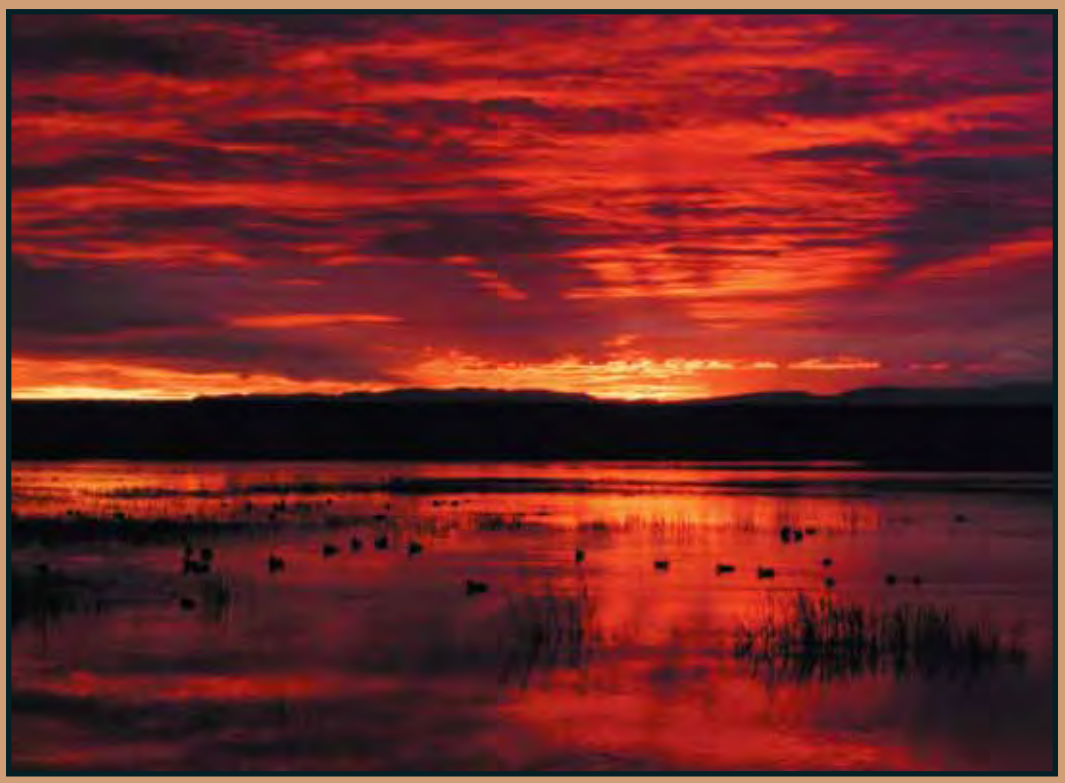
Energy, Minerals and Natural Resources Department

2006 Annual Report



Includes
2006 ACCOMPLISHMENTS REPORT
And
2005 DATA and STATISTICS

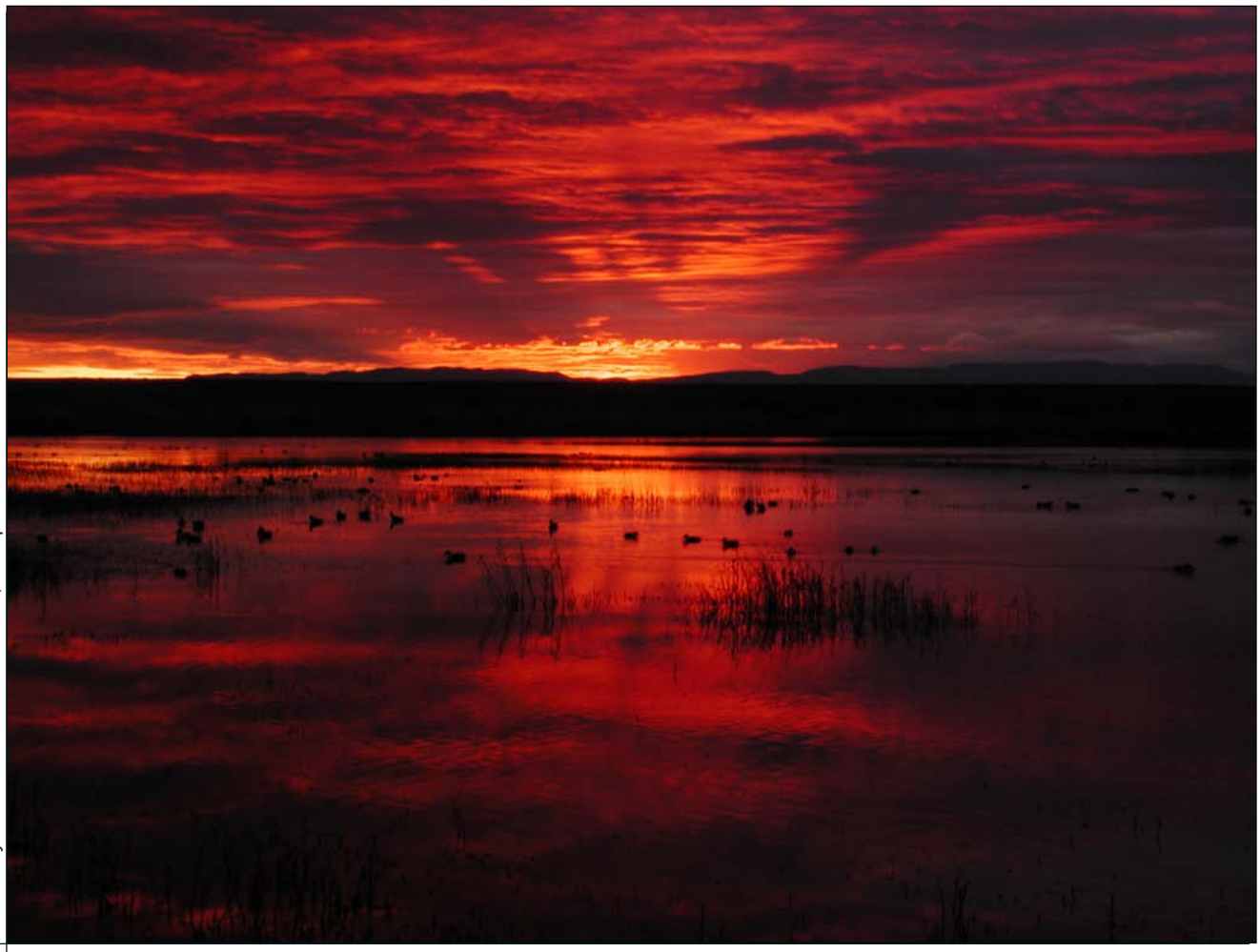


Photo by: Anne deLaine W. Clark, Bosque Sunrise

Bill Richardson
Governor of New Mexico

Joanna Prukop
Cabinet Secretary

Energy, Minerals and Natural Resources Department

Joanna Prukop
Cabinet Secretary
505-476-3200

Reese Fullerton
Deputy Secretary
505-476-3200

Brenda Weimer
Administrative Assistant to the Secretary
505-476-3227

Carol Leach
General Counsel
505-476-3200

Craig O'Hare,
Special Assistant to the Secretary for
Renewable Energy
505-476-3200

Jodi McGinnis Porter
Public Information Officer
505-476-3226

Fernando Martinez, Director
Energy Conservation and Management
505-476-3310

Arthur "Butch" Blazer, State Forester
State Forestry Division
505-476-3325

Bill Brancard, Director
Mining and Minerals Division
505-476-3400

Mark Fesmire, Director
Oil Conservation Division
505-476-3440

Dave Simon, Director
State Parks Division
505-476-3355

Sandra Haug, Director
Administrative Services Division
505-476-3230

Sally Rodgers,
Environmental Ombudsman
505-476-3200

Anne deLaine W. Clark, Coordinator
Waste Isolation Pilot Program
505-476-3200

Wendy Kent, Executive Director
Youth Conservation Corps
505-827-1437

Annual report editor and graphic design by: Jodi McGinnis Porter

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.

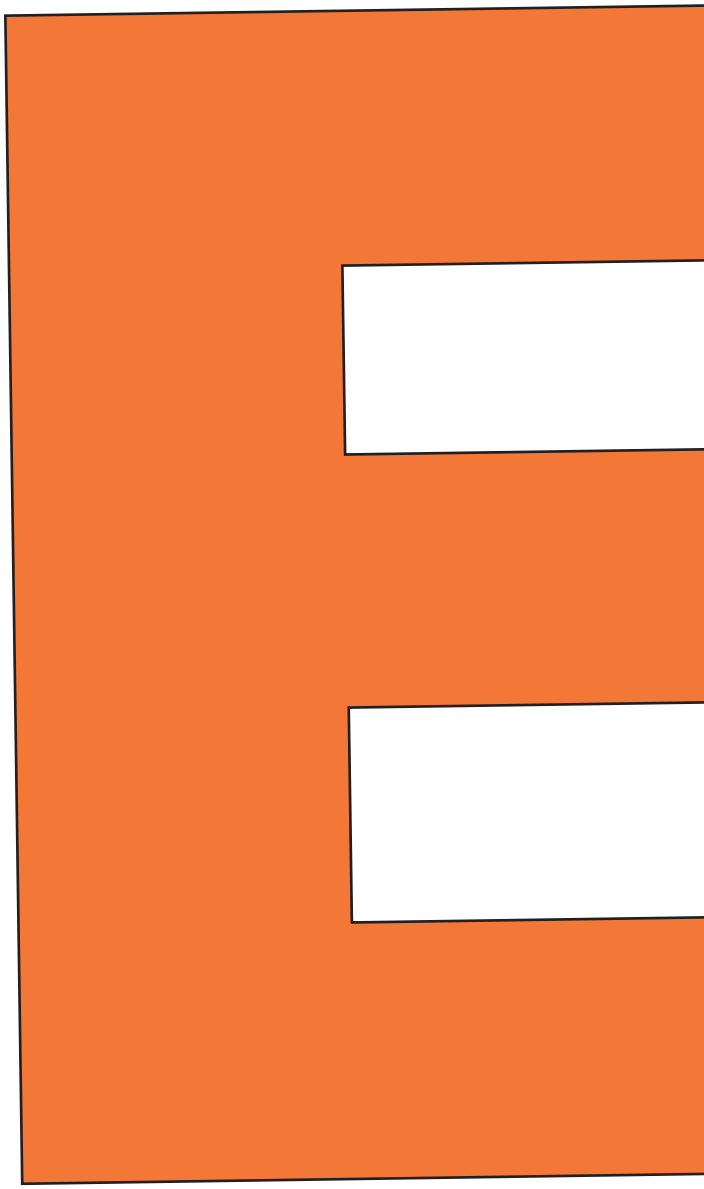


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Photo by: Dan Ware

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Joanna Prukop

Cabinet Secretary

Energy, Minerals, and Natural Resources

A Message from Cabinet Secretary Joanna Prukop

2006 was an eventful and productive year for the Department of Energy, Minerals and Natural Resources. We witnessed the passage of The Valle Vidal Protection Act of 2005, which will permanently protect New Mexico's "Valley of Life" by withdrawing the area from mineral leasing. We successfully defended New Mexico's Roadless Rule Petition before a Federal Advisory Committee and we will continue to persevere in our efforts to promote and preserve Otero Mesa, whose management responsibilities have been placed in the hands of the Bureau of Land Management (BLM). The BLM is in the process of doing Environmental Assessments (EA) work for oil and gas leasing.

The New Mexico Energy, Minerals and Natural Resources Department protects and conserves the state's natural resources and provides recreational opportunities throughout New Mexico's extraordinary landscape. The Department works to position New Mexico as a national leader in energy and natural resource management to ensure a sustainable environmental and economic future. The department has four main areas of focus:

- The development of reliable supplies of energy, and energy efficient technologies and practices, with a balanced approach towards conserving both renewable and non-renewable resources;
- Ensuring the protection of the environment and responsible reclamation of land and resources affected by mineral extraction;
- Growing healthy, sustainable forests and managing them for a variety of users and ecologically sound uses, and,
- Improving the state park system so that it protects New Mexico's natural, cultural and recreational resources for posterity and contributes to a sustainable economy statewide.

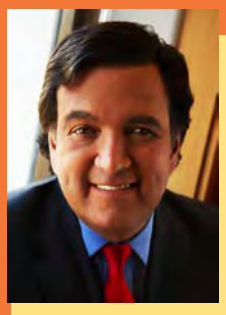
Energy is a key area where New Mexico has tremendous economic opportunity to expand. Our state has invested heavily in clean energies like wind, solar, and biomass, while requiring utilities to produce more of their energy through renewable resources.

New Mexico has mandated some of the toughest emission reduction goals in the country, which will help lead the fight against global warming. Our state has strengthened environmental compliance while supporting continued development of fossil fuels. We were the first state to join the Chicago Climate Exchange. Promoting "green building," protecting the environment and saving energy costs are a high priority of this Department. Our Department works hard to ensure that New Mexico leads the country as the "clean energy state."

With sincere gratitude, I acknowledge the dedicated employees within the Department of Energy, Minerals and Natural Resources who work diligently throughout the year to protect our natural resources, ensure a sustainable environmental and economic future, and position New Mexico as a national leader in clean energy and energy security.

I am pleased to submit Energy, Minerals and Natural Resources Annual Report, which includes our 2006 accomplishments report and our 2005 data and statistics.

"New Mexico is a national leader on clean and renewable energy, making us proud to be America's Clean Energy State."



Governor Bill Richardson

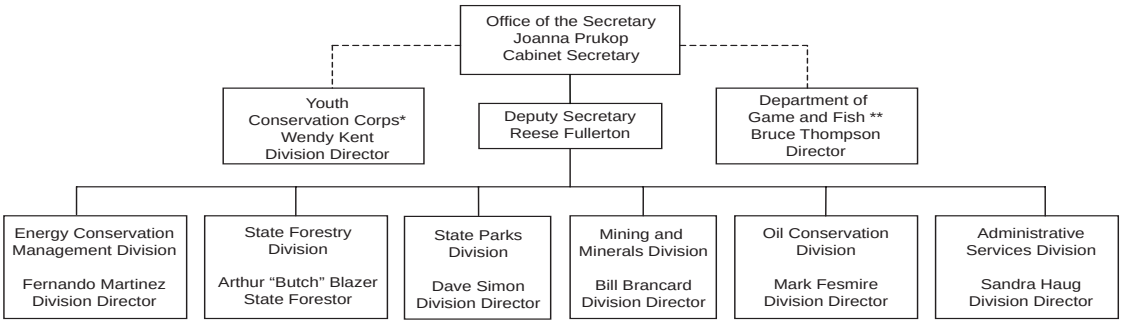
Organization

Charts

Photo by: Anne deLaine W. Clark

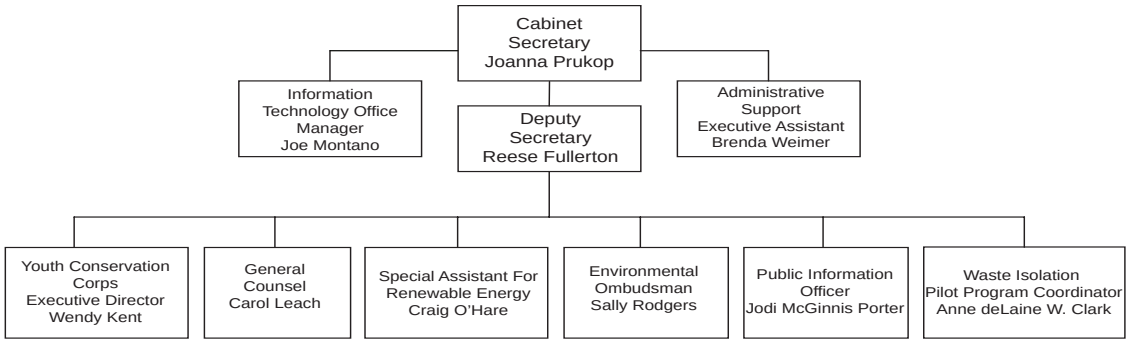
Late summer purple asters in Santa Fe, New Mexico.

Energy, Minerals and Natural Resources Department



*Administratively Attached
** Administratively Attached. No direct budget support from EMNRD

Office of the Secretary



Energy

Conservation and Management Division

(ECMD)

Fernando R. Martinez

Division Director

The importance of renewable energy grows each year on a global scale and, the Energy Conservation and Management Division (ECMD) is a major stakeholder in the expansion of effective programs that strive to lessen our dependence on fossil fuels and foreign oil.

Mission: The Energy Conservation and Management Division develops and implements effective clean energy programs – renewable energy, energy efficiency and conservation, alternative transportation and fuels – to promote environmental and economic sustainability for New Mexico and its citizens.

Programs: ECMD is recognized nationally for its Renewable Energy Program to develop solar, wind, geothermal, and biomass power generation. Its comprehensive Energy Efficiency Program encompasses building energy standards and codes, sustainable "green" building, and energy performance contracting. Additionally, the ECMD's Alternative Transportation Program supports the development and use of clean-burning fuels such as ethanol, biodiesel, compressed natural gas and hydrogen.

One of the most important facets of ECMD's work is its ability to identify and provide funding through its Clean Energy Projects Program. This program implements demonstration projects, feasibility studies, resource assessments, and education outreach efforts proposed by local and tribal governments, state agencies, schools and universities.

Regionally, ECMD is closely involved with renewable and alternative energy projects with the Western Governors' Association's Clean and Diversified Energy for the West Initiative, as well as issues such as interstate electricity transmission and joint United States-Mexico border energy programs.

Energy Conservation and Management Division Accomplishments:

Renewable Energy: New Mexico invests heavily in clean energies, like wind, solar, and biomass; and requires utilities to produce more of their energy through renewable resources. It is a state that "leads by example" requiring all state agencies to purchase at least 10% of their electricity from renewable sources. ECMD facilitates these renewable energy purchases and monitors them to make sure the program is maintained properly.

Solar Water Heating system at Grady Municipal Schools.

Contractor: Sacred Power Corporation.

ECMD recognizes the potential for New Mexico's renewable resources to yield substantial economic and environmental benefits for not only the state's residents but our regional partners as well. It works with the legislature to provide tax incentives designed to promote clean energy and a clean environment.

Solar Resources: Solar energy is a viable alternative for heat and electricity production across New Mexico. ECMD sponsors the Clean Energy Projects Program, which has funded 25 demonstration solar systems in schools, colleges, local and state government offices, and tribal agencies. These systems offer power and heating benefits; they also educate the public about the capabilities of solar thermal and photovoltaic technologies.

The state legislature and the federal government created new incentives for solar energy in 2006 emphasizing the importance of renewable energy. State and federal tax credits, along with the Public Service Company of New Mexico's (PNM) energy production rebate program, have made photovoltaic systems more economical, saving taxpayers thousands of dollars.

ECMD's role in the tax credit process includes the certification of solar systems for quality assurance of equipment and installation. Up to $5 million in state government tax credit support is available annually through 2015.

Wind Resources: The ECMD Wind Power Program is a critical component in the development of wind power in New Mexico. The information and wind data ECMD provides is instrumental in the development of utility-scale wind power plants. The program provides detailed wind resource assessments of the state and high quality wind data to more than 40 wind power developers, PNM, landowners, and others. ECMD provided three years of wind speed data collected at eight separate sites across the state and continues to do detailed wind energy resource analysis to promote further commercial development.

A 100-meter-tall wind monitoring tower was funded through state and federal funds and installed in 2005 southwest of Tucumcari, New Mexico. The tower allows future projects to correlate their on-site data with ECMD's long-term data in real time, shortening the monitoring period required and further improving data accuracy. The monitoring tower will also show any trends in wind speed affected by climate change.

New Mexico Wind Energy Center near Fort Sumner provides 204 megawatts of clean power to PNM customers.

ECMD's Wind Power Program has provided studies of potential economic benefits of wind power to Eddy, Otero, Quay, Lea and Colfax counties. It also has provided products such as:

- New Mexico Wind Power Plant Site Screening Model
- New Mexico Guidelines for Wind Power Developers and Investors
- New Mexico Wind Development Handbook
- Mesa Redonda Case Study Report.

The landscape of New Mexico's eastern plains now has several wind power plants that produce a combined 497 megawatts (MW) of power.

Energy Efficiency Resource: Buildings account for almost half of the energy use in the United States as well as a large portion of greenhouse gas emissions. There are significant opportunities to construct new buildings and renovate existing structures to conserve energy. ECMD's partnerships with industry leaders and local, state, federal and tribal governments have resulted in our ability to facilitate many efficiency improvements during 2006. These improvements and policies include:

- Green Building Executive Order (GBEO) – An implementation plan drafted by ECMD and signed by Governor Richardson to create buildings that are highly energy efficient and incorporate environmentally friendly construction materials and indoor environmental quality that will reduce fossil fuel energy consumption by 50 %.

- High Performance (HiP) Schools – A series of recommendations created by an ECMD-convened task force to deal with the question of how to apply the (GBEO) to public school buildings. The task force also recommended conducting a pilot project that would meet the GBEO's 50% energy reduction goal.

- Zero Energy Homes – The "Moving Toward Zero Energy Homes in New Mexico" project is funded though a US Department of Energy grant that encourages significant reductions in energy consumption and increased clean energy for production homes.

- Efficient Use of Energy Act – This law has resulted in the commitment of more than $20 million per year in utility-provided energy efficiency incentives to the residential and commercial sectors in New Mexico.

- Building Codes and Standards – ECMD worked with the New Mexico Construction Industries Commission and Construction Industries Division to adopt the 2003 International Energy Conservation code for residential and commercial buildings. Training and technical assistance is provided to designers, builders, and owner-builders.

- Chicago Climate Exchange – ECMD is a participating member of Governor Richardson's Climate Change Action Council. This council supports the goals of the Chicago Climate Exchange, which sets standards for the reduction of greenhouse gas emissions based upon energy consumption by state government dating back to 1998.

- Clean Fuels and Transportation Resources – In 2006, ECMD convened a Renewable Fuels Task Force following the direction of the state legislature. This task force investigated how renewable fuels can provide opportunities while ensuring a sustainable energy future and reduce vehicle air emissions. The task force developed strategies to enhance a renewable fuels industry and recommend legislation for renewable fuels standards for the 2007 legislature.

ECMD worked with other state agencies to develop an implementation plan for an executive order that requires state government to replace 15% of their transportation fuel use with renewable fuels such as ethanol and biodiesel by 2010. There are currently 1,549 state vehicles utilizing alternative fuels, including 41 compressed natural gas and eight electric hybrid cars and trucks.

ECMD continues to provide financial support for the Las Cruces Rideshare Program, which has reported a reduction of more than 26 million vehicle miles traveled and displacement of 2.2 million gallons of fuel through 502 carpools and 12 vanpools.

Clean Energy Projects: Between 2004 and 2006, ECMD solicited proposals under the Clean Energy Projects Program from public entities including municipalities; counties; public schools, colleges, and universities; state agencies; and tribal governments. The division has awarded more than $5 million for projects throughout New Mexico in support of renewable energy, energy efficiency, and clean, efficient transportation programs.

Energy Conservation and Management Division Data and Statistics:

New Mexico Energy ResourcesOverview: Total New Mexico consumption was 796.3 trillion British Thermal Units (tBTU) as of January 2004 (latest data available). Most of the energy consumed in the state comes from coal (38.4%), natural gas (29.3%) and petroleum (31.3%). In 2003, renewables contributed (0.9%) or 7.3 tBTU. Renewables such as wind, biomass and geothermal have contributed an increasing percentage of New Mexico's total energy consumption since 2003. Net energy consumption for instate needs was actually (663.1 tBTU) when the energy used for exported electricity is subtracted. See Figure 1.

Of New Mexico's net energy consumption (663.1 tBTU), the transportation sector consumed the most energy at 35% (229.4 tBTU), followed by the industrial sector, 32% (212.3 tBTU); the commercial sector, 18% (119.7 tBTU); and the residential sector, 15% (101.6 tBTU). New Mexico's residential and industrial sectors consume less energy compared to the nation, whereas our transportation sector consumes more. See Figure 2.

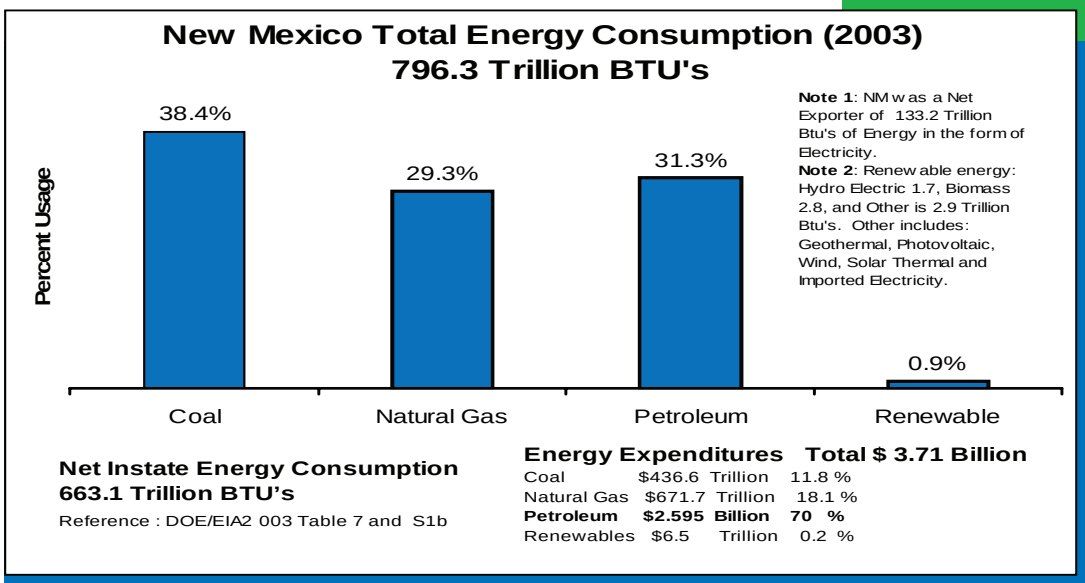


Figure 1

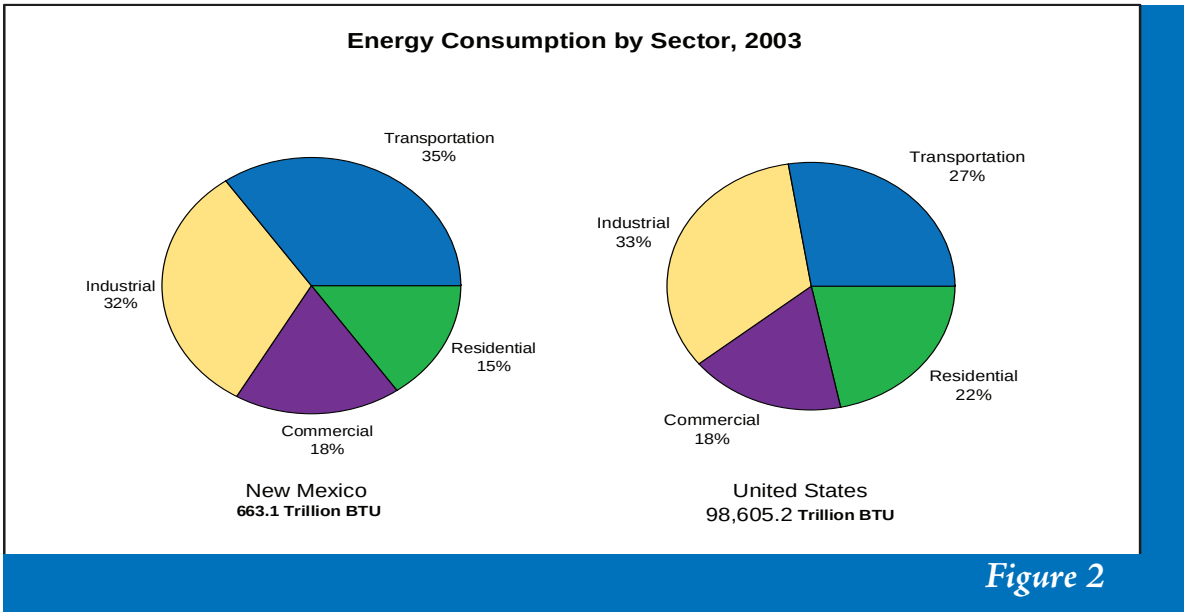


Figure 2

The electric power sector in New Mexico consumed 345.7 tBTU of energy, with coal accounting for 87.8% (303.6 tBTU) and natural gas, 10.9% (37.9 tBTU). Of the New Mexico electric power sector's total consumption (345.7 tBTU), about 61.5% of the energy (212.6 tBTU) – in the form of electricity – was consumed instate and about 38.5% was consumed out-of-state (133.2 tBTU). The electric power sector used 99.3% of the total coal consumed in the state. And, (0.1 tBTU) of electricity was imported into the state.

Total New Mexico renewable energy consumption was 7.3 trillion BTU as of January 1, 2004 (latest data available). Of this amount, wood and wood waste accounted for 38% (2.8 tBTU) and hydropower, 24% (1.7 tBTU). Other renewables such as wind, geothermal, photovoltaic and solar thermal accounted for 38% (2.8 tBTU). Beginning in 2004, wind energy contributed an increasing percentage of total renewable energy consumption in the state.

Total New Mexico energy expenditures were $3.71 billion in 2003. Most of the expenditures were for petroleum $2.595 billion (70%). Natural gas expenditures were $671.7 million (18.1%), coal expenditures were $436.6 million (11.8%) and expenditures for renewable energy amounted to $6.5 million (0.2%). New Mexico's per capita income ranks low at 47th among the states, while the energy unit price ranks high at 17th among states.

Carbon Dioxide emissions from the consumption of energy sources amounted to 59.1 million metric tons in 2001. Emissions from coal were 47% (28 metric tons), petroleum 29% (17.3 metric tons) and natural gas 23% (13.8 metric tons) See Figure 3. Almost all the coal consumed is used to generate electricity.

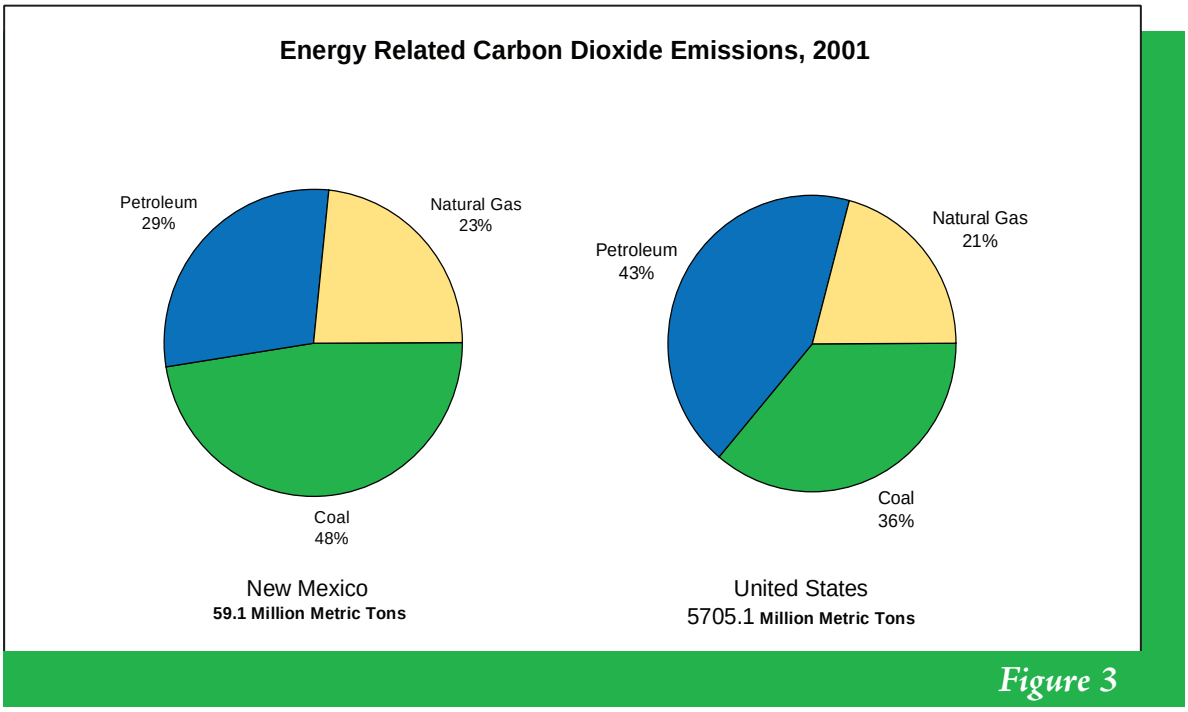


Figure 3

Solar Energy Resource: Solar energy resources are available at high levels uniformly throughout New Mexico, where sunshine is experienced more than 3,200 hours per year. An annual average of up to 1,900 BTUs per square foot (6 kilowatt-hours [kWh] per square meter) per day is available in New Mexico. Table 1 presents the average solar radiation for selected New Mexico communities.

The Solar Rights Act of 1978 allows property owners to create solar easements for the purpose of protecting and maintaining proper access to sunlight. It also includes provisions allowing local governments to create their own ordinances or zoning rules pertaining to protection of solar rights.

Average Solar Radiation in New Mexico

AREA	BTUs per square foot per day	
	HORIZONTAL SURFACE	VERTICAL SURFACE
Albuquerque	1,827	1,423
Carlsbad	1,825	1,210
Chama	1,560	1,200
Las Cruces (El Paso)	1,900	1,380
Las Vegas	1,675	1,250
Lordsburg	1,900	1,275
Los Alamos	1,535	1,262
Santa Fe	1,625	1,210
Taos	1,575	1,200
AVERAGE	**1,755**	**1,297**

Source: Los Alamos Scientific Laboratory, USDOE, *Passive Solar Design Handbook*, Vol. 2, 1980; and *New Mexico Climate Manual, Solar and Weather Data*, New Mexico Energy Research and Development Institute 2 72 4523, 1985.

Table 1

Direct use of the sun's light and thermal energy has long been recognized in New Mexico. There are thousands of solar thermal and photovoltaic (PV) systems operating on New Mexico's buildings and facilities, including residential, commercial, institutional, industrial and agricultural applications. The largest PV system is the 25-kW system at Algodones along Interstate 25. The largest solar thermal system outside of Sandia National Laboratory's research facility is the 15,000-square-foot flat-plate collector system at Southern New Mexico Correctional Facility near Las Cruces.

Passive solar design is another type of solar energy production commonly provided in New Mexico through innovative architecture in buildings. Strategic placement of windows, sunspaces, thermal storage walls and mass in an energy-efficient home with south-facing orientation enables the sun to provide up to 80% of a home's annual space heating needs. This can be achieved without compromising cooling needs. The sun can also be utilized to integrate daylighting, thereby offsetting electricity costs associated with lighting.

By integrating passive solar design, solar water heating and PV in residential home design, it is conceivable to greatly reduce or eliminate the need for conventional electricity, heating and cooling energy sources. Success stories abound of New Mexicans living "off-grid."

Major strides forward have been made to install and operate solar energy systems in New Mexico. There are four programs that have emerged to push deployment: EMNRD's Clean Energy Grants program, New Mexico's Solar Market Development Tax Credit, PNM's solar photovoltaic program, and the Federal solar tax credit.

Wind Power Resource: Wind is a proven, cost effective, and environmentally attractive source of power. Recent technological innovations in wind turbine design have resulted in increased effectiveness and reduced cost. The cost of electricity from wind power plants has dropped to about 3 cents per (kWh), very close to the cost of power from fossil fuel sources. Public utilities across the country and around the world are beginning to include wind in their mix of energy sources.

Wind Power Plants in New Mexico: New Mexico has a total of 497 megawatts (MW) of wind power capacity installed at the five wind power plants listed below:

New Mexico Wind Energy Center (204 MW), located northeast of Ft. Sumner in DeBaca and Quay Counties;
Caprock Wind Ranch (80 MW), located south of San Jon in Quay County;
San Juan Mesa Wind Project (120 MW), west of Elida in Roosevelt County;
Llano Estacado Wind Ranch (2.6 MW), near Texico in Curry County; and
Aragonne Mesa (90 MW), west of Santa Rosa

The New Mexico Wind Energy Center will bring more than $40 million into rural De Baca and Quay counties over 25 years. This includes $450,000 per year in payments in lieu of taxes to be made to the two county governments and school districts; about $550,000 per year in lease payments to landowners; and an estimated $500,000 in salaries for the permanent jobs to be created.

Resource Assessment: The potential for electricity generation from wind is enormous in some areas of New Mexico, especially on the eastern plains. The annual wind energy potential of New Mexico has been estimated to be 435 billion kWh. New Mexico has the potential to produce many times its own electrical consumption, which puts it in a position to export wind electric power.

Transmission: Growth of New Mexico's renewable energy resources is a high priority for Governor Richardson. He has appointed a task force to investigate ways of creating new electric transmission capacity to export large volumes of renewable energy to market. Expansion of transmission capacity has the potential to vastly increase wind power development in New Mexico.

Bioenergy Resources: Ethanol is commonly blended with gasoline as an oxygenate and octane enhancer as well as a substitute for gasoline. Ethanol may be blended in quantities from 1 to 10% along with other additives to reduce the automotive emissions while still meeting gasoline fuel specifications. Statewide, 6.0 to 6.5 million gallons of ethanol were sold in 2006. Most was blended with unleaded gasoline between November and March (7.7% ethanol by volume) and sold in Bernalillo County to comply with the oxygenated fuel mandate to reduce carbon monoxide emissions. The blend is commonly referred to as E10. Other alcohols, Methanol and MTBE (methyl tertiary butyl ether), are no longer widely used as oxygenates in gasoline because of environmental and health concerns. Ethanol is classified as a renewable fuel.

Benefits of oxygenated fuels have diminished as automotive emission control systems have become more sophisticated. California is scrutinizing the current reformulated fuel requirements, which include 5.7% ethanol by volume, based on studies that indicate that small percentages of ethanol in gasoline increase volatile organic compound (VOC) emissions and ozone formation.

The ethanol motor fuel production industry in New Mexico was spurred by state excise tax credits in the mid 1980s. Two larger and thirteen smaller production facilities were built in eastern New Mexico. By the late 1980s, the state excise tax credits expired, and all the plants eventually closed. Production resumed at the largest facility in Portales in early 1998. Improved operation, enzymes and yeasts helped increase production at the facility from 10 million to about 15 million gallons per year. A recent expansion increased production to 30 million gallons a year, most of which is sold to California for blending.

Abengoa Bioenergy has owned the Portales plant since 2002. Corn is the main feedstock for ethanol produced in the United States and at Abengoa, but some sorghum is used to produce ethanol at the Abengoa plant in Portales. The following are operating statistics and economic data related to the Abengoa facility:

$13 MM in local sales of distillers dried grain (a co-product of ethanol production)
$27.4 MM in local grain purchases (11.2 MM bls)
36 trucks per day delivering grain
44 local jobs at the facility ($1.9 MM payroll)
$6 MM in local utilities purchased (gas and electric)
$0.6 MM in local supplies and services purchased
$70K in local property taxes paid

Higher percents of ethanol are used as a substitute for gasoline. Flexible fuel vehicles are capable of running on gasoline and ethanol (or methanol); these vehicles are designed with special steels, coatings and plastics to resist the corrosive effects of alcohol fuels. The most common blend for flexible fuel vehicles is 75 to 85% ethanol, called E-85. There are currently three public stations that sell E-85 in the state, one in Albuquerque and two in Santa Fe. There are fewer than 1,000 ethanol pumps available at 170,000 United States fueling stations, limiting sales of the vehicles and consumption of E-85.

Mostly municipal, state and federal fleet vehicles refuel at these sites, with growing interest in public use of E-85. Approximately 8,600 flexible-fuel (E-85) compatible vehicles are currently registered in the state. There is a 17 to 30% fuel economy penalty with E-85 because of the lower energy value of ethanol compared to gasoline.

Bio-diesel: Bio-diesel is defined as the mono alkyl esters of long fatty acids derived from vegetable oils or animal fats for use in compression ignition (diesel) engines. A fuel specification exists for 100% pure bio-diesel as well as for standard petroleum diesel. Blends of 2 to 20% bio-diesel with standard petroleum diesel will meet standard #2 petroleum diesel fuel specifications as long as both components meet their respective specifications. No specification has yet been established for blends greater than 20% and less than 100%. The preferred method for blending bio-diesel to ensure highest quality is injection blending, but splash blending is also commonly practiced.

Petroleum marketers sold approximately three million gallons of bio-diesel statewide in 2006. The highest profile consumers include Rail Runner, Public Service Company of New Mexico and University of New Mexico. Many small private and contract sales entities produced small quantities of bio-diesel, but no data is available to account for this production. Plans to construct a fifteen million gallon per year bio-diesel plant in the Clovis area have been proposed. Most of the feedstock for that plant would be brought in from out-of-state in the form of extracted vegetable oil.

New Mexico lacks the water and land resources to grow significant quantities of feedstock for bio-diesel production. For example, it is estimated that if 50% of the dry-land acreage, currently growing wheat and sorghum, in Curry and Roosevelt counties were converted to dry-land canola and were able to yield equivalently, the expected oil production from the canola would be around 5 million gallons per year, approximately 1/3 of the feedstock for a single 15 million gallon bio-diesel plant.

An Albuquerque company is processing waste cooking oil into Straight Vegetable Oil (SVO) motor fuel for contract sales. The total annual production capacity of this facility is approximately 20,000 gallons per month.

Bio-diesel has good operational and emissions characteristics, with slightly lower energy density compared to petroleum diesel. Its high cetane number and lubricity coupled with low sulfur and emissions (with alcohol based additives) makes it an attractive fuel. Because of cold weather gelling, B100 must be kept warm in storage. Additional maintenance may be required both in regard to on-site and on-vehicle storage. Bio-diesel tends to act as a solvent, cleaning scale and sludge from tanks. This may require more frequent filter changes on dispensing and on-board fuel delivery systems and possible tank replacement.

The common feedstock oils for bio-diesel include soybean, canola and cotton seed oils. Other potential feedstock oils include sunflower, safflower, peanut and castor bean. Palm oil is also grown in tropical climates for bio-diesel. Research is currently being done to explore the potential of growing algae for bio-diesel production. Each feedstock has a different energy content, which ultimately affects the finished bio-diesel energy content.

General Biomass: New Mexico has significant bio-based resources that may be used to create energy. Two areas currently being studied and utilized are dairy waste and forest biomass. Municipal waste treatment and landfill gas projects are also underway and developing. Bio-energy feedstock may be produced or harvested explicitly for energy production or may be a waste stream from agricultural, municipal or industrial sources.

Woody Biomass: For projects to be feasible (economical), the feedstock has to be within a 50-mile radius of the production facility. Much of the wood residues from the wood products industry are used to produce heat for drying operations. Some potential exists to convert demolition and construction wastes to chips or pellets.

Several factors have recently contributed to the growth of bio-energy projects in New Mexico: 1) The State's Renewable Energy Portfolio Standard gives two-to-one credits for this use. 2) Reduction of catastrophic fire potential.

Numerous small-diameter, forest thinning projects throughout the State help reduce catastrophic fire potential and promote forest health. Standing biomass (live and dead) based on a year 2000 study including all land ownerships is 16 billion cubic feet of live wood volume -- 25% of which is ponderosa pine. That translates to over 296 million tons of biomass, with 29% being in ponderosa pine. Gross annual growth is almost 306 million cubic feet of woody material, leaving over 259 million cubic feet of net annual growth after accounting for mortality. Removals by harvest are not included in either figure so actual growth is somewhat higher.

Diary Biomass: The New Mexico dairy industry has experienced dramatic growth with 166 dairies throughout the State. The average dairy herd size is the largest in the nation. There are 360,000 milk cows in the state, producing approximately 1.1 million dry tons of manure per year; manure from cattle feedlots add an additional 118,000 tons annually. The highest concentration of dairies is in Chaves, Roosevelt, Curry and Doña Ana Counties.

Municipal Waste: The City of Albuquerque uses anaerobic digestion of municipal wastewater sludge to create methane gas, which is used to produce electricity and heat to power the wastewater facilities. This system can generate about 2 mW of electricity. In 2005, City of Santa Fe was funded by a Clean Energy Grant to study the quality of gas from the wastewater treatment plant's digester. The intent is to displace natural gas used in the municipal digester operation. A landfill gas project in Doña Ana County will be operational in early 2007. This project will employ one internal combustion generator to produce 1.3 to 1.5 MW of electricity.

Hydropower Resource: New Mexico's hydroelectric capacity is about 78.3 megawatts from five plants, shown in the table below.

PLANT	CAPACITY MW	OWNER
Navajo Reservoir	30	City of Farmington
Elephant Butte	24.3	U.S. Bureau of Reclamation
Abiquiu	15	County of Los Alamos
El Vado	8.8	County of Los Alamos
Farmington	0.2	City of Farmington

Significant evaporative water losses occur from hydropower projects that include storage reservoirs. Drought has an adverse impact of on water levels and hydro plant output. Undeveloped small hydropower sites exist in New Mexico, including river sites and existing dams, but numerous constraints limit the potential. These constraints include financing, multiple-use issues, regulatory barriers, economic issues, and environmental impacts.

Geothermal Resources: New Mexico has significant low-temperature geothermal resources—less than 90 degrees Celsius (C) (194 degrees Fahrenheit [F])—predominantly in the western half of the state. Common low-temperature applications are space heating and water heating. There are also considerable moderate-temperature resources—90 to 180 degrees C (194 to 356 degrees F)—that can be used for direct use and electricity generation. High-temperature resources for electricity generation have been identified in New Mexico—greater than 180 degrees C (356 degrees F)—but no commercial-scale geothermal power plants have been constructed to date. For a general map of geothermal resources, see http://geothermal.inel.gov/maps.

Geothermal resources in New Mexico have been used commercially for more than 100 years, starting with spas and resorts. In the last 25 years geothermal applications have been utilized for a broader range of direct use developments for water and space heating. During this time, EMNRD and New Mexico State University (NMSU) have collaborated on a number of geothermal development projects. NMSU constructed a geothermal greenhouse research and business incubator facility, as well as a geothermal aquaculture facility. As a direct result of these efforts, New Mexico leads the states with more than 50 acres of geothermally heated commercial greenhouses and also has one of the largest geothermal aquaculture facilities.

This table provides an energy production summary of direct use geothermal applications in New Mexico, totaling more than 400,000 million BTUs per year of heat.

New Mexico Geothermal Energy Production

SITE	TEMPERATURE (degrees F)	FLOW (gallons per minute)	ENERGY (Million BTUs/year)	APPLICATION
Catron County	NA	NA	NA	Resort & Spas—Bubbles Hot Springs
Dona Ana County: Las Cruces area	148	50	1,800	Greenhouse—NM St. Univ.
	148	700	27,600	Greenhouse—J & K Growers
Radium Springs	160	2,600	119,000	Greenhouse—Masson Farm (2nd largest nationally)
Hidalgo County: Cotton City	245	2,000	209,000	Greenhouse—Burgett Floral (Largest nationally)
	185	NA	700	Greenhouse/Aquaculture—McCants/AmeriCulture
Rio Arriba County	115	60	2,000	Resorts & Spas—Ojo Caliente
Sandoval County	NA	NA	NA	Resorts & Spas—McCauley Hot Springs, Jemez Springs Bathhouse
	165	40	1,300	Space Heating—Jemez Springs Fire Department
Sierra County	113	NA	NA	Resorts & Spas—Truth or Consequences
	Total		**407,300**	

Source: Geothermal Energy Association, www.geo energy.org.

Secondary Energy Resources: Electricity is important to New Mexico because it 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 in the process. New Mexico's power plants have a total capacity of more than 6,000 megawatts, over 70% of which is located at two coal-fired plants near Farmington, the Four Corners and San Juan Generating Stations. California and Arizona utilities own approximately 68% of these two plants. Approximately half of the electricity generated in New Mexico is consumed in other states. Total electrical generation for the past several years is shown in Figure 4. Electricity generated in 2005 was 4.4% higher than in 2004. In 2005 electricity generation in New Mexico was 88.2% from coal, 9.4% from natural gas, 1.9% from wind and 0.4% from hydro.

New Mexico's electricity is provided as follows:

4 investor-owned utilities serve 70% of customers
20 rural electric cooperatives serve 21% – representing 85% of New Mexico land area – Tri-State Generation and Transmission Association (Tri-State) is a wholesale supplier of 13 of the cooperatives.
7 municipal electric utilities serve 9%

The number of customers buying electricity has increased every year over the past four years (Figure 5). The increase in the residential sector from 2001 through 2005 was 8.8%, and the increase in the total number of customers in New Mexico was 8.2%.

Figure 4 . Total New Mexico Electric Generation (Data from Edison Electric Institute, Statistical Yearbook of the Electric Industry)

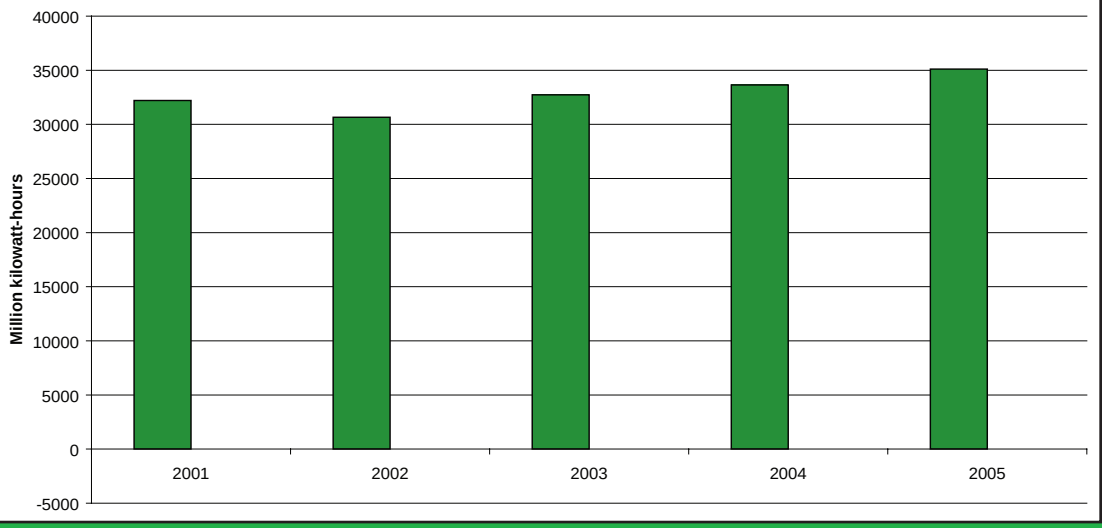


Figure 4

FIGURE 5 . NUMBER OF CUSTOMERS (data from USDOE, Energy Information Administration)

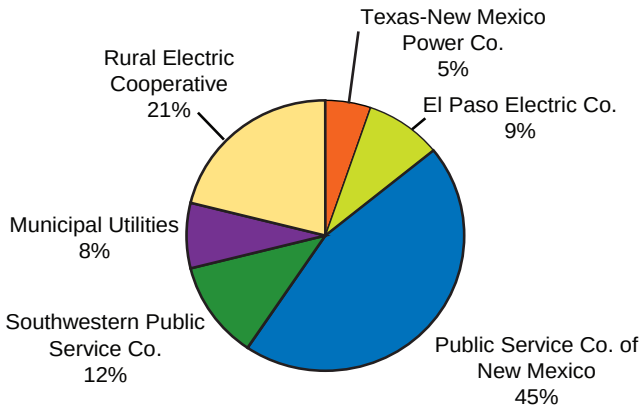


Figure 5

New Mexico's electricity consumption per customer increased 5.5% over the past year. Average sales per residential customer increased 2.6% from 7,172 kWh to 7,359 kWh. Total revenues from the sales of electricity in New Mexico in 2005 were $1.55 billion (Figure 6).

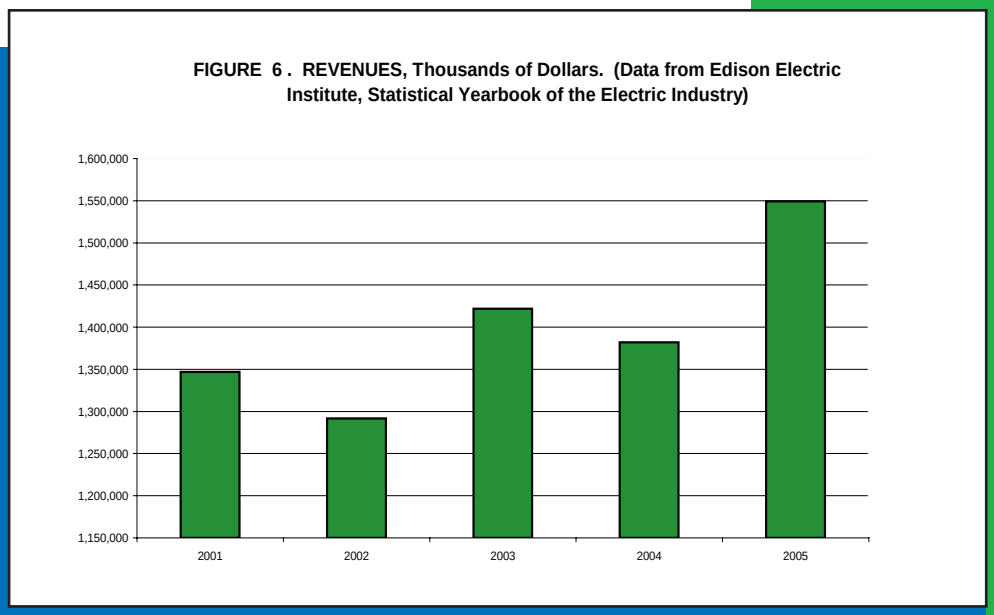


Figure 6

Figure 7 shows the price paid per kWh in New Mexico and the United States for 2001 through 2005 in the residential, commercial and industrial sectors. The price paid in New Mexico increased 10% in the residential sector, 12% in the commercial sector, and 16% in the industrial sector over this four-year period. In 2005, New Mexico's prices compared to United States prices were 3.4% lower in the residential sector, 11% lower in the commercial sector, and 2.2% lower in the industrial sector.

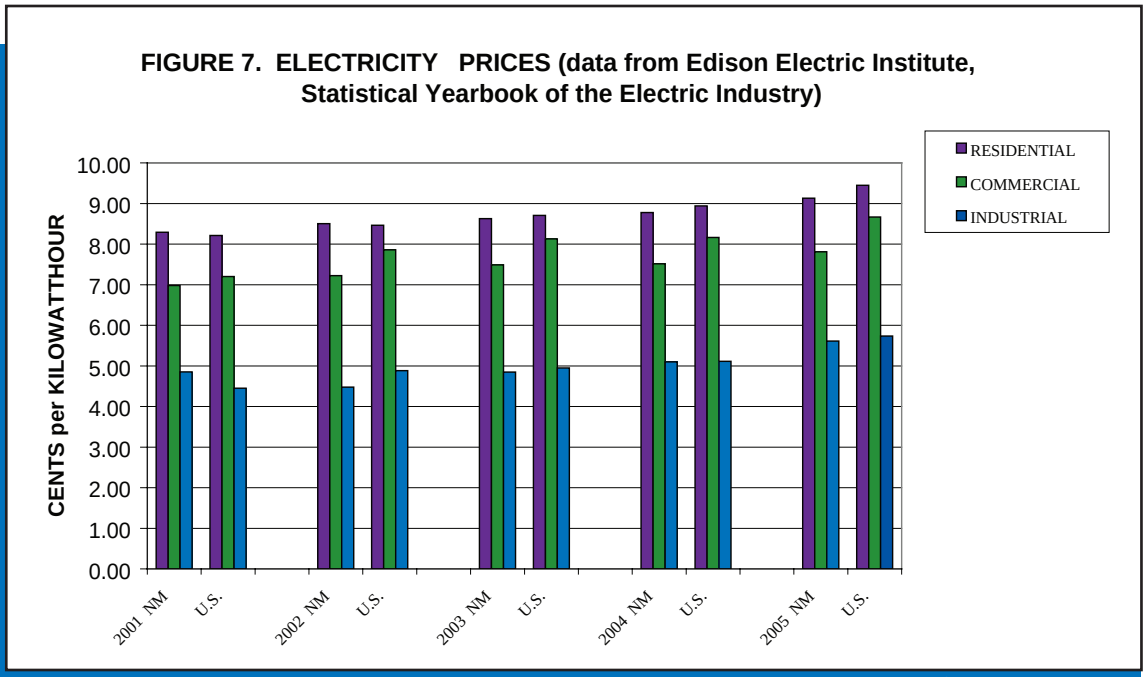


Figure 7

Forestry

State Forestry Division

Photo by: Dan Ware

Arthur "Butch" Blazer

State Forester

Mission: The Forestry Division (Forestry) has 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 assists New Mexico communities by evaluating those most at risk to wildfire and insect infestation and by developing appropriate management programs and implementing mitigation projects. The division also contributes to the growth of sustainable forestry, which enhances the quality of life by providing tree care training, distributing low-cost seedlings, developing resource management plans, and delivering forest health project funding.

Programs: Forestry works to develop forest product industries (e.g., landscaping, construction, biomass) that use thinning by-products. In addition, the division oversees two inmate work camps that utilize trained minimum-security inmate crews for work on conservation projects.

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

Forestry assists landowners and communities with fire prevention planning, forest management, urban and community tree development and management, low-cost seedlings for individuals, larger community projects through the Forest Re-Leaf Program; conservation easements through the Forest Legacy Program, and numerous educational presentations on these topics.

State Forestry Division Accomplishments:

Forest and Watershed Health: In 2005, Governor Bill Richardson signed the New Mexico Forest and Watershed Health Plan into existence. Forestry led the way in creating the document, calling upon local, state, federal and tribal agencies, as well as forest based product business and private citizens to guide it so that it could be as efficient as possible. This unprecedented project will consult statewide forest and watershed health policies and create a better avenue of cooperation between agencies and the private sector.

The plan also contains recommendations that will help guide existing forest and watershed health projects, identify and remove project barriers, reduce the duplication of efforts by different agencies, and identify where resources are available and needed. The plan is available at www.nmforestry.com.

One of the results of the plan was the creation of staff positions within Forestry that will focus all attention on the coordination of forest and watershed health projects around the state. This team will dedicate its time and energy to the coordination of on-the-ground projects, working with partner organizations, agencies and interest groups that work toward creating better forest and watershed health. The team will also work very closely with the Forest and Watershed Health Institute located in Las Vegas, New Mexico at Highlands University on projects and educational opportunities.

Forest Management: Forestry worked with the State of Arizona to create the Southwest Sustainable Forest Partnership (SWSFP). This is a program that focuses on ways to help the states' burgeoning forest product industries (e.g., landscaping, construction, energy creation) that use woody biomass. SWSFP focuses on creating sustainable forest and watershed health through forest thinning operations. In the past, these by-products of forest thinning operations might have been simply discarded or destroyed, but now, the division is working to support small, community-based industries through funding identification, technology transfer and scientific and business expertise.

Through Forestry's involvement with the SWSFP, the state took the lead in providing the first large-scale biomass generated heating system utilizing wood chips from small diameter forest thinning projects in New Mexico. The system provides heat for the Jemez Mountain Public Schools and will use approximately 500 tons of biomass material per year.

SWSFP has also developed the first biomass-to-energy system for the Ft. Bayard Medical Center in southwest New Mexico. The project was developed in response to rising energy costs at Ft. Bayard and the availability of wood chips from nearby Gila National Forest thinning operations. The project is intended to serve as the first government building biomass-to-energy model that may be replicated throughout the state. The project is being coordinated through the Forestry Division, the Energy Conservation and Management Division, the New Mexico Department of Health and the New Mexico General Services Department.

Forestry works with landowners across the state to help them properly manage their forested acres. The division lends expertise and regulates the harvest of forest products on private forestland and conducts habitat protection projects by studying plant species abundance, defining ecosystems, acquiring easements and purchasing key properties.

Community forestry is another valuable component to Forestry's conservation and forest management mission. The division provides assistance in developing sustainable community forestry to enhance the quality of life and the natural environment within urban settings, and promotes the creation of defensible space in wildland urban interface communities.

Forestry's Urban Forest Program offers on-the-ground technical assistance to communities to address and improve tree and tree-care problem, which is made possible through federal and state grant fund. The program depends on local citizens and groups to bring communities together to create the long-term sustainability of their urban environment.

Fire Planning Task Force: Forestry leads a group of local, state, federal and tribal partners which identifies communities at risk to wildfire. This group publishes an annual report on their findings. To date, the New Mexico Fire Planning Task Force has identified 234 communities at risk within the state. The task force works with these communities to recommend and implement codes and ordinances to reduce structure ignitability and address fire management issues.

Fire Mitigation: Forestry worked with communities at risk from wildfire to conduct assessment, protection, restoration and monitoring projects in cooperation with other agencies and groups. The division conducted fire mitigation activities in 36 of 234 communities at risk and continues to work on more than 100 fuels treatment projects.

Fire Management: In 2006, the wildfire season got off to a roaring start during the winter months. Severe drought and high winds swept fire across the eastern New Mexico plains throughout the winter and spring. New Mexico's mountaintops, usually covered with snow from November through March, were left high and dry, creating the most severe fire danger the state has faced in years. More than 860 fires burned 448,592 acres on state and private lands. The State of New Mexico had an emergency expenditure of more than $15 million for fire suppression, provided $4 million in severance tax bonds to fund new wildland fire trucks for 22 New Mexico communities and provided funding for forest thinning projects in high fire danger areas.

Community Wildfire Protection Plans: Forestry participated with the development of 10 new Community Wildfire Protection Plans, which guide communities in their efforts to create defensible space, update building codes, develop efficient escape routes, and prioritize fire risk areas within communities for the allocation of future fuels treatment funding.

Resource Rehabilitation and Protection: Forestry coordinates New Mexico's Forest Legacy Program. The program would like to purchase the developmental rights for forested land, rich in wildlife habitat and natural resources that could be in danger of subdivision or development. The federally funded Forest Legacy Program ensures the land acquired will remain pristine for future generations while allowing the landowners to live and work on the property. The division has overseen the acquisition of two properties with a total of 5,133 acres. In acquiring the development rights to the land, the program generally pays the owner 75% of the market value of the land development rights, while the owner donates the remaining 25% of the value, making this a true partnership in conservation.

Forestry also granted a total of $38,872 through its Forest Re-Leaf Program. The funds will assist six communities in tree planting and beautification. Funds granted through the program come solely from private and corporate donation.

In 2006, Forestry also:

Conducted 1.4 million acres of aerial survey to map insect and disease effects on state and private lands. Initial findings of the survey find that while piñon bark beetle devastation was less this year, there is evidence that bark beetle activity has increased in ponderosa pine, spruce and cork bark fir trees.

Provided $2.2 million for wildland fire trucks for local government fire departments and trained more than 800 volunteer firefighters.

Provided resource management technical assistance for more than 159 landowners and developed 15 Forest Stewardship plans on 13,393 acres to guide management and protection of forest resource. The division also helped create 81 additional management plans on more than 600 acres of private land.

Oversaw the removal of more than 5,530,100 cubic feet of round wood (for use as vigas, latillas, post poles, etc) from 4,706 acres aiding in forest and watershed health and supporting local economies.

Oversaw or contributed to:

- 4,666 acres of natural reforestation
- 2,877 acres of wildlife habitat improvement
- 1,027 acres of erosion control

Provided federal grants for communities at risk from wildfire and thinned 2,500 acres of fuels to reduce fire danger.

Distributed more than 180,000 tree seedlings through the Division's annual seedling sale and sales at the New Mexico State Fair, Agriculture Expo in Portales, and the Southern New Mexico State Fair in Las Cruces.

Supervised 6,040 person-days by Inmate Work Camp crews to complete conservation projects and hazardous fuels mitigation on public lands.

Law Enforcement: Forestry's Law Enforcement Program is responsible for protecting New Mexico's state and private forested land and maintaining the best forest management practices. Forestry's three certified law enforcement officers travel the state educating the public about existing statutes and regulations, and implementing natural resources vandalism and theft prevention programs. They also work on establishing cooperative working relationships with local, state, federal and tribal law enforcement agencies.

The Forestry's Law Enforcement Program is recognized by cooperators as a leading training source regarding wildfire cause and natural resources theft and vandalism investigations.

In 2006, Forestry's law enforcement officers conducted 182 investigations into reports of wildfire, timber theft and vandalism. They issued eleven criminal citations and obtained 4 criminal convictions.

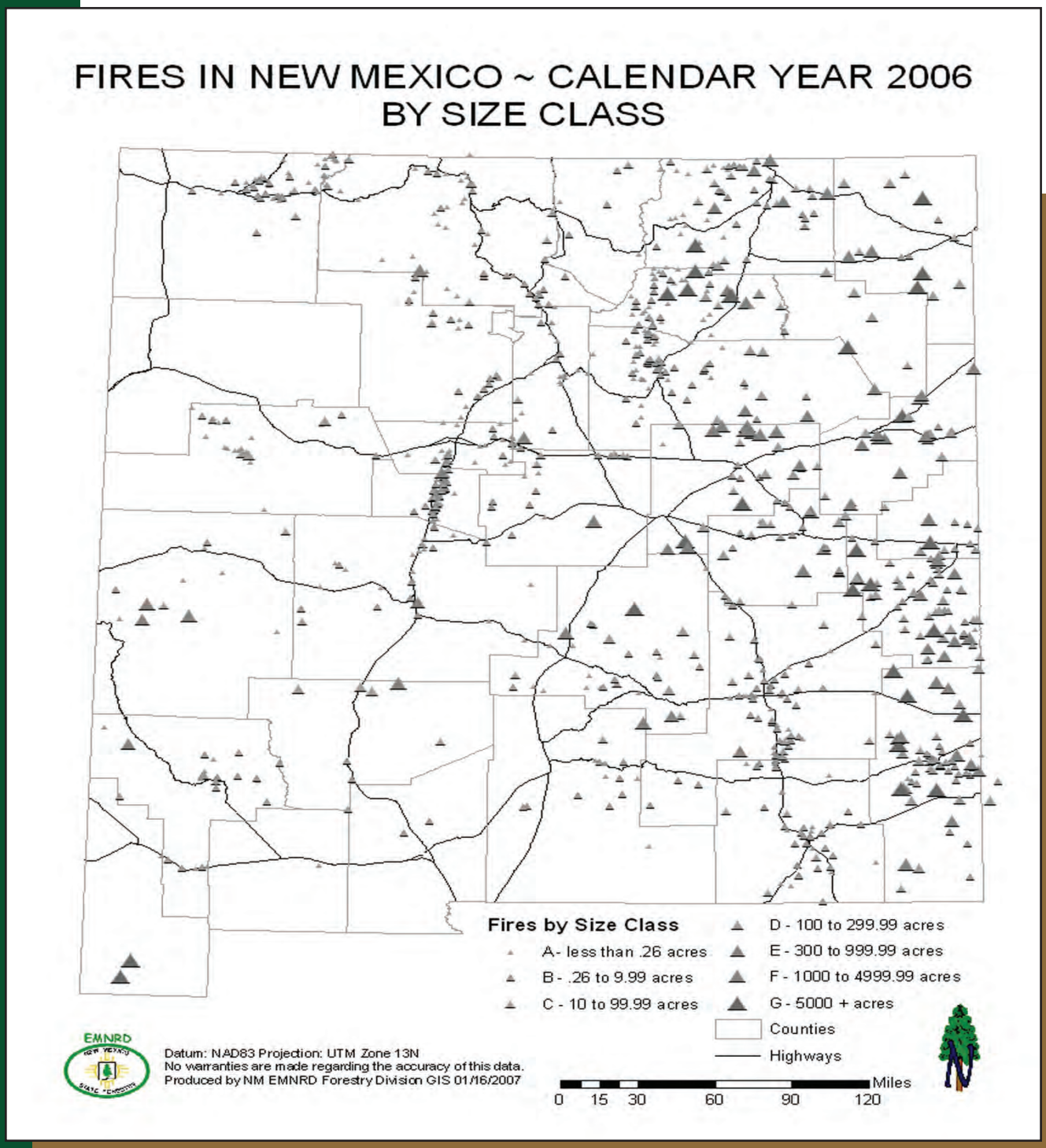
The law enforcement officers work closely with other agencies on patrols of forested areas, watching out for timber theft and vandalism on state, private, and federal land.

Photo by: Doug Boykin

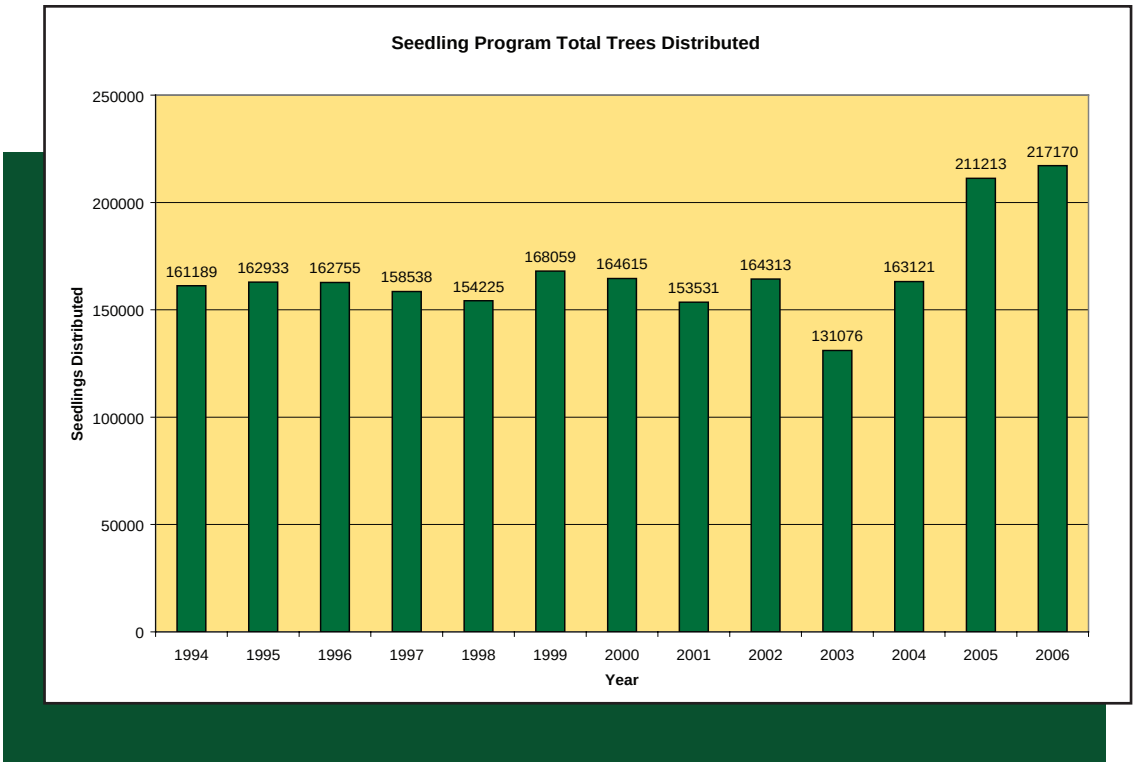
Type I heavy helitanker prepares to drop water on a section of Bosque involved in the 2006 Marcial fire.

Contributing writers to the Forestry section: Tony Delfin and Dan Ware.

Data and Statistics:

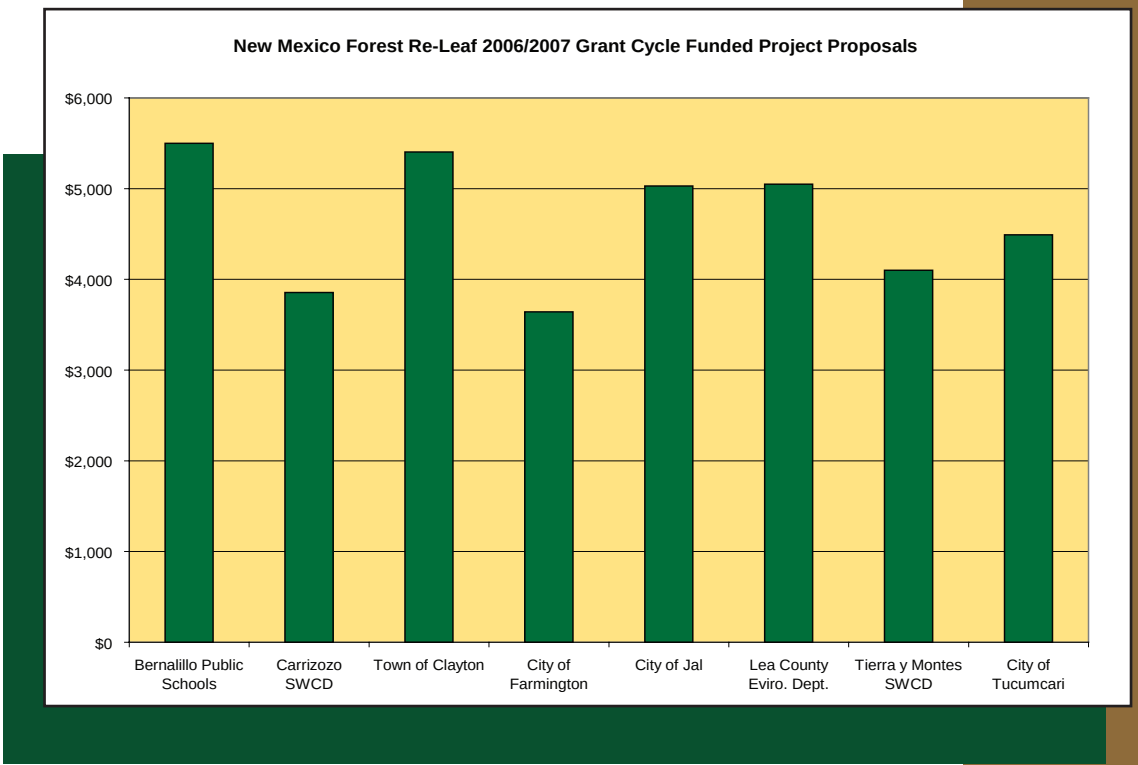


In 2006, there were more than 860 fires in New Mexico affecting state and private land. The fires burned 448,592 acres, making 2006 one of the most active years on record for fire. Human-caused fires accounted for 32% (277 fires) of all fires in 2006. An aggressive, multi-agency fire prevention campaign, fire restrictions on public and private land, and a general awareness to the state's extreme fire danger by the public contributed to the relatively lower numbers of human-caused fires when compared to the national ten-year average of 67% of fires caused by humans.



The Forestry Seedling Program saw a record growth during the 2006 seedling sale cycle. Final numbers show that 217,170 seedlings were distributed during the program cycle, an increase of 5,957 trees from 2005. Landowners continue to plant trees in response to the piñon bark beetle devastation that took place earlier in the decade. The trees purchased through the Seedling Program help control erosion, protect crops and livestock, reforest barren land, and beautify private and public land.

The New Mexico Forest Re-Leaf Program, administered by Forestry, has provided $475,803 in grant funding for planting trees around New Mexico on public land. During the 2005-2006 grant cycle, $34,700 was distributed for eight projects.



Mining

and Minerals Division

(MMD)

Bill Brancard

Division Director

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 also strives to make New Mexico a leader in responsible mine operation and reclamation. New Mexico remains a leading mining state with significant production of coal, copper, potash and molybdenum.

Programs: Four MMD programs implement state and federal laws that regulate the operation and reclamation of both coal and non-coal ("hard rock") mining facilities; support the reclamation of abandoned mine sites; and provide for the collection and dissemination of data on mining.

Mining and Minerals Division Accomplishments:

Mine Reclamation: MMD strives to protect the public through the reclamation of mine-disturbed land. 2006 was another notable year for reclamation with large ongoing reclamation projects at coal and hard rock mines and completion of several mine safeguarding and mine waste pile reclamation projects at abandoned mine sites across the state.

MMD is overseeing several major reclamation projects at hard rock mines. Phelps Dodge, which has reclaimed over a thousand acres of inactive tailings and mine waste piles at the Tyrone Mine in the past two years, is planning to expand its reclamation work at Tyrone and ultimately reclaim much of the inactive areas of the Chino Mine. Phelps Dodge also has completed reclamation at a number of smaller, closed facilities.

At its Questa Mine, Molycorp completed a geotechnical stability evaluation and "Failure Modes Analysis" (FMA) for its front waste rock piles. The evaluation process, which was a collaborative effort that included stakeholder involvement, analyzed potential stability and hazard issues for the rock piles and identified necessary mitigation measures. As a result, Molycorp is currently implementing measures to reduce the hazard by upgrading the berms along the toe of the front rock piles along Highway 38.

MMD completed several major abandoned mine reclamation projects across the state in 2006. These projects range from the Lumberton project near Dulce, where coal mine waste piles were reclaimed, to the La Madera project near Ojo Caliente, where 16 abandoned mine openings were safeguarded, to the Gold Hill project near Lordsburg, where 35 abandoned mine openings were safeguarded.

Of particular note is the Sugarite Gob Reclamation Project –Phase V, where MMD contracted with Samcon, Inc. of Albuquerque to reclaim nearly four acres of very steep, eroding coal mine waste in Sugarite Canyon State Park near Raton. This project was completed in July 2006 and involved the last major phase of reclamation work to be scheduled in the Park. These projects have significantly reduced erosion from the waste piles and sedimentation in Chicorica Creek. In September 2006, MMD presented an Excellence in Reclamation award to Samcon, Inc. for their well-executed, labor-intensive work on this project. A second reclamation award was presented to Grupo Cemento de Chihuahua (GCC) Rio Grande, Inc., for the progressive application of reclamation science at the Tijeras Mine.

MMD continues to encourage operators to pursue innovative reclamation strategies. The innovative reclamation strategies employed by BHP Billiton at its San Juan and La Plata Coal Mines were recognized during a national conference on geomorphic reclamation held in Farmington. The conference, which was attended by over a hundred people from around the country, was organized by the U.S. Office of Surface Mining with assistance from MMD. The conference included tours of the award winning reclamation at the BHP mines.

Regulatory Issues: The value of mineral production in New Mexico reached record levels in 2005 and will likely continue to climb in 2006. As a result, MMD is seeing an increase in permit applications, particularly for exploration. MMD approved its first uranium exploration permits since 1998. In response to the increasing interest in uranium, MMD has initiated a training program for staff to learn more about radiation health physics and reclamation planning for uranium mines.

Other major permitting actions in 2006 include the approval of the Molycorp Questa Mine's Subsidence Zone Closeout Plan. The plan includes a schedule and procedures to be taken to reclaim surface areas affected by underground subsidence at the Questa Mine. MMD is also working with GCC on baseline data requirements for a proposed new coal mine near Carrizozo. GCC and MMD recently began consultations with Mescalero Apache officials concerning the proposed Carrizozo mine.

Public Outreach and Partnerships: MMD continued to expand its public outreach efforts during 2006. MMD continues to publish an electronic newsletter, MMD Notes, which provides information on events involving MMD and mining activities in the state. MMD created a 30-minute video on the dangers of abandoned mines for use in public presentations and in schools. "Hidden Dangers: The Legacy of New Mexico's Abandoned Mines" also touches on New Mexico mining history and the types of closures MMD uses to safeguard mines.

MMD held a number of meetings with Navajo and Hopi officials over the past year to provide and to receive training on mine reclamation and to coordinate efforts for uranium mine reclamation. MMD worked extensively with the State Mine Inspector to draft regulations and policies to implement the mine safety legislation passed by the legislature in 2006. MMD also entered into a Memorandum of Understanding with the U.S. Forest Service to coordinate abandoned mine projects on Forest Service land.

Photo courtesy of: Phelps Dodge Corporation

Pouring "Puff" to seal a culvert that drops down to an old mine shaft – the culvert is to allow bats access to the mine. Since this photo was taken, the culvert was extended to the surface and covered with a bat grating. This site is owned by Cobre Mining Co. and is located at Copper Flat.

Contributing writers to the MMD section: Geologists, Susan LucasKamat and John Pfeil.

Mining and Minerals Division Data and Statistics:

Mineral Resources Overview: Over $1.8 billion worth of minerals were extracted in New Mexico during 2005 (Figure B), breaking the previous production value record of $1.7 billion in 1995. Higher commodity prices and increased production have driven an almost 50% increase in mineral production values from 2003 to 2005. New Mexico mining companies spent $55 million on capital improvements and equipment in 2005.

Summary information on all mineral commodities produced in the state in 2005 is provided in Table A and Figure A.

Table A. New Mexico Summary of Commodity Production, Production Value, Employment, Payroll, Revenue and Ranking, 2005

Mineral	Production [1]	Production Rank [2]	Production Value $	Employment [3]	Reclamation Employment [4]	Payroll $ [5]	Revenue Generated $ [6]	
							State	Federal
Coal	29,650,833	11	$ 664,416,940	1,504	111	$ 102,421,067	$ 25,094,186	$ 4,823,263
Copper	290,607,027	3	$ 473,215,363	1,678	80	$ 53,282,124	$ 2,861,402	-
Gold	9,764	10	$ 4,342,969	0	0	-	$ 241,828	-
Iron	-	-	$ -	2	0	-	-	-
Industrial Minerals [7]	2,466,281	-	$ 200,871,063	600	12	$ 24,365,057	$ 910,418	-
Aggregates [8]	20,014,987	25	$ 128,730,636	1,161	113	$ 20,986,675	$ 1,863,724	-
Magnetite	29,246	-	$ 352,198	0	0	-	-	-
Molybdenum	4,069,790	6	$ 103,267,579	275	16	$ 10,820,427	-	-
Potash [9]	988,782	1	$ 282,710,833	926	0	$ 57,580,288	$ 2,388,008	$ 2,284,837
Silver	203,672	10	$ 1,484,867	1	0	-	$ 6,658	-
Uranium [10]	-	-	$ -	71	67	$ 1,332,000	$ 240,000	-
TOTAL			**$ 1,859,392,448**	**6,218**	**399**	**$ 270,787,638**	**$ 33,606,224**	**$ 7,108,100**

[1] Production for coal, industrial minerals, aggregates, magnetite and potash is reported in short-tons; copper and molybdenum in pounds; gold and silver in troy ounces.
[2] Production rank is based on 2005 production value in relation to other U.S. states.
Sources: Metals, potash, industrial minerals and aggregates, United States Geological Survey Mineral Resources Program (http://minerals.er.usgs.gov/);
Coal, Department of Energy's Energy Information Administration (www.eia.doe.gov).
[3] Category includes direct and contract employees.
Gold, silver and magnetite are co-products of copper production. Employment and payroll for these commodities are reported in the cooper numbers.
[4] Reclamation employment is included in total employment numbers.
[5] Payroll is for direct employment and does not include contract employees.
[6] State revenue includes royalties and rentals from state trust land mineral leases and severance, resources excise and energy conservation tax revenues.
Federal revenue (fiscal year 2005) includes 50% state share of federal royalties.
Sources: State data from New Mexico Taxation and Revenue Department (http://www.state.nm.us/tax/) and the State Land Office (http://www.nmstatelands.org/).
Federal data from Minerals Management Service (http://www.mms.gov/).
[7] Category includes gypsum, perlite, salt, limestone, calcite, dimension stone, silica flux, clay, humate, scoria, pumice, mica and zeolites.
[8] Category includes base course, caliche, clay and shale, crushed rock, dimension flagstone, fill dirt, gravel, limestone, red dog, rip-rap, sand, scoria, topsoil and travertine.
[9] Production is K_20 mill production.
[10] Employment and payroll numbers are for permitting, care and maintenance and reclamation activities.

Source: New Mexico Energy, Minerals and Natural Resources Department, Mining and Minerals Division, unless otherwise noted.

Table A

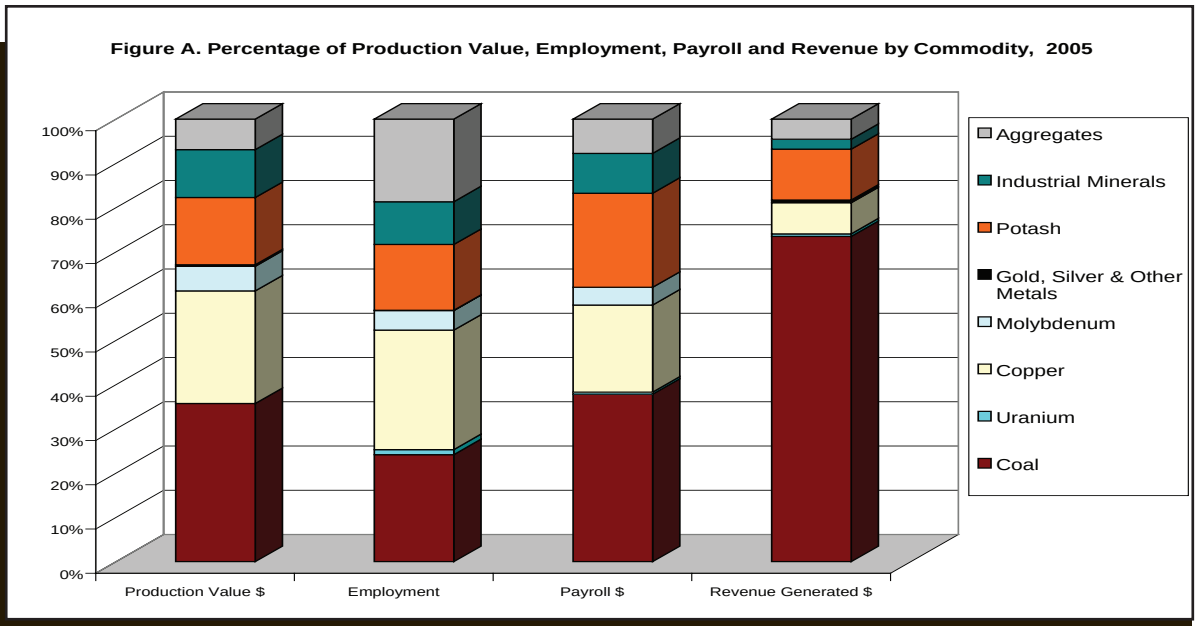


Figure A

Coal, which reached its second highest year for production and production value in 2005, remained the leading commodity for production value, revenue generation and payroll. Molybdenum and potash both broke previous production value records in 2005. Copper, gold and silver continued the recent trend of increased production, production value, employment and payroll. Production value and payroll for industrial minerals were at record highs. Aggregate production, production value and payroll also broke previous records.

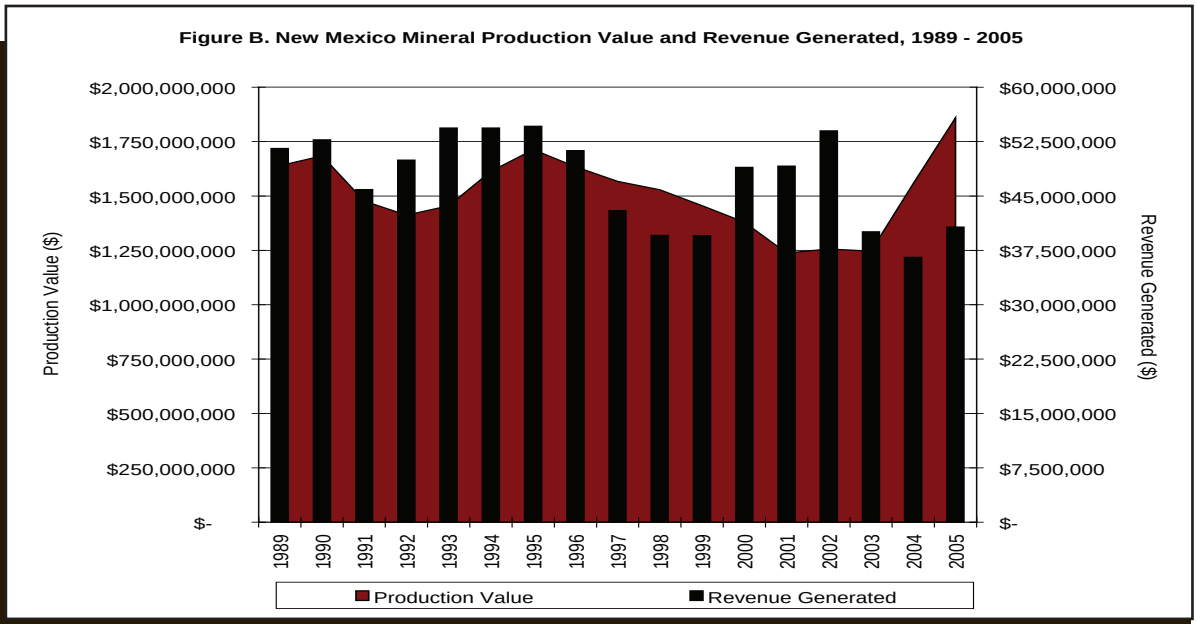


Figure B

Copper moved past coal in 2005 for highest employment numbers. The total number of employees in the mining industry topped 6,000 in 2005 (Figure C), a 5% increase from the previous year. Reclamation employment doubled to 399 (Figure D), the highest reported reclamation employment on record. The recent trend of increased contract employment continued in 2005.

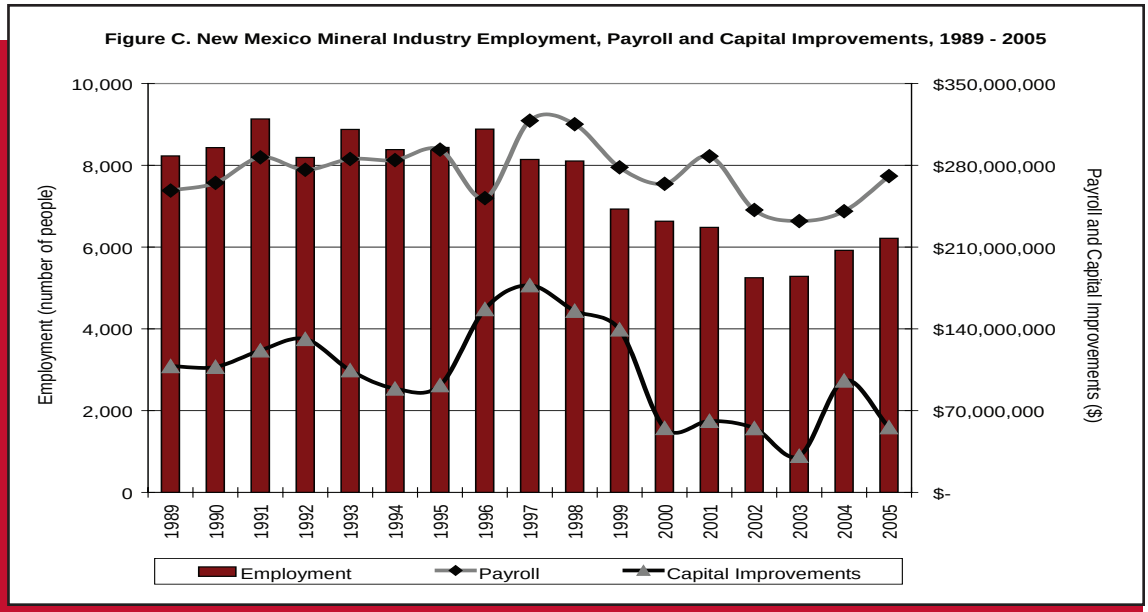


Figure C

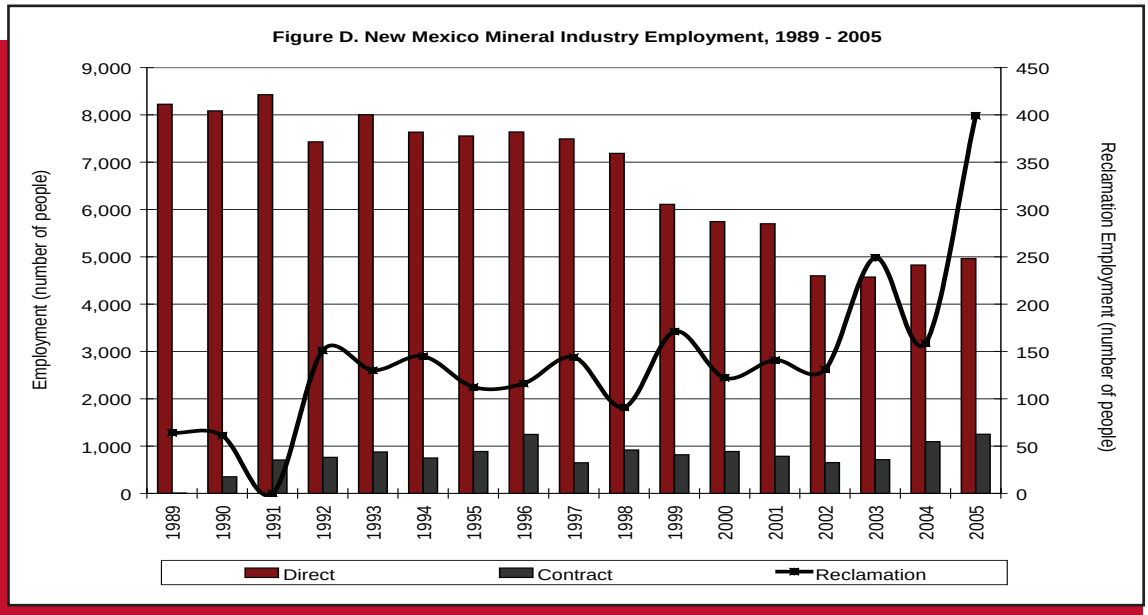


Figure D

There have been an average of 225 registered active mining operations in the State of New Mexico in recent years. In 2005, active operations included five coal mines, three potash mines and four potash mills, one molybdenum mine and mill, two major copper mines and related concentrators and SX/EW plants, one copper smelter, 43 industrial

mineral mines and mills, and 195 stone and aggregate operations. Industrial operations located on Indian Lands are not included in these numbers. Since 1998, the number of registered operations has increased by about 60, almost all in the industrial mineral and aggregate categories.

According to U.S. Geological Survey (USGS), New Mexico ranked sixteenth in 2005 when ranking states by the production value of non-energy minerals. The state produces 2.17% of the value of the U.S. total non-energy minerals. The principal minerals in descending order of value are copper, potash, molybdenum, construction sand and gravel and Portland cement. New Mexico's national rank jumps to seventh for per capita production value. Nearly $450 worth of minerals are produced annually for every New Mexican.

Further information and longer statistical trend data on New Mexico's mineral industry can be downloaded from the Mining and Minerals Division website at http://www.emnrd.state.nm.us/mmd/MRRS/Prelim2005ProdData.htm.

COAL: Coal remains New Mexico's most significant mineral commodity, leading all other commodities in production value, payroll and revenue generation. 2005 was the second best year in New Mexico's history for both the amount and the value of coal production. The majority of New Mexico's coal reserves are located in the San Juan Basin (San Juan, McKinley and Cibola Counties) and the Raton Basin (Colfax County). Smaller coalfields are dispersed throughout the central part of the state. Coal produced in New Mexico fuels electrical generating plants in New Mexico and Arizona.

During calendar year 2005, five mines produced coal in New Mexico. Four surface coal mines were active: BHP's Navajo Mine, Pittsburg & Midway's (P&M) McKinley North and South Mines and Peabody Natural Resources' Lee Ranch Mine. One underground mine was active: BHP's San Juan Mine. The Navajo Mine was the fourteenth highest producing domestic surface coal mine in 2005; San Juan Mine was the fifth highest producing domestic underground mine. Reclamation activities at BHP's La Plata Mine in San Juan County and P&M's York Canyon and Ancho Mines in Colfax County were completed in 2005.

New Mexico ranked eleventh in coal production for 2005, according to the Energy Information Administration (EIA). Consistent with national and western mining trends, coal production in New Mexico increased 8.2% to 29.6 million short tons, and production value increased 4.9% to $664.4 million. The state reached an all-time high in coal production in 2001 and a record high in coal production value in 1994. Coal production and value have fluctuated within a narrow band over the past twelve-year period (Figure E). Coal employment is slightly higher than the ten-year low in 2004 (Figure F). Payroll decreased 1.9% from 2004 to 2005 and employment increased 4%.

Coal production increases can be attributed to increases in coal consumption by the electric power generation industry. Coal-fired plants accounted for 60% of the electricity power generation in the Western Mountain states in 2005. Coal demand is expected to continue to grow as existing coal-fired plants are used more intensively and new coal-fired plants are added.

The primary customers for New Mexico's coal are the three mine-mouth power plants located in the Four Corners region: Public Service Company of New Mexico's San Juan Generating Station, Tri-State Generation and Transmission Association's Escalante Generating Station and Arizona Public Service's Four Corners Generating Plant. A fourth coal-fired power plant is currently in the planning and permitting process. The proposed 1,500-megawatt Desert Rock Generating Plant, located near Shiprock on the Navajo Nation, plans to start in 2010 or 2011. Some New Mexico coal is also shipped, via train, to power plants and industrial customers in Arizona.

The permit for the El Segundo Surface Coal Mine was issued in September 2005 to Lee Ranch Coal Company, a subsidiary of Peabody Natural Resources Company. This was the first new coal mine permit issued since 1996. The mine, located north of Milan in McKinley County, is forecast to produce 102 million short tons of coal over an operation lifetime of 30 years. El Segundo will feature contemporaneous mining and reclamation: no more than 2,000 acres will remain disturbed in any given year. The mine site will return to rangeland grazing once mining is complete. Lee Ranch Coal Company will add approximately 150 people to its workforce when mining operations at El Segundo commence in early 2008.

Grupo Cementos de Chihuahua (GCC) plans to submit a permit application for a potential new, small coal mine near Carrizozo in Lincoln County. The market for the coal will be GCC's cement plants in New Mexico, Texas and Chihuahua.

The Coal Mine Reclamation Program (CMRP) focuses on promoting successful and innovative approaches to reclaiming areas disturbed by coal mining. Approval of final reclamation is a difficult achievement. Within the past four years, five coal mines have successfully met their final reclamation criteria and attained final bond release. In addition, CMRP encourages progressive reclamation strategies. One example is the development of geomorphic reclamation practices, the focus of a September 2006 Office of Surface Mining Forum in Farmington.

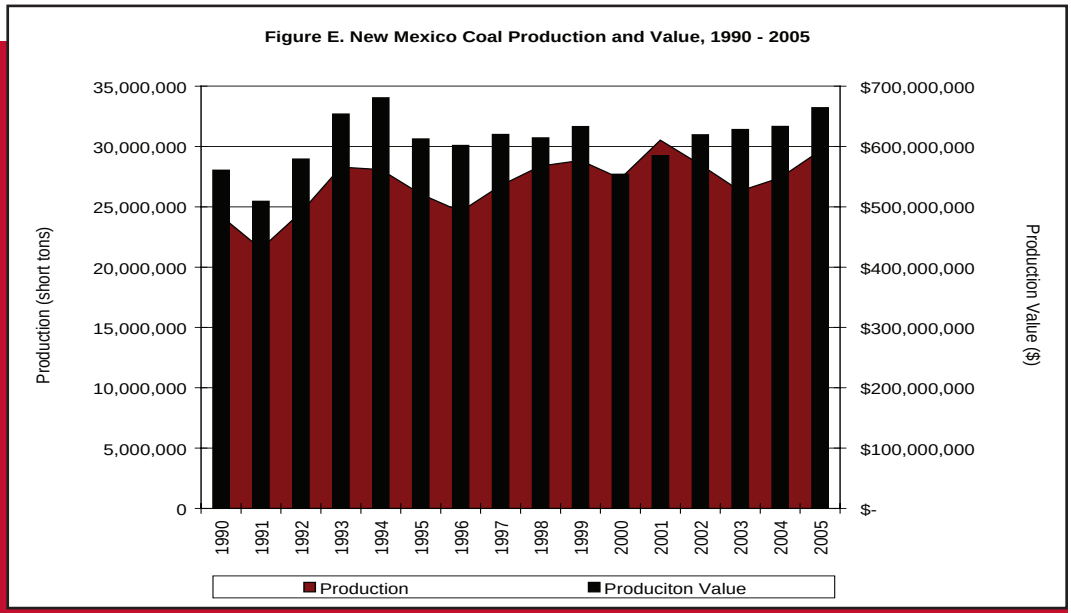


Figure E

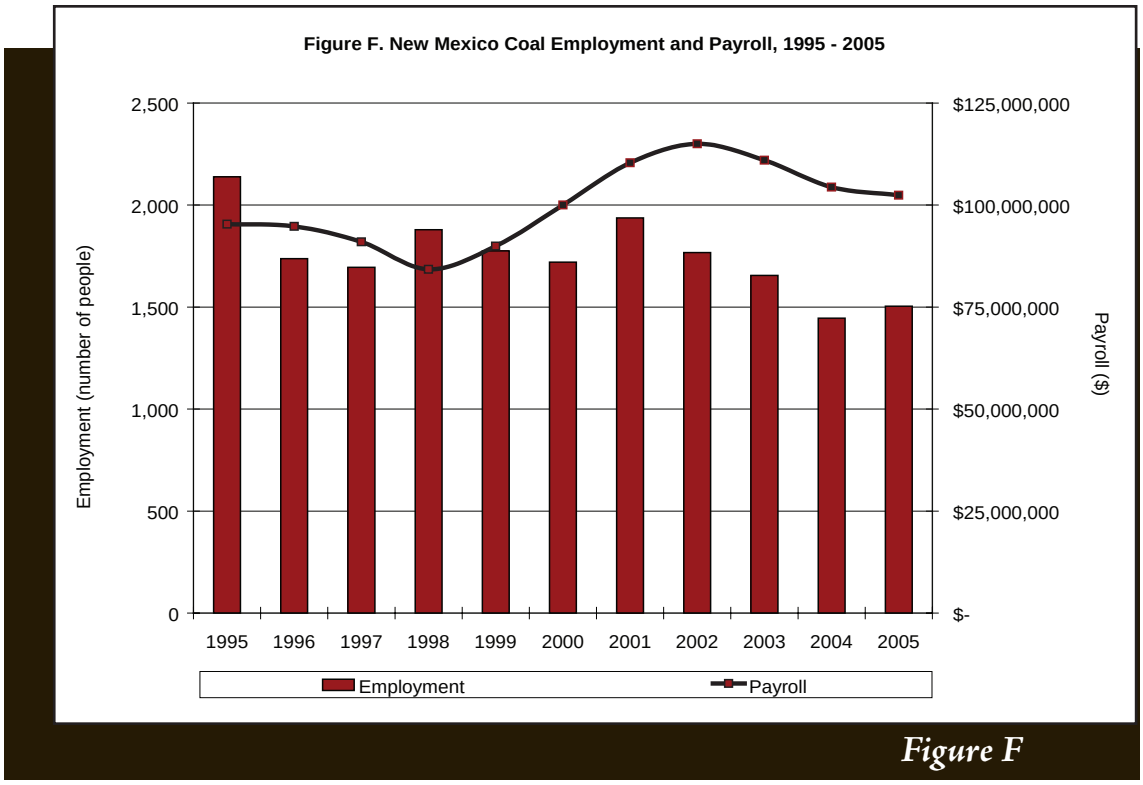


Figure F

Uranium: While no uranium has been produced in New Mexico since 2002, there has been a significant increase in activity by uranium companies in the past two years. In early 2006, the Mining and Minerals Division received the first uranium exploration permit application since 1998. The Mining Act Reclamation Program approved the exploration permit for Western Energy Development's Treeline Exploration project in McKinley County in April 2006 and approved the exploration permit for Laramide Resources' La Jara Mesa Exploration in Cibola County in October 2006. As of November 2006, an exploration permit is pending for Urex Energy Corporation for a project on U.S. Forest Service lands on the La Jara Mesa in Cibola County.

Rising market prices are leading to renewed interest in uranium recovery and production. The price of yellowcake has risen from $6.50 per pound in fall 2000 to $70.00 per pound in late 2006. Several companies have acquired mineral rights and mineral leases in the Grants Uranium Belt during the past three years. Laramide Resources Ltd. acquired La Jara Mesa uranium properties in December 2005. Strathmore Minerals Corporation, which owns or leases uranium properties in the Ray Claims, Church Rock, Roca Honda and Nose Rock districts of the Grants Uranium Belt, has commissioned cultural resources clearance surveys for its Church Rock and Roca Honda properties, the first step in the Nuclear Regulatory Commission (NRC) licensing process. Energy Metals Corporation has acquired mineral rights and leases for Crownpoint and Hosta Butte properties.

While companies are moving forward, several significant obstacles lay in the path of large-scale uranium development in the near future. First, all of New Mexico's uranium mills have been demolished and new infrastructure is needed. Second, the Navajo Nation, which overlays a major portion of the uranium deposits in New Mexico, declared a moratorium on uranium production on Navajo lands in April 2005.

New Mexico ranks second, behind Wyoming, in domestic uranium reserves. Uranium is used as a fuel for nuclear reactors and has limited industrial applications as a heavy metal. The Grants Uranium Belt, the most prolific producer of uranium in the United States, started production in the late 1940s. The boom years in the Belt were 1953-1980, when approximately 350 million pounds yellow cake (U_3O_8) were produced; all uranium recovery in the state ceased in December 2002.

According to the Energy Information Administration, in 2005, activity and employment in the uranium sector continued to increase from 2003 lows. In New Mexico, much of the uranium activity is focused on the reclamation of mines and mills from the boom years. New Mexico uranium employment is at a ten-year high due to increased reclamation activities at Rio Algom Mining LCC's Ambrosia Lake Mill and mines. Reclamation at Ambrosia Lake is scheduled for completion in 2007. Both the United Nuclear Corporation Mill in Church Rock and the Homestake Mill in Milan are also undergoing reclamation. Kennecott Energy Company has initiated the closeout and reclamation plan approval process for the Sohio JJ No. 1 Mine in Cibola County. United Nuclear Corporation continues work towards final approval of closeout and reclamation plans, as required by the New Mexico Mining Act, for its Section 27 and St. Anthony Mines.

Rio Grande Resources Company's flooded Mt. Taylor underground mine in Cibola County remains on standby status. Hydro Resources, Inc. (HRI) continues to pursue permitting and licensing from the NRC to mine uranium by in-situ leaching at locations in Church Rock and Crownpoint.

The NRC issued a license to Louisiana Energy Services (LES) to construct and operate a gas centrifuge uranium enrichment plant in Lea County in June 2006. The license is the first issued by the NRC for a full-scale uranium enrichment plant. The license authorizes LES to enrich uranium up to 5% of the fissile isotope uranium-235 for use in the manufacture of nuclear fuel for commercial power plants. LES plans to commence operations in 2008.

Copper: For the second straight year, New Mexico has seen a significant increase in both production value and employment for the copper mining sector. During 2005, copper production increased by nearly 8% and production value increased 36% (Figure G). In 2005, copper overtook coal as the largest employer in the mining industry in New Mexico: employment increased 33.8% and payroll increased 39.5% (Figure H). These trends are likely to continue in 2006 as copper spot prices have continued to remain at historically high levels — an average of over $3 per pound.

New Mexico ranks third in domestic copper production after Arizona and Utah. New Mexico copper is used chiefly in the manufacture of electrical components and wire. Phelps Dodge Mining Company (PD), the world's second largest copper producer, produces copper and byproduct base metals in Grant County in southwest New Mexico. Base metals include gold, silver and molybdenum. The two active PD operations in New Mexico are the Chino and Tyrone Mines. The third PD operation is the Continental Mine, operated by Cobre Mining Company. The Continental Mine is not currently producing copper and remains under care and maintenance. The mine includes a 20-acre tailings pond that contains magnetite recovered during the milling process by previous operators. Cobre has been reducing the pond volume by selling magnetite to offsite buyers.

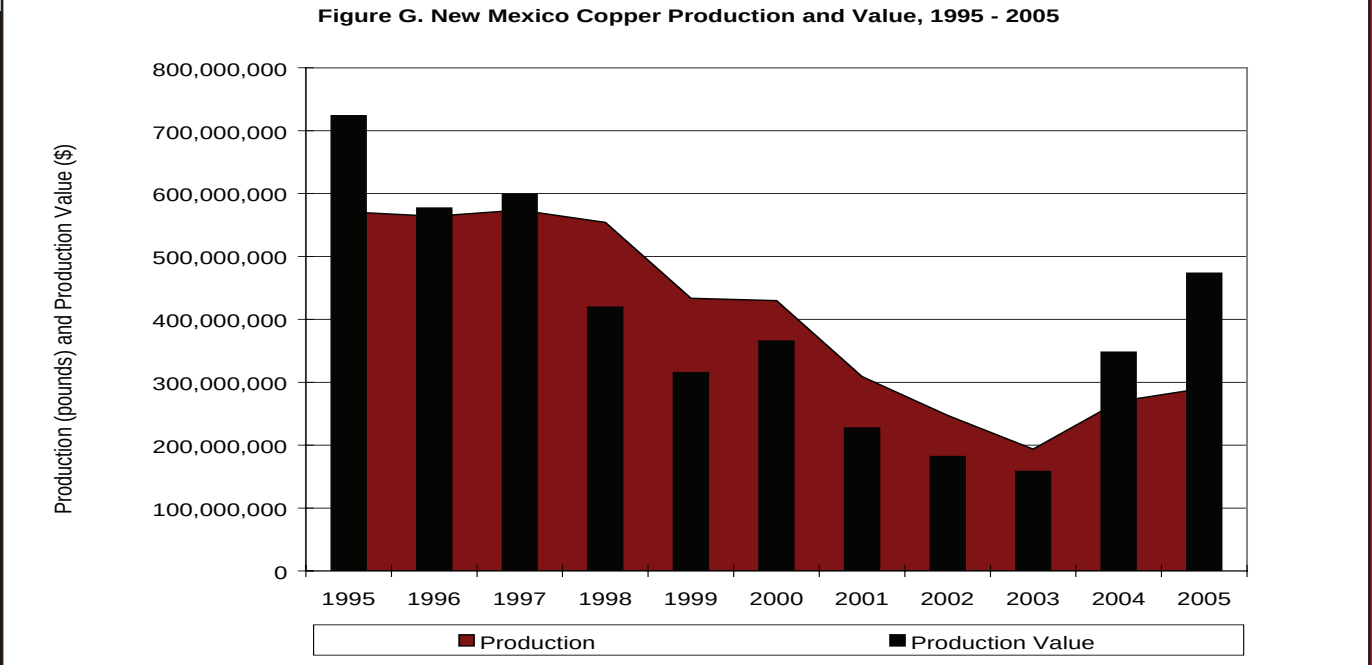


Figure G

Accelerated reclamation continues for portions of the Tyrone Mine property. A total of 394 acres of disturbed mine lands, consisting of tailings dams and impoundments, were reclaimed in 2005. Reclamation activities at Tyrone are scheduled to continue into 2009. An average of 79 reclamation employees worked on the Tyrone Reclamation throughout 2005.

At the Continental Mine, the Pearson Barnes area was graded and reseeded in 2005. Other reclamation efforts at Continental focused on the safeguarding and closing of over 50 historic mine openings in the area and the Hanover-Empire Zinc historic mine disturbance.

Chino's copper concentrate production is being sent to PD's smelter in Miami, Arizona. PD plans to begin construction of the world's first commercial-scale concentrate leaching plant in Morenci, Arizona in 2007. This plant will reduce PD's need for smelter capacity.

Until fall 2005, the Hidalgo Smelter continued to refine copper, gold and silver from scrap. Over $1.5 million in production value (not included in any of the tables or figures in this report) was derived from refined copper scrap in 2005. The Hidalgo Smelter is currently being demolished and salvaged.

PD announced in fall 2005 that the Chino Smelter in Hurley, under care and maintenance since its closure in 2002, would not be reopened. Smelter-based activities in 2005 and 2006 have focused on the remediation of soils in Hurley and dismantling the smelter.

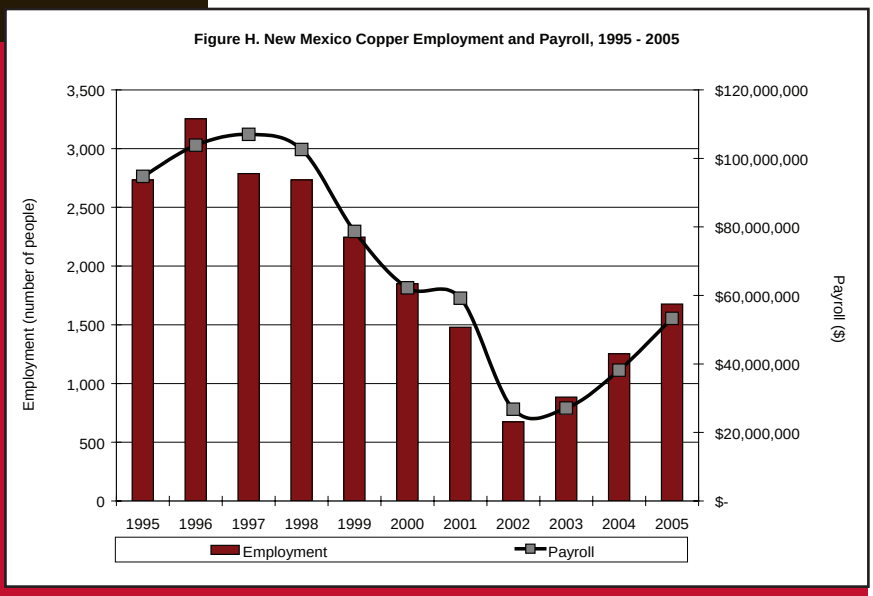


Figure H

Sulfuric acid is an important reagent used in copper mining to leach copper ore and in the solution extraction/electrowinning process that produces cathode (99.99%) copper. The closure of domestic copper smelters, which produce sulfuric acid as a byproduct of the smelting process, has created a shortfall of acid supply and raised acid prices and the cost to produce cathode copper.

Gold and Silver: In New Mexico, the only gold and silver currently produced is a byproduct of copper processing at Phelps Dodge copper operations in Grant County. Production and production value of these commodities was highest in the 1980s and has steadily declined since that time. No byproduct gold or silver was produced in the state during 2002 and 2003. Byproduct gold and silver production resumed in 2004 with rising metal prices and the reactivation of the Ivanhoe Concentrator at Chino Mine.

Gold production in 2005 increased 31% to 9,764 troy ounces, with a 43% rise of production value to $4.3 million. Silver production rose 25% to 203,672 troy ounces; production value increased 30% to $1.4 million. According to USGS statistics, New Mexico ranked tenth in the United States for gold and silver production in 2005.

Two new minimal impact gold mines submitted permit applications in 2005: the Northstar Mine in Rio Arriba County and the San Lorenzo Claims Mine in Socorro County. Both mines are under development and have not started production. Exploration for gold, silver and other precious metals continues in New Mexico. In 2005 and 2006, the Mining Act Reclamation Program permitted eleven precious metal exploration projects in Grant, Doña Ana, Socorro and Catron counties.

Molybdenum: New Mexico remains a major producer of molybdenum, ranking sixth in domestic molybdenum production. In 2005, employment and production value increased significantly in New Mexico's molybdenum sector. Molybdenum is used primarily in the manufacture of steel and other alloys. Continued high levels of steel production and consumption in China and India in 2005 created a stable demand for molybdenum.

The state's primary molybdenum producer is Molycorp, Inc.'s Questa Mine and Mill in Taos County, in operation since 1919. In 2005, Molycorp was acquired by Chevron as part of the Unocal acquisition. The Questa operation, an underground gravity block cave mine, produces molybdenite (MoS_2) concentrate and is one of three primary-producing molybdenum mines in the United States. Molycorp is currently developing a new ore body and is evaluating other development opportunities to sustain long-term production.

Molybdenum is also produced as a byproduct of copper production at Phelps Dodge operations in Grant County. Strong copper prices and a deficit of refined copper allowed New Mexico copper mines to increase byproduct molybdenum production.

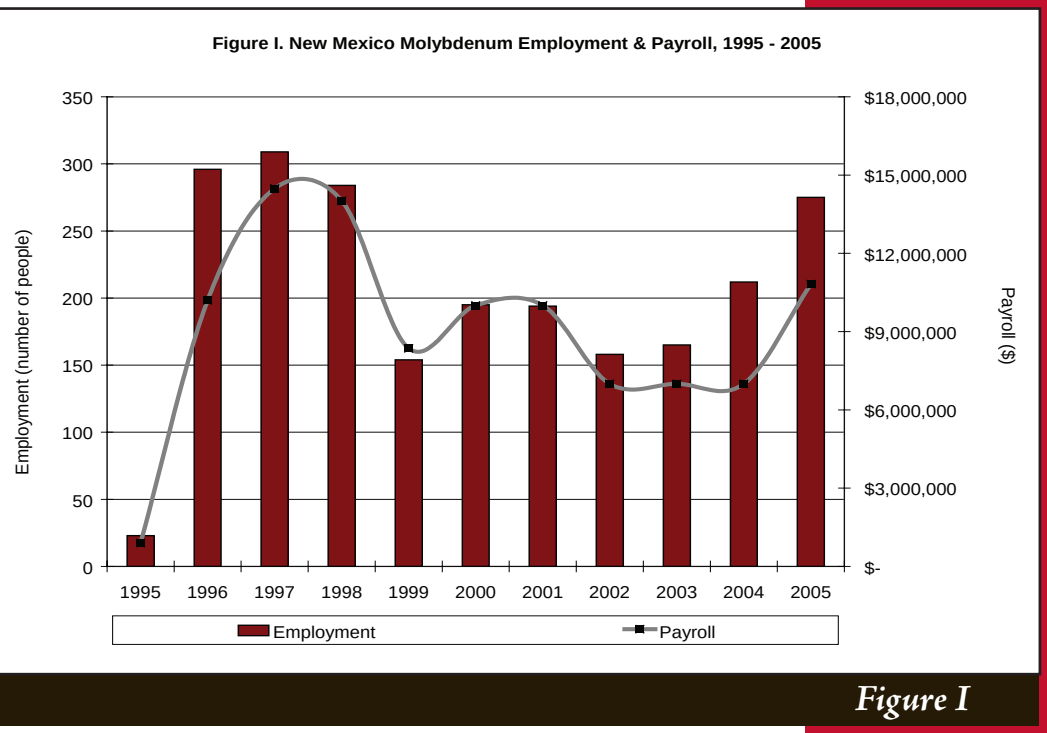


Figure I

In 2005, New Mexico molybdenum production was 4 million pounds, an 8.9% increase from 2004. Sharp increases in molybdenum prices resulted in a record molybdenum production value of $103.2 million, a 69% increase over 2004. Molybdenum spot prices have risen dramatically from an average of $2.35 a pound in 2001, to $5.28 per pound in 2003, to $32.69 per pound in 2005. Spot prices in 2006 have ranged between $25 and $30 per pound. Employment levels and payroll (Figure I) have increased during the same time period. Since 2001, direct employment has increased by 31.1%, contract employment has doubled and payroll has increased 8.2%. According to Molycorp, in 2005 they paid over $18 million in wages and benefits and spent over $37 million in goods and services throughout New Mexico.

During open pit mining from 1964 to 1982, Molycorp disposed of several hundred million tons of waste rock in nine rock piles dispersed throughout the mine site. Recent efforts at Questa have focused on the long-term stabilization of the rock piles. In fall 2005, Molycorp completed the Goathill North Rock Pile Mitigation Project. Stabilization of the base of the Front Rock Piles was begun in fall 2006. Analysis of the stability of the other rock piles at the mine continues. In April 2006, the Molycorp closeout plan, with specific reclamation criteria for the subsidence zones at the Questa Mine Site, was approved

Potash: The doubling of potash prices over the last five years has resulted in significant production value increases. The $282.7 million production value for New Mexico potash in 2005 is a new record high. Although in 2005 production value rose over 18% and payroll increased 10.2%, mill production decreased 7.5% and employment decreased 3% (Figures J and K). Potash is a mined salt containing water-soluble potassium. Potassium chloride (sylvite) and potassium-magnesium sulfate (langbeinite) are mined by underground methods in Eddy County and processed at mills in Eddy and Lea Counties. In New Mexico, two companies operate three mines and four mills. Intrepid Mining New Mexico LLC operates the Intrepid East Mine and Mill, Intrepid West Mine and Mill and Intrepid North Compaction Plant. Mosaic Potash Carlsbad, Inc. operates the Mosaic Mine and Mill.

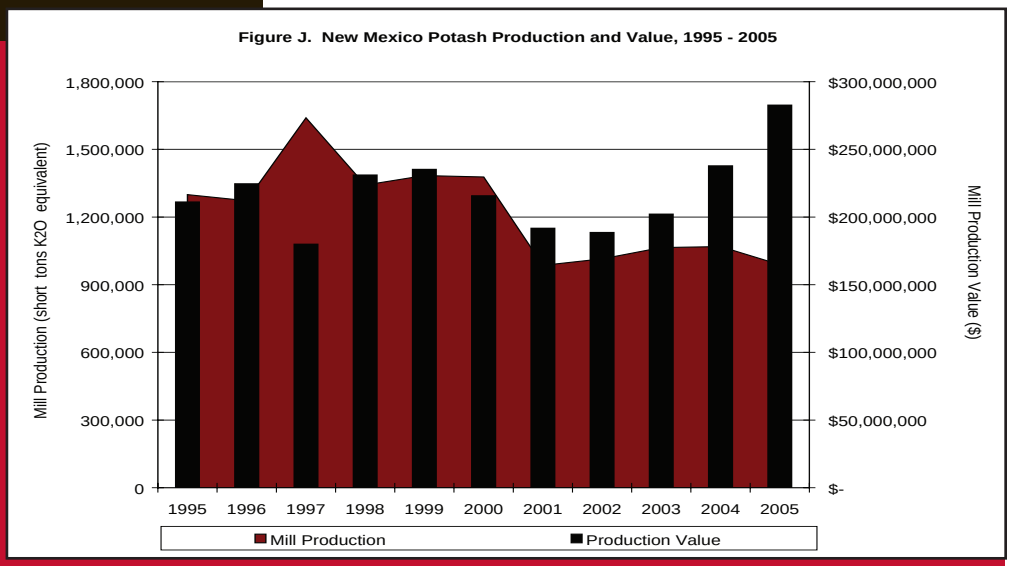


Figure J

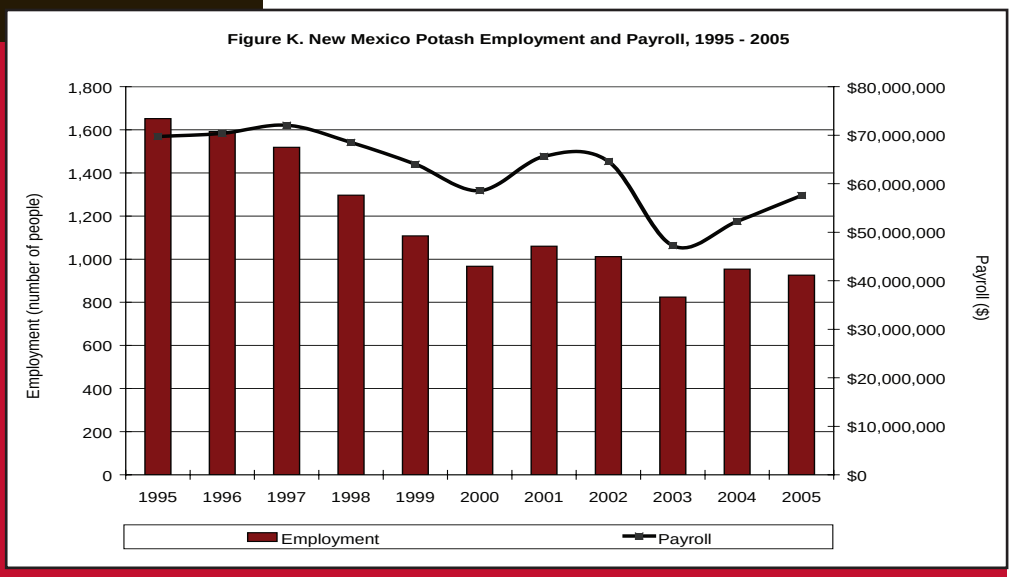


Figure K

New Mexico ranks first in the nation in potash production. The Carlsbad potash district represents 2% of worldwide potash production and more than 75% of all domestic potash production. New Mexico potash is used primarily as an agricultural fertilizer or animal feed supplement, with most sold to nearby states. Approximately 25% of New Mexico produced potash is exported to Mexico, Brazil, Guatemala, the Dominican Republic, Jamaica, Malaysia, China, India and Japan.

Potash consumption has been steadily increasing since 2004 as world crop production has increased, especially in Brazil, China and India. China renegotiated its potash contracts and decreased purchasing in 2005, causing a drop in worldwide production. China resumed its previous level of potash consumption in 2006. High oil prices have increased fertilizer demand by spurring ethanol and biodiesel production. Industrial demand for potash for use in drilling muds has risen with increased oil and gas exploration.

New developments in the New Mexico potash industry included the launching of a dual sylvite and langbeinite processing plant by Intrepid at its East facility in September 2005. Langbeinite is a unique form of potassium-magnesium sulfate found only in New Mexico. This project extended the life of the East Facility by 20 years by allowing the economic recovery of both sylvinite and langbeinite in mixed ore bodies. Mosaic already had a langbeinite flotation plant in operation at its mine. Mosaic markets langbeinite as K-Mag®; Intrepid markets it as Magma-K®. Both products have a high potassium, magnesium and sulfur content and are marketed for use as a fertilizer to chloride sensitive crops such as tobacco, citrus fruits and vegetables.

Intrepid is also working on reopening the Eddy Potash Mine, closed in 1997, as a solution mine. In a solution mine, non-potable salt water is injected into the abandoned mine to dissolve potash. The potash-rich brine is then extracted into ponds at the surface to evaporate the water; the remaining salt and potash crystals are harvested. Intrepid has decommissioned and is dismantling the old mill at the Eddy Mine. Brine samples from the mine have proven positive and the project is currently in the permitting phase with the New Mexico Environment Department.

Industrial Minerals and Aggregate: In 2005, a 3.6% increase in industrial mineral production helped fuel a 19.1% increase in production value (Figure L). The $200.8 million production value is a new record for industrial minerals. Although production and production value increased, total industrial mineral employment decreased 8.4%. In contrast to lowered employment, payroll in the industrial mineral sector increased 11.1% (Figure M) and employees involved in reclamation doubled in 2005.

Figure L. New Mexico Industrial Mineral Production and Value, 1995 - 2005

Industrial minerals include the commodities gypsum, perlite, salt, limestone, calcite, dimension stone, silica flux, clay, humate, scoria, pumice, mica and zeolites.

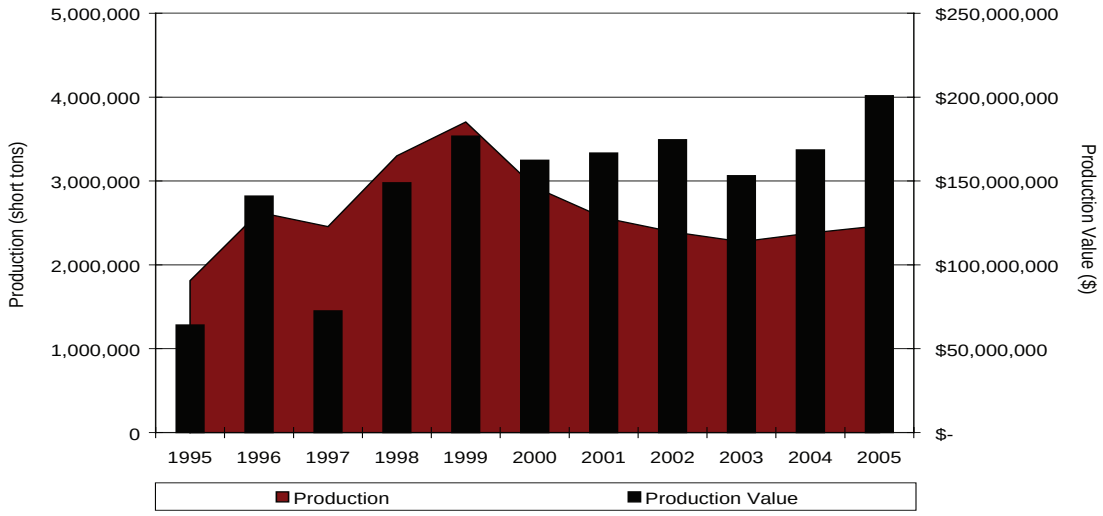


Figure L

Figure M. New Mexico Industrial Mineral Employment and Payroll, 1995 - 2005

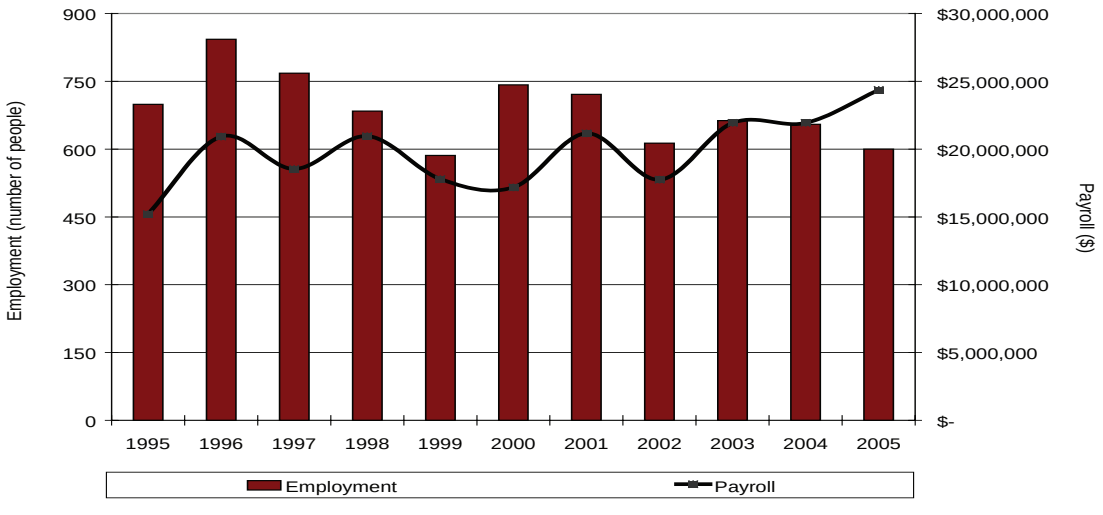


Figure M

Industrial mineral resources are widely dispersed across the state. In New Mexico, the more important industrial mineral resources include gypsum, perlite, salt, limestone, dimension stone, silica flux, clay, humate, scoria, pumice, mica and zeolites. In 2005 there were 23 mines and 20 mills producing industrial minerals in the state. In addition, one humate mine and two silica flux mines were on standby status. One industrial garnet mine was under development. Table B details location, employment and the production rank for industrial mineral commodities in the state.

New Mexico remains the leading state for the production of perlite and zeolite and one of the main producers of pumice. St Cloud Mining Company's Zeolite Mine is the only producing zeolite mine in the state. Active perlite operations include Dicaperl Minerals Corporation's El Grande and Socorro Mines/Mills and Harborlite Corporation's No Agua Mine/Mill. Pumice operations include Copar Pumice Company's South Pit, El Cajete and Guaje Canyon Mines; CR Minerals Company's Rocky Mountain Mine and Utility Block Company's U.S. Forest Service Mine. Humate mines include Rammsco's Eagle Mesa Mine, Morningstar Corporation's Morningstar Mine, Horizon Ag-Products San Luis Mine, Mesa Verde Resources' Pueblo Alto and Star Lake Mines and Menefee Mining Corporation's Star Lake Mine. Other major industrial mineral mines in New Mexico include Eagle Materials' White Mesa Gypsum Mine, GCC Rio Grande's Tijeras Limestone Quarry and Cement Plant, New Mexico Travertine's Lucero Quarry and Belen Plant, Oro Blanco Mining Company's Silver Silica Mine and United Salt Corporation's Lake Mine and Carlsbad Plant.

Table B. Production Rank, Locations and Employment for Selected Industrial Mineral Commodities, 2005

Commodity	Production Rank [1]	County	Employment [2]
Clay	-	Bernalillo, Dona Ana	5
Dimension Stone	8	Valencia	28
Gypsum	13	Bernalillo, Dona Ana, Sandoval	168
Humate	-	Sandoval, San Juan, McKinley	31
Limestone	31	Bernalillo	78
Mica	-	Rio Arriba, Taos	5
Perlite	1	Socorro, Taos	65
Pumice	5	Sandoval, Santa Fe, Rio Arriba	43
Salt	11	Eddy	77
Scoria	-	Santa Fe	34
Silica Sand	-	Santa Fe	1
Zeolite	1	Sierra	65
TOTAL			**600**

[1] Source: USGS 2005 Ranking
[2] Includes both direct and contract employees.

Table B

The only mica mine and mill in the state closed in late 2004 when the operator, Oglebay Norton Specialty Minerals, Inc., filed for bankruptcy. In 2005 Oglebay Norton reclaimed the Velarde Mica Mill. The permit for the U.S. Hill Mica Mine was transferred to the Pueblo of Picuris, who will complete the reclamation allowing traditional use of the mica clay pits for use in pottery.

Lafarge North America transferred ownership of the Cullum Claims Mine, a pumice mine patented in 1948, to the Pueblo of Santa Clara in June 2005. The mine is adjacent to Santa Clara ancestral lands. Santa Clara has assumed the mine permit and will reclaim the disturbed lands.

In November 2005 the Mining Act Reclamation Program approved two new zeolites mines in Sierra County. St. Cloud Mining permitted a new perlite mine in Grant County in fall 2005. Exploration permits for garnet, agate and specimen fluorspar were also approved during 2005 and 2006.

Stone and aggregate, which includes sand and gravel, is a subset of industrial minerals. Construction sand and gravel is one of the most accessible natural resources and a major basic raw material used mostly by the construction industry. Despite the low unit value of its products, the construction sand and gravel industry is a major contributor to, and an indicator of, economic well-being and growth.

There were 184 active and 11 stand-by stone and aggregate operations in New Mexico in 2005, a 1.6% increase from 2004. Production and production value for stone and aggregate both set new record highs. In 2005 production increased 19.6% to 20 million short tons, production value increased 23.8% to $128.7 million and payroll increased 37.6% to $20.9 million (Figures N and O). In contrast to the increasing aggregate production and payroll, employment decreased by 18.5%. Reclamation employment at aggregate and stone operations experienced a four-fold increase. Table C details the production and production value of the different stone and aggregate commodities produced in the state.

Aggregate production increases can be attributed to increased demand for construction aggregates and dimension stone by the road, railroad and home building industries. Aggregate production and consumption is expected to continue to grow in response to outlays for road and other construction. Infrastructure improvement projects of Governor Richardson's Investment Partnership (GRIP) and the Statewide Transportation Improvement Program (STIP) have increased construction aggregate demand for road and transportation construction. Increased rail traffic and the construction of dual rail lines in southern New Mexico by Union Pacific Railroad has led to increased demand for railroad ballast and construction materials. This trend is expected to continue as Union Pacific plans to begin construction of a new terminal facility near Santa Teresa in 2008.

The aggregate industry continues to move operations and place new operations away from densely populated centers, where zoning, environmental and land development regulations discourage sand and gravel operations. Consequently, shortages of construction sand and gravel in urban and industrialized areas are expected to increase, as are transportation costs associated with sand and gravel commodities. Increasingly, sand and gravel operations are being included in master zoning and planning documents for regional areas.

Table C. New Mexico Aggregate and Stone Production, 2005

Commodity	Production (short tons)		Value ($)
Base Course	3,589,530	$	18,859,954.33
Caliche	264,301	$	527,765.79
Clay & Shale	57,109	$	50,467.53
Crushed Rock	2,372,019	$	15,320,261.59
Fill Dirt	960,316	$	1,931,492.81
Flagstone	7,902	$	439,015.61
Gemstone	w		w
Gravel	6,030,801	$	38,402,047.79
Limestone	1,364,067	$	2,498,606.00
Other	3,097,476	$	27,394,256.49
Red Dog	w		w
Riprap	66,984	$	1,247,559.61
Sand	1,677,879	$	14,106,676.06
Scoria	486,278	$	7,630,250.00
Top Soil	38,579	$	156,400.10
Travertine	w		w
TOTAL	**20,014,987**	**$**	**128,730,636**

Table C

Figure N. New Mexico Aggregate Production and Value, 1995 - 2005

Aggregate includes flagstone, construction sand and gravel, crushed rock, scoria and others.

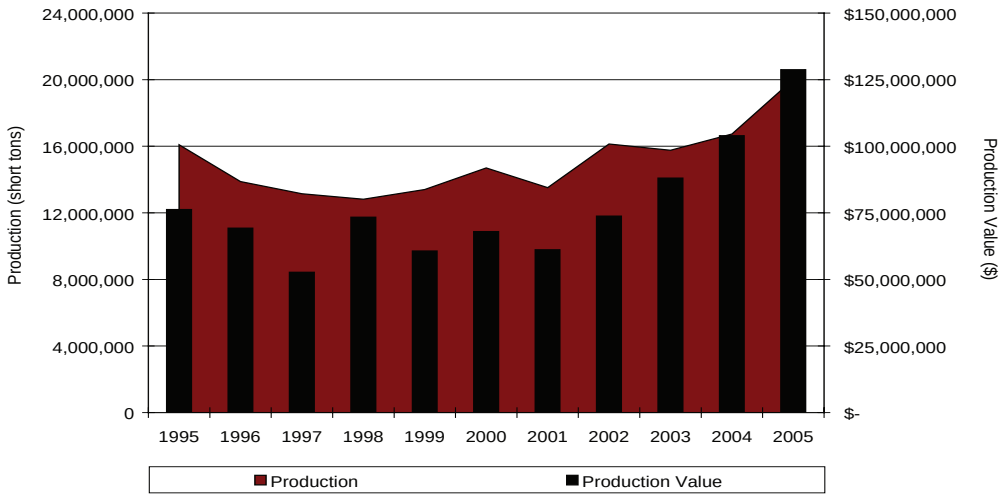


Figure N

Figure O. New Mexico Aggregate Employment and Payroll, 1995 - 2005

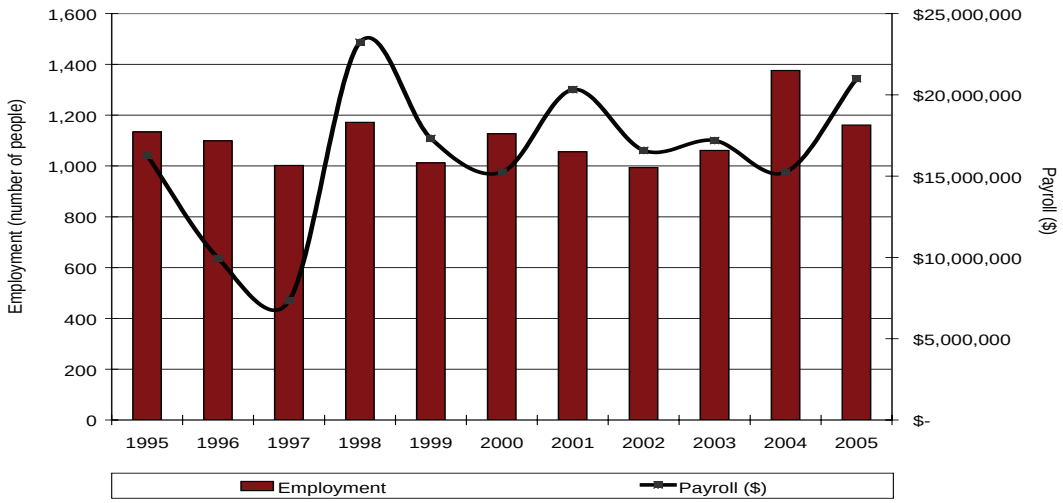
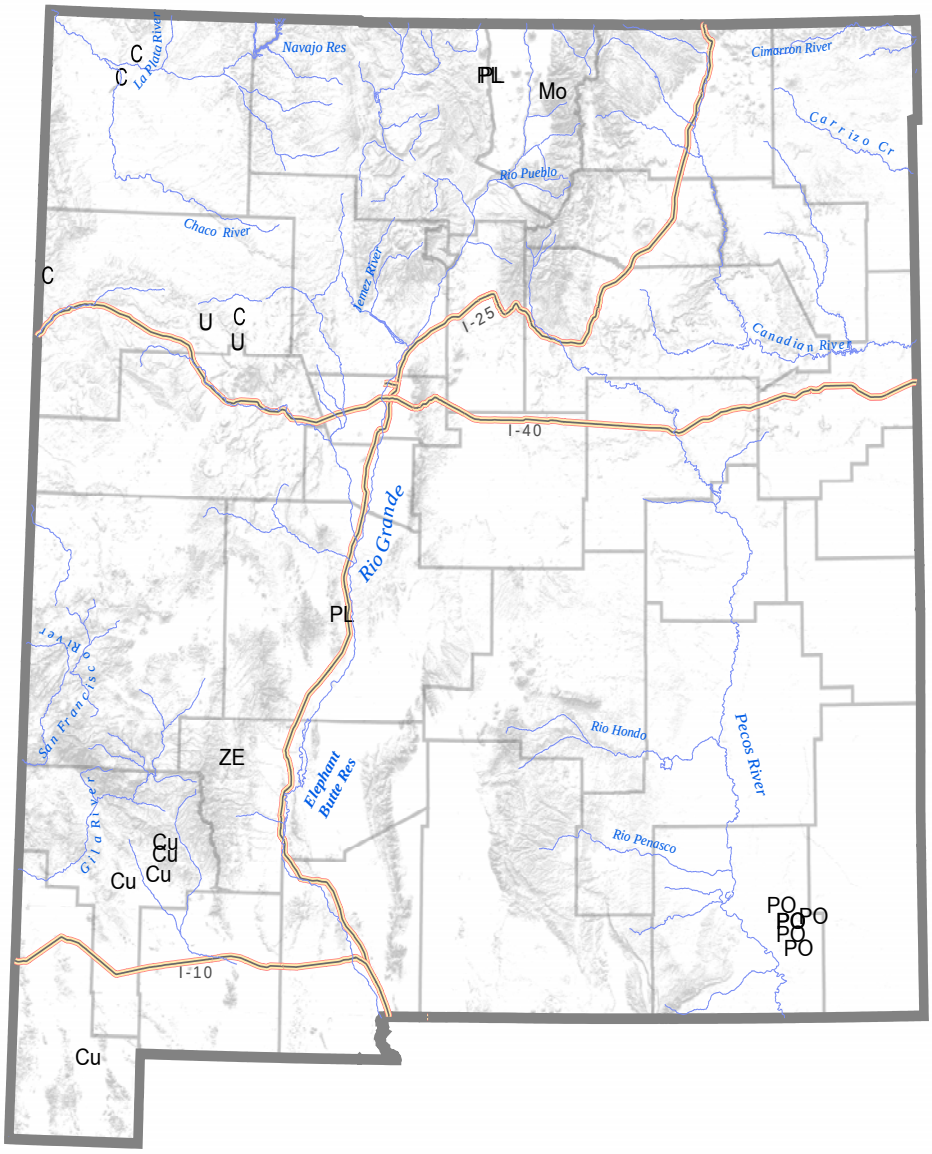


Figure O

Selected Major Mineral Facilities in New Mexico.



Selected Mines
with Primary Commodities

C	Active Coal Mines
Cu	Copper Mines & Smelters
Mo	Molybdenum Mines
PL	Perlite Mines
PO	Potash Mines
U	Uranium Mines
ZE	Zeolite Mines

Major Highways
Limited Access

N
W E
S

Miles
0 10 20 40 60

Data Sources:

Mining and Minerals Division,
New Mexico Bureau of Geology & Mineral Resources,
ESRI 2005 distributed feature classes, and
New Mexico Resource Geographic Information System Program
http://rgis.unm.edu.

Map Datum NAD 27, Projection UTM Zone 13N

OIL

Conservation Division

(OCD)

Mark Fesmire, PE

Division Director

Mission: The Oil Conservation Division (OCD) administers laws and regulations relating to the oil, gas and geothermal industry of New Mexico. The Oil and Gas Act, the Water Quality Act, and the Geothermal Resources Conservation Act authorize the division to enforce primary statutory mandates.

The division 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 and Geological Services Bureau processes administrative applications for exceptions to OCD rules and the staff serves as division-appointed Hearing Examiners for OCD hearings. The Environmental Bureau develops and enforces environmental regulations and programs in the oil and gas industry for the protection of New Mexico's environment. Legal Counsel assists OCD in providing legal advice and support. They also advise the OCD regarding legal and operations issues and participate in the formulation of OCD rules and proposed legislation. The Automation and Records Bureau is responsible for collecting and dispersing monthly well production and injection data, information about wells, completions, spacing, pools, operators, inactive wells, and orphan wells. It also manages data systems including OCD Online Electronic Permitting and OCD Online Imaging as well as the OCD website. This bureau also tracks statistics and oversees OCD's budget and procurement needs. The Administrative Bureau provides administrative support for the entire OCD, and is responsible for the clerical and secretarial duties required by OCD and the Oil Conservation Commission (OCC). The OCC is a three-member commission that makes rules governing oil and gas production in New Mexico.

As wells play out and become uneconomical to operate and produce, they must be plugged, primarily to protect underground sources of drinking water by preventing the migration of oil, gas and saltwater from the producing zones to shallower fresh water zones.

Occasionally, wells are left "orphaned" by a company that becomes insolvent. When that happens, plugging bond funds are often not sufficient to plug the wells that are left behind. It then becomes the state's responsibility to have the inactive wells properly plugged. One of the most important functions of the OCD is to adminster the Oil and Gas Reclamation fund to properly plug and abandon these orphan wells.

Oil Conservation Division Accomplishments and Initiatives:

A 2004 evaluation of OCD rules has shown that many of them were outdated and did not effectively address the challenges facing OCD and industry during the twenty-first century. On September 30 of 2005, OCD implemented the first of a series of new rules designed to update the OCD's regulatory process and improve the fairness and efficiency of OCD rules and rulemaking.

The new rules on rulemaking shortened the time necessary to promulgate rules while at the same time opening the process to more stakeholders and more members of the regulated community. These rules were then used to update the OCD rules on enforcement and compliance. The Enforcement and Compliance Rules became effective on December 15, 2005 and have been instrumental in lowering the number of non-compliant wells in the state from 2785 on January 1, 2006 to 1567 today.

A non-compliant well is a well that has not produced or injected for 15 months or more, which are not properly temporarily abandoned or for which the operator has not made other arrangements for proper disposition according to OCD rules. During periods of high equipment and manpower utilization, such as the last year, there is a tendency for operators to concentrate their limited resources on more productive wells and not address wells that need to be plugged. Wells that are not adequately monitored because they are not producing represent a threat to the water and soil resources of the state and the success of the Compliance and Enforcement Rules has significantly reduced the potential risk from this class of wells.

Part of the success of the Compliance and Enforcement rules has been the use of negotiated "Agreed Compliance Orders" in the enforcement process. The procedure involves sitting down with operator and negotiating a plan to bring their violations into compliance, drafting enforceable documents to memorialize those agreements and enforcement of those agreements in the case of failure.

During 2006, OCD began the process for rules governing surface waste management facilities and those new rules became effective on February 14th, 2007. These rules are remarkable in that this is the first time OCC has required facilities to be designed so that there will be no deliberate release of contaminants to the environment. Facilities that comply with the new rules will provide safe, well-designed and well-regulated sites for the disposal or remediation of oil field waste and allow oil and gas operators to minimize the risk of residual future liability from waste that they have generated. Under these rules, New Mexico oil and gas operators will be able to dispose of their waste in new facilities knowing that they are designed to prevent environmental contamination and the potentially crippling liability to the generator of that waste.

In 2006, OCD held the first in a series meetings with stakeholders on updating the rules for oil-field pits. OCD expects to present a comprehensive rule to the OCC for consideration in the fall of 2007.

OCD is also progressing towards paperless filing and reporting with the expansion of its on-line reporting and filing

system, OCD online. 2006 saw the addition of several new forms that may be filed on line and the extension of online production reporting to virtually all New Mexico operators. OCD expects this trend to continue in the year 2007.

Since 1986, OCD has been fielding concerns from residents and officials about a 10 acre abandoned oil treating facility located in the City of Eunice. In 2006, OCD finished the cleanup of that facility at a cost of $2.5 Million. The site contained a 2 acre, 30 foot deep sludge pit, junk and abandoned equipment. The cost of the cleanup was borne by the Oil and Gas Reclamation fund, which is a tax imposed on petroleum production for the plugging and remediation of orphan oil and gas wells (those that have no discernible owner or responsible party) and affiliated oil and gas sites.

Lastly, during 2006, OCD began what has been a very successful collaboration with federal authorities to exchange data and inspection results on oil and gas wells on federal land. The program is intended to stagger federal and state inspections to minimize the time between visits to a well or site and to facilitate the exchange of data between OCD and federal inspectors to provide a more complete and timely inspection record for both sets of regulators. The program is funded under the federal 2005 Energy Act and is resulting in common data bases, cross training and common understanding of both agencies practices.

Community Involvement: For more than 70 years, oil and gas has played an important part in shaping New Mexico's economy. It is an industry on which thousands of New Mexicans have built their lives and, in return, it has provided for their families.

In the Thirties, Forties and Fifties, the oil fields of New Mexico provided more than 80% of the state's total revenue. This significant contribution has kept New Mexico an attractive place for businesses and families to locate.

In the Eighties, more than 18,000 people were employed in oil and gas related jobs. Their combined income injected an additional $600 million into the communities of Hobbs, Artesia, Roswell, Carlsbad, Farmington and numerous smaller communities such as Eunice, Jal, Aztec and Loco Hills.

The presence of oil company offices in these cities and towns has been invaluable. Many oil and gas companies have partnered with communities to improve the local quality of life. These corporate good neighbors have contributed or assisted with dozens of city parks and sports fields, as well as museums, junior college and other school facilities, town gazebos, historic walkways and other cultural and recreational amenities.

OCD will continue to propose and support legislation designed to make New Mexico an attractive and affordable state for oil and gas business to thrive.

Protecting the Environment: In keeping with the division's efforts to protect special places for their unique values, The Valle Vidal Protection Act of 2005 sponsored by New Mexico's Representative Tom Udall was signed into law by President Bush on December 13, 2006. The new law will permanently protect New Mexico's "Valley of Life" by withdrawing the area from mineral leasing. The Valle Vidal is a lush mountain basin in the heart of the Sangre de Cristo Mountains in Northern New Mexico.

Likewise, Otero Mesa is an area that encompasses approximately 1.2 million acres of Chihuahuan Desert; it is a unique place with an ecosystem that is home to rare desert grasslands, herds of pronghorn, prairie dog villages, mule deer, aplomado falcons, and more than 345 of the world's 1,500 cacti species. This is the last remnant of an untouched Chihuahuan Desert ecosystem in our country. It is important to protect and preserve Otero Mesa and its underlying ground water resources.

However, a recent federal court decision has placed the responsibility of managing the area to the Bureau of Land Management (BLM). BLM is doing Environmental Assessments (EA) work for oil and gas leasing. The OCD has promulgated rules for development in the Otero Mesa area with an emphasis on the protection of that grassland area and the water beneath it.

The new OCC rule covering surface waste management facilities was crafted to provide the utmost protection to groundwater, surface water, human health and the environment. A task force comprised of industry representatives, regulators, and landowners worked extremely hard in accomplishing this task. A similar process will take place in the writing of the new pit rule.

OCD's ultimate aim is to maximize the return to the state from the production of its natural resources while eliminating or minimizing any detrimental environmental effects.

New Mexico Oil and Gas Facts:

- The oil and gas industry has a storied history in New Mexico. The first commercial well was drilled in the 1920's and the industry has grown ever since due to the efforts of, at first, a few bold men called wildcatters. Many towns sprang up, and survive today, because of the oil and gas industry.
- Oil and gas revenues, in the form of severance taxes and public land royalties, have bolstered New Mexico's General Fund since the 1930's. Gross revenues have contributed as much as 87 percent of the fund during boom times to some 25 percent in recent years.
- New Mexico is ranked third in natural gas production (behind Texas and Oklahoma) and third in proven gas reserves among all producing states in the United States. A portion of the gas is coalbed methane, in which New Mexico is first in production and reserves.
- New Mexico also is ranked fifth in crude oil production and fourth in proven oil reserves.
- New Mexico is a national leader in both production and reserves of carbon dioxide (CO_2).

- As of October 2006, there were 21,222 active oil producing wells, 25,848 active gas producing wells, 433 active CO_2 injecting wells, 3,319 active enhanced recovery injection wells, and 603 active salt water disposal wells. Additionally, there are more than 1,600 inactive oil and gas wells that could potentially be returned to production.
- At the end of 2005, New Mexico had more than 750 oil and gas industry-related companies operating in the state. When these companies are combined with other entities that indirectly support the oil and gas industry, more that 23,000 New Mexico citizens are economically supported by the oil and gas industry.

Production and Production Value: As in the past, most of today's oil production occurs in the New Mexico portion of the Permian Basin in southeast New Mexico, and most of the natural gas production occurs in the New Mexico portion of the San Juan Basin in northwest New Mexico. The OCD maintains district offices in Hobbs, Artesia and Aztec to regulate the oil and gas producers in those areas.

Record, and near record, prices for both oil and natural gas continued in 2006 sustaining the oil and gas activity in the state. As of October 23, 2006, West Texas Intermediate Crude oil prices were $57.25 per barrel and gas prices averaged nearly $7.49 per MMBtu (Million British Thermal Units) Henry Hub.

Total New Mexico crude oil production (including condensate) in 2005 was 60.7 million barrels. New Mexico natural gas production in 2005 was 1,592 billion cubic feet (BCF).

Photo by: Ed Martin

Oil Conservation Division Data and Statistics:

1) State Revenues from Oil and Gas Sales in Millions of Dollars (Taxation and Revenue Dept.)

New Mexico State Revenues from Oil and Gas Production*

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
State general fund:					
Oil and gas emergency school tax	$205,121,207	$229,638,624	$297,070,343	$386,785,907	$491,657,374
Oil and gas conservation tax	$10,363,501	$10,888,867	$14,931,771	$19,514,983	$24,819,553
Natural gas processors tax	$20,270,225	$21,077,023	$13,477,994	$24,321,786	$27,268,027
Federal mineral leasing royalties	$221,323,163	$258,365,730	$308,108,000	$391,000,000	$544,880,000
State land office rents, bonuses, etc	$13,300,000	$18,727,187	$22,060,805	$42,044,343	$52,695,563
Gross receipts tax	$25,340,000	$36,474,526	$42,941,465	$55,867,203	$124,794,894
Subtotal--revenue from current production	**$495,718,096**	**$575,171,956**	**$698,590,378**	**$919,534,222**	**$1,266,115,411**
Earnings on land grant permanent fund	$242,566,590	$259,142,844	$274,700,492	$339,791,000	$343,380,000
Earnings on severance tax permanent fund	$127,346,074	$136,763,894	$137,947,286	$166,272,000	$168,384,000
Total--General Fund revenue	**$865,630,759**	**$971,078,695**	**$1,111,238,157**	**$1,425,597,222**	**$1,777,879,411**
Severance tax bonding fund:					
Oil and gas severance tax	$200,740,385	$221,446,421	$293,087,714	$384,561,385	$488,952,323
Land Grant Permanent fund:					
State land office royalties	$197,741,000	$218,385,341	$236,277,777	$312,251,910	$405,343,063
Grand Total all funds	**$1,264,112,145**	**$1,410,910,457**	**$1,640,603,648**	**$2,122,410,517**	**$2,672,174,797**

Figure 1

2) State Revenues from Oil and Gas Sales for 2006 Pie Chart (Taxation and Revenue Dept.)

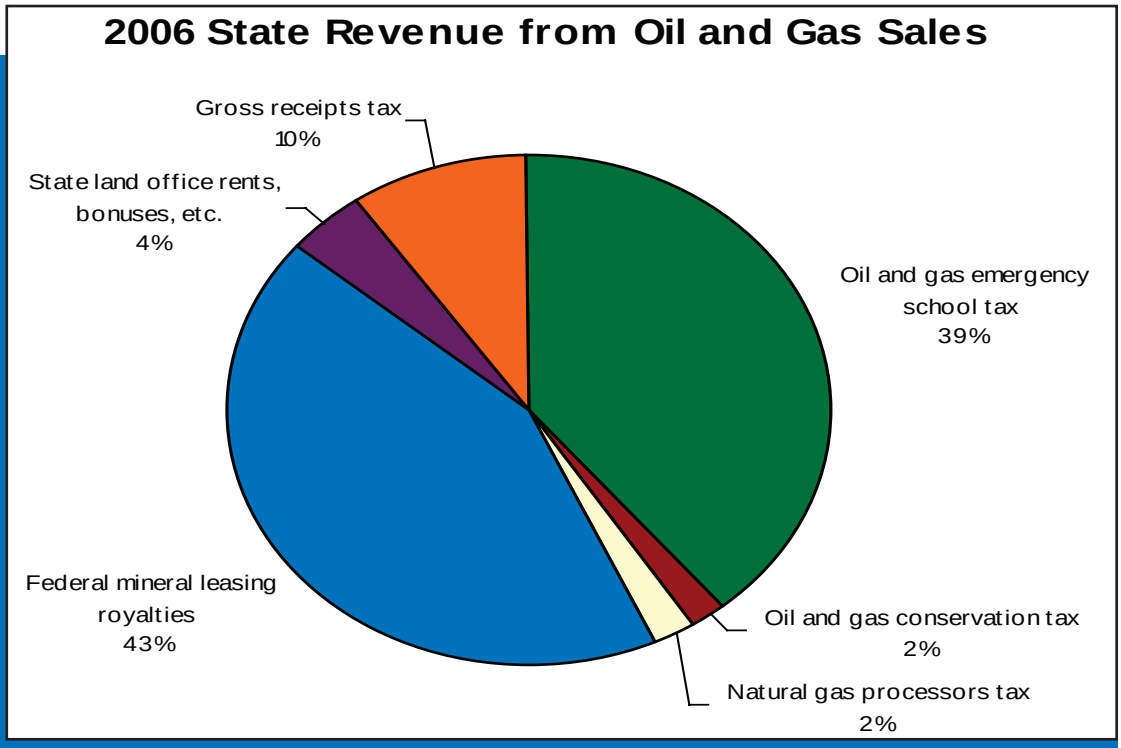


Figure 2

3) New Mexico Oil Production (Oil Conservation Division)

Oil Production *

	SE Crude	SE Condensate	NW Crude	NW Condensate	Total Oil
2001	59,241,407	6,786,697	1,411,523	1,748,766	69,188,393
2002	57,007,412	7,592,885	1,265,720	1,697,375	67,563,392
2003	56,089,092	7,660,358	1,164,446	1,667,163	66,581,059
2004	55,546,149	6,287,724	1,068,365	1,619,782	64,522,020
2005	53,154,173	4,967,882	1,035,450	1,564,712	60,722,217

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

Figure 3

4) New Mexico Gas Production (Oil Conservation Division)

Natural Gas Production *

	SE Casinghead	SE Dry Gas	NW Casinghead	NW Dry Gas	Total Natural Gas (Includes NE) **	Coalseam Gas (Included in Total)
2001	210,561,174	388,855,612	15,411,258	1,063,737,579	1,684,079,925	539,294,789
2002	206,144,223	381,044,776	14,926,062	1,015,218,496	1,627,583,237	496,653,035
2003	210,285,920	363,401,495	15,189,000	992,771,597	1,596,508,530	479,734,181
2004	227,486,404	341,189,665	13,321,035	1,010,889,276	1,612,396,488	504,906,945
2005	224,582,419	324,712,946	13,385,378	1,005,249,580	1,592,683,780	520,331,644

*Volumes are adjusted to reflect amended production reports filed with the Oil Conservation Division
**Totals include gas produced in northeast New Mexico, which is not displayed in a separate column

Figure 4

5) Oil and Gas Production by County (Oil Conservation Division)

Oil and Gas Production by County

	OIL (Barrels)	Rank		GAS (Cubic Feet)	Rank
Lea	35,772,334	1	San Juan	636,525,543	1
Eddy	21,475,043	2	Rio Arriba	378,805,018	2
Rio Arriba	1,266,218	3	Eddy	277,422,893	3
San Juan	1,245,749	4	Lea	243,631,159	4
Chaves	500,537	5	Chaves	28,241,313	5
Roosevelt	374,141	6	Colfax	24,753,457	6
Sandoval	78,700	7	Roosevelt	2,080,384	7
McKinley	9,478	8	Sandoval	1,210,843	8
Santa Fe	17	9	McKinley	13,170	9
Total	60,722,217			1,592,683,780	

Figure 5

6) Oil and Gas Prices vs. Rig Count (New Mexico Tech/ Baker Hughes, Inc.)

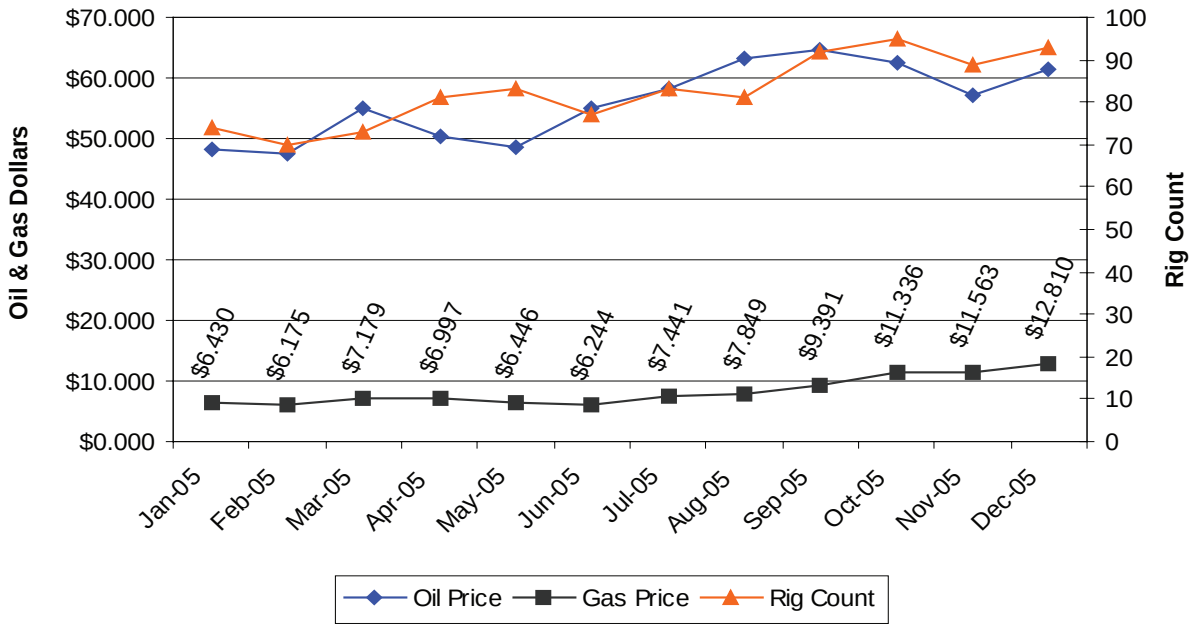


Figure 6

7) Wells Drilled and Completed by Type (Oil Conservation Division)

Wells Drilled and Completed by Year by Well Type

First Reported Completion per Well

	Gas	Oil	Other	Total
2001	951	487	56	1,494
2002	825	335	62	1,222
2003	1140	655	90	1,885
2004	1,308	558	71	1,937
2005	1,348	698	91	2,137

Figure 7

8) Oil Production by Land Type (Oil Conservation Division)

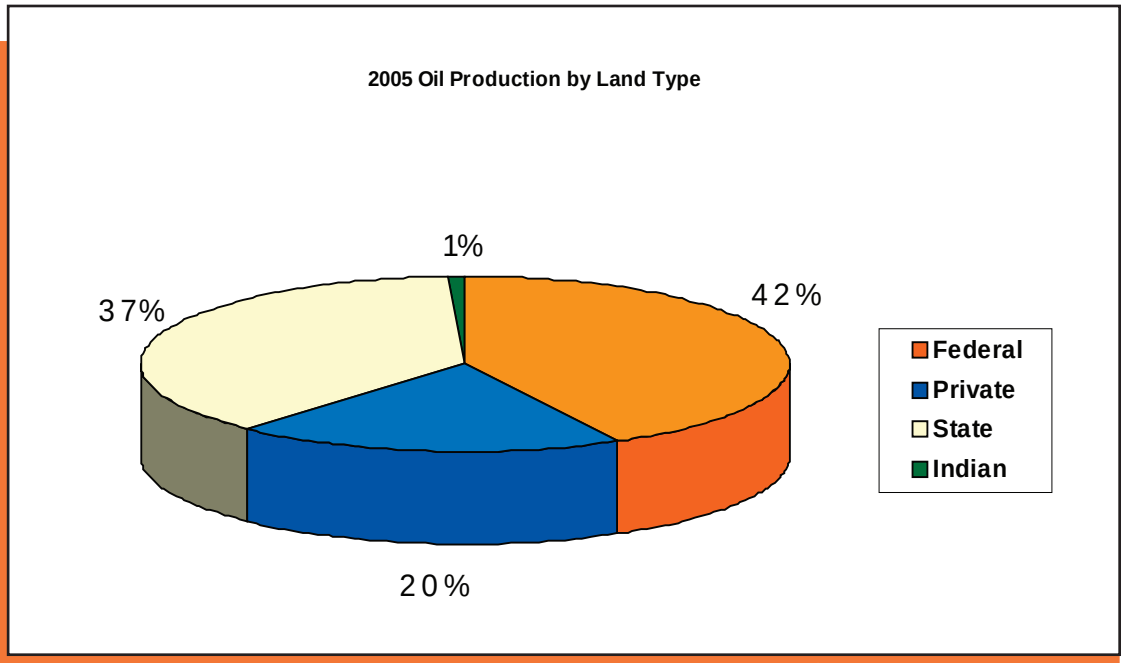


Figure 8

9) Gas Production by Land Type (Oil Conservation Division)

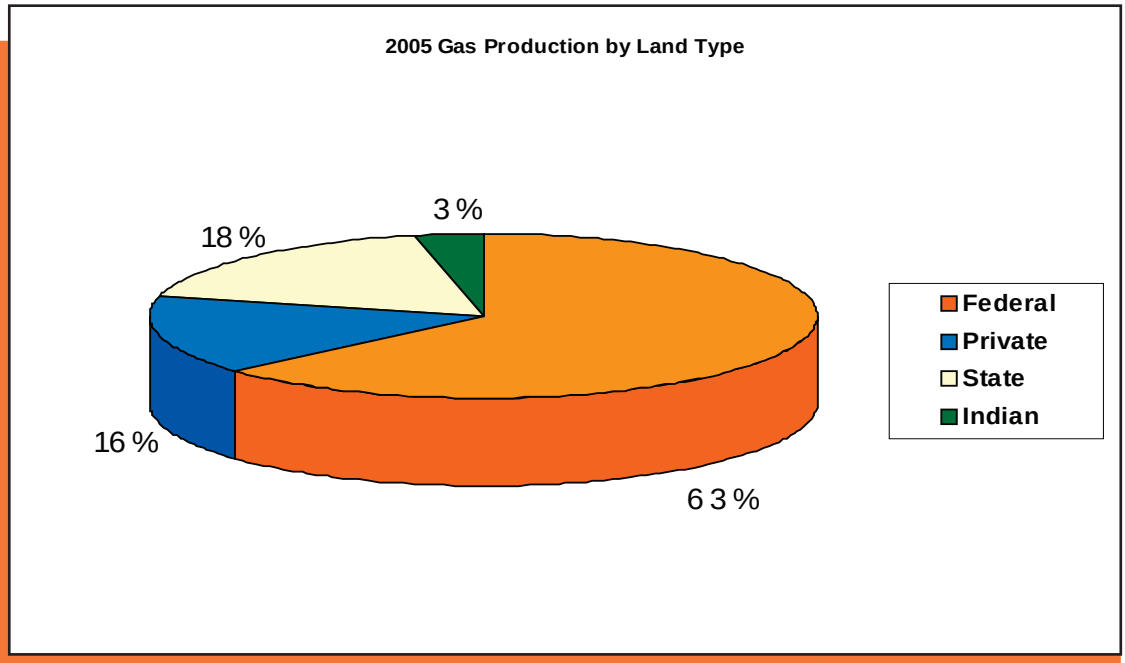


Figure 9

Parks

New Mexico State Parks Division

(SPD)

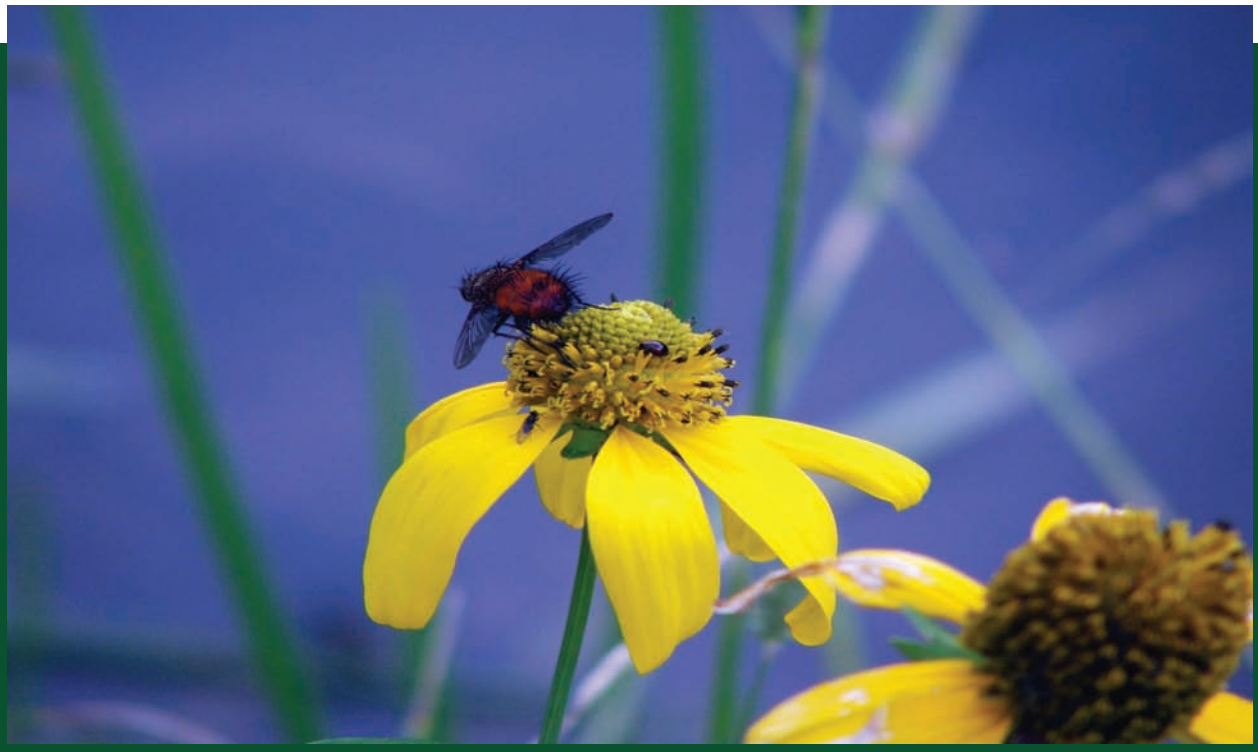


Photo by: Erica Asmus-Otero

Dave Simon

Division Director

Mission: To protect and enhance natural resources, provide recreational facilities and opportunities, and promote public safety and education to benefit and enrich the lives of our visitors.

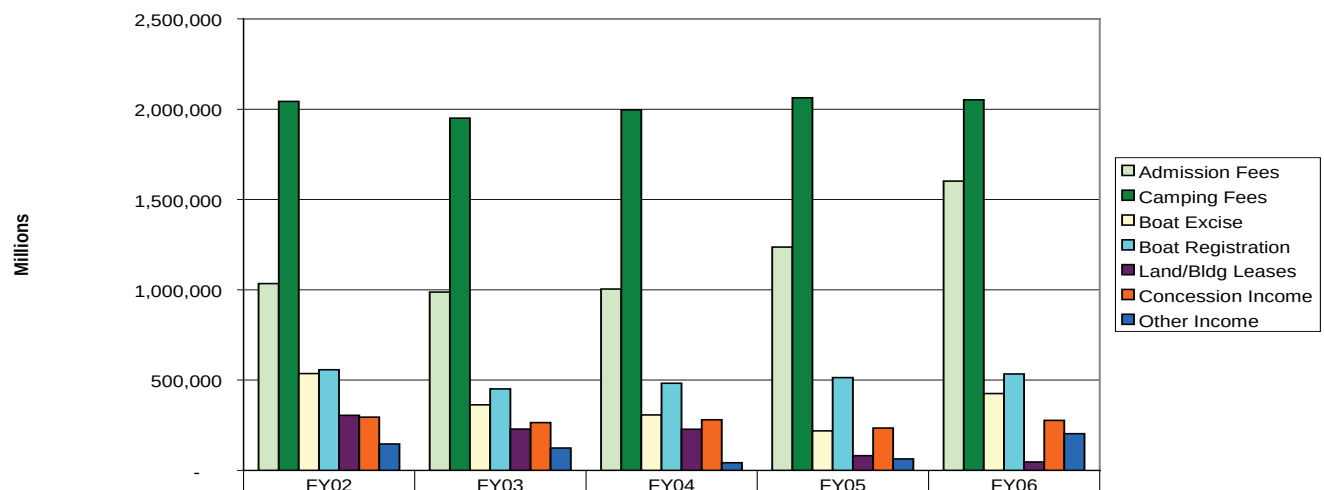
History: Formed as the New Mexico State Parks Commission in 1933, the New Mexico State Parks Division (SPD) has grown into a 34-park system that includes 19 lakes and encompasses 182,978 acres of land. SPD staffs 289 full-time employees. Last year, more than 4.1 million people visited at least one state park bringing approximately $200 million into the state's economy.

New Mexico State Parks Accomplishments:

Drought, Fires, Flooding and Overcoming Adversity: Through continuous facility improvements, expanded programming, and creative marketing, SPD has managed an impressive turnaround. Despite the challenges posed by extreme drought conditions, wildfires, and sharply rising gas prices, SPD overcame adversity and launched new, bold initiatives to educate and protect visitors and to preserve New Mexico's natural and cultural resources. Through it all, SPD remained focused on its key goals: provide first-class recreational opportunities, protect natural and cultural resources and focus on access, education, partnerships and safety. New Mexico experienced the second driest winter on record from November 2005 through April 2006. Sharply rising gas prices also seriously impacted the cost of recreation for many visitors. When fires and flooding hit New Mexico in 2006, SPD extended its arms and provided free camping to displaced victims.

Visitation to state parks remained steady during FY06 at just over 4.15 million —instead of dropping precipitously. After eight straight years of visitation decline from 1996-2003, visitation increased in FY04 and FY05. SPD maintained those gains in FY06, demonstrating major success.

SPD generated in excess of $200 million for New Mexico's economy and maintained part of the administration's plan for sustainable economic development in New Mexico, especially in rural areas.



	FY02	FY03	FY04	FY05	FY06
Admission Fees	1,034,300	987,600	1,004,000	1,236,300	1,602,000
Camping Fees	2,042,900	1,950,900	1,996,400	2,063,600	2,052,000
Boat Excise	536,600	363,300	306,700	218,800	425,800
Boat Registration	557,700	451,500	482,500	513,500	534,000
Land/Bldg Leases	305,500	229,500	228,200	81,500	47,000
Concession Income	294,900	264,800	280,300	234,200	276,700
Other Income	145,900	124,100	42,900	63,600	202,900

Figure 1

Some of SPD's creative approaches to encourage visitation included:

- Extending the maximum length of stay from 14 days to 21 days;
- Numerous promotions, including partnering with the Motor Vehicle Division to include "3 for 2" camping coupons in all MVD registration renewal mailings;

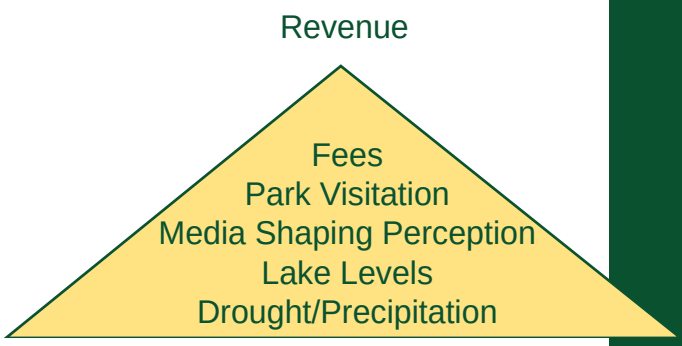


Figure 2

- Revamping the Annual Day Use pass, which is now valid 12 months from the date of purchase;
- Modifying the reservation system to allow reservations to be made up to a day in advance;
- Providing numerous and innovative educational and recreational activities at parks year-round.

SPD continued to increase marketing efforts to attract in-state and out-of-state visitors. For FY06, the Legislature increased marketing funds from $50,000 to $100,000, and SPD utilized these funds effectively. This additional funding supported expanding efforts to provide more flexibility for the SPD Marketing Department, which embarked on several initiatives including: increased print/radio advertising and innovative marketing partnerships (e.g. with the Albuquerque Isotopes and RV/boat dealers). In addition, aggressive media outreach efforts produced a record amount of positive publicity for State Parks at virtually no expense to SPD.

SPD is an "enterprise agency," legally required to generate as much of its budget as possible. Only about 34% of SPD's operating budget comes from state general funds; the other two-thirds come from park fees, boat registrations, boat excise taxes, federal funds, and other sources. With external factors such as gas prices and precipitation affecting visitation, SPD is concerned about generating sufficient revenue to operate the parks. Revenues still are below what the State Park System needs, but fortunately, a combination of strategies seems to be paying off, as total non-general fund revenue increased by $693,000 (16%) from FY05. Self-generated revenue increases in FY05 and FY06 reversed five straight years of declines. Of the 32 parks open during FY05 and FY06, 72% showed revenue increases and only nine reported revenue decreases. Of the nine, only three parks reported revenue decreases greater than 3%.

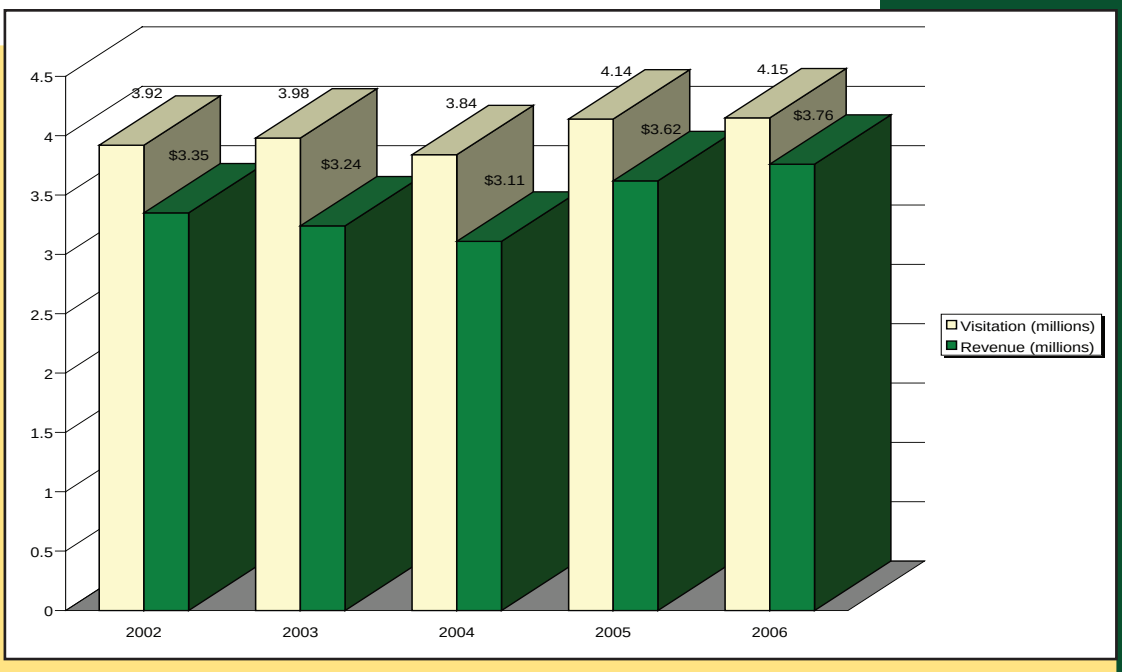


Figure 3

This replica of the "Jenny" airplane is one of many exhibits in Pancho Villa State Park's new 7,000 sq. ft. museum.

Improvement, Innovation, Expansion: SPD continued to improve the quality of State Park facilities and services, and expand the System to protect outstanding lands and sites important to New Mexico's heritage. Several of these efforts won awards and achieved regional and national recognition.

Sugarite Canyon State Park was voted as a "Top 10" destination among 5,500 state parks in the country, according to Camping Life magazine. City of Rocks State Park was listed as a "must see" in the New York Times, while Living Desert Zoo and Gardens State Park garnered national media attention for the artistic efforts of "Maggie Oso," the park's black bear who paints pictures.

Photo by: Erica Asmus-Otero

In March 2006, Pancho Villa State Park in Columbus opened a new, $1.8 million, 7,000-square foot museum and visitor center that has been called "Smithsonian-like" in its quality. The facility displays exhibits and artifacts related to Pancho Villa's 1916 raid on Camp Furlong and the period of the Mexican Revolution. The dedication, attended by over 2,000 people, was highlighted by Governor Bill Richardson and Chihuahuan Governor Jose Reyes Baeza Terrazas, who signed a Memorandum of Understanding pledging further cooperation between New Mexico and Chihuahua on historic/cultural programs related to Pancho Villa State Park.

Morphy Lake State Park received a major boost in 2006 with reconstruction of the 2.3-mile access road. This project was a successful partnership among the NM Department of Transportation, the County of Mora, and SPD. Previously, visitors were forced to travel on an extremely rough road to access the park.

A picturesque picnic spot at Morphy Lake State Park.

In June, Ute Lake State Park opened a new 45-slip, full service marina to attract and serve visitors, while providing more opportunity for local economic benefits.

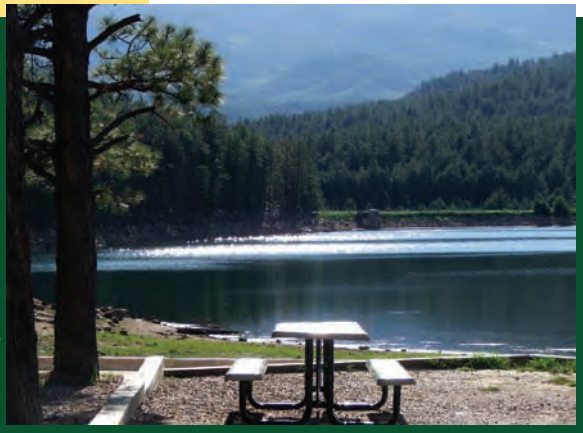


Photo by: Erica Asmus-Otero

Living Desert Zoo and Gardens State Park grew to 1,500 acres in January 2006 through the purchase of 404 acres, an acquisition that protects critical elements of the Park's viewshed and provides room for future expansion. SPD also started construction on a major upgrade to the Park's elk-deer-bison exhibit. Other land purchases are in process at Sugarite Canyon State Park, City of Rocks State Park, and Pancho Villa State Park.

SPD continued to make exciting progress on the two newest state parks—Vietnam Veterans Memorial State Park (VVMSP) and Mesilla Valley Bosque State Park (MVBSP)—which were both added to the State Park System in late 2005. A two-phase plan to renovate and

improve VVMSP is underway, beginning with work on the Peace and Brotherhood Chapel. Improvements to the museum/visitor center (Phase II) will follow. Following groundbreaking at MVBSP in December 2005, work has finished on a new access road; construction of a new $1.9 million visitor center will commence in early 2007.

A scenic view of Mesilla Valley Bosque State Park.

Photo by: Erica Asmus-Otero

SPD worked with various partners, including the County of Santa Fe, on the concept of a new state park, Cerrillos Hills/Galisteo Basin State Park. SPD completed a feasibility study of the proposal in 2006 and the Legislature provided preliminary funding for development if the park moves forward. Extensive public comment on the study indicated 80% favored SPD beginning the project. SPD continues to work with the City of Gallup on the re-establishment of Red Rock State Park, which will likely occur in 2007.

SPD is well on its way to accomplishing the goal set in 2004 of building 100 miles of new trails within its parks by 2010. SPD hired a new Trails Coordinator in 2006 and the program improved. SPD distributed $1.1 million to 10 entities in 2006 through the Recreational Trails Program (RTP), a federal-aid program that helps communities to design, construct and maintain trails. The funding in 2006 was the highest total amount ever awarded in the program's 14-year history.

Eagle Nest Lake State Park, Sumner Lake State Park, and Heron Lake State Park all opened new trails, and more trails are being planned at other parks, including Navajo Lake State Park and Leasburg Dam State Park. SPD is also using funds requested by Governor Richardson and appropriated by the Legislature to launch the Rio Grande Trail project and assist with the completion of the Continental Divide National Scenic Trail in New Mexico.

SPD also completed the relocation of two of its four regional offices this year. The southwest office (Region 3) moved into a new facility built by SPD staff in Dona Ana County along the Rio Grande that will provide a central location for the office, and the southeast office (Region 4) completed a long-planned move to Carlsbad, where the parks and the public will be better served.

Under New Mexico's boating safety law, anyone 18 years old and under that operates a motorized vessel is required to have taken an approved boating safety class.

Safety, Education and Resource Protection: These are two important aspects of SPD's mission. Significant progress was made in these areas this past year. Governor Bill Richardson signed the Boating Safety Act into law in March of 2006. This was a historic milestone to improve boating safety in New Mexico. The new law made two major changes to New Mexico statutes: 1) anyone (residents and non-residents) 18 years and under on or as of January 1, 2007 are required to take a boating safety course before operating a motorized vessel in New Mexico and 2) children 12 and under are required to wear a personal flotation device (lifejacket) while on board a moving vessel. This common-sense approach will reduce accidents and injuries and make boating safer in New Mexico for generations to come. SPD was honored by the National Transportation Safety Board for New Mexico's new boating safety law.

Photo by: Chris Martinez

Strengthening Relationships: Communities, governmental agencies and the private sector can do much to improve public lands and create mutual gains. By working together, these partnerships benefit New Mexico State Parks.

SPD strengthened successful interagency partnerships with the Department of Tourism, Department of Transportation, Department of Game and Fish, Department of Health, Environment Department, Office of the State Engineer, other divisions like Forestry within EMNRD, and federal partners such as the Bureau of Reclamation, Army Corps of Engineers, and National Park Service.

SPD continued to extend partnerships with organizations and individuals outside government. Friends groups are organizations of private citizens who support parks through volunteerism, advocacy, and fundraising. SPD's goal is to have an organized friends group for every state park. So far, 22 of the Division's 34 parks have friends groups.

Coyote Creek State Park camp hosts, Jim and JoAnn Robertson.

Photo by: Coyote Creek State Park

In 2006, 1,450 individuals volunteered their time and energy to improve State Parks. Volunteers contributed more than 217,000 hours to State Parks during FY06—an increase of over 50% since 2003. These volunteers represent the equivalent of over 90 extra employees and $2.5 million in salaries—while adding new skills and talents to the Division. From campground hosts to interpretive guides, volunteers to play a vital role.

State Parks recieved 19,000 hours of inmate labor valued at over $316,000.

Toward the Future: SPD met or exceeded virtually all of the performance measures set by the Legislature over the past three fiscal years.

The strategic direction for SPD includes efforts to increase visitation, improve recreation opportunities statewide, protect sites important to New Mexico's natural and cultural heritage, make boating in New Mexico safer, diversify and expand revenue streams, improve facilities, and expand programs—especially Outdoor Classroom programs for school children. These efforts all tie into three of Governor Richardson's major policy goals: "Preserving and Protecting New Mexico's Environment," "Improving Health Outcomes and Family Support for New Mexicans," and "Making Schools Work."

Travel industry experts predict that nearly 80% of travel growth is driven by adventure, and natural- and cultural-based tourism activities. Even as SPD confronts the challenges of fluctuating recreation conditions and budget stress, the future remains bright because parks and recreation are important to the quality of life in New Mexico. SPD challenges itself to exceed expectations set by the Legislature.

On that front, SPD staff at every park and office across the state performed with excellence and dedication in FY06. For its outstanding overall performance, Oasis State Park was honored as the SPD's "Park of the Year." Steve Tafoya, Field Operations Bureau Chief, won the Secretary's Award for exemplary performance, and Jeremy Smith, Heritage Education at Vietnam Veteran's Memorial State Park, won the Governor's Award—the Division's highest honor to an employee in the field.

Photo by: Erica Asmus-Otero

Contributing writer to the Park's section: Erica Asmus-Otero.

New Mexico Radioactive Waste Consultation Task Force/WIPP Transportation Safety Program

Photo by: Anne deLain W. Clark

WIPPTRAX staged accident exercise in Nambe - RAP team member taking Geiger counter readings on suspicious material.

Anne deLain W. Clark

Coordinator

Photo by: Anne deLain W. Clark, WIPPTRAX
staged accident exercise in Eddy County
- first responders removing "victim" from the
hot zone.

Mission: To represent the interests of the State of New Mexico regarding the safe and uneventful transportation of nuclear waste through the state.

Programs: Under the Energy, Minerals and Natural Resources Department's leadership, and through the New Mexico Radioactive Waste Consultation Task Force, six state agencies collaborate on the Waste Isolation Pilot Project (WIPP) Transportation Safety Program.

The task force coordinator, through the WIPP Working Group, manages and implements the WIPP Transportation Safety Program. The program includes the setting and updating of policies and operating procedures; training and equipping emergency responders along all 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 point of origin or at the New Mexico ports of entry.

Radioactive Waste Consultation Task Force Accomplishments:

In 2006, the WIPP Transportation Safety Program:

- Maintained six Memorandums of Understanding (MOUs) between the state and jurisdictions/tribal entities to receive radiation monitoring and emergency response equipment through the Homeland Defense Equipment Reuse Program;
- Maintained 17 Joint Powers Agreements (JPAs) with city and county fire departments along WIPP routes to support ongoing training and equipment maintenance related to radioactive and hazardous materials emergency response;
- Provided new and recalibrated emergency response equipment to 18 New Mexico communities;
- Trained more than 350 emergency responders in 19 New Mexico communities; and
- Trained over 600 law enforcement personnel in the National Incident Management System (NIMS) requirements.

Youth

Conservation Corps (YCC)

Wendy Kent

Executive Director

Photo by: Wendy Kent, thinning project at Animas River Park, Farmington Municipal

Vision: A New Mexico where Youth Conservation Corps members contribute to the quality of life of all New Mexicans.

Mission: Promote the education, success and well-being of the youth of New Mexico through the conservation and enhancement of the state's natural resources creating lasting community benefits.

Goals: Together we strive for . . .

- Healthy natural resources and lasting community benefits
- Instilling values of hard work and accomplishments
- Promotion of education and training

Values: We strive to be . . .

- Responsible stewards of the state's resources
- Positive role models for New Mexico's youth

New Mexico Youth Conservation Corps (YCC) positively impacts young people from diverse backgrounds ages 14 through 25 throughout New Mexico with its long-standing youth development program. YCC fulfills its legislative mandate by providing education and employment opportunities that conserve and enhance the natural resources of our beautiful state. Through these projects, YCC enables hard-working youthful citizens to improve the rural and urban communities in which they live while instilling an appreciation for the merits of diligent work to overcome physical and emotional challenges. In 2006 YCC employed over 700 youth.

Youth Conservation Corps Accomplishments:

The Youth Conservation Corps made it possible for 31 communities to implement needed projects that provided lasting benefits. Some examples of these projects include:

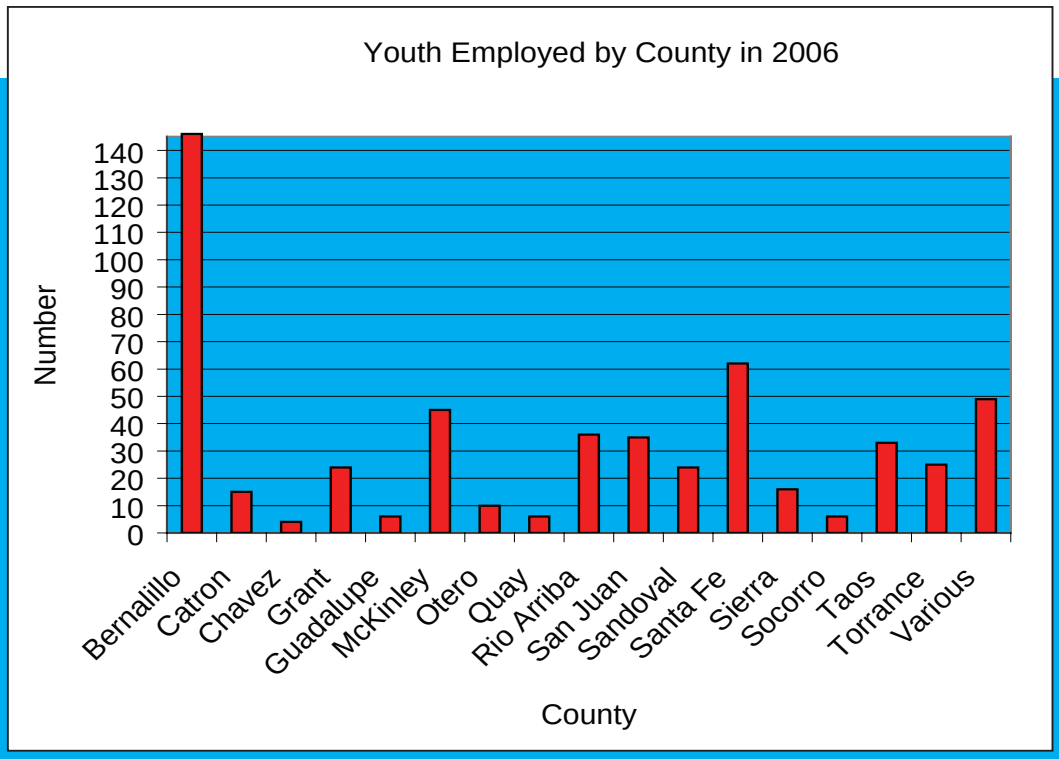
- Watershed improvements
- Trail construction
- Recreational facilities improvements
- Cultural heritage preservation

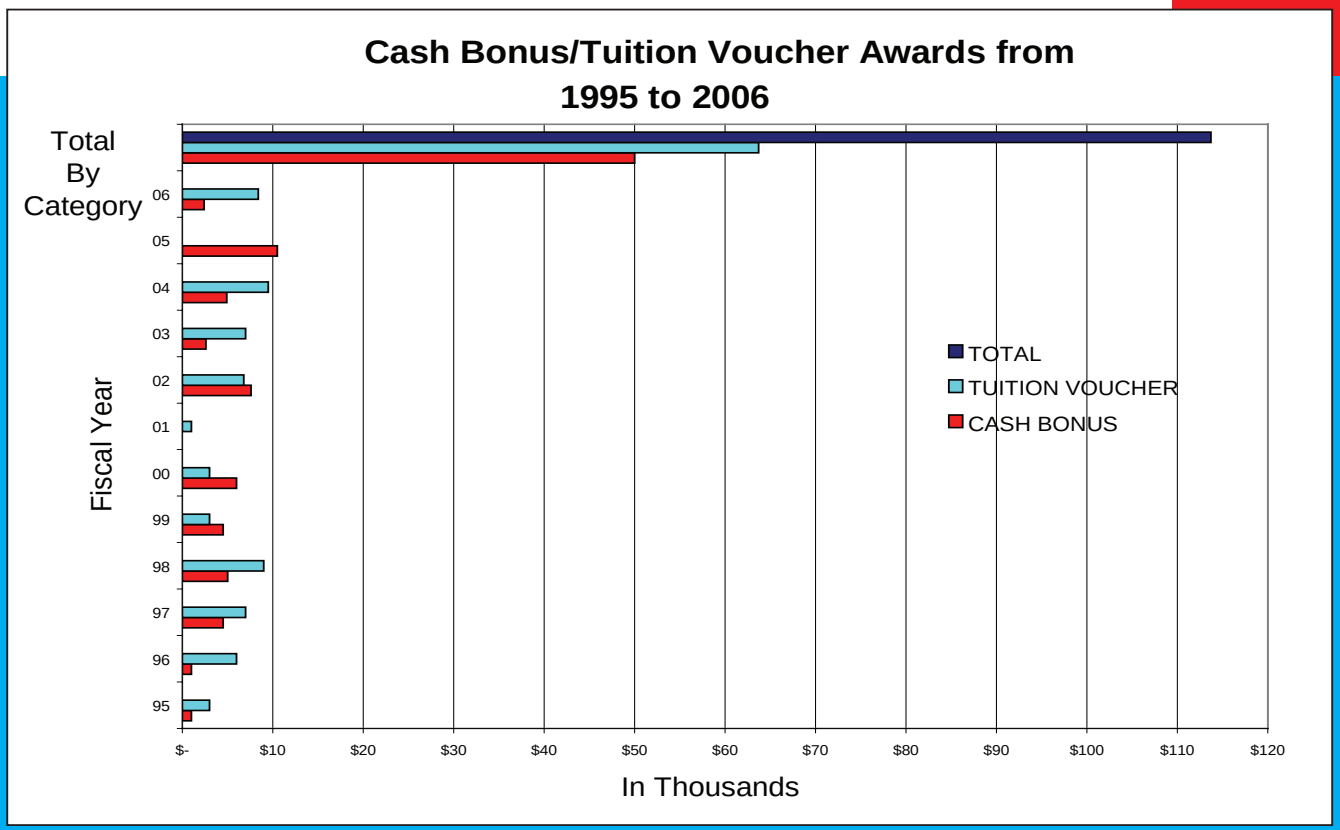
The YCC program encouraged Corps members to increase their opportunities for employment by stressing the importance of education and training. Corps members meeting certain criteria are eligible to receive a $500 cash bonus or a $1,500 tuition voucher. The tuition voucher may be used at any New Mexico institution of higher education. Since the inception of this scholarship program over $113,000 has been distributed.

Other Accomplishments:

- Implemented an on-line Request for Proposal;
- Implemented an on-line reporting system for both Project Sponsors and Corps members;
- Provided over 16 workshops to project sponsors, professional organizations and the general public;
- Met Corps members on a one-to-one basis; and
- Provided 11 scholarships to members.

Photo by: Wendy Kent, gazebo, city of Tucumcari, New Mexico


Youth Employed by County in 2006
Number
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Bernalillo
Catron
Chavez
Grant
Guadalupe
McKinley
Otero
Quay
Rio Arriba
San Juan
Sandoval
Santa Fe
Sierra
Socorro
Taos
Torrance
Various
County


Cash Bonus/Tuition Voucher Awards from 1995 to 2006
Total By Category
Fiscal Year
06
05
04
03
02
01
00
99
98
97
96
95
$-
$10
$20
$30
$40
$50
$60
$70
$80
$90
$100
$110
$120
In Thousands
TOTAL
TUITION VOUCHER
CASH BONUS

Projects funded in 2005

	Project Sponsor	County	# of Youth	Amount Awarded
1	National Hispanic Cultural Center	Bernalillo	11	$97,776.44
2	Rio Grande Educational Collaborative	Bernalillo	34	$103,185.26
3	SER de New Mexico	Bernalillo	6	$14,787.00
4	Talking Talons Youth Leadership Program	Bernalillo	18	$160,305.04
5	United South Broadway	Bernalillo	25	$100,341.00
6	Catron County Citizens Groups	Catron	15	$78,134.00
7	Roswell - Spring River Zoo, City of	Chaves	4	$37,004.00
8	Southwest Environmental Center	Dona Ana	12	$83,081.00
9	EMNRD - City of Rocks State Park	Grant	14	$93,038.00
10	Silver City, Town of	Grant	38	$145,756.00
11	Silver Consolidated Schools	Grant	6	$11,201.00
12	EMNRD - Pancho Villa State Park	Luna	6	$42,457.38
13	Gallup, City of	McKinley	70	$174,004.00
14	Tucumcari, City of	Quay	5	$23,734.00
15	Chimayo Youth Conservation Corps	Rio Arriba	18	$73,177.40
16	Espanola Public Schools	Rio Arriba	19	$89,029.00
17	Hands Across Cultures	Rio Arriba	14	$56,985.10
18	Mesa Vista Consolidated School District	Rio Arriba	12	$34,439.00
19	Rio Arriba County	Rio Arriba	15	$73,766.00
20	Aztec, City of	San Juan	18	$130,964.25
21	Farmington Municipal Schools	San Juan	35	$132,887.20
22	Navajo Prep School, Inc.	San Juan	14	$74,388.50
23	Cuba Independent Schools	Sandoval	10	$28,737.00
24	Jemez State Monument	Sandoval	7	$36,555.00
25	Jemez, Pueblo of	Sandoval	10	$23,022.40
26	Children's Museum	Santa Fe	4	$30,731.00
27	YouthWorks	Santa Fe	20	$188,762.00
28	EMNRD - Caballo State Park	Sierra	6	$36,710.00
29	Truth or Consequences, City of	Sierra	6	$48,291.00
30	EMNRD - Socorro Forestry Division	Socorro	8	$32,490.00
31	Rocky Mountain Youth Corps	Taos	9	$100,000.00
32	Encino, Village of	Torrance	4	$6,772.00
33	Estancia, Town of	Torrance	10	$49,479.00
34	Mountainair Public Schools	Torrance	12	$57,876.20
35	Forest Trust	Various	49	$193,958.00
	TOTAL		**564**	**$2,663,824.17**
	Governor's Pinon Initiative			
	Rocky Mountain Youth Corps	Taos	10	$100,000.00

Projects funded in 2006

	Project Sponsor	County	# of Youth	Amount Awarded
1	Bernalillo County Parks and Recreation Dept.	Bernalillo	12	$143,502.79
2	Lifework Learning, Inc.	Bernalillo	50	$198,773.39
3	Rio Grande Educational Collaborative	Bernalillo	36	$80,591.66
4	Talking Talons Youth Leadership	Bernalillo	18	$145,844.40
5	United South Broadway Corporation	Bernalillo	30	$159,649.90
6	Catron County Citizen's Group	Catron	15	$81,716.37
7	City of Roswell Spring River Park and Zoo	Chaves	4	$36,209.00
8	Town of Silver City	Grant	24	$143,334.96
9	Forest Guild	Grant, Lincoln, Mora, Otero, Rio Arriba, Sandoval, San Miguel, Taos and Torrance	49	$199,084.65
10	Santa Rosa Consolidated Schools	Guadalupe	6	$10,043.25
11	City of Gallup	McKinley	45	$191,579.28
12	Mescalero Apache Tribe - Fire Rescue	Otero	10	$91,567.60
13	City of Tucumcari	Quay	6	$23,493.52
14	Chimayo Youth Prevention Corp.	Rio Arriba	17	$92,544.41
15	Espanola Public Schools	Rio Arriba	19	$98,129.49
16	Farmington Municipal School District	San Juan	35	$150,931.52
17	Coronado State Monument	Sandoval	5	$30,225.52
18	Cuba Independent School District	Sandoval	12	$38,560.23
19	Jemez State Monument	Sandoval	7	$42,338.79
20	Chimayo Youth Prevention Corp.	Santa Fe	17	$88,653.36
21	Indigenous Language Institute	Santa Fe	7	$48,626.27
22	New Mexico Wildlife Association	Santa Fe	15	$98,216.60
23	Santa Fe Children's Museum	Santa Fe	6	$51,502.70
24	YouthWorks	Santa Fe	17	$183,635.90
25	EMNRD - Caballo Lake State Park	Sierra	6	$36,340.06
26	Heritage Ranch Institute- Sierra County	Sierra	10	$87,694.00
27	EMNRD - Socorro Forestry District	Socorro	6	$20,697.52
28	Picuris Pueblo	Taos	9	$43,942.90
29	Rocky Mountain Youth Corps	Taos	24	$77,169.94
30	Mountainair Public Schools	Torrance	11	$37,549.60
31	Town of Estancia	Torrance	14	$69,770.96
	TOTAL		**542**	**$2,801,920.54**

Energy, Minerals, and Natural Resources Department

Photo by: Anne deLaine W. Clark

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 1989)
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 1996)

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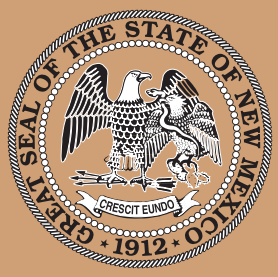
Editor's Note: If you have any questions or comments regarding this document, please contact Jodi McGinnis Porter, Public Information Officer, at:

Energy, Minerals and Natural Resources Department

1220 South St. Francis Drive

Santa Fe, NM 87505

(505) 476-3226



Energy, Minerals and Natural Resources Department
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505
www.emnrd.state.nm.us