.

## Mission

To position New Mexico as a national leader in the energy and natural resources areas for which the department is responsible.

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Photo by: Daniela Roth

## Energy, Minerals and Natural Resources

# F. David Martin

Cabinet Secretary-Designate



## Energy, Minerals and Natural Resources Department

### A Message from Cabinet Secretary-Designate F. David Martin

It's been said, "It isn't bragging if it's the truth." I am very proud of the hard work and dedication the women and men of the Energy, Minerals and Natural Resources Department exhibit every day for the great State of New Mexico.

More than five hundred employees statewide oversee and protect our precious natural resources with professionalism throughout our divisions. In 2013, the Forestry Division, best known for forest and fire management, created a new pilot program to train armed forces veterans as wildland firefighters; the State Parks Division continued to provide quality recreation and educational services during extreme drought and fire conditions throughout our 35 parks, and Senate Bill 94 established State Parks' authority to issue penalty assessment citations for violations of certain park rules and provisions of the Boat Act; the Mining and Minerals Division continued to develop projects in areas of New Mexico impacted by historic mining through the Abandoned Mine Land Program and completed five major construction projects; regulating oil, gas and geothermal activity in New Mexico, the Oil Conservation Division instituted management and process changes which improve customer service and governmental transparency; and the Energy Conservation and Management Division reviewed and approved more than 2,000 various tax incentives which increased residential energy efficiency and economic development of New Mexico's renewable energy resources for electricity generation. The WIPP Transportation Safety Program, also led by EMNRD, has collaborated closely with necessary agencies to fulfill the Governor's Framework Agreement. Finally, the Administrative Services Division, the Human Resources Bureau, the Information Technology Division and the Office of General Counsel do what they do best—take care of our budget, our computer infrastructure and us.

Whether creating new, innovative initiatives or maintaining high standards of excellence for our internal and external customers, it is our commitment to you—to work diligently to ensure a sustainable environmental and economic future in New Mexico.

I am delighted to present the Energy, Minerals and Natural Resources 2013 Annual Report, a collective effort which highlights all of our endeavors.



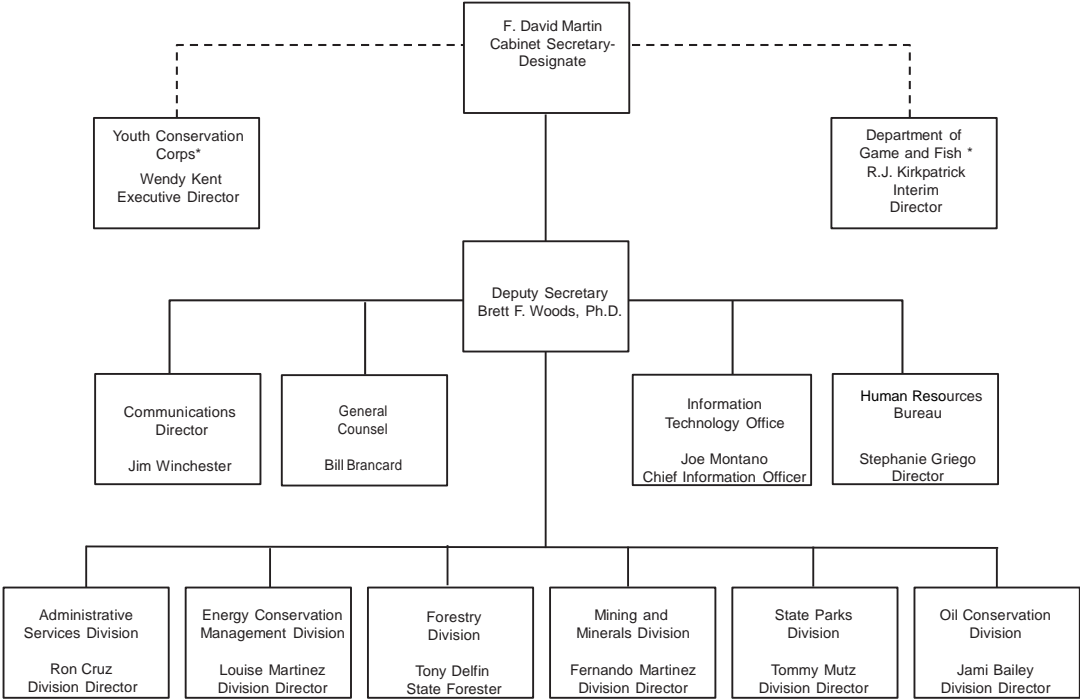
Governor Susana Martinez

# Organization



Photo by: Lauren Aguilar

## Energy, Minerals and Natural Resources Department



\* Administratively Attached. No direct budget support from EMNRD



## **Program Leadership and Support**

Program Leadership and Support provides leadership, sets policy and assists the divisions in achieving their goals. Program Support consists of the Office of the Secretary (OFS), Administrative Services Division, and the Information Technology Office, which provide administrative support functions—legal, human resources, fiscal and information technology.

### **Office of the Secretary**

OFS provides leadership, strategic planning and policy direction, and establishes procedures for the department and program performance. OFS oversees all divisions within the department; it also houses the Office of Information Technology, Public Information, and Office of General Counsel.

OFS serves as the focal point for the department's communications with the Governor, legislators, and other state agencies (including the Department of Game and Fish and the Youth Conservation Corps which are administratively attached to EMNRD). It establishes department policies and provides legal, programmatic, and public outreach direction to the divisions.

### **Administrative Services**

The Administrative Services Division (ASD) oversees the agency's finances and property. Specific functions include budget, procurement, accounting, payments, federal grant reporting, and property and material management. Among ASD's duties are the processing of payment vouchers, travel documents, purchase orders, and deposits, for the department's daily operations. ASD also coordinates the annual financial audit and prepares the annual financial statement and related footnotes for governmental funds.

### **Office of General Counsel**

The Office of General Counsel manages all legal affairs for the Energy, Minerals and Natural Resources Department. This includes representation of the department in administrative and judicial proceedings as well as drafting and analysis of proposed legislation and rules, assistance with human resources issues, and review of contract documents.

### **Human Resources**

The Human Resources Bureau (HRB), within the OFS, provides services and information for applicants, employees and employers throughout the state. HRB verifies that the department follows all rules, regulations, and laws governing employment; guides managers and supervisors through a variety of employment issues; and helps employees to understand the rules, and laws. HRB helps employees with position classification, compensation and discipline. HRB also provides guidance on medical leave and workers' compensation.



## Information and Technology Office

The Information and Technology Office is the central information technology and information systems provider for the department's 509 employees and 54 remote sites. It employs 18 technical positions that are responsible for maintaining and supporting EMNRD's computer systems, network-telecommunications infrastructure, and application development needs, using the latest technology for Windows and Web applications on the Intranet and Internet.

## Public Information Office

The Public Information Office manages the dissemination of information to the general public, media organizations and other inquiring entities. It coordinates and synthesizes information from EMNRD's divisions to write speeches, news releases, and articles. It serves as project manager for department-wide publications such as the annual report, strategic plan, and other reports as needed. It coordinates and oversees EMNRD's internal communications, including Internet and Intranet, newsletters, memos, award ceremonies, and other department-wide events. The office works closely with all divisions housed within EMNRD providing guidance on marketing and public relations issues.

## New Mexico Radioactive Waste Consultation Task Force - Waste Isolation Pilot Plant Transportation Safety Program

Under EMNRD's leadership, and through the New Mexico Radioactive Waste Consultation Task Force, six other state agencies (Department of Public Safety, Department of Homeland Security and Emergency Management, Department of Health, Environment Department, Department of Transportation, and State Fire Marshal's Office) collaborate on the Waste Isolation Pilot Plant (WIPP) Transportation Safety Program. The program ensures the safe and uneventful transportation of radioactive waste in the state of New Mexico. The program includes the setting and updating of policies and operating procedures; training and equipping emergency responders along all of New Mexico's WIPP shipping routes; keeping the public informed on radioactive materials issues; monitoring and maintaining highway safety; and inspecting all WIPP shipments at their points of origin or at the New Mexico ports of entry.



**Energy Conservation  
and  
Management  
Division**



## Energy Conservation and Management Division

**MISSION:** The Energy Conservation and Management Division (ECMD) develops and implements effective clean energy programs—renewable energy, energy efficiency and conservation, clean fuels, and efficient transportation—to promote environmental and economic sustainability for New Mexico and its citizens.

**PROGRAMS:** ECMD oversees and implements the state’s programs in clean energy: the Renewable Energy Program, the Energy Efficiency in Buildings Program, and the Clean Fuels and Efficient Transportation Program. These programs are implemented through a combination of tax credit certifications and clean energy projects. Through these efforts, ECMD encourages public and private organizations to use energy more efficiently, more economically, and with less dependence on foreign sources. In addition, New Mexico benefits from economic development, upgraded infrastructure, and jobs created.

For additional information on ECMD programs, see [www.CleanEnergyNM.org](http://www.CleanEnergyNM.org).

## Accomplishments

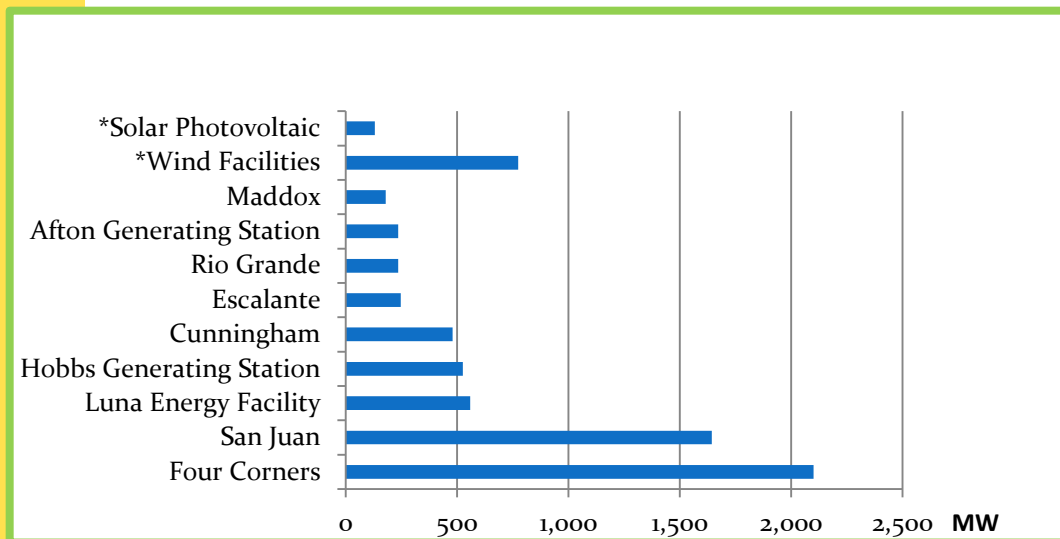
**TAX CREDIT CERTIFICATIONS:** ECMD manages several certification programs for renewable energy systems and energy efficiency in buildings, which yield benefits to participating New Mexico citizens and corporations in the form of tax credits. Combined with other state, federal, and utility incentives, clean energy is made more affordable and creates economic development opportunities for New Mexico businesses.

**Solar Market Development Tax Credit** - helps to make residential-scale solar systems more affordable. In the 12-month period through October 2013, based on tax credit applications received by ECMD, solar development occurred in 23 of 33 New Mexico counties and 2012 solar system certifications became fully subscribed. A total of 1,159 system certification applications were received, reviewed, and processed (1,096 photovoltaic, 63 thermal). The majority of PV installations were located in Doña Ana (407), Bernalillo (321), Santa Fe (123), and Sandoval (105) Counties. All of these photovoltaic systems together account for six megawatts of electricity capacity, which helps utility companies meet the State Renewable Portfolio Standard.



Silver City Solar Array. Photo by Ken Hughes

**Renewable Energy Production Tax Credit (REPTC)** - is supporting utility-scale wind, biomass, and solar projects which, in turn, assist utility companies in meeting the Renewable Portfolio Standard. Currently, there are 774 megawatts (MW) of wind and 160 MW of solar operating in New Mexico, which have created approximately \$2 billion in construction activity over the past ten years and provided approximately 10 percent of electricity retail sales in New Mexico from investor-owned utilities. Although the allocation of the REPTC reached its ceiling of available tax credits in 2012, six applications for solar power plants and four for wind farms were received, reviewed, and processed by ECMD in 2013. On the waiting list alone, the REPTC has incentivized the potential new development of 1,508 MW in wind and 29 MW in solar, approximately \$3 billion in construction activity for rural communities. Due to this year's expiration of eligible energy production for the oldest certified wind generator, one new wind generator was certified and another wind project was approved.



**Figure 1. Generating Facilities in New Mexico, MW Capacity [Sources: DOE Energy Information Administration, \*ECMD Renewable Energy Production Tax Credit Records]**

Utility-scale renewable energy projects have become a steady source of revenue for the State Land Office. The New Mexico State Land Trust receives direct revenue from leasing public lands to wind, solar, and geothermal power plants, as well as transmission infrastructure. Currently, there are four existing wind projects with five pending applications; four existing solar projects with seven pending applications; two geothermal projects proposed; and a transmission infrastructure project leasing state land. Projected revenue for the next 38 years from renewable energy and transmission projects is projected to be \$574 million. Although most of these renewable energy projects take advantage of the REPTC for ten years, state land leases for up to 30 years are common. Such renewable energy farms are also leasing private land. This has become a great supplemental income to many ranchers. Land leases, construction jobs and permanent maintenance positions are great ways that renewable energy farms are supporting our rural communities.

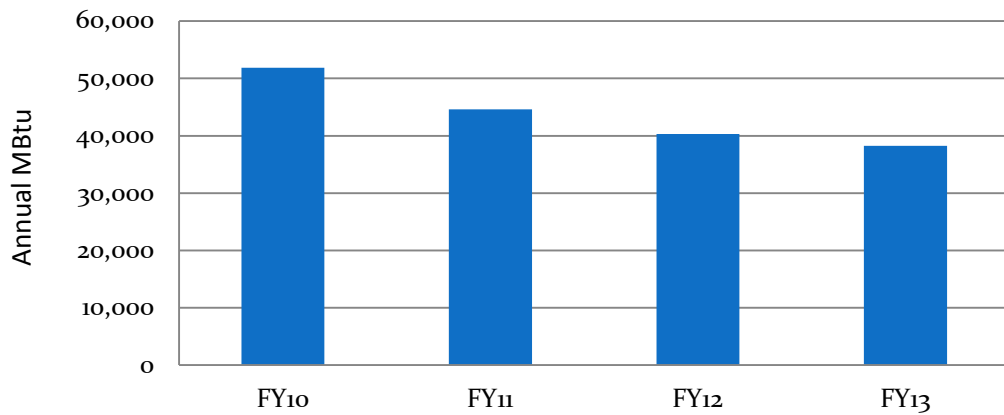


**Sustainable Building Tax Credit** - incentivizes private sector design and construction of energy efficient, sustainable buildings for commercial and residential use. In the 12-month period through October 2013, ECMD received, reviewed, and processed 1,078 applications comprising 2.7 million square feet of floor area: six commercial buildings of 663,970 square feet; 216 multifamily housing units of 201,763 square feet; 67 manufactured homes of 111,082 square feet; and 795 single-family homes of 1,787,047 square feet. The construction of these new homes and commercial buildings that meet ENERGY STAR, LEED, or Build Green New Mexico standards, have provided jobs in 22 counties.

**Geothermal Ground-Coupled Heat Pump Tax Credit** - has been in effect since 2010, helping to make this system type more affordable for homeowners and commercial building owners. In the 12-month period through October 2013, there were a total of 56 applications received, reviewed, and processed. This activity took place in the counties of Doña Ana (38 systems), Santa Fe (8), Roosevelt (3), and Catron (1). The \$398,307 in tax credit support of this technology has created construction activity of \$1,865,999 in the past year.

An additional tax credit certification program was available in 2013: the **Agricultural Biomass Tax Credit**. This tax credit provides a combined total of \$5 million from personal and corporate income tax to support waste-to-energy programs for dairy farms. An owner of a dairy or feedlot may apply for a tax credit equal to \$5 per wet ton of agricultural biomass. Such agriculture biomass must be transported to a facility and used to generate electricity or to make bio-crude or other liquid or gaseous fuel for commercial use. A dairy biomass project is being constructed in Chavez County. ECMD anticipates a tax credit application in 2014.

**STATE GOVERNMENT ENERGY EFFICIENCY:** ECMD manages a state government energy efficiency program that is comprised of several key parts. In 2013, two major energy audits were conducted at state facilities, proposing \$15 million for energy efficiency measures (EEMs) that would create jobs, leveraging energy savings of 12 million kilowatt-hours (kWh) and 802,000 therms, and yielding \$1.2 million in annual cost savings to state government. Known as Investment-Grade Energy Audits (IGA), these highly technical reports provide Professional Engineers' recommendations of EEMs which outline opportunities for both building system upgrades and cost savings on utility bills. General Services Department (GSD) is now seeing the benefits of the previous effort funded through the American Recovery and Reinvestment Act (ARRA). Since closing \$12 million in ARRA projects for GSD state government facilities, verification of the success is showing up as energy savings and lower utility bills for state government. A 10 percent energy reduction is now established compared to the 2011 baseline, based on 2.7 million kWh and 6,400 therms saved per year. GSD saved \$353,500 on electricity and natural gas bills from Fiscal Year 2010 to Fiscal Year 2013 (FY13) because of the energy efficiency collaboration efforts with ECMD. A trend of reduced electricity and natural gas use depicts a 26 percent savings (over three years) for natural gas and a 17 percent savings (over five years) for electricity (**Figures 2A & 2B**).



**Figure 2A. State Government Natural Gas Used in Santa Fe Buildings; Chart Data in Million BTU by Fiscal Year [Source: General Services Department]**



**Figure 2B. State Government Electricity Used in Santa Fe Buildings; Chart Data in kWh by Fiscal Year [Source: General Services Department]**

**WISE Program** - Whole-building Investments for Sustainable Efficiency—provides strategic planning support to the WISE Team of EMNRD, General Services Department, and New Mexico Finance Authority (NMFA). The WISE Team is charged with establishing a 20 percent energy reduction in state government facilities by 2020 compared to 2011 baseline energy usage.

Funded by the U.S. Department of Energy (DOE), the WISE Team has updated the GSD Building Market Inventory and conducted a “Showcase” IGA. The IGA of Santa Fe South Capital Complex buildings, developed by a Professional Engineer, has reported the opportunity for a 20 percent energy reduction of 2.4 million kWh and 2,600 therms, for cost savings to state government of \$210,000 per year. The cooling systems for the State Data Center were also targeted for needed upgrades and elimination of inefficient, redundant systems.

**Energy Performance Contracting** - has been available to New Mexico’s governmental agencies since 1992 through the Public Facility Energy Efficiency & Water Conservation Act [NMSA 1978, 6-23]. New Mexico’s governmental agencies can finance energy-saving building improvements using future energy savings created by the improvements. A project featuring energy performance contracting is underway at New Mexico State University (NMSU).

The approach augments NMSU’s internal efforts by facilities management staff to reduce energy usage and create energy cost savings. ECMD is working together with NMSU and an energy services company to certify the IGA, which would then lead to implementation of the EEMs. An energy reduction of 14 percent is projected, based on 10 million kWh and 800,000 therms in annual energy savings, which would yield energy cost savings of \$1 million per year.

**Clean Energy Revenue Bond** - financing has been used by Department of Cultural Affairs (DCA) and two public school districts. Established in 2005, the Energy Efficiency & Renewable Energy Bonding Act [NMSA 1978, 6-21D] has \$20 million in low-interest bonding available for state agencies and public schools. ECMD recently certified an annual 9 percent energy reduction with savings of 419,000 kWh and 5,800 therms for DCA at three facilities around the state: the Museum of Space History in Alamogordo, the Museum of Natural History & Science in Albuquerque, and the Museum of Art in Santa Fe. These facilities now have energy cost savings of \$49,000 per year. EEMs were also implemented at the Socorro and Mountainair School Districts, which are now being evaluated for post-project energy performance.

The **State Energy Program** formula grant supported certification of the first ENERGY STAR buildings in state government: the Villagra/Bardacke, PERA and Wendell Chino Buildings. Owned by the GSD, these three buildings comprise 300,000 square feet of agency office space. All three were found to meet ENERGY STAR standards by using 35 percent less energy than similar buildings across the U.S. A Professional Engineer conducted an assessment of each building which included reviews of utility bills and evaluation of indoor environmental conditions. In other activities, ECMD applied federal funding to support an IGA for the Village of Corrales, and implementation of EEMs at Logan Public Schools, which are being evaluated for post-project energy performance.

**CLEAN FUELS AND EFFICIENT TRANSPORTATION:** Since the early 1990s, ECMD has provided funding and technical support to develop and expand compressed natural gas (CNG) and liquefied petroleum gas (LPG or propane) vehicle fleets and refueling infrastructure statewide. The growth of CNG and LPG vehicles has been somewhat cyclic over the decades, and opportunities remain for expansion of these cleaner transportation fuels. Despite large swings in oil and gas prices, ECMD has sustained funding and technical support to offset the incremental cost of CNG or LPG vehicles for public fleets. In addition, municipalities, counties, and state agencies have developed and expanded refueling infrastructure through ECMD's initiatives.

New Mexico contributes 5 percent to the United States' overall production of natural gas, helping to ensure the nation's energy security. More than 14,500 direct jobs and \$4.3 billion in direct investment demonstrate the important benefits of natural gas to New Mexico's economy. Because of the stable and substantial supply of natural gas in the U.S., coupled with superior performance as transportation fuels, innovative technology, and compelling economics, CNG and LPG are rapidly making inroads to public and private fleets.

New Mexico's natural gas producers in the San Juan and Permian Basins are converting their vehicles to take advantage of lower cost, cleaner and abundant natural gas and propane, which benefits local economies and state revenues. ECMD continues to work closely with industry, academia, and government through organizations such as New Mexico Natural Gas Vehicle Coalition, Clean Cities, and New Mexico Propane Gas Association to increase the use of natural gas and propane as transportation fuels. In early 2013, ECMD received a two-year award of \$500,000 in U.S. DOE funds and commitment of \$363,070 from project partners as in-kind to *Advance New Mexico Alternative Fuels*.

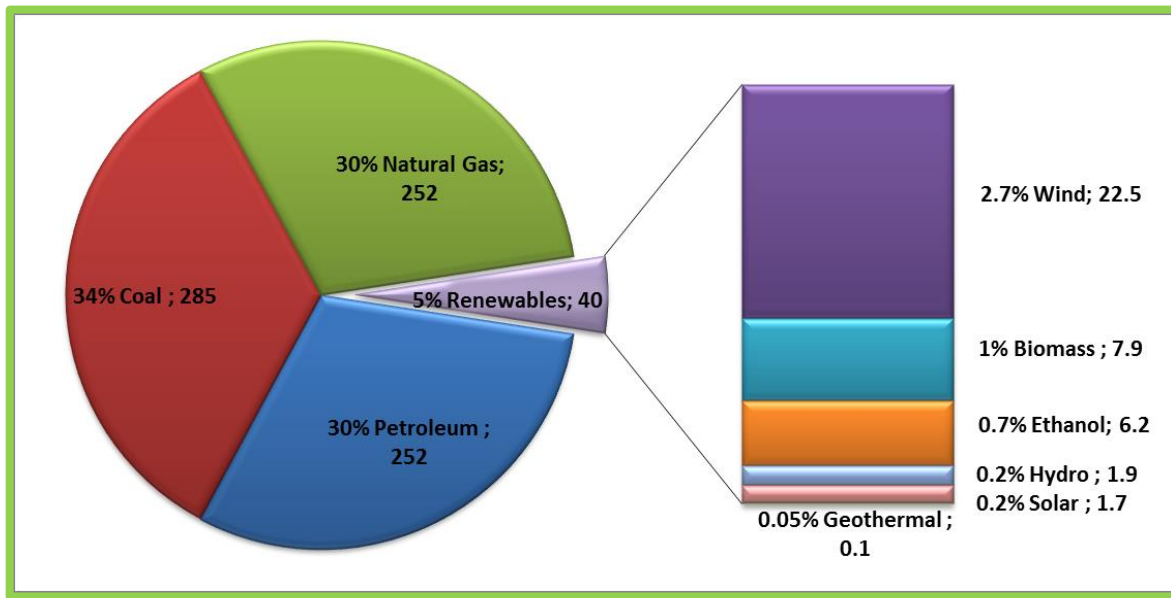
## **DATA AND STATISTICS**

*Source: DOE Energy Information Administration, 2011 (latest available data)*

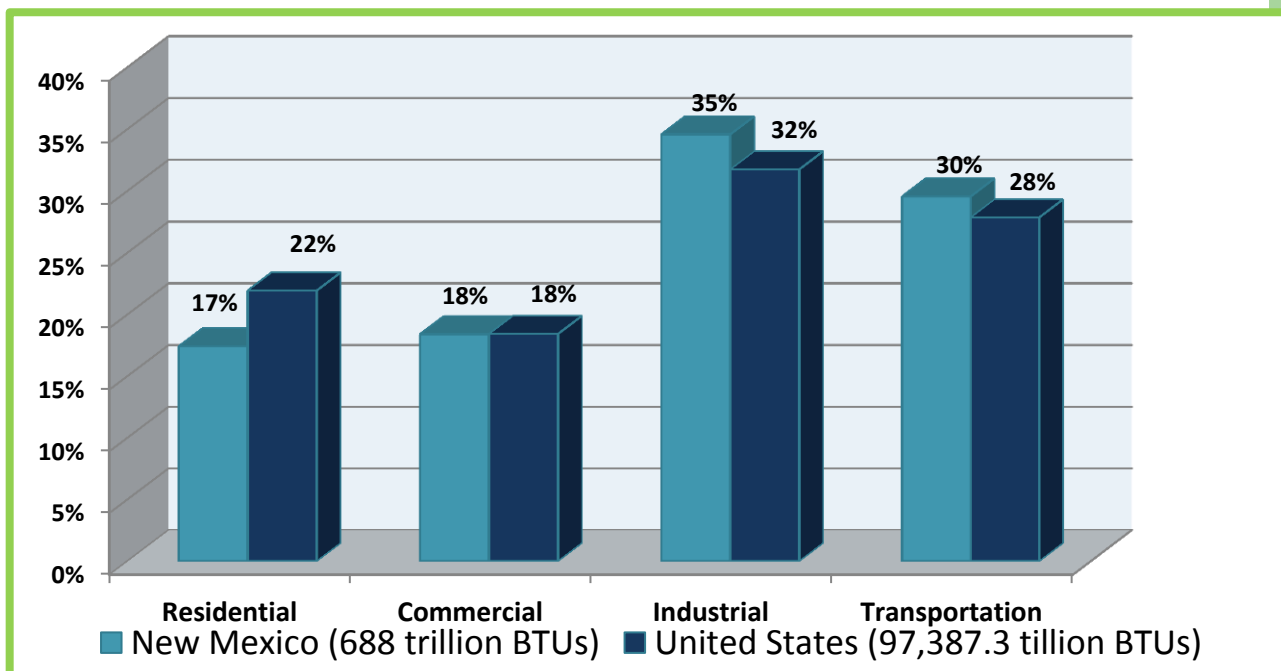
**ENERGY CONSUMPTION:** Total New Mexico energy consumption was 829 trillion BTU (tBTU) in 2011. Most of the energy consumed in the state came from coal (285 tBTU, 34 percent), followed by petroleum (252 tBTU, 30 percent) and natural gas (252 tBTU, 30 percent) resources. In 2011, renewables contributed 5 percent or 40 tBTU (**Figure 3**). Although this is relatively small, wind and solar have seen significant growth, increasing by 17 percent in the past two years. Net energy consumption for in-state needs was actually 688 tBTU, after subtracting the energy used for exported electricity, which was 141 tBTU in 2011. Also being a major exporter of oil and natural gas, New Mexico produced a total of 2,261 tBTU of energy in 2011, which is 2.7 times the amount of statewide consumption.



Of New Mexico's net energy consumption in 2011, the industrial sector consumed the most energy at 35 percent (238 tBTU), followed by the transportation sector at 30 percent (203 tBTU), the commercial sector at 18 percent (127 tBTU) and the residential sector at 17 percent (120 tBTU). New Mexico's residential sector consumed less energy out of the total consumption compared to the nation, the commercial sector consumed about the same energy as national percentages and the transportation and industrial sectors consumed more (**Figures 4**).



**Figure 3. New Mexico Primary Energy Consumption – 2011; Total = 829 Trillion BTU; Chart Data in Trillion BTU and Percent [Source: DOE Energy Information Administration]**



**Figure 4. Energy Consumption by Sector – 2011 [Source: DOE Energy Information Administration]**

**RENEWABLE ENERGY CONSUMPTION:** Total New Mexico renewable energy consumption was 40.3 tBTU in 2011, increasing steadily from 8.2 tBTU in 2002. Of the current renewable energy consumption, wind accounted for 56 percent (22.5 tBTU), biomass 20 percent (7.9 tBTU), ethanol 15 percent (6.2 tBTU), hydroelectric 5 percent (1.9 tBTU), solar 4 percent (1.7 tBTU), and geothermal less than 0.5 percent (0.1 tBTU). Wind energy development has been the major source of growth in renewable energy consumption in the state since 2003. Nationally, wind is the third largest renewable energy resource after biomass and hydropower. The amount of renewable energy produced nationally (9,045 tBTU) was more than nuclear electric power plants (8268.7 tBTU) in 2011.

**ELECTRICITY:** Electricity supply affects industrial growth in both the energy and non-energy sectors of the state's economy. Electric utilities consume substantial amounts of natural gas and coal resources extracted in the state, generating considerable revenues as a result. New Mexico's power plants have a total non-renewable capacity of more than 6,206 MW net summer capacity. The largest facilities are the Four Corners and San Juan generating stations near Farmington that account for 60 percent of the state's non-renewable generating capacity. New Mexico's wind and solar resources now comprise 11 percent of all generating capacity in the state. Approximately one-third of the electricity generated in New Mexico is consumed in other states. Total electricity generated in 2011 was 36,635,909 MW-hours, with 68 percent being from coal, 24 percent from natural gas, and 7 percent from renewable sources (6 percent wind; 1 percent solar, < 1 percent hydropower).

Investor-owned utilities in New Mexico serve approximately 70 percent of the state's customers. The 20 rural electric cooperatives serve about 20 percent of the customers, although they service about 85 percent of the state's land area. Tri-State Generation and Transmission Association is a wholesale supplier of 13 member cooperatives. Seven municipal electric utilities serve the remaining 10 percent of the state's electricity customers. In addition, there is one federal utility that serves 29 retail customers.

In 2012, New Mexicans paid an average of 11.4 cents per kWh for electricity used by residences, 9.3 cents per kWh for commercial properties, and 5.8 cents per kWh for industrial facilities. These rates are less than national averages.

**CARBON DIOXIDE EMISSIONS:** Carbon dioxide emissions from the consumption of energy sources amounted to 55 million metric tons in 2010 (latest data available). Emissions from coal were 46 percent (25 million metric tons), petroleum 30 percent (17 million metric tons), and natural gas 24 percent (13 million metric tons). Almost all of the coal consumed generated electricity. The electric power sector emitted 29 million metric tons and the transportation sector emitted 14 million metric tons. The remaining 12 million metric tons was released by the residential, commercial, and industrial sectors combined.

**ENERGY EXPENDITURES:** In 2011, New Mexico's total energy expenditures were \$8.8 billion. The highest expenditures were for petroleum motor gasoline at \$3.2 billion (36 percent). Retail electricity expenditures were \$2.0 billion, natural gas expenditures were \$585 million and liquefied petroleum gas expenditures were \$569 million. In 2011, New Mexicans paid \$675 million more for motor gasoline, a 27 percent increase in petroleum over 2010. Going back an additional year to include an increase of \$250 million, new Mexicans absorbed \$925 million in additional motor gasoline expenditures since 2009.

## Waste Isolation Pilot Plant

EMNRD has oversight of the Collaborative Agreement and annual funding for the state Waste Isolation Pilot Plant (WIPP) program provided by DOE. After careful review of the Agreement deliverables and specific activities provided by each state agency receiving pass through funds, EMNRD has reorganized the program ensuring that taxpayer dollars are more effectively used for the services provided.

The WIPP working group led by EMNRD has worked in collaboration with DOE, Carlsbad Field Office (DOE-CFO) and Los Alamos National Laboratory (LANL) to achieve the removal of 3,706 cubic meters (m<sup>3</sup>) of transuranic (TRU) waste from LANL as required under Governor Martinez's Framework Agreement by June 30, 2014.

EMNRD worked closely with LANL and DOE-CFO to ensure that the special campaign for transportation of corrugated metal boxes met the standards for shipment as defined in the long-standing agreement between the Western Governors' Association (WGA) and DOE.

- EMNRD staff ensured that LANL was provided access to existing plans to help LANL develop its own transportation plan.
- After much collaboration, WIPP convinced other states within the WGA that LANL has satisfied the requirements of the transportation plan to include carrier contract and driver qualifications, and the campaign was scheduled
- The current estimate of material removed as of October 13, 2013, is 2,600 m<sup>3</sup> (**Figure 5**). LANL is still expected to meet the Consent Order Milestones with support from the Working Group despite the federal government shutdown.

## Los Alamos National Laboratory's Transuranic (TRU) Waste



**Figure 5. Los Alamos National Laboratory's Total Above Ground Transuranic Waste – 41 percent removed as of October 13, 2013 [Source: ECMD]**

### Framework Agreement:

- Complete removal of 3,706 cubic meters of non-cemented above-grade waste by June 30, 2014;
- Removal of all newly-generated TRU waste received at Area G during FY12 and FY13 by December 31, 2014;
- Development of a schedule that includes pacing milestones for disposition of below-grade TRU waste requiring retrieval at Area G by December 31, 2012 (submitted December 10, 2012); and
- Complete removal of above-grade cemented legacy TRU waste in an efficient and effective manner.

The WIPP working group worked collaboratively with the State of Texas as equal partners on the WIPP Transportation Exercise. EMNRD and Department of Homeland Security and Emergency Management led the initiative in New Mexico to ensure our state's readiness and training includes partnership with Department of Public Safety, Department of Health, and local fire departments and districts.



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# Forestry Division



## Forestry Division

**MISSION:** The New Mexico State Forestry Division (Forestry) retains lead responsibility for wildland fire management on non-federal and non-municipal lands, maintaining fire suppression capacities and emphasizing firefighter and public safety. Forestry promotes healthy, sustainable forests in New Mexico for the benefit of current and future generations.

Forestry is responsible for fire suppression on 43 million acres of non-municipal, non-federal and non-tribal land across the state and assists New Mexico communities by evaluating those most at risk to wildfire and insect infestation by developing appropriate management programs and implementing mitigation projects.

Forestry staff provides technical assistance to landowners for developing sustainable forests that enhance quality of life by providing tree care training, distributing low-cost seedlings, developing resource management plans and delivering forest health project funding.

**PROGRAMS:** Forestry's priority is to assist in the continued development of the forest products industry (e.g., forest harvesting, landscaping, construction, woody biomass) that uses land treatment byproducts. In addition, Forestry oversees an inmate work camp which utilizes trained minimum security inmate crews for work on conservation projects and wildland fire suppression.

Forestry regulates the harvest of commercial forest species on private forestland and conducts habitat protection projects by studying plant species abundance, defining ecosystems, acquiring easements and purchasing key properties.

Landowners and communities receive assistance with fire prevention and preparedness planning, forest management and improvement, urban and community forest development and management, conservation easement and tax incentive programs, and numerous educational presentations on these topics. Forestry works to implement projects and programs with a goal of improving overall forest and watershed health statewide.

## Accomplishments

**OVERVIEW:** The 2013 fire season in New Mexico was brief but extremely active. Forestry worked with local, state, federal and tribal partners with fire suppression, preparedness and prevention projects. To address issues of wildfire prevention and preparedness as well as overall forest and watershed health, Forestry facilitated the treatment of thousands of acres of state and private land during the calendar year. To address the increasing need for crews to respond to wildfires across the state, Forestry established a pilot program that recruits and trains military veterans to become wildland firefighters.

The health of New Mexico's forests and woodlands is closely tied to climatic variables. In wetter periods there is generally increased tree growth and a decrease in the amount of damage caused by insects, disease, and fire. In times of drought, insect and disease populations increase and can persist for several years if conditions remain dry.

The current dry climatic situation predisposes the state's trees to attack by insects and diseases. In 2013, there was an increase in almost all of these main damaging agents, continuing a trend the state has experienced for the last three years. A variety of insects and diseases have impacted more than 240,000 acres of state and private lands that were identified and mapped through aerial and ground surveys.

The 240,000 acres of impacted land is equivalent to roughly 10 percent of the entire surveyed area, an increase of approximately 35,000 acres from 2012. If all jurisdictional lands in the state are included, more than 740,000 acres (400,000 acres of defoliation and 341,000 acres of mortality) were impacted in 2013. Much like a fire, not all of the trees in an impacted area are killed.



**An adult western spruce budworm found near Chama, New Mexico. The larval stage of the insect was responsible for 136,407 acres of state and private (261,932 acres total) defoliation during 2013, covering more land area than any other destructive forest insect in the state. Photo by Daniel Norlander.**



When infestations move in an uncontrolled manner they can cause major die-offs and decreases in forested area over time. As an example, the greater Ruidoso area has been experiencing a very large amount of bark beetle-caused mortality in several different tree species for several years. Due to this severe infestation, there are now entire stands that have died.

When disease and insect infestations are extreme, little can be done by land managers to combat the issue beyond waiting for the environment to ameliorate and the populations to crash. Unfortunately, conditions facilitating improvement are not evident in 2014 climate predictions.

The Cooperative Forest Health Program (CFHP) works within the State Forestry structure to deliver technical and monetary assistance to landowners and managers of forested lands throughout New Mexico through education programs, trainings and field visits. The goal of the CFHP is to increase forest resiliency to harmful insects and diseases by increasing knowledge and improving management practices of state and private forests. The program provides a flow-through for the USFS for administering cost-share funds to private landowners in the state, and in this way, works to reduce the area that is at high risk of bark beetle attacks.

**FOREST INVENTORY ANALYSIS:** Two new reports based on Forestry's American Recovery and Reinvestment Act project to collect information on New Mexico's forests will be published soon. In 2014, the USDA FS Rocky Mountain Research Station (RMRS) will publish the New Mexico Forest Resources Report, a thorough analysis of collected data. Additionally, the RMRS will publish the State's final report on the project as a Research Note. From 2010-2012, Forest Service crews, contract foresters and tribal employees gathered data for more than 5,000 plots in New Mexico on all jurisdictions: federal, state, tribal, and private. The information represents a comprehensive data set that establishes an important baseline for tracking the impacts of drought, wildfires and changing climates, and answers current questions about forest and woodland conditions.

**FOREST AND WATERSHED HEALTH:** Forestry's Forest and Watershed Health Office continued addressing issues that have traditionally been a barrier to proper treatment and land management in New Mexico by implementing the New Mexico Forest and Watershed Health Plan and the Statewide Natural Resource Assessment and Strategy/Forest Action Plan.

In 2013, the Forest and Watershed Health Office (FWHO) built on last year's success in establishing new partnerships and strengthening existing relationships with other agencies and non-governmental organizations. Working hand-in-hand with district staff, the office completed two pilot projects under the 2012 Financial Assistance Agreement with the Bureau of Land Management. The effort opened a new path for collaboratively planning, funding and implementing on-the-ground projects that cross jurisdictional boundaries. Working together across a larger landscape benefits both the public and private landowners.

FWHO staff provided technical expertise to local and state groups engaged in fire and watershed issues in New Mexico and across the Southwest, and is involved in new watershed-based initiatives which highlight connections between healthy forests, water and community well-being.

The Forest and Watershed Health Coordinator serves on regional and national committees that track and provide input into policies that affect how our natural resources are managed. The Coordinator represented state forestry organizations on the Western Regional Strategy Committee for the National Cohesive Wildland Fire Management Strategy, the Council of Western State Foresters Federal Lands Policy Committee, and the Southwest Fire Science Consortium.

**URBAN AND COMMUNITY FORESTRY PROGRAM:** Forestry's Urban and Community Forestry Program works to empower New Mexico communities to recognize and maximize the benefits from their community forests through technical assistance and support with identifying funding sources.

The Urban and Community Forestry Program saw an overall increase across the state in the number of volunteers, citizens, and communities managing or developing programs to plant, protect and maintain their urban and community trees and forests. In 2013, four communities received and implemented Community Forestry Assistance Grants to develop and strengthen urban forestry programs. Five communities received New Mexico Forest Re-Leaf tree planting grants.

Thirteen communities were recognized for the national Tree City USA program, and the University of New Mexico has completed its application to become New Mexico's first Tree Campus USA. Throughout the state, 58 communities have active local advocacy/advisory organizations such as active tree boards, commissions, or non-profit organizations that are formalized or chartered to advise and advocate for planting, protection and maintenance of urban and community trees and forests. Across the state, 5,162 volunteer hours have been logged related to Urban and Community Forestry and tree planting.

**New Mexico Forest Re-Leaf Grants** - In an effort to highlight the importance of establishing community forestry programs around New Mexico, each year Forestry grants funds to public entities for planting trees on public lands. Funds are used to protect, improve or establish parks, playgrounds, outdoor classrooms, public facilities and structures on public lands.

Established in 1990, the program relies solely on private donations to fund grants that benefit communities statewide. The funds help fill a budgetary void for towns, cities, schools, rural fire districts, tribal governments and others that lack funds for tree and shrub planting. Every cent donated to the program goes toward planting trees because there are no overhead costs. In 2013, five grants for \$27,380 were awarded to projects in Ft. Sumner, Las Vegas, Lordsburg, Raton and Rio Rancho.

**FIRE MANAGEMENT:** The potential for wildfire in 2013 was high due to a lack of significant moisture during the previous winter. Despite high fire danger throughout the spring, the majority of large fires statewide took place during a one-month period. June, 2013, saw five major wildfires that burned primarily on federal lands. The largest incident, the Silver Fire, burned 138,705 acres and caused the evacuation of Kingston for 10 days. Local, state and federal fire resources were able to keep the fire from sweeping over the small community, and no homes were destroyed. Evacuations were also in effect for many residences near the town of Pecos due to the 10,219-acre Tres Lagunas Fire and for residences near the 23,965 acre Thompson Ridge Fire outside of Jemez Springs.

During FY13, 420 fires burned approximately 8,804 acres of state and private land. Human-caused fires totaled 255 - a continuing, major concern in New Mexico. Naturally caused fires totaled 162, and three fires occurred where cause could not be determined. Of the human-caused fires, which make up approximately 61 percent of the year's fires, equipment use and debris burning were the leading causes. Forestry continues to collaborate with local, state, federal and tribal fire agencies to educate New Mexicans about fire prevention and preparedness. Wildland fire incidents are reflected in the location map in the Data and Statistics section of this report. In 2013, more than 1,000 volunteer, municipal, state, federal and tribal firefighters were provided wildland fire training.



The 138,705 acre Silver fire near Kingston, NM, was the state's largest fire in 2013. Burning on private and public lands, hundreds of local, state and federal firefighters were assigned to the incident.

**Military Veterans Fire Crew Program** - To address an increasing need for qualified wildland firefighters in New Mexico, Forestry entered into a cooperative agreement with New Mexico's Workforce Solutions and Veterans Affairs Departments to create a pilot program that would hire United States Armed Forces Veterans and train them to fight wildfires.

Military veteran firefighters were established, trained, and quickly put to work in four crews of 10. By the end of the fire season, the crews had been assigned to 13 wildfires in New Mexico and sent to fires in California and Oregon. Forestry hopes to continue the success of the Veterans Fire Crew Program during upcoming fire seasons.

**New Mexico Fire Planning Task Force** - The New Mexico Fire Planning Task Force is charged with identifying areas most vulnerable to forest fires; approving Community Wildfire Protection Plans (CWPPs); developing model ordinances and standards for building codes; and considering the benefits of thinning, controlled burns and defensible space to reduce the threat of wildfires to communities. Currently, 58 CWPPs are listed in the Communities at Risk Report. One plan was updated and will be considered for approval by the Task Force in 2014. Each CWPP must be updated within five years of its adoption by the Task Force, and update requirement notification letters are sent to CWPP participants.

**Fire Prevention Program** - Forestry's fire prevention and education programs have been very active following two very destructive years for wildfire across the state. Forestry helps facilitate *Firewise Communities, Ready, Set, Go!* and the *Living with Fire Homeowners Guide*, which continue to draw interest from communities and fire departments statewide.

Firewise Communities USA is a community-based and operated recognition program focusing on residents, businesses and elected bodies working together to create cities, towns and neighborhoods that take steps to address the issue of wildfire risk. To date, 14 active Firewise Communities Programs operate around New Mexico, and several more communities are pursuing formal recognition from the national Firewise Program.

*Ready, Set, Go!*, a sister program to *Firewise*, focuses on being prepared for a wildfire, both inside and outside the home. Residents work with Forestry and their local municipal or county fire departments and emergency management offices to become better prepared should a wildfire approach their community. Currently, more than 30 New Mexico local, state, federal and tribal agencies partnered with the *Ready, Set, Go!* Program.

Information about these programs and Forestry's other wildfire education efforts can be found on the Division's website: [www.nmforestry.com](http://www.nmforestry.com).

**RESOURCE MANAGEMENT AND PROTECTION:** Forestry works with private landowners, state and federal agencies to protect land from future development that could fragment the landscape. Through various incentive programs, landowners can place large tracts of land into conservation easements that allow them to retain ownership while protecting it.

The Forestry Division prepared 94 new or revised forest stewardship plans, fire management plans and treatment plans in 2013 for a total of 17,245 acres on private forested land in New Mexico. In addition, 364 landowners received technical assistance on their private forest lands, with another 545 landowners participating in educational programs related to forest stewardship, fire prevention and forest management.

**Conservation Seedling Program** - Each year, tens of thousands of tree and shrub seedlings are planted on private and public lands throughout New Mexico through Forestry's Conservation Seedling Program. The program provides economically priced tree and shrub species to New Mexico landowners for the establishment of windbreaks, erosion control, crop and livestock protection, Christmas tree farm establishment, energy cost savings and landscape aesthetics. In 2013, the Conservation Seedling Program distributed 118,154 seedlings through sales during the New Mexico State Fair, New Mexico Agriculture Expo, educational donations, and for the spring and fall sales and distribution cycles.

**The Endangered Plants Program** - Forestry has statutory responsibility for the State Endangered Plant Species List. Section 75-6-1 NMSA 1978 directs the investigation of all plant species in the state for the purpose of establishing a list of endangered plant species.

Forestry's Endangered Plant Program gathers information related to population abundance, distribution, habitat requirements, threats, limiting factors and other biological and ecological data. The information is used to develop conservation measures necessary for the species' survival. The Program also promotes the conservation of listed endangered plant species including research, inventory and monitoring, law enforcement, habitat maintenance, education and propagation.

Currently, New Mexico has 37 plant species that are listed as endangered, including 13 federally listed species.

The Endangered Plant Program is primarily federally funded through Section 6 of the Endangered Species Act for endangered plant research and management. In 2013, endangered plant projects included annual monitoring and status evaluation of Knowlton's Cactus and the Holy Ghost *Ipomopsis*, a population genetics study on Holy Ghost *Ipomopsis*, status surveys for Tharp's *Amsonia* on New Mexico State lands in southeastern New Mexico, post-fire status surveys for nine rare and endemic plant species on the Lincoln and Gila National Forests and the establishment of post-fire monitoring plots at Carlsbad Caverns National Park for the federally listed Lee's Pincushion Cactus.

**LAND CONSERVATION TAX INCENTIVE PROGRAM:** In 2013, Forestry received and processed 16 Assessment Applications for the Land Conservation Incentive Act Tax Credit Program. Fourteen applications were approved to move forward to the Certification Application phase.

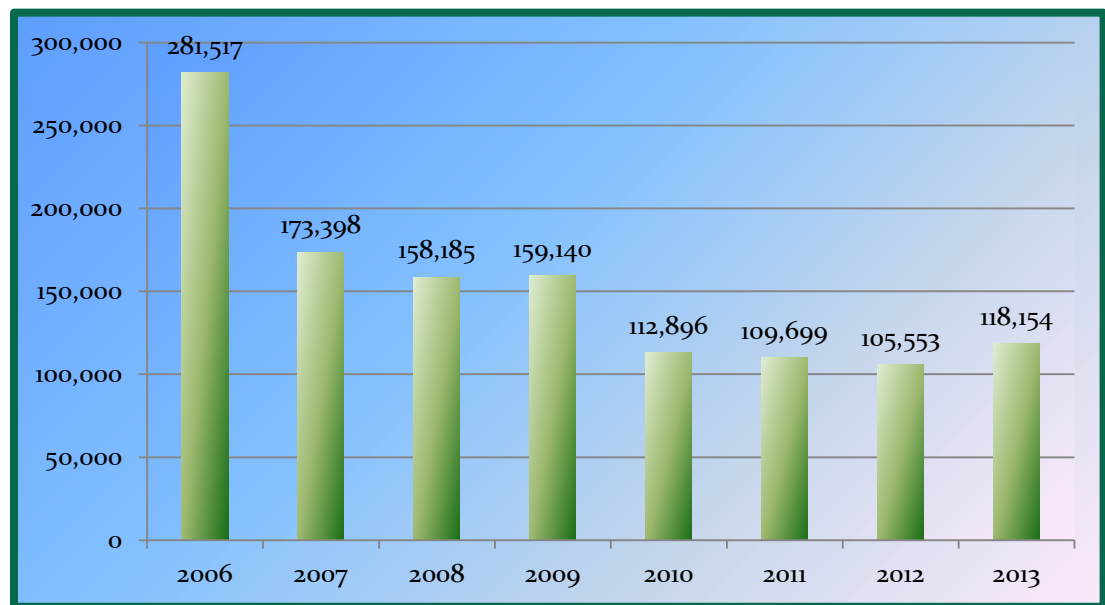
Currently, one application is awaiting final certification for a tax credit with the New Mexico Department of Taxation and Revenue's Property Appraisal Review Division. To date, nine applicants received certification awarding more than \$1.98 million in tax credits on a total appraised land value of more than \$5.92 million for 22,197 acres.

**INMATE WORK CAMP PROGRAM:** Forestry's Inmate Work Camp Program was established in 1997 for the purpose of conducting forest health and urban interface projects on public land in New Mexico. The crews are also trained as wildland firefighters and function as an efficient, cost effective resource for New Mexico.

In cooperation with the New Mexico Corrections Department, each inmate crew is comprised of 12 minimum security inmates. The crews are transported from the Los Lunas Minimum Security Prison Facility to project areas and supervised by Forestry Division Crew Supervisors. The program has the ability to field six crews per workday throughout the year. In 2013, the program provided crews to work on 15 projects for 10 different local, state, federal and private co-operators, performing 2,810 man-days of work and 23,885 man-hours of work. Crews were assigned to 10 wildfires, performing 63 crew-days of fire suppression.

## Data and Statistics

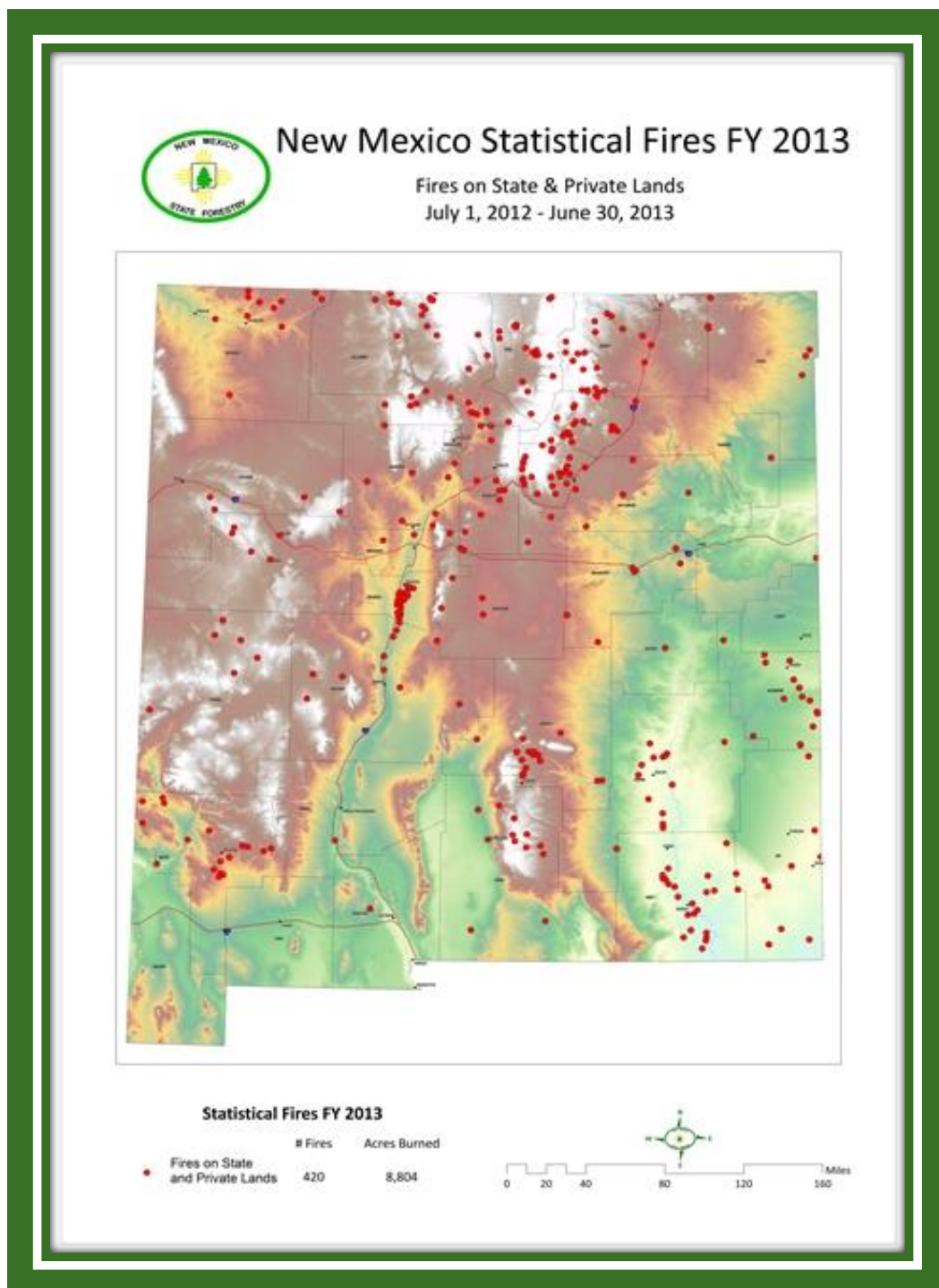
**2013 SEEDLING CHART:** Forestry's Conservation Seedling Program provides landowners the ability to take advantage of fall and spring planting seasons with two distribution periods. With the combined distribution periods, 118,154 tree seedlings were distributed through the program's annual sales, sales at the New Mexico Agriculture Expo and New Mexico State Fair and through educational donations.



**Seedling Program – Total Trees Distributed**



**2013 FIRE MAP:** During fire season 2013, June saw the most fire activity. While it was a relatively mild year for fires on state and private land, more than 204,555 acres burned on federal lands. In FY13, 420 fires were reported on state and private land. These fires burned 8,804 acres.

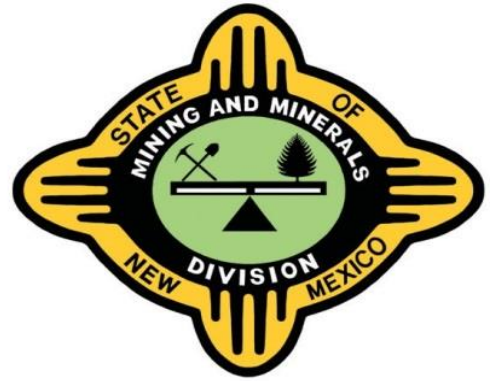


**2013 RE-LEAF GRANTS:** The New Mexico Forest Re-Leaf Program awarded \$27,380 in grant funding to recipients including the communities of Las Vegas, Raton, Rio Rancho, Fort Sumner and Lordsburg. The program provides funds for tree planting for conservation purposes, educational outreach, windbreak establishment and general aesthetic enhancement. Re-Leaf grants are funded completely through corporate and private donors. Since 1990, more than \$587,000 has been distributed to New Mexico communities for tree and shrub planting. Annual applications are solicited in April and submittals are due in August. Eligible applicants include schools, municipalities, or local non-profit organizations.



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# **Mining and Minerals Division**



## Mining and Minerals Division

**MISSION:** The Mining and Minerals Division (MMD) seeks to promote the public trust by ensuring the responsible utilization, conservation, reclamation and safeguarding of land and resources affected by mining. MMD strives to make New Mexico a leader in responsible mine operation and reclamation.

## Programs and Accomplishments

**ABANDONED MINE LAND (AML) PROGRAM:** The AML Program works to identify dangerous abandoned mine areas across the state and to abate their hazards. MMD estimates that more than 10,000 hazardous mine openings remain un-reclaimed throughout New Mexico.

In 2013, the AML Program completed five construction projects at abandoned mine sites in New Mexico. Two of these projects safeguarded a total of 58 hard rock mine openings at the Cleveland Mine near Silver City and the Bradley Mine Group near Deming. Of the 58 closures, 30 were structural closures, most of which are bat compatible. A project in Madrid constructed emergency measures to protect structures and property in the town after flood damage due to washout of a coal mine waste pile. The two other projects repaired vandalized closures at sites near Carrizozo and Orogrande.



**Bradley Mine shaft before construction (MMD photo)**





**Bat cupola at Bradley Mine shaft after construction (MMD photo)**

The AML Program continues to develop projects in areas of New Mexico impacted by historic mining, including Madrid, Silver City, Cookes Peak, Raton, San Pedro Mountains, Grants, and Tierra Amarilla.

The AML Program received national recognition for its exemplary work at the Harding Pegmatite Mine Safeguard Project, completed in 2011, near Dixon, NM. The National Association of Abandoned Mine Land Programs presented its 2013 Small Construction Project Award (one of only five awards given) for this project at the Association's annual conference in September in West Virginia.

An AML Program project received a 2013 Excellence in Reclamation Award. River Source Inc. of Santa Fe was recognized for using innovative educational and outreach techniques to instill the importance of environmental stewardship in rural communities of the Raton Coal Basin. River Source Inc. provided stellar education and outreach services to communities affected by the decommissioned Swastika Coal Mine which lies on the Vermejo Park Ranch in northern New Mexico. Area school children were taught the dangers of entering abandoned mines. Additionally, the students learned the importance of wetland habitats, the ecological role they play, and the AML Program's plans to reclaim the valley using geomorphic techniques. River Source gained crucial community support for this project.

The Bureau of Land Management remains a strong AML partner, providing funding for abandoned hard rock mine reclamation that supplements AML's annual grants received from the federal Office of Surface Mining.



Public outreach is an important component of AML's work, especially when working directly in communities impacted by historic mining. Community outreach efforts are underway in Madrid and in Silver City for the Boston Hill mining area.

**COAL MINE RECLAMATION PROGRAM:** The Coal Program is responsible for regulating coal mines on all federal, state and private lands within New Mexico, with the exception of Indian lands. The program oversees more than 85,000 acres of permitted mine lands and nearly \$500 million in financial assurance.

Evaluation of bond release applications was a significant part of the workload over the past year, and that is expected to continue into 2014. Chevron has applied for the partial release of bond on 3,410 acres of reclamation at McKinley Mine, which would reduce financial assurance requirements from \$44 million to \$21 million upon approval. Partial release of bond liability was achieved on 1,130 acres at Lee Ranch Mine, and Peabody Energy has applied for partial release on an additional 730 acres at the mine. Bond release applications from BHP-Billiton for portions of La Plata Mine and San Juan Mine are expected to be submitted before year's end.



**Irrigating for re-vegetation establishment on the San Juan Mine (Photo: Dawn Pacula, Office of Surface Mining Reclamation and Enforcement)**

A reclamation project in coal country earned a 2013 Excellence in Reclamation Award for Ames Construction, Inc. of Scottsdale, AZ, for its exceptional skill in equipment operation and excellent reclamation of the La Plata Transportation Corridor. The La Plata Transportation Corridor is a 22-mile long road where coal was hauled to be burned at the San Juan Generating Station from 1986 to 2003. When the transportation corridor reclamation began in 2009, San Juan Coal Company had just received a National Reclamation Award for the geomorphic reclamation completed at La Plata Mine. Ames personnel toured La Plata Mine to help produce comparable work along the transportation corridor.

**MINE REGISTRATION, REPORTING AND SAFEGUARDING PROGRAM:** Decision-makers throughout New Mexico benefit from the valuable information compiled and disseminated through this program which also serves as MMD's public information office. Comprehensive information is provided on mineral resources, mine registration, reclamation and safeguarding efforts, legislation, and other MMD activities related to New Mexico's mineral extraction industry and mineral resources. For individuals more interested in talking to a real live staff member, as opposed to surfing the website, the program prides itself on its responsiveness to questions received via telephone or email.

Public outreach is an important component of this program and the other MMD programs. MMD's website, [www.NMMines.com](http://www.NMMines.com), provides information to mine operators and the public regarding abandoned mine safeguarding projects and current and proposed mining operations. Projects can be tracked by status or county and project documents are downloadable from various pages within the website. Also available, on the *Publications* page of the website, is a document that lists active mining operations in the state that is updated at least annually. Part of the public outreach is to celebrate operators who have performed outstanding reclamation in New Mexico. Annually, MMD staff select worthy candidates for the Excellence in Reclamation Award which is presented at the New Mexico Mining Association's convention.

A large undertaking completed this year now simplifies research in response to requests from operators for historical information. The annual operator reporting forms were digitized for all forms received since 1981. They are organized by calendar year, and by commodity reporting form thereunder. Optical character recognition software allows the utilization of the "Find" function in Adobe to search for keywords such as mine or operator name, which results in finding the correct document much more quickly.

**MINING ACT RECLAMATION PROGRAM (MARF):** MARF is responsible for regulating hard rock mines on all federal, state and private lands within New Mexico. MARF oversees the reclamation of all exploration and extraction activities conducted at all mines and mills, excluding coal, potash and aggregate mines. MARF has permitted approximately 501 mining and exploration projects encompassing over \$684.3 million in financial assurance. The overall disturbed acreage under permit with MARF is 25,923.6 acres, as of the end of 2012 (the most recent data available). The total number of acres reclaimed since 1994, when the program was started, is 5,963.0 acres, as of the end of 2012.

Interest in gold mining continued in 2013, with two operating gold mines in the Steeple Rock Mining District in Grant County. Interest in mining iron, gold, garnet, rare earth elements, and copper in Otero County's Orogrande Mining District continued during 2013 with the continued operation of existing mines and implementation of several new exploration projects.

In 2013, a petition was submitted to the New Mexico Mining Commission requesting an increase in the number of acres that can be disturbed for minimal impact humate mines. The petition requested the Commission's consideration of an increase from 10 acres to 60 acres for both new and existing minimal impact humate mining operations. After three days of testimony, the Commission approved an increase to 20 acres. The change to the Mining Act Rules is anticipated to take effect in early 2014. Interest in humate mining increased significantly in 2013 and MARP staff worked with multiple operators to permit several new minimal impact humate mines in McKinley County. Continued interest in mining humate is anticipated to continue into 2014.

MARP staff continued the process of reviewing five large scale, Part 6 permit applications in 2013 – three uranium mines, one copper mine, and one gold mine. These include: the Roca Honda, La Jara Mesa, and Cebolleta uranium mines; the Copper Flat Mine (copper); and the Ortiz Mine (gold).

## Data and Statistics

### MINERAL RESOURCES: EMPLOYMENT, PRODUCTION and VALUE

Operators reported more than \$2.8 billion worth of minerals extracted from New Mexico mines in 2012, a 27 percent increase from 2011's total (**Table 1 and Figure 1**). This is the highest minerals production value reported for New Mexico, exceeding 2008's previous high total of \$2.36 billion by nearly 19 percent. While coal production was flat, reported potash production nearly doubled in 2012 offsetting the lower price per pound, and copper production and value were up 56 percent and 41 percent, respectively. These factors, in conjunction with other considerably increased commodity production, account for the majority of the increase.

New Mexico remains a leading United States mineral producer with 2012 rankings of first in potash, perlite and zeolite; third in copper, as reported by the U.S. Geological Survey (USGS); and twelfth in coal (up from thirteenth in 2011), as reported by the U.S. Energy Information Administration. The principal minerals, in descending order of 2012 production value, were potash, copper and coal. According to USGS, for 2012 New Mexico ranked fourteenth when ranking states by the production value of non-energy minerals, producing 1.95 percent of the total U.S. production value of non-energy minerals (up from sixteenth and 1.75 percent in 2011, respectively).

**TABLE 1 New Mexico Summary of Commodity Production, Production Value, Employment, Payroll, Revenue and Ranking: 2012**

Mineral	Production <sup>1</sup>	Production Rank <sup>2</sup>	Production Value \$	Employment <sup>3</sup>	Reclamation Employment	Payroll \$ <sup>4</sup>	Revenue Generated \$ <sup>5</sup>	
							State	Federal
Coal	22,919,717	12	\$ 797,394,984	1,770	377	\$ 121,925,446	\$ 24,924,777	\$ 6,181,597
Copper	226,646,592	3	\$ 819,214,107	1,841	84	\$ 100,240,382	\$ 6,338,256	\$ -
Gold	9,758	-	\$ 16,034,878	64	-	\$ 3,301,917	\$ 170,538	\$ -
Industrial Minerals <sup>6</sup>	1,491,760	-	\$ 108,975,769	470	21	\$ 16,660,487	\$ 911,955	\$ 130,578
Aggregates <sup>7</sup>	8,543,379	-	\$ 76,945,909	913	102	\$ 14,552,762	\$ 6,380,696	\$ -
Other Metals	117,199	-	\$ 1,569,648	19	20	\$ 1,229,746	\$ -	\$ -
Molybdenum	1,726,484	-	\$ 21,687,231	282	-	\$ 14,952,000	\$ -	\$ -
Potash <sup>8</sup>	1,548,047	1	\$ 953,477,008	1,473	30	\$ 98,182,919	\$ 4,443,294	\$ 12,868,197
Silver <sup>9</sup>	203,221	-	\$ 6,334,625	-	-	\$ -	\$ 93,779	\$ -
Uranium <sup>10</sup>	-	-	\$ -	24	21	\$ 1,189,898	\$ -	\$ -
<b>TOTAL</b>			<b>\$2,801,634,159</b>	<b>6,856</b>	<b>655</b>	<b>\$ 372,235,557</b>	<b>\$ 43,263,295</b>	<b>\$19,180,372</b>

Source: Mining and Minerals Division, unless otherwise noted.

<sup>1</sup> Production is in short tons for coal, industrial minerals, aggregates; other metals and potash; in pounds for copper and molybdenum; and in troy ounces for gold and silver.

<sup>2</sup> Production rank is based on 2012 production value in relation to other U.S. states. Molybdenum ranking unavailable.

Sources: Metals, potash, industrial minerals and aggregates: Mineral Resources Program, United States Geological Survey ([minerals.er.usgs.gov](http://minerals.er.usgs.gov))

Coal: Energy Information Administration, United States Department of Energy ([www.eia.gov/coal](http://www.eia.gov/coal))

<sup>3</sup> Employment category includes direct and contract employees.

<sup>4</sup> Payroll is for direct employees and does not include contract employees. Payroll does not include benefits.

<sup>5</sup> State revenue includes state trust land mineral lease royalties, rentals and bonuses; and severance, resource excise and conservation tax revenues.

Federal revenue includes 50% state share of federal royalties.

Sources: State data: New Mexico Taxation and Revenue Department ([www.state.nm.us/tax](http://www.state.nm.us/tax)), New Mexico State Land Office ([www.nmstatelands.org](http://www.nmstatelands.org))

Federal data: Office of Natural Resources Revenue ([www.onnr.gov](http://www.onnr.gov))

<sup>6</sup> Category includes brick clay, calcite, dimension stone, gypsum, humate, perlite, Portland cement, pumice, salt, silica, and zeolite.

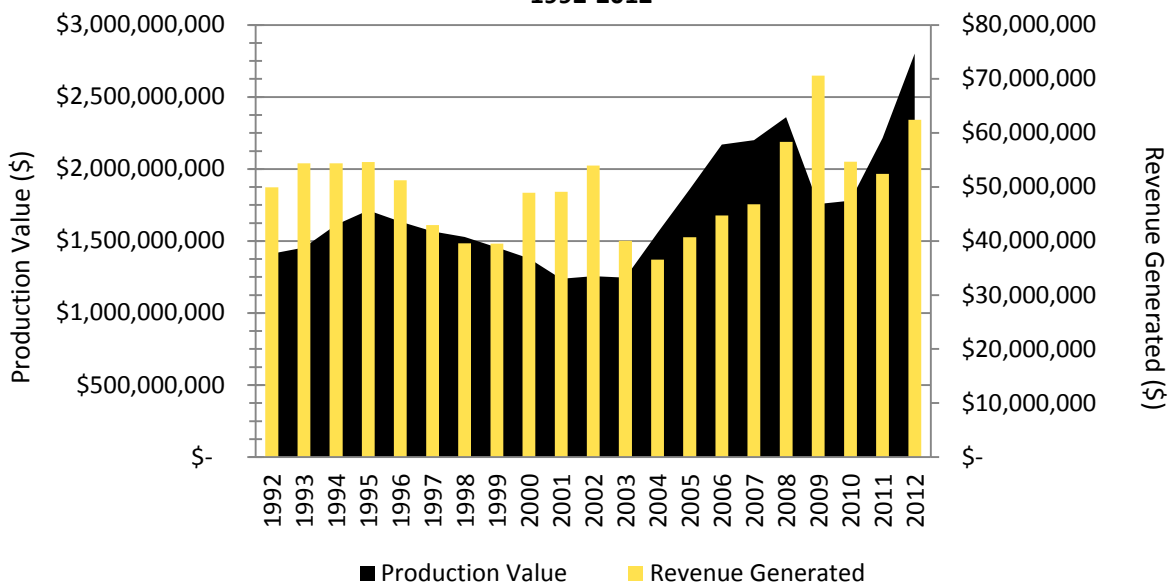
<sup>7</sup> Category includes base course, caliche, clay and shale, crushed rock, flagstone, fill dirt, gravel, limestone, red dog, rip-rap, sand, scoria and topsoil.

<sup>8</sup> Potash production is K<sub>2</sub>O mill production.

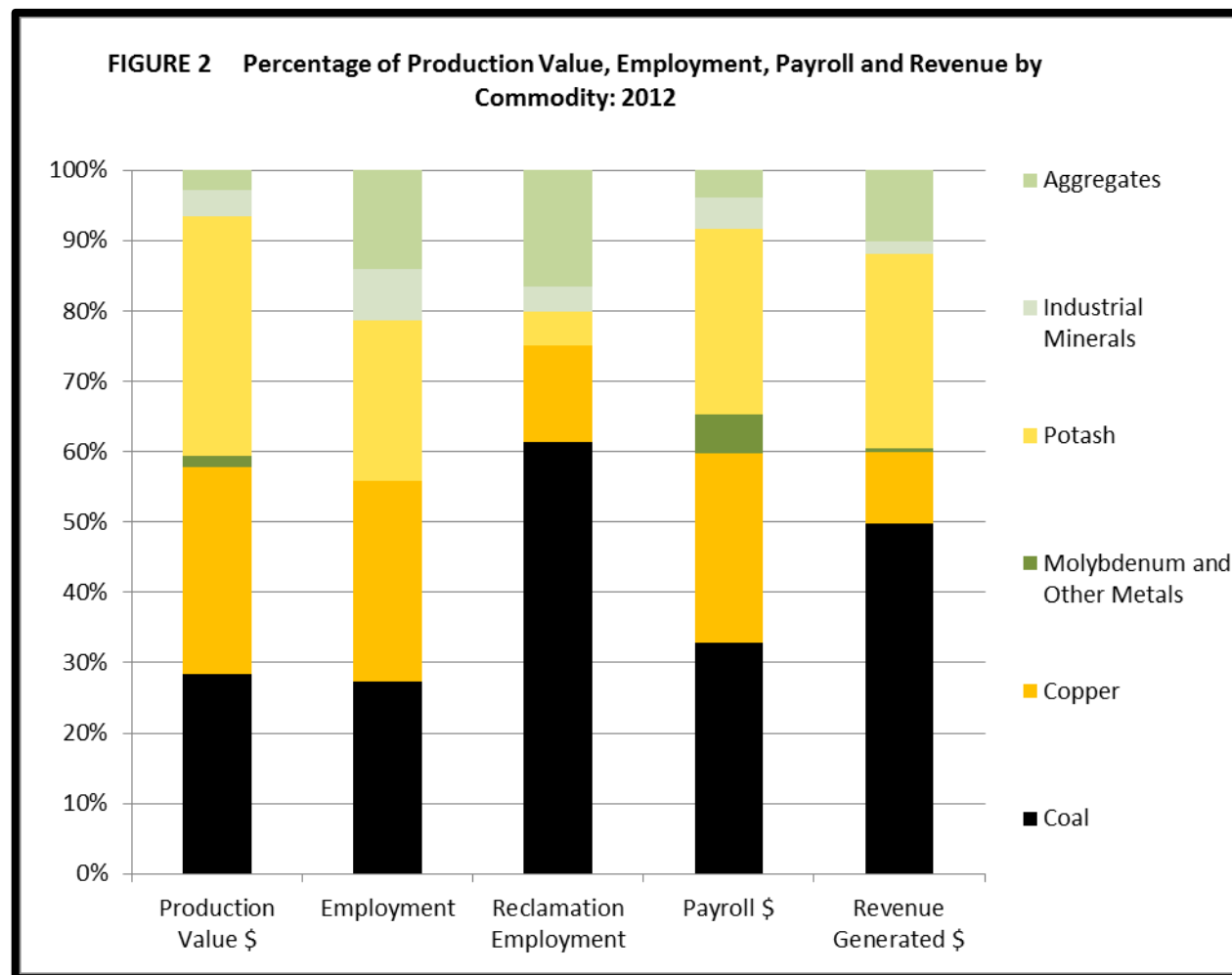
<sup>9</sup> Employment and payroll for silver included in copper and gold.

<sup>10</sup> Employment/payroll numbers are for licensing/permitting at proposed uranium mines, and reclamation activities/maintenance at closed mines and mills.

**FIGURE 1 New Mexico Mineral Production Value and Revenue Generated 1992-2012**

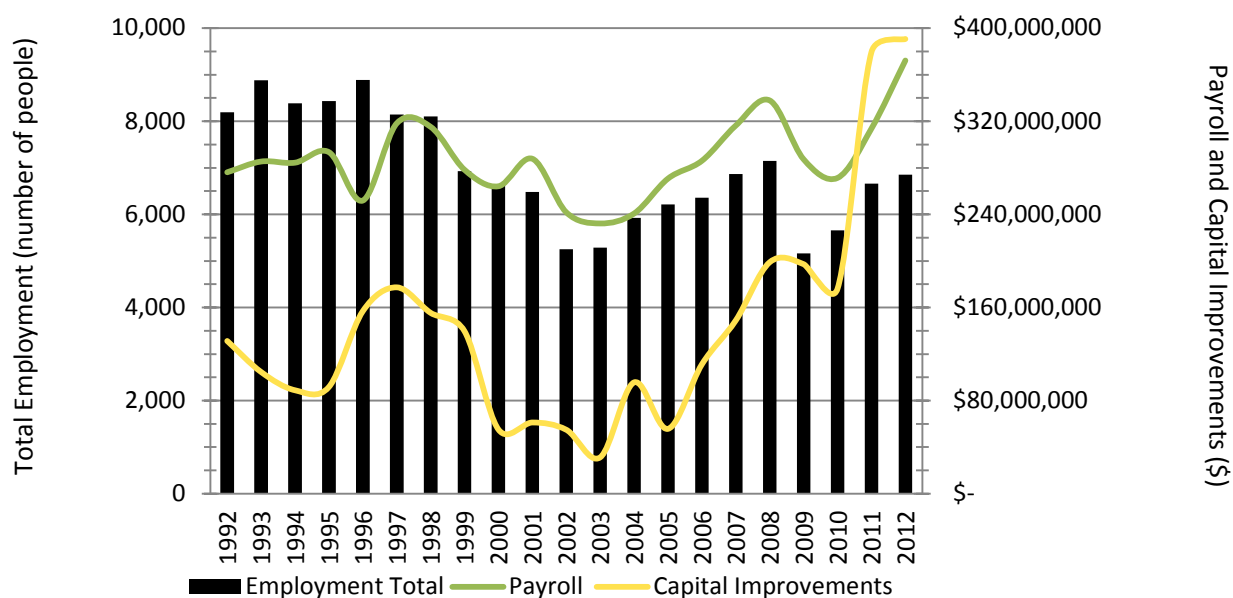


Potash claimed the top spot for production value, and coal had the largest payroll and generated the greatest revenue for the state in 2012 (**Table 1 and Figure 2**). Total 2012 revenues (state and federal) generated by mineral production in New Mexico increased 19 percent from 2011 levels to \$62.4 million (**Figure 1**). State revenues include state trust land mineral lease royalties, rentals and bonuses and associated taxes; whereas federal revenue includes a 50 percent state share of federal royalties. In any production year, these revenues only accrue if the lessee is actually mining and producing commodities on federal or state land.

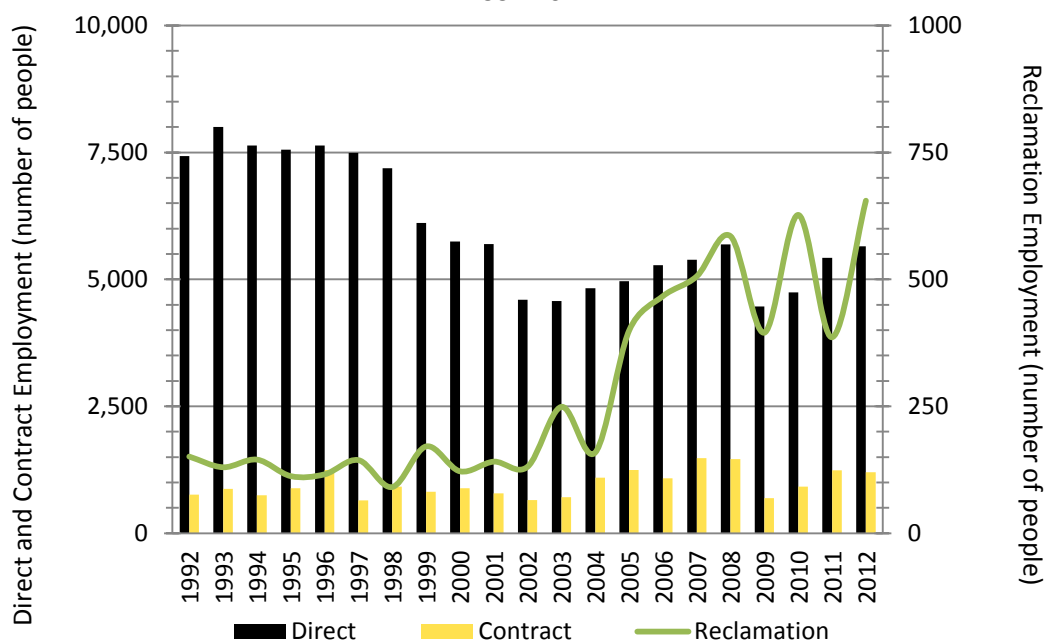


Industry payroll reached an all-time high of \$372 million (excluding benefits), an increase of nearly 19 percent from 2011 and more than 10 percent higher than the previously highest total in 2008 (**Figure 3**). Coal was the largest employer in New Mexico's mining industry, followed by copper and potash. Total mining sector employment increased from 2011 to 2012 as did payroll amounts. The total number of direct and contract employees in the mining industry in 2012 was 6,856, a 3 percent increase from 2011: direct employment increased 4 percent to 5,654 employees; contract employment decreased slightly (3 percent) to 1,202 workers; reclamation employment increased significantly (nearly 70 percent) to 655 workers (**Figure 4**).

**FIGURE 3 New Mexico Mineral Industry Employment, Payroll and Capital Improvements: 1992-2012**



**FIGURE 4 New Mexico Mineral Industry Employment 1992-2012**

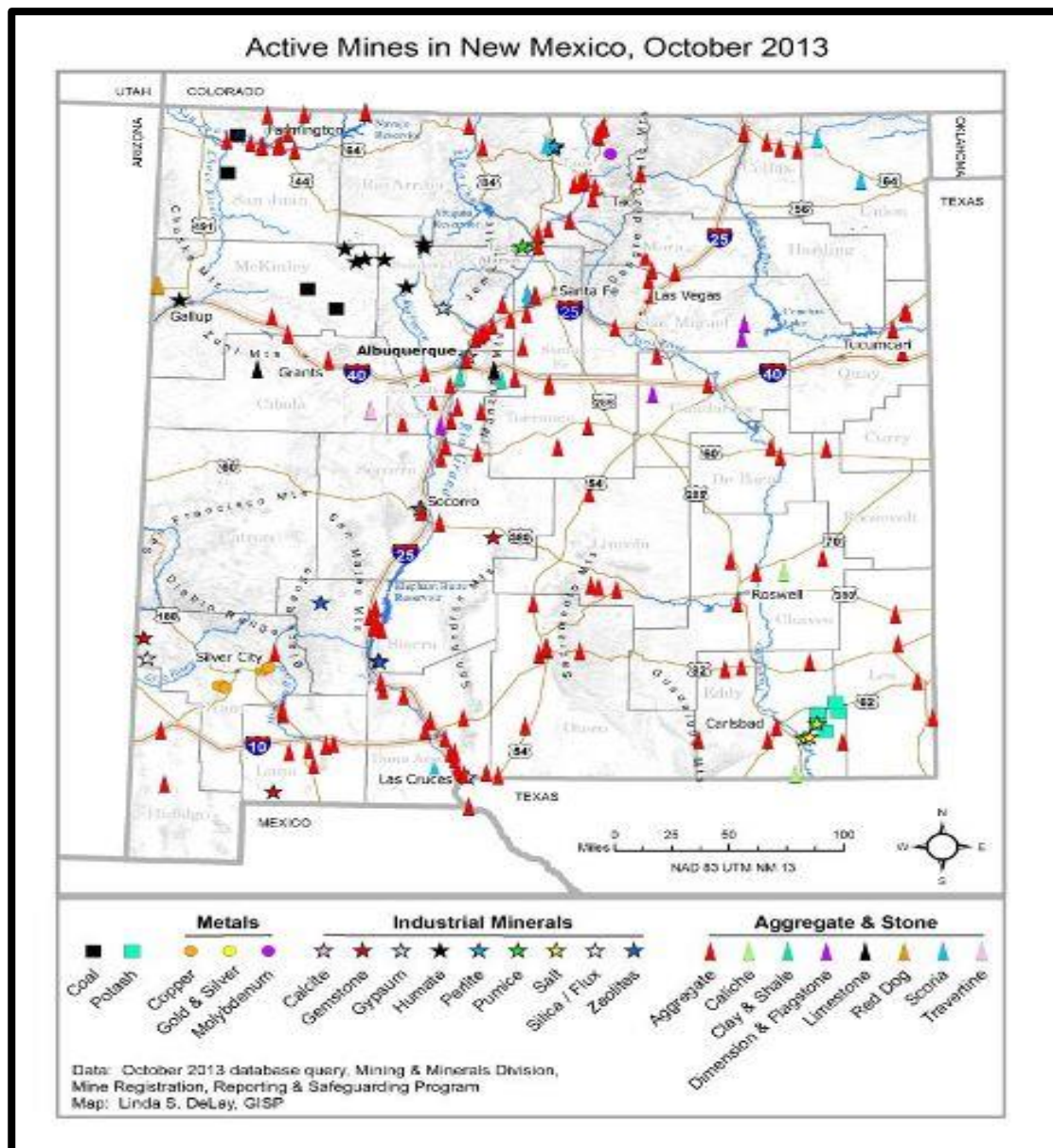


Capital improvement expenditures increased three percent from 2011 to 2012. New Mexico mining companies invested just over \$390 million in capital improvements and equipment in 2012, another record setting amount (**Figure 3**).



This spike in monies put into improvements in the past two years is primarily a result of projects in potash country. Mosaic Potash's new compaction plant successfully came online in May 2012 after two years of construction. Intrepid Potash, Inc., made significant investments in its facilities, including its HB Solar Solution Mine Project which involves constructing an in-situ solution mining and solar evaporation operation in its previously mined site. According to Intrepid, solar evaporation ponds are complete and filled, and processing is expected to begin in November or December 2013.

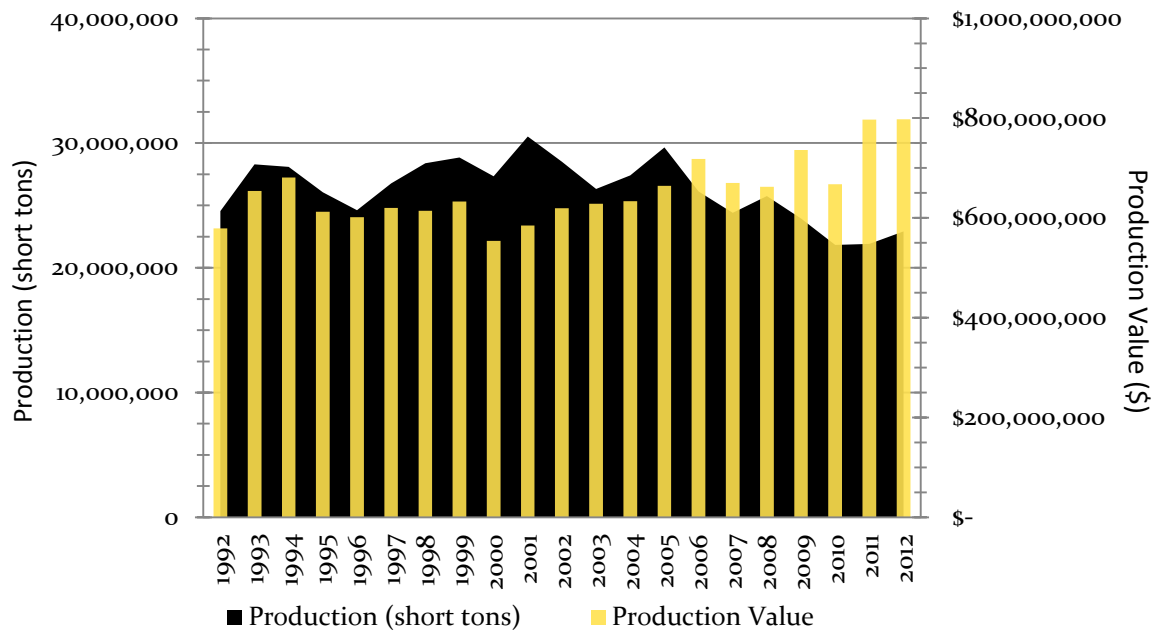
Registered active mining operations in New Mexico in 2012 numbered 237: four coal mines; eight potash operations (includes mines, refineries and compaction plants); 11 metal mine, mill and SX/EW operations (includes copper, molybdenum, gold, and silver); 15 industrial mineral mines; 10 industrial mineral mills; and 189 stone and aggregate operations (**Figure 5 – any discrepancies are due to map data run date**).



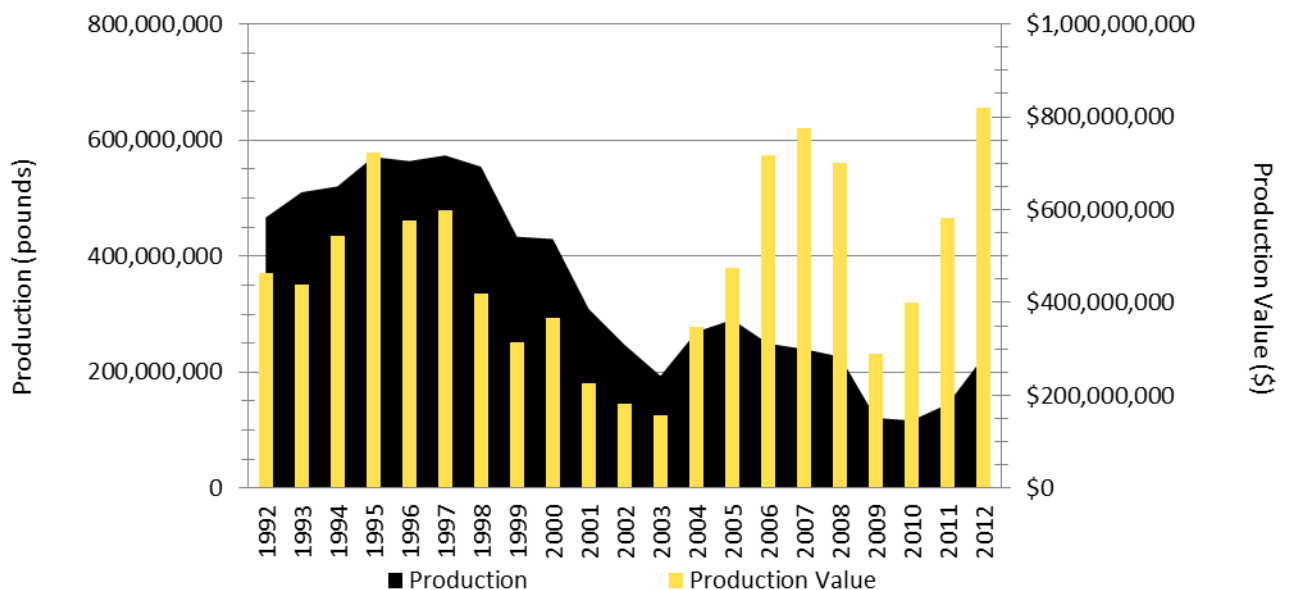
**Figure 5**

**Figures 6 through 10** provide graphic representation of 20-year production amounts and dollar values for coal, copper, potash, aggregate (base course, caliche, clay and shale, crushed rock, flagstone, fill dirt, gravel, limestone, red dog, rip-rap, sand, scoria and topsoil), and industrial minerals (brick clay, calcite, dimension stone, gypsum, humate, perlite, Portland cement, pumice, salt, silica, and zeolite), respectively.

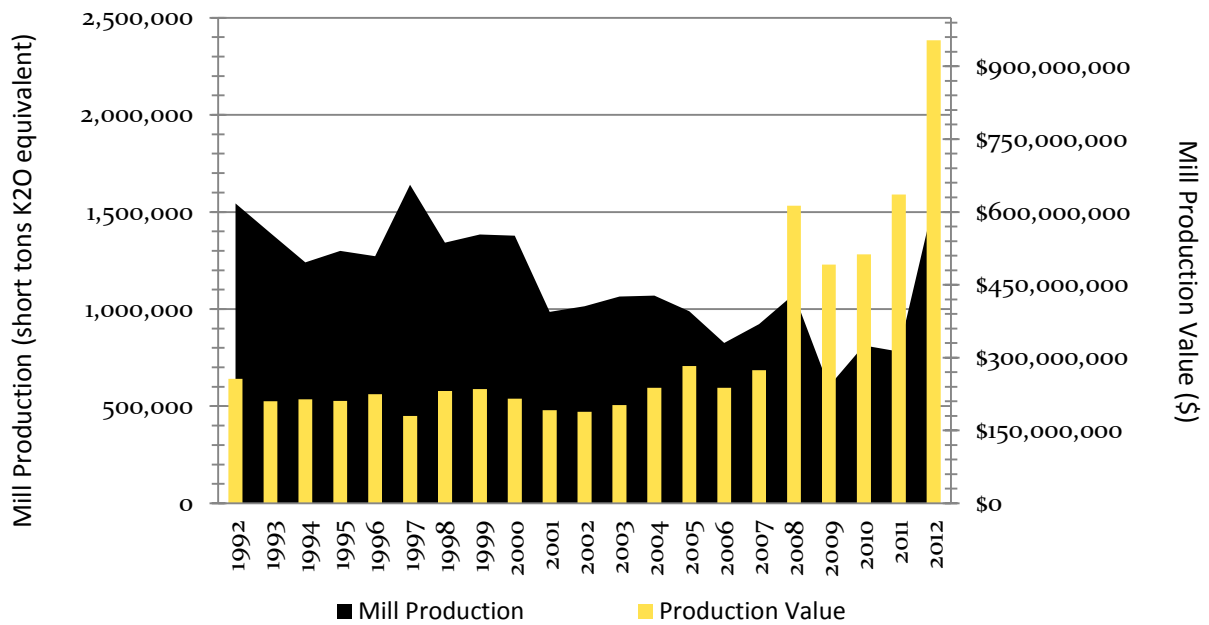
**FIGURE 6 New Mexico Coal Production and Value  
1992-2012**



**FIGURE 7 New Mexico Copper Production and Value: 1992-2012**

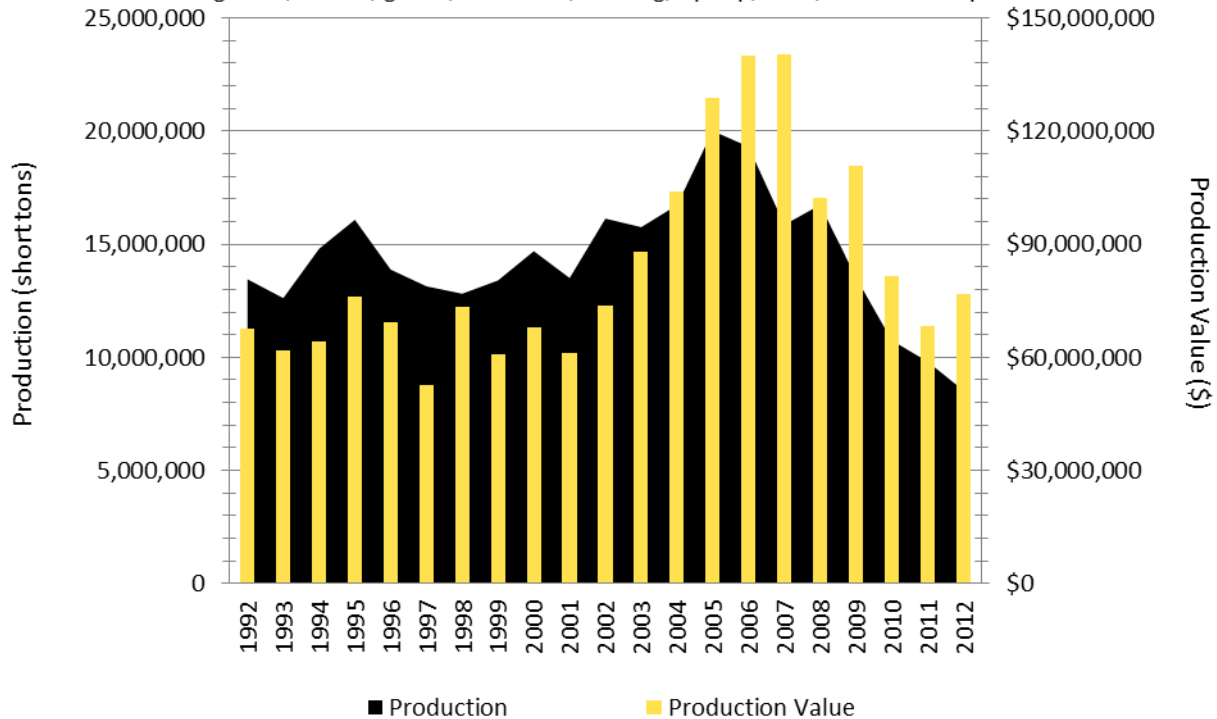


**FIGURE 8 New Mexico Potash Production and Value  
1992-2012**



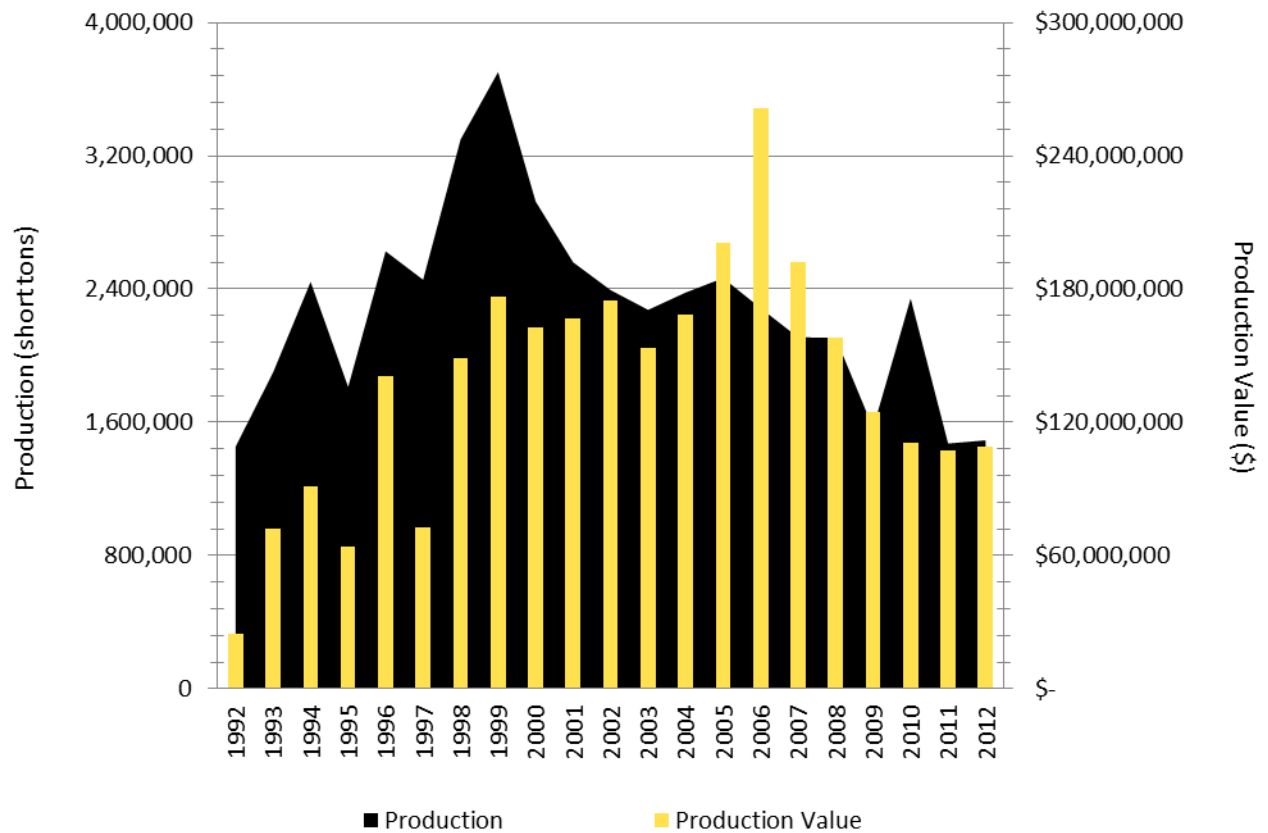
**FIGURE 9 New Mexico Aggregate Production and Value  
1992-2012**

Aggregate includes base course, caliche, clay and shale, crushed rock, flagstone, fill dirt, gravel, limestone, red dog, rip-rap, sand, scoria and topsoil



**FIGURE 10 New Mexico Industrial Mineral Production and Value  
1992-2012**

Industrial minerals include brick clay, calcite, dimension stone, gypsum, humate, perlite, Portland cement, pumice, salt, silica, and zeolite



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**Oil  
Conservation  
Division**





## Oil Conservation Division

**MISSION:** To assure the protection, conservation, management, and responsible development of oil, gas, and geothermal resources through professional, dynamic regulation and advocacy for the ultimate benefit of New Mexico.

**OVERVIEW:** OCD is organized into four district offices and five bureaus responsible for different aspects of regulating the oil and gas industry. The district offices issue drilling permits, inspect wells and associated facilities, respond to spills, investigate violations, and institute enforcement actions.

The Engineering Bureau processes administrative applications for exceptions to OCD rules, and the staff serves as Director-appointed hearing examiners for OCD hearings.

The Environmental Bureau enforces environmental rules and programs in the oil and gas industry for the protection of New Mexico's fresh water, public health, and the environment.

The Compliance Bureau ensures that activities comply with regulations and do not result in the waste of oil, gas and geothermal resources and to protect human health and the environment.

The Administrative Bureau is responsible for tracking statistics and oversees the division's budget and procurement needs. It provides administrative support, manages the plugging bond program, and maintains records of cases and orders.

Legal Bureau staff from Office of General Counsel provides legal advice and support, works with well operators to develop Agreed Compliance Orders, and participates in the formulation of OCD rules and proposed legislation.

OCD works with representatives from diverse groups to consistently enforce its rules and identify areas where rules can be improved. OCD is actively involved in nationwide federal, state, and industry organizations that share information on new technologies and discuss best practices on topical issues such as hydraulic fracturing and horizontal well drilling.

**OIL CONSERVATION COMMISSION:** The three-member commission, chaired by the Oil Conservation Division Director, makes rules governing oil and gas production in New Mexico, conducts hearings on matters of significant interest, and hears appeals of examiner decisions. The OCC emphasizes the commitment to promulgate regulations based on science by including university researchers in work groups for rule development and amendment recommendation

## PERFORMANCE

OCD exceeded its performance target (23,500) for the number of inspections performed, exceeding the FY12 inspection count by 2,560 for a total of 37,778. Moreover, a large number of Underground Injection Control (UIC) inspections were conducted in the final quarter, meeting the goals set by the federal UIC program. In addition, the OCD plugged 57 wells using Oil Reclamation Fund monies, a number that represents almost half of the state well plugging obligations and that exceeds the target performance metric of 25. Also, for the first time, the OCD recouped almost \$100,000 in salvage revenue from well plugging. The Engineering Bureau's goal for administrative orders is to review, approve and issue 75 percent of all administrative applications within 30 days of their receipt. In FY13, 90 percent of all administrative applications were issued within 30 days of their receipt. The average turnaround time for all the administrative orders issued was 20 days.

**BRINE WELL CAVERNS:** Since the spring of 2009, the OCD has been deeply involved in the monitoring and characterization of a large and unstable brine well cavern which threatens a developed portion of southern Carlsbad. Brine wells are UIC Class III injection wells that operate by injecting fresh water into salt formations to generate saturated brine in caverns that is used for oil and gas drilling operations. The responsible party in Carlsbad filed for bankruptcy shortly after the situation came to light, leaving the problem as an orphan. Using monies from the Reclamation Fund, OCD has installed an automated ground movement monitoring system which is integrated directly into the local emergency response infrastructure. OCD has overseen an effort to characterize the cavern using state of the art geophysical techniques. Upgrades to the monitoring system have recently been made, and all historic data has been independently reviewed. OCD is currently in the process of advancing multiple exploratory borings in the area along with the installation of a micro seismic recording system. A feasibility process is currently underway incorporating all stakeholders. The resulting feasibility study will be completed by July 2014. To date, total state expenditures for outside services on the project exceed \$2.2 million. In addition to providing data analysis, monitoring and re-entry efforts, Division staff members provide technical guidance to other government entities involved in the project and participate in all of the committees that have been formed to plan for a successful resolution to the situation. In FY13, a two-year contract was put in place to perform site monitoring, geophysical analyses and a feasibility study.

**RE-USE OF PRODUCED WATER:** The Energy, Minerals and Natural Resources Department Secretary and OCD Director support the growing interest in the re-use of produced water for oil and gas operations. The OCD posted a Public Notice on the website, under Announcements and Notifications on the Re-Use of Produced Water.

No OCD permit or authorization is required for the re-use of produced water, drilling fluids or other oil field liquids as a drilling or completion fluid or other type of oil field fluid. This includes makeup water, fracturing fluid or drilling mud at a permitted drilling, production or plugging operation.

## **INTERAGENCY COLLABORATION:**

*State Land Office (SLO):* OCD is currently working with the SLO for elimination or reduced right of entry, water well easements and borrow dirt fees associated with the OCD's ongoing well plugging, reclamation and re-vegetation activities on State Trust Lands.

*Bureau of Land Management (BLM):* OCD and the BLM are attending quarterly meetings both in the Southeast and Northwest portions of the State. Staff from both agencies discuss, analyze and streamline issues that need to be addressed in the field and at our district offices. The quarterly meetings have given both agencies opportunities to work jointly on current issues that need to be improved upon.

OCD personnel are also attending Joint Industry Technical Committee (JITC) Meetings, with both industry and the BLM to administer the Secretary of the Interior's (Washington) Order No. 3324, which deals with Oil, Gas and Potash Leasing and Development within the Designated Potash Area of Eddy and Lea Counties in New Mexico. The provisions apply to concurrent operations in prospecting for, developing, and producing oil, gas and potash deposits owned by the United States within the Designated Potash Area.

***ELECTRONIC SYSTEMS LEADERSHIP:*** The Division worked with the agency's IT Department to increase OCD's transparency by editing online forms and making additional information available to public access on OCD's website. The public can now easily access online postings of oil/gas/water spill reports related to oil and gas facilities and minutes of the Oil Conservation Commission's meetings. The webpage was updated to provide the most current statistics and reports. Online frac fluid disclosure forms are now compatible with the national FracFocus program. OCD performed an in-house conversion verification of 22,000 documents, and 1 percent of 2.2 million documents were converted from TIFF to PDF in the online imaging system.

***FUTURE RULE MAKING:*** Throughout 2013, the division met with stakeholders to draft proposed amendments to rules. Amend Rule 26 to specify requirements for acid gas disposal wells and to clarify requirements for pressure maintenance projects; amend Rule 36, dealing with surface waste management facilities. The boom in drilling horizontal wells has increased the need for permitted land farms and landfills. The current rule is unnecessarily cumbersome and confusing in its requirements, creating lengthy delays in processing permit applications. A more efficient permitting protocol is necessary, while still protecting fresh water, public health, and the environment. Amend Rule 34, to streamline re-use and recycling of produced water.

The current rule does not encourage the beneficial re-use of produced water and other oil field liquids. Rule 34 needs to be evaluated for best management practices for reasonable alternative disposition of liquid wastes and for supportive decrease in fresh water usage in oilfield activities.

**PIT RULE:** The Pit Rule was amended, effective June 28, 2013. Appeals are ongoing.

Staff has conducted well-attended seminars in both the Northwest and Southeast to answer questions on the new Pit Rule. The PowerPoint presentation used in the seminar covers a variety of topics and is posted on the OCD's website, under Announcements and Notifications.



**Well Head located in San Juan County. Photo from OCD files.**

## **HIGHLIGHTED MANAGEMENT INITIATIVES**

OCD is currently working to modify its electronic system to record wells using 14-digit API's. The API number is the oil and gas industry standard for identifying a well and was designed to meet needs for accurate information. As wells have become more complex, for example horizontal well drilling with more than one lateral, the challenges of information management have increased. The current 10-digit API number does not adequately capture all the information needed for newer, modern well designs and data systems. An expansion of this identifier to 14 digits will allow OCD systems to adhere to industry standards while enabling OCD to capture information about every wellbore at the same time.

**BUDGET:** Fiscal staff utilized statewide price agreements with reclamation funds to provide improved oversight and to eliminate cost overruns on well plugging. Plugging activity has increased dramatically the past two years, with 57 wells plugged in FY13 and an anticipated additional 50 well pluggings scheduled for FY14.

**TRAINING AND OUTREACH:** OCD plans to deploy training videos to the OCD website to assist in such areas as navigating the OCD website, submitting an online permit and using OCD's Online Imaging System. Future seminar topics OCD is considering include: C-115 processing, potash, remediation and SLO regulations.

## **OIL CONSERVATION DIVISION GOALS:**

To make balanced, consistent, fair and transparent decisions delivered in a timely and resourceful manner.

To provide efficient processes that support industry's needs while ensuring compliance with rule requirements.

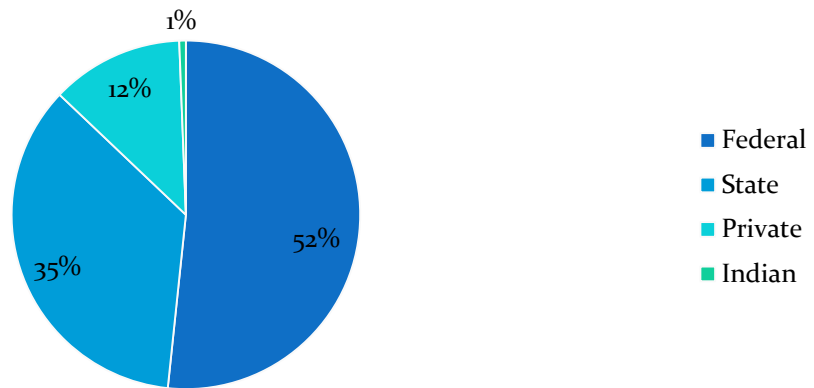
To conduct transparent activities and provide public access to reports and information.

To strive for balance that supports the industry while protecting the environment, with decisions based on science and not politics.

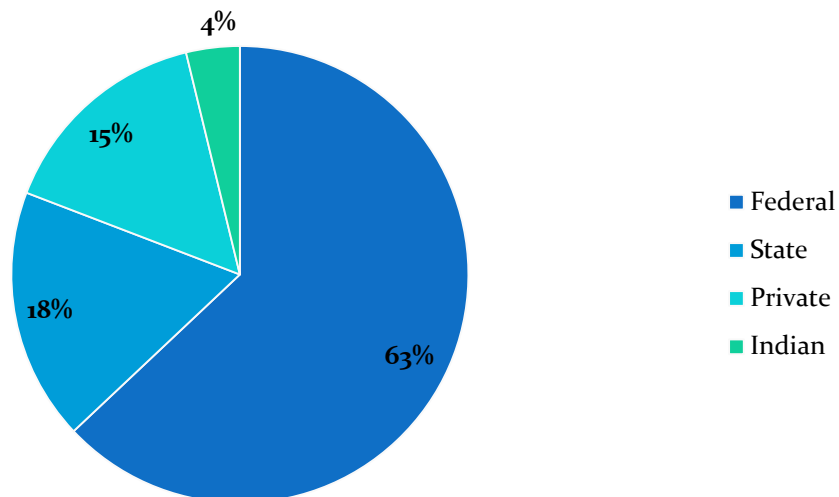
To fill vacancies to enhance public service, well inspections and application processing.

## DATA & STATISTICS

### Oil Production in New Mexico by Land Type



### New Mexico Gas Production by Land Type



### 2012 Oil and Gas Production by County

Rank	Oil (Barrels)	Rank	Gas (Thousand Cubic Feet, MCF)
1. Eddy	44,102,665	1. San Juan	456,020,246
2. Lea	36,426,103	2. Rio Arriba	333,121,593
3. Chaves	1,841,658	3. Eddy	240,930,157
4. Rio Arriba	1,185,795	4. Lea	170,417,738
5. San Juan	1,158,067	5. Colfax	27,012,215
6. Roosevelt	273,836	6. Chaves	19,685,343
7. Sandoval	162,924	7. Sandoval	2,378,950
8. McKinley	43,213	8. Roosevelt	2,264,943
		9. McKinley	212,383
<b>Total</b>	<b>85,197,261</b>		<b>1,252,043,568</b>

Source: Oil Conservation Division as of November 13, 2013

### Oil Production by Calendar Year

Year	SE Crude	SE Condensate	NW Crude	NW Condensate	Total
2008	53,343,028	4,265,064	989,259	1,546,126	60,143,477
2009	54,611,435	4,050,295	953,692	1,527,192	61,142,614
2010	59,698,604	3,404,416	874,323	1,399,080	65,376,423
2011	66,099,128	2,806,471	950,474	1,418,052	71,274,125
2012	79,786,989	2,860,273	1,099,298	1,450,701	85,197,261

Volumes are adjusted to reflect amended production reports filed with the Oil Conservation Division

Source: Oil Conservation Division as of October 31, 2013

### Gas Production by Calendar Year

Year	SE Casinghead	SE Dry Gas	NW Casinghead	NW Dry Gas	NE Dry Gas	Total Natural Gas	Coalseam Gas (Not included in total)
2008	202,117,896	293,553,058	11,493,573	939,780,895	26,267,596	1,473,213,018	476,576,465
2009	207,248,248	247,930,026	10,892,989	905,310,305	26,124,386	1,397,505,954	449,839,844
2010	217,822,998	213,738,446	10,338,961	844,511,586	26,195,178	1,312,621,042	407,380,822
2011	236,748,218	173,893,644	10,556,525	814,704,294	26,541,065	1,262,520,946	379,139,787
2012	282,983,456	150,314,725	10,650,363	781,082,809	27,012,215	1,252,043,568	359,404,441

Volumes are adjusted to reflect amended production reports filed with the Oil Conservation Division

Source: Oil Conservation Division as of October 31, 2013



Well Inspections by Fiscal Year					
	2013	2012	2011	2010	2009
Quarter 1	8,518	8,411	6,246	11,594	9,972
Quarter 2	8,860	8,912	6,901	8,393	7,897
Quarter 3	8,730	9,091	8,062	9,679	10,891
Quarter 4	11,670	9,123	8,849	9,295	11,710
<b>Total</b>	<b>37,778</b>	<b>35,537</b>	<b>30,058</b>	<b>38,961</b>	<b>40,470</b>

The Oil Conservation Division performs well inspections throughout the year to ensure operators are in compliance.

Wells Drilled and Completed by Calendar Year by Well Type				
Year	Gas	Oil	Other	Total
2008	853	857	88	1,798
2009	454	714	98	1,266
2010	262	946	97	1,305
2011	249	1,174	105	1,528
2012	160	1,187	65	1,412

“Other” includes saltwater disposal wells, carbon dioxide, and injection wells.



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# **State Parks Division**



## State Parks Division

**OVERVIEW:** The State Parks Division (State Parks) oversees New Mexico's 35 parks that offer a great diversity of natural and cultural resources, providing recreational and educational opportunities for 3.86 million visitors in 2013.

**HISTORY:** State Parks was founded in 1933 in conjunction with the Civilian Conservation Corps efforts during the Great Depression. The State Parks system began with four parks and today there are 35 parks encompassing 19 lakes and 196,677 acres of land and water.

**MISSION:** Protect and enhance natural and cultural resources, provide first-class recreational and education facilities and opportunities, and promote public safety to benefit and enrich the lives of visitors.

State Parks is committed to this mission, employing professional, dedicated staff to ensure that parks are cared for and preserved to the highest professional standards. State Park programs provide safe, fun and educational experiences.

State Parks is creatively addressing the challenges of drought, fire, and the overall economy, which caused some park seasonal closures, a drop in revenue and staff reductions. Due to extreme drought within the Southwest, State Parks experienced fluctuating water levels, fire danger, followed by flooding. Through all of this, State Parks staff met each challenge, maintaining quality park operations and ensuring visitor safety and satisfaction. State Parks also adjusted programs and streamlined processes as part of the Strategic Operations and Sustainability Plan to make the system more efficient.

Outdoor recreation is a driving force in New Mexico's economy and State Parks is a key player. Connected to communities statewide, State Parks are often economic drivers for local businesses, towns and cities. Many rural communities rely upon State Parks as a major source of economic development.

**VISITATION AND REVENUE:** A total of 69 percent of State Parks' budget is supported by self-generated revenue and 31 percent is general fund. Visitation and revenue were impacted in FY13 by drought, threat of wildfires and seasonal park closures. Visitation totaled 3,852,111 people, camping fees totaled \$2,180,577, day use fees totaled \$1,251,589, and concession fees totaled \$315,001.

Overall park revenue was down in FY13: day use fees decreased by \$72,981, camping revenue decreased by \$319,058, and park concession fees increased by \$41,124. Taxpayers directly supported State Parks through Personal Income Tax Check-offs. A total of \$14,825 in revenue was realized in 2013 for the Kids 'n Parks Transportation Grant program and the Vietnam Veterans Memorial State Park fund.

**CAPITAL IMPROVEMENTS:** State Parks strives to make the capital investments necessary to continuously improve visitor facilities and services, streamline park operations, increase revenue, and provide a wide variety of recreational opportunities. State Parks' projects completed during 2013 include the following:

- The visitor center at Brantley Lake State Park was expanded to include office space for park staff and improve visitor access.
- Major repairs were made to address damage from the Track Fire at Sugarite State Park's Soda Pocket campground, including installation of new vault toilets, campsite shelters, and roadway re-grading.
- Construction was initiated on a new comfort station and maintenance shop at Rockhound State Park, with completion expected early in 2014.
- At Vietnam Veterans Memorial State Park, Americans with Disabilities Act (ADA) access was improved to the amphitheater and picnic areas and improvements were made to the volunteer RV site and the staff residence.
- A new sign and lighting were installed to complement the major improvements to the main entrance at Elephant Butte Lake State Park.
- The low lake levels during the summer of 2013 allowed State Parks the opportunity to extend and repair boat ramps at Eagle Nest Lake State Park, El Vado Lake State Park, and Clayton Lake State Park.



**Improvements to boat ramp at Eagle Nest Lake State Park**



**Addition to visitor center at Brantley Lake State Park**

- A seven-mile, multi-use trail was constructed on the western lakeshore at Eagle Nest Lake State Park. Work included trailhead signage, directional signs, benches, and a pedestrian bridge. Additionally, an ADA accessible pathway, fishing pier and picnic shelter were constructed near the south boat ramp.
- Completed major rehabilitation on the Chama River Trail at Heron Lake State Park.
- The trail to the San Juan River at the Bureau of Reclamation day use area at Navajo Lake State Park was reconstructed to address severe erosion problems and improve visitor safety.
- Phase 1 of an ADA accessible pathway was completed at Living Desert Zoo and Gardens State Park to provide access to the new reptile house currently under construction. Additionally, major electrical upgrades were completed to address electrical problems throughout the park and to provide capacity for the new reptile house.
- A new night-sky observatory was constructed at Leasburg Dam State Park to house a state-of-the-art telescope provided by a local astronomy group.
- Major roadways were improved at Coyote Creek State Park. Energy efficient lighting was installed at Ute Lake State Park, Conchas Lake State Park, Rockhound State Park, City of Rocks State Park, Pancho Villa State Park, and Mesilla Valley Bosque State Park.
- Renovation of the Ridge Road comfort station was completed at Elephant Butte Lake State Park.
- Repairs were completed on Clayton Lake State Park's boardwalk in the historical dinosaur tracks area of the park, a popular location for educational tours.
- Park infrastructure was a strong focus for capital improvements in 2013. Renovations to electrical service, water systems and wastewater treatment facilities were made in a number of the parks, including: Hyde Memorial, Living Desert Zoo and Gardens, Brantley Lake, Elephant Butte Lake, Rio Grande Nature Center, Navajo Lake, and Villanueva State Parks.

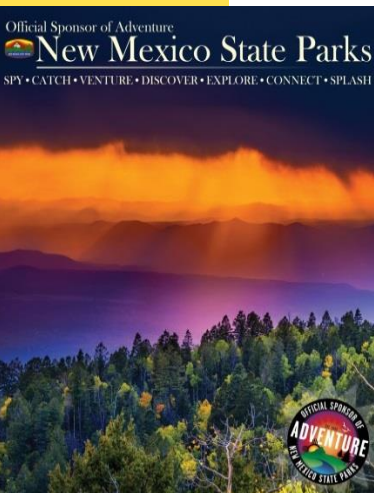


**Addition to visitor center at Brantley Lake State Park**

**MARKETING PROGRAM:** The New Mexico State Park System includes diverse wonders: expanses of desert and plains, mountains, streams and historical sites. These places contain significant natural, cultural and recreational resources. Sight-seeing, camping, boating and paddle sports, fishing, hiking, and opportunities for education are all attractions that bring nearly 4 million in-and out-of-state visitors to State Parks each year. State Parks is working hard to get the message out regarding the services and resources that parks provide, as well as the relevance of parks to visitors, communities and the overall economy.

Facing severe drought conditions, the Marketing Program came up with a drought crisis marketing plan in 2013. State Parks has 19 lakes as well as rivers, creeks and ponds. Even during a drought, there are many water-related activities that can be enjoyed in parks, such as paddle sports and fishing. Marketing efforts highlighted the other resources, programs and activities that occur in parks year-round, which support visitation and revenue.

In addition to traditional means of interacting with our customers, a new campaign that strives to create top-of-mind awareness utilized the message that New Mexico State Parks is the “*Official Sponsor of Adventure!*” and placed emphasis on the statement that “Conditions are right for Adventure at State Parks” by focusing attention on changing outdoor recreational trends.



Radio advertising focused on proven time slots with more than 51 radio stations in each of the division’s target markets. A partnership with a major radio media company placed the State Parks’ new “Adventure” brand on a hot air balloon during the Albuquerque International Balloon Fiesta and other highly visible events. Print advertising focused on full page ads centered on the spring and summer holidays. State Parks partnered with the Tourism Department on an Outdoor Adventure Guide of the *Albuquerque Journal* as well as the *Albuquerque Journal’s Museum Guide* in conjunction with the Department of Culture Affairs. An additional 30,000 reprints of the Adventure Guide served as additional marketing collateral that told our adventure story.

In 2013, New Mexico State Parks invested in social media marketing through the use of Facebook, Twitter and Pinterest to reach a wider demographic and to learn more about State Park visitors.





Social media provided a wide range of benefits including analytic information and one-on-one customer support. By December 2013, State Parks had more than 1,000 “likes” on Facebook, and nearly 500 “followers” on both Twitter and Pinterest.

**LAW ENFORCEMENT AND BOATING SAFETY PROGRAM:** State Parks is dedicated to achieving compliance with parks and recreation management laws. The Law Enforcement Program provides responsive visitor services, resolution of conflicts within park jurisdiction, and promotion of natural and cultural resource protection. State Parks currently employs 64 of 83 park officer positions. These officers partner with local communities, visitors, and other agencies to develop and sustain the diverse environments in New Mexico’s parks while balancing the demand for recreation through the use of best management practices.

In 2013, the passage of Senate Bill 94 established penalty assessment misdemeanors for violations of State Parks’ rules and the Boat Act. As result, State Parks successfully implemented administrative and field measures for a more efficient and effective process when visitors are cited. Park visitors can now opt to plead guilty and pay the citation, or to go to court to challenge the citation. The new process decreases the burden of mandatory court appearances for defendants and increases operational and administrative efficiencies for magistrate courts and State Park Officers.

State Parks operates and manages the majority of all recreational boating areas in New Mexico. Marine law enforcement efforts ensure safe and memorable experiences for boaters. State Parks also manages the Boat Access Improvements and Maintenance Program to provide boaters with good launching, docking, and parking facilities at all its properties.

State Parks constantly faces new challenges including resource threats, new laws to administer and enforce, new guidelines to follow, or other public safety issues. In order to meet these challenges, park officers receive the most current, professional training and continually strive to improve cooperation with the public and other agencies. In 2013, State Parks implemented patrol rifles for officers for training, certification, and use as a tool for protecting and serving visitors and their natural and cultural resources. Each park officer completed accredited training and qualifications resulting in thorough and successful equipment integration.

New Mexico’s lakes and rivers offer exciting and memorable experiences for visitors seeking recreational boating opportunities. State Parks employs highly trained and equipped officers to patrol state waters and enforce the provisions of the New Mexico Boat Act. The goal for State Parks is zero boating-related injuries and fatalities each year. Unfortunately, boating accidents and fatalities continue to underscore the need for better-educated boat operators.

Partnerships with local, county, state, and federal agencies are critical and the Boating Safety Program receives a great deal of support from the U.S. Coast Guard Auxiliary. Fortunately, in 2013, only one boat accident resulted in a fatality. Statistically, New Mexico averages 1.5 boating related deaths per year. Park officers and partners provide educational programs regarding operator and equipment requirements, navigation, and boating hazards. The programs stress the importance of wearing life jackets; teach how to operate a boat in inclement weather, and to never operate under the influence of alcohol or drugs. Boating safety classes are provided in many locations throughout the state via the Internet, instructive classrooms, and school-aged children may receive boating and water safety presentations in their respective schools. In FY13, nearly 800 students successfully passed a boating safety course.

**EDUCATION PROGRAM:** State Parks provides quality interpretive experiences and has maintained interpretive and educational programming for visitors. A total of 2,566 programs were delivered to 50,233 attendees in FY13. Special interpretive events were also held throughout the year, and a total of 12,116 interpretive events were conducted.

The Statewide Outdoor Classroom Program provides students with hands-on, curriculum-based outdoor experiences. The program is heavily funded by taxpayers through the Kids 'n Parks Personal Income Tax Check-off for transportation grants to parks. Since 2007, State Parks has provided 134,124 outdoor classroom experiences for kids statewide, and in FY13, various state parks were visited by 15,030 students. Teacher trainings are critical and nine training sessions equipped 164 teachers to utilize outdoor classroom curriculum guides.

Evaluating the program and capturing teacher participation was undertaken and on a 10-point scale, teachers gave the program a 9.5 rating for their overall experience and 9.2 for meeting goals and objectives. A teacher from Santo Domingo Elementary School said that the trip to Cerrillos Hills State Park was very meaningful to her students and, "...provided insight to history and culture of New Mexico outside of their own experiences." Several teachers remarked that their students found the State Park experiences the best trips ever, and many remarked how these experiences reinforced classroom learning.

Partnerships are critical to the success of this program. In 2013, State Parks spearheaded three critical stakeholder meetings and took leadership in preparing the response to a national survey on outdoor education through the National Association of State Park Directors and other agencies. This has placed State Parks in a prominent role in environmental and outdoor education in the state and a variety of successful partnerships have been cultivated from these efforts.

**RESOURCE PROTECTION PROGRAM:** As part of its mission, State Parks documents and preserves the unique cultural and natural resources within its system. In 2013, much of the focus was on a series of maintenance and repair projects, and three State Park staff reviewed more than 90 park projects, which required inventory, research, and reporting. Resource staff successfully coordinated with partner and regulatory agencies, which is critical to the compliance process.

In addition to legal compliance, State Parks continued important resource protection partnerships with the U.S. Army Corps of Engineers, Audubon New Mexico, the U.S. Fish and Wildlife Service, and other entities. Wetland restoration projects took place at Cerrillos Hills, Mesilla Valley Bosque and Leasburg Dam State Parks.

State Parks also continued its role with the New Mexico *SiteWatch* program, which recruits volunteers to monitor sensitive archaeological sites.



**"NM Volunteers for the Outdoors" at Cerrillos Hills State Park**

**VOLUNTEER PROGRAM:** Volunteers are valuable members of the State Parks team and an essential component of park operations. Not only do the volunteers assist park staff and enhance visitors' experiences, they also bring the parks and their communities together.

More than 3,000 volunteers contributed more than 300,000 hours of service to park operations. The value of these hours translates to 145 full-time employees, which is nearly 35 percent of the state parks' current workforce and is worth over \$4.5 million in labor cost savings. Nine volunteers were honored in 2013 for achieving a significant milestone - contributing more than 5,000 hours of service.

State Parks received tremendous support from the 21 local citizens support groups (Friends Groups) in 2013. Friends Group members helped to staff visitor centers, conduct interpretive programs, complete park projects and raise funds to offset budget shortfalls.

Last year, State Parks renewed three cooperative agreements with existing groups and started the process to formalize a newly formed group.

In an effort to leverage resources, the State Parks also worked to build on partnerships with other non-profit organizations such as the New Mexico Volunteers for the Outdoors (NMVFO). This extraordinary group of volunteers helped to build and refurbish several trails in four State Parks in 2013. State Parks could not have accomplished this without their expertise and willingness to help.

**RECREATIONAL TRAILS PROGRAM:** This federal assistance program is made possible through the U.S. Department of Transportation's Federal Highway Administration. The Recreational Trails Program (RTP) has provided up to 80 percent of project funds to develop, improve, and maintain trails and trail-related facilities.

In 2013, one staff member was responsible for administering the federal grant program, in cooperation with the Governor-appointed RTP Advisory Board. Delays in Federal funding for the RTP program and discussions regarding transfer of the program to the New Mexico Department of Transportation (NMDOT) resulted in the decision not to award any grants or allocate any funding to State Parks projects for 2013. At the end of 2013, all but two of the sub-grants made in previous years under the RTP program will be completed. In 2014, the RTP program will be transferred to the NMDOT.

Progress continued to be made on State Parks RTP projects funded in 2011 and 2012, with completed projects outlined in the capital improvements section. Park trail project planning and design will continue in the coming year on rehabilitation of trails at Sugarite Canyon State Park after the devastating Track Fire, rehabilitation of trails at Cerrillos Hills State Park, extension of trails at City of Rocks State Park, and Phase 2 of the ADA pathway to the new reptile house at Living Desert Zoo and Gardens State Park.



**ADA Accessible Trail at Living Desert Zoo and Gardens State Park**



**Rehabilitated section of Chama River Trail at Heron Lake State Park**

## Other Accomplishments

**RULES REVISIONS:** State Parks completed an extensive revision of its rules which went into effect on January 1, 2013. The rules revisions were numerous and wide-ranging, affecting many agency operations and programs as well as visitor activities within State Parks. Some of the rules and revisions were necessary for State Parks to comply with changes to superseding state and federal laws. Other rules revisions improved the private business opportunities within state parks. Many revisions addressed various general issues that had arisen since the previous rules revision. State Parks' outreach efforts to include agency partners, entities, stakeholders and the general public in the rulemaking process were highly successful, as more than 500 written and oral comments were received.

**AGENCY REORGANIZATION:** State Parks developed and implemented an agency-wide reorganization to evaluate efficiency of statewide operations and distribution of positions. The proposed reorganization identifies the expanded use of a seasonal work force, volunteers and park support groups. It also maximizes seasonal area and park closures during off-peak times. The reorganization calls for the concentration of park operations on providing "core" services and activities. Finally, there is an increased reliance on contract work and the State Parks' construction crew.

**PARTNERSHIPS:** State Parks values the many partnerships and manages properties for multiple property owners, requiring a high degree of communication and interactive project management. State Parks is heavily supported by self-generated revenue, and private partnerships are a key to that success. State Parks has 17 agreements with concessionaires that provide a variety of services from marina management to horseback riding services. State Park partners have also provided large donations to complete important projects in parks. For example, a donor provided a generous sum to construct a new reptile house at Living Desert Zoo and Gardens State Park.

**Fishing Guides:** State Parks revamped the application process and added a new online fishing guide application to the website which posts fishing guides by park – creating “one stop shopping” for all fishing information, including a link to the Department of Game and Fish’s weekly fishing and stocking report. In 2013, State Parks had a total of 47 guides in the system, and at \$300 per permit, State Parks generated more than \$14,000 in revenue via fishing guide permits.

**Campsite Reservations System:** State Parks has been working with the ReserveAmerica reservation system to increase visitor services for those making reservations online and to help the field streamline their use of the system. The ReserveAmerica system is powerful and can provide significant data about State Park visitors. For example, 47 percent of State Parks reservations customers for 2012-13 were from out of state, primarily Texas, Arizona and Colorado. Reservations online are up 25 percent over the last three years as well, making this a very important tool for State Park customers.



# Energy, Minerals and Natural Resources Department



Photo by: Lauren Aguilar

Data and Statistics: Collected and published pursuant to the authority of the New Mexico Energy, Minerals and Natural Resources Department:

NMSA 1978, Sections:

69-5-7 (1933, as amended through 2007)  
69-11-1 (1933, as amended through 1989)  
69-11-2 (1933, as amended through 1989)  
69-11-3 (1933, as amended through 1989)  
69-25A-10 (1979)  
69-26-1 (1933, as amended through 1989)  
69-26-2 (1933, as amended through 1989)  
69-26-3 (1933, as amended through 1989)  
70-2-12 (1978, as amended through 2004)

For more information on the Energy, Minerals and Natural Resources Department visit:

[www.emnrd.state.nm.us](http://www.emnrd.state.nm.us)

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