Bill Richardson
Governor of New Mexico

Joanna Prukop
Cabinet Secretary

New Mexico Energy, Minerals and Natural Resources Department

Photo by: Mikal Altemare, Bisti Badlands, San Juan Basin, NM

New Mexico Energy, Minerals and Natural Resources Department
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.
I have had the pleasure of serving as Cabinet Secretary for the New Mexico Energy, Minerals and Natural Resources Department for the past six years. During that time, our office has implemented an aggressive and progressive agenda concerning public lands management, regulation of oil and gas exploration and development, clean energy development, enhancing state parks, expanding land conservation and wildlife habitat protection initiatives, addressing forest and watershed health concerns, and requiring mining operations to protect environmental values by providing financial assurance for close-out and reclamation costs. These accomplishments help ensure future sustainable economic development by keeping our state a healthy and attractive place to grow families and a state that continues to attract visitors and businesses.

At the New Mexico Energy, Minerals and Natural Resources Department, we focus on four main objectives: developing reliable supplies of energy and energy-efficient technologies and practices, with a balanced approach toward conserving renewable and non-renewable resources; ensuring the protection of the environment and responsible reclamation of land and other resources affected by mineral extraction; growing healthy, sustainable forests and managing them for a variety of users and ecologically sound purposes; and improving the state park system so that it protects New Mexico’s natural, cultural and recreational resources for posterity while contributing to a sustainable economy statewide.

The department’s dedicated staff works to achieve these goals for the citizens of New Mexico. The legacy of our work must be an environment and natural resource heritage that gives future generations in New Mexico the rich quality of life we so fully enjoy today.

I am pleased to submit the Energy, Minerals and Natural Resources Department Annual Report, which includes our 2008 accomplishments and the latest available resource data and statistics.
Energy Conservation and Management Division
A Message from Division Director Fernando Martinez

The Energy Conservation and Management Division (ECMD) is committed to work diligently to help ensure that New Mexico continues to be a national leader as the “Clean Energy State” in the new energy economy and to help its citizens enjoy the benefits of clean energy in their daily lives. Effective clean energy programs are vital for greater energy security and increased conservation and efficiency across all sectors of our state’s economy.

Toward that end, ECMD oversees and implements the state’s clean energy program by managing and administering various plans that reduce energy use and increase clean energy supplies. Our renewable energy, energy-efficiency and conservation, and efficient transportation and clean fuels programs support measures to reduce electricity costs, work toward reducing greenhouse gas emissions while conserving water and encourage new ways to make conventional energy sources cleaner.

Thanks to the hard work of a dedicated staff, ECMD received the Department Secretary’s 2008 Teamwork Award. The successful implementation of these programs brings economic growth and diversification that protect and conserve New Mexico’s natural resources and environment for generations to come.

New Mexico has the resources and the potential to produce hundreds of times more clean energy than it currently produces. Consequently, our state has made big investments in its world-class renewable resources through a combination of standards and incentives. Our report provides specific information about these investments and the achievements realized in 2008.

Visit our website at www.CleanEnergyNM.org for complete information or call us for assistance. We’re here to help so that each of us can make a difference in our energy future. Please join us in working toward more reliable supplies of energy and energy-efficient technologies and practices that will lead to greater economic and environmental sustainability for New Mexico.
Energy Conservation and Management Division

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

**PROGRAMS:** ECMD oversees and implements the state’s clean energy program. This is accomplished by managing and administering various plans that reduce energy use, including the Renewable Energy Program, the Energy Efficiency in Buildings Program, and the Clean Fuels and Efficient Transportation Program. These programs encourage new ways to make traditional energy sources cleaner and reduce the amount of climate-changing greenhouse gases they produce.

In addition to managing the nuts and bolts of our programs, ECMD staff enthusiastically supported scores of events around the state in a concerted outreach effort to promote the state’s tax credits and provide education about renewable energy, energy-efficiency and conservation. Thousands of educational and informational brochures were distributed and dozens of presentations were made in statewide venues ranging from fairs, to schools, to industry and state agency conferences and meetings, to solar fiestas and Earth Day events. Through funding from the U.S. Department of Energy and in collaboration with staff, an award-winning contractor spearheaded other outreach projects including New Mexico Clean Energy Update reports on public radio, print ads, movie theater ads and public service announcements. Our website serves as a repository for this information and much more – www.CleanEnergyNM.org.

**Accomplishments**

**RENEWABLE ENERGY PROGRAM:** Renewables lessen our dependence on fossil fuels and foreign oil and New Mexico is a true national leader in renewable energy development. This program promotes the development and production of solar, wind, biomass and geothermal energy. Clean Energy Projects, energy innovation funding and tax credits – including the Renewable Energy Production Tax Credit, Industrial Revenue Bond financing that provides relief from property taxes, and the Gross Receipts Tax Exemption for certain renewable energy projects – provide incentives to advance the use of these resources. These incentives, combined with data collection, funding studies and research, all play a pivotal role in the program’s successes.

**SOLAR:** Blessed with an abundance of sunshine, New Mexico ranks second in the nation in solar energy production potential. The U.S. Department of Energy’s 2008 Renewable Energy Data Book findings place New Mexico among a handful of states leading the way in solar energy development. Advancements in the state’s solar energy production are possible thanks to a strong state leadership willing to focus on solutions that provide incentives for citizens, businesses and schools.

Homeowners, businesses and agricultural entities that install solar photovoltaic or solar heating systems are eligible for New Mexico’s Solar Market Development Tax Credit benefits. Up to $5 million in state government tax credit support is available annually through 2015. Since its inception in 2006, $9.4 million has been invested in solar installations; of that, $1.8 million in state solar credits was used to leverage $776,000 in federal tax credits. Four hundred forty-three (443) solar systems producing 697 kilowatts (Figure 1) and generating 14.76 million British Thermal Units (BTUs) per day (Figure 2) have been installed.
ECMD received a Technical Assistance Award through the U.S. Department of Energy’s Solar America Showcase program. The project, Zero Energy Solar Photovoltaic Housing Development, partners ECMD with Sandia National Labs, City of Albuquerque, PNM, Artistic Homes and Mesa del Sol to provide technical assistance to remove barriers and make it feasible to install grid-tied photovoltaic systems. As many as 300 energy-efficient homes are slated to be built between March 2009 and March 2010 in the new sustainable development of Mesa del Sol in Albuquerque. The potential size of this project is 750 kilowatts and would provide direct benefits to as many as 1,200 people living in these homes.
The University of New Mexico’s (UNM) solar thermal project (pictured left) funded through the Clean Energy Projects program is now completely installed. The solar system will produce 35 percent of the cooling and 70 percent of the heating for the Mechanical Engineering Building located on the UNM campus.

The Los Alamos County Eco Station (a solid waste transfer station) also received Clean Energy Project funding and held a ribbon-cutting ceremony in November. The administration building received Leadership in Energy and Environmental Design (LEED®) Gold certification. The grant funded the green building’s solar heating and hot water system which also features night sky cooling, reducing energy use by 70 percent.

An 8-kilowatt photovoltaic solar system at the Alamogordo-White Sands Regional Airport (pictured right) was made possible with a Clean Energy Project grant. This project represents the first grid-tied solar system to be installed at a New Mexico airport and is expected to save the City of Alamogordo $400 to $500 a month in electric costs. During the installation phase, New Mexico State University-Alamogordo students participated in a day-long hands-on seminar to become familiar with photovoltaic system components and learn how the systems are installed.

Other solar Clean Energy Projects in progress include:

- Jemez Pueblo: 2-megawatt concentrating solar photovoltaic power plant
- City of Albuquerque: 10-kilowatt tracking solar photovoltaic system on Sunport Boulevard to charge an electric vehicle
- City of Belen: Two 3-kilowatt dish Stirling engine solar systems, as well as two solar domestic hot water systems and efficient lighting in City Hall to reduce utility expenditures
New Mexico State Parks: 6-kilowatt solar photovoltaic systems on existing rooftops using a net metering configuration located at Pancho Villa, Mesilla Valley, Oliver Lee and Eagle Nest state parks

Mid-Region Council of Governments: 10-kilowatt photovoltaic solar system at the Alta Vista Rail Runner Station in Santa Fe

Santa Fe Community College: Solar Combined Heat and Power System technology and an educational display to demonstrate the use of solar energy at the Alternative Energy Demonstration Park.

**WIND:** According to the American Wind Energy Association’s *Annual Rankings Report*, New Mexico had the third largest percentage of wind generation among all states in 2007 and is in the top ten in installed wind capacity. New Mexico’s potential for electricity generation from wind is enormous, especially on the eastern plains. Estimates place New Mexico’s annual wind energy potential at 435 billion kilowatt-hours, meaning that many times its own electrical consumption could be produced, putting the state in a position to export more electricity from wind power.

ECMD continues to grow the wind energy component of the state’s clean energy economy. High Lonesome Mesa, a new wind farm under construction south of Willard, is scheduled for completion in 2009. With its 100-megawatt power production capacity, the state’s installed wind capacity will increase to 596 megawatts. New Mexico already has five operating wind farms:

- New Mexico Wind Energy Center (204 megawatts), northeast of Ft. Sumner in DeBaca and Quay counties
- Caprock Wind Ranch (80 megawatts), south of San Jon in Quay County
- San Juan Mesa Wind Project (120 megawatts), west of Elida in Roosevelt County
- Aragonne Mesa Wind Project (90 megawatts), west of Santa Rosa in Guadalupe County
- Llano Estacado Wind Ranch (2 megawatts), near Texico in Curry County.

In the furtherance of wind energy developments, the New Mexico Wind Energy Working Group reconvened in December 2008. This group is facilitated by ECMD to create a collaborative approach toward the continued success of wind energy projects.

ECMD provides funding to actively collect and share wind data at a 100-meter-tall monitoring tower located southwest of Tucumcari. Through the dissemination of wind power data, wind maps and a wind geographic information system, ECMD promotes growth of the utility-scale wind farm industry.

Thanks to ECMD Clean Energy Projects program support and resultant state and U.S. Department of Labor funding, the North American Wind Research and Training Center located at Mesalands Community College in Tucumcari installed a 1.5-megawatt wind turbine. Students entering the green-collar job market now have hands-on
opportunities to learn real-world skills on a utility-scale turbine. The wind turbine, fully commissioned in December 2008, generates clean electricity for the entire Mesalands campus and stands out as a success in the Governor’s Lead by Example initiative.

The Renewable Energy Production Tax Credit (PTC) has been a successful incentive to stimulate wind energy development. As of December 2008, the PTC is fully allocated with no more state tax credits available for wind and biomass power production until more tax credits become available. For wind and biomass, the PTC provides a tax credit of $0.01 per kilowatt-hour against the corporate income tax. However, tax credits remain available for solar power production. An annually-scheduled solar tax credit is used that averages $0.027 per kilowatt-hour.

As the first of its kind in the U.S., the New Mexico Renewable Energy Transmission Authority (RETA) is stimulating the clean energy economy: RETA develops needed electric transmission infrastructure, with an emphasis on renewable energy development. RETA focuses on intrastate and interstate (as it relates to exporting New Mexico’s generated power) electric system transmission infrastructure planning, financing and implementation. A more robust transmission infrastructure will prepare New Mexico for the continued growth in the renewable energy sector.

**BIOMASS:** Dairy manure, forest thinnings and algae have the potential to provide affordable renewable energy while reducing environmental hazards and taking advantage of New Mexico’s unique landscape.

With federal funds managed by ECMD, New Mexico State University (NMSU) received financial support to construct an anaerobic bio-fermentation unit to process dairy waste. New Mexico dairies produce more than 1.1 million tons of manure annually. The potential exists for converting that manure into energy, thus reducing waste, avoiding groundwater contamination and mitigating greenhouse gas emissions. The methane gas produced powers an engine/generator. The residual solids provide a soil amendment for a commercial greenhouse operation, thereby reducing air and water pollution problems associated with dairy waste. This project received additional funding through an Energy Innovation Fund award to enhance biogas production by improving the digestion process and blending other agricultural waste with the manure.

ECMD provided assistance to Pecos Valley Biomass Cooperative, a group of dairymen pooling resources to tackle collection and management of dairy waste. Efforts are underway to determine the highest-value use of the energy produced – whether as pipeline quality gas, engine fuel or electricity. The gas produced may replace natural gas used by a nearby processing plant. As the cost of fossil fuel-based fertilizer rapidly rises, dairymen are looking to the digested manure solids as an environmentally-benign, nutrient-rich alternative.

Forest thinnings reduce wildfire danger and promote healthy forests, while also providing a fuel resource for biomass boilers. ECMD manages two projects that use wood biomass boilers for heating. With funding from ECMD, Taos Pueblo procured and installed a chunk-wood boiler that heats an administrative and educational building and two greenhouses where tribal members grow food for local consumption. Fort Bayard Veterans Hospital’s 150-horsepower wood biomass steam-boiler system, through leveraged federal funding secured by ECMD, will provide heat for the hospital and laundry and replaces an existing natural gas boiler. This project will offset natural gas costs and reduce wildfire hazard by removing more than 1,000 tons of wood thinnings from the Gila National Forest annually. ECMD has worked closely with State Forestry Division, General Services Department, Department of Health and private-sector fuel providers and engineers to ensure installation of reliable equipment to provide a high-quality fuel that is a sustainable alternative to natural gas.
New Mexico’s ample sunshine and open spaces offer an excellent setting for developing an algae-to-energy industry. ECMD, through the Energy Innovation Fund, supported the City of Carlsbad and NMSU in two algae-to-biofuels projects. The City of Carlsbad Algae Biodiesel Project’s primary purpose was to produce biodiesel on a commercial scale using brackish water. The project demonstration succeeded in establishing a viable stock of *Nannochloropsis* algae for introduction into pilot ponds. The project has been expanded to increase algae production and harvesting using land and resources that do not compete with food production. NMSU’s project will be located in existing greenhouses utilizing geothermal water in the photobioreactor. The overall goals of this project are to determine the suitability of southern New Mexico for large-scale algal biofuels production and evaluate nutrient sources such as municipal waste water.

**GEOTHERMAL:** New Mexico’s geothermal resources have been commercially-used for decades, originally in spas and resorts. However, in the last 25 years, geothermal applications have been utilized for a broader range of direct use developments for water and space heating. As a direct result of collaborative efforts between ECMD and NMSU, New Mexico leads the nation with more than 50 acres of geothermally-heated commercial greenhouses and also has one of the largest geothermal aquaculture facilities. Another project is under development in the southwestern portion of the state where drilling identified an electric power production geothermal resource. The plant will produce 10 megawatts to start – enough renewable electric power for at least 8,000 average households annually – and will be expanded later to 20 megawatts or more.

In May 2008, ECMD hosted a New Mexico Geothermal Energy Working Group meeting in Santa Fe with approximately 50 people in attendance, including industry representatives, consulting engineers, government officials and members of the public. Discussion topics included technical aspects of ground source heat pump systems, direct use and geothermal for electricity production. Another working group meeting is planned for May 2009.

The Energy Information Administration reports that, in 2006 (latest available data), total geothermal energy consumed in New Mexico equaled 697 billion BTU. The majority of this consumption is from direct use within the industrial sector.

**ENERGY EFFICIENCY IN BUILDINGS PROGRAM:** With the growing understanding of the impact buildings have on climate change and energy consumption, New Mexico has implemented programs to promote energy-efficient buildings in both the public and private sector. In 2008, we began to see the results of the seeds planted since Governor Richardson declared New Mexico the “Clean Energy State.” Clean Energy Projects and Executive Order 2006-001 on *Energy Efficient Green Building Standards for State Buildings* have prompted the pursuit of LEED® certification in new public buildings. The Energy Efficiency and Renewable Energy (EERE) Bonding Act initiated three key energy renovation projects in our state museums. Several public school projects are progressing toward a goal of reducing energy by 50 percent. And scores of projects are in the pipeline to receive the state’s Sustainable Building Tax Credit. The cumulative effect is not only the resultant energy savings, but the shifting of the building industry toward a more energy-conscious and knowledgeable cadre of professionals.
ECMD is a technical advisor to the General Services Department in support of the state government “Lead by Example” program, to reduce energy usage in state agency operations (facilities and fleets) and track state agency energy usage. Energy efficiency goals were established for executive branch state agencies through Governor Richardson’s Executive Order 2007-053 on Increasing Energy Efficiency. The Executive Order sets a target of 20 percent energy reduction for state agencies by 2015, as well as for New Mexico as a whole by 2020. Through this commitment by the executive branch state agencies, Lead by Example is helping to control state government operational costs and guide New Mexico to an energy-efficient future.

Under ECMD’s guidance, over a dozen public projects comprising over 300,000 square feet are now pursuing LEED® certification at the Silver or Gold level. Additionally, these projects, and others, will be designed to meet the 2030 Challenge, which sets a goal of reducing fossil fuel-based energy consumption in all new buildings by 50 percent today and ramps up the reduction so that buildings built in 2030 and beyond will be designed to generate as much renewable energy as they consume.

After overcoming multiple barriers, ECMD, working with New Mexico Finance Authority (NMFA) and Department of Cultural Affairs (DCA), was able to use the bonding capacity created by the EERE Bonding Act to propose energy efficiency retrofits at three museums throughout the state. NMFA developed the Authorizing Resolution for the DCA EERE Bonds, Series 2008, and also requested approval of Public Project Revolving Fund loan financing for the DCA energy efficiency project. The NMFA Board approved both at its November 2008 meeting. The energy efficiency project will be a model for moving forward with projects for other state agencies, school districts and universities to take advantage of the $20 million EERE Bonding Act to improve energy efficiency in their facilities.

In 2007, $4 million was awarded by the New Mexico legislature to the Public School Facilities Authority to increase energy efficiency in projects throughout New Mexico. To date, $3 million has been subsequently allocated to public schools to increase building energy efficiency by 50 percent. The High Performance (HiP) Schools Task Force continues to monitor projects to assure the goals are pursued and the results are used to shape future school projects.

With state government’s growing Lead by Example role, the private sector is also embracing this new green economy and making the most of the state’s Sustainable Building Tax Credit, now available to encourage a better way of building. Almost a half million square feet of residential and commercial buildings are eligible for the tax credit, which is awarded based on the same stringent requirements as state-owned buildings. Close to 100 homes were built throughout the state that use 40 percent less energy than a new home built to today’s building code. These homes have been certified under the LEED® for Homes or Build Green New Mexico rating systems for energy efficiency as well as better indoor environmental air quality, conserving water and preserving finite resources. With just a handful of buildings currently under construction, the commercial sector will contribute almost 375,000 square feet of energy-efficient and healthy offices, hotel facilities and public space. We are just seeing the beginning of how the Sustainable Building Tax Credit is transforming our built environment.

As part of the Moving toward Zero Energy Homes (ZEH) Program, ECMD held a workshop for production builders, custom builders, designers and home energy raters. This resulted in the commitment to at least one ZEH development featuring homes that reduce utility bills by 70 to 100 percent. The model home for this community is a true zero energy home that generates all the energy that it consumes through renewable sources. It received the highest LEED® for Homes certification level of Platinum as well as national recognition by the U.S. Green Building Council (USGBC). To further promote the program, ECMD participated in the annual statewide meeting of the
Realtor Association of New Mexico (RANM), where ZEH builders were able to visit with 200 realtors. The ZEH Program was also recognized in the RANM third quarter 2008 newsletter distributed to over 7,800 realtors.

With all the emphasis on green building, the building industry is undergoing the necessary transition to acquire the requisite skills and resources to meet the new challenges. Building on the success of the *How-To Guide to LEED® Certification for New Mexico Buildings*, developed from a Clean Energy Projects grant in 2006-2007, ECMD is developing self-paced training modules for designers, engineers and contractors to further assist in this process. Addressing areas such as whole-systems design, materials selection, construction waste recycling and managing indoor air quality during construction, these modules will provide practical tools and real-world examples of how to successfully construct a LEED®-certified building. ECMD’s collaboration with the USGBC New Mexico Chapter and other like-minded educational organizations is essential in spreading the expertise and realizing the full impact of a new way of building.

In addition, through its contractor, Southwest Energy Efficiency Project (SWEEP), ECMD conducted a study of 25 policy options that collectively can meet the Governor’s directive to cut energy use in New Mexico 20 percent by 2020. The policies are grouped into categories of utilities, public sector, buildings and appliances, industrial, transportation and cross-cutting policies. New Mexico will save a large amount of energy if it adopts the high priority energy efficiency policy options, and possibly other options, described and analyzed in this study. By 2020, electricity use could be reduced by 24 percent, natural gas use by nearly 20 percent and gasoline use by 26 percent, all in comparison to projected levels of energy use for that year.

The Efficient Use of Energy Act commits potentially more than $20 million per year in utility-provided energy efficiency incentives to the residential and commercial sectors in New Mexico. Such an investment would help move New Mexico forward in energy efficiency by more fully embracing energy efficiency and using clean sources of energy in our homes, businesses and communities.

Energy efficiency in New Mexico’s buildings is an investment in our future. Green sustainable buildings use less energy, provide better indoor environmental air quality and conserve water, and their use of sustainable materials preserves finite resources. For all of these reasons, the Energy Efficiency in Buildings Program strives to encourage New Mexicans to embrace energy conservation and efficiency measures and green building practices.

**CLEAN FUELS AND EFFICIENT TRANSPORTATION PROGRAM:** This program helps New Mexicans save money by promoting public transportation efforts and the use of clean fuels to reduce our dependence on fossil fuels. The program strives for reduction in the use of fossil fuels and New Mexico’s dependence on imported oil. It also supports ride-sharing and public transportation projects, and development and use of clean fuels.

Our program supports the use of biodiesel fuel in school buses and state fleets. Biodiesel is a clean-burning alternative fuel produced from domestic, renewable resources such as soy oil or rendered animal fat. The use of biodiesel in a conventional diesel engine reduces unburned hydrocarbons by nearly 50 percent, carbon monoxide by about 48 percent and particulate matter by about 47 percent compared to emissions from diesel fuel.
Through a Clean Energy Projects grant, the New Mexico Department of Transportation established a biodiesel refueling station in its Roswell/District 2 location to comply with the Biodiesel Standards Act passed by the 2007 state legislature. The Act states that, beginning in 2012, all diesel sold in-state will be B5, meaning 5 percent biodiesel blended with 95 percent diesel fuel.

Using compressed natural gas (CNG) as a transportation fuel is supported by ECMD through state and federal grants. Emissions reductions are significant for CNG-fueled vehicles: approximately 90 percent less carbon monoxide, 35 to 60 percent less nitrogen oxides and 50 to 75 percent less hydrocarbon. Public entities such as Santa Fe Trails Transit and the cities of Las Vegas, Socorro and Las Cruces continue to maintain fueling stations, procure CNG vehicles and train fleet operators. New Mexico has 17 CNG fueling stations, some private- and some public-access. Generally, CNG costs 15 to 40 percent less than gasoline or diesel fuel. In conjunction with the increased performance experienced by optimized CNG vehicles, maintenance costs tend to be less because of less frequent oil changes and reduced engine wear.

The Las Cruces Rideshare Program continued to thrive with carpools, vanpools, a park-and-ride route and an increasing number of bicycle commuters. The program has saved millions of vehicle miles traveled, millions of gallons of fuel and millions of dollars in fuel costs since 1990. ECMD and the New Mexico Department of Transportation support Las Cruces Rideshare which has established a database of carpools in southern New Mexico that covers the White Sands-Alamogordo-El Paso corridor.

Data and Statistics

**ELECTRICITY:** Electricity supply affects industrial growth in both the energy and non-energy sectors of the state’s economy. Electric utilities consume substantial amounts of natural gas and coal resources extracted in the state, generating considerable revenues in the process. New Mexico’s power plants have a total capacity of more than 6,000 megawatts, over 70 percent 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 percent of these two plants. Approximately one-third of the electricity generated in New Mexico is consumed in other states. Total electrical generation for the past several years is shown in Figure 3. Electricity generated in 2007 was 3.5 percent less than in 2006. In 2007, electricity generation in New Mexico was 77 percent from coal, 19 percent from natural gas, 3.9 percent from wind and 0.5 percent from hydropower.

Investor-owned utilities in New Mexico serve approximately 71 percent of the customers (Figure 4, 2006 data). The 20 rural electric cooperatives serve about 21 percent of the customers, although they service about 85 percent of the state’s land area. Tri-State Generation and Transmission Association is a wholesale supplier of 13 member cooperatives. There are seven municipal electric utilities serving the remaining 8 percent of the state’s electric customers. (Note: As of 2007, three investor-owned utilities operate in the state due to the purchase of Texas-New Mexico Power by Public Service Company of New Mexico.)
**Figure 3**

**Total New Mexico Electric Generation**

Data from Edison Electric Institute, Statistical Yearbook of the Electric Industry

- 2003: 32,000 million kilowatt-hours
- 2004: 33,000 million kilowatt-hours
- 2005: 35,000 million kilowatt-hours
- 2006: 37,000 million kilowatt-hours
- 2007: 36,000 million kilowatt-hours

**Figure 4**

**Number of Customers per Utility**

Data from USDOE, Energy Information Administration

- Texas-New Mexico Power Co.: 5%
- Rural Electric Cooperative: 21%
- El Paso Electric Co.: 9%
- Municipal Utilities: 8%
- Southwestern Public Service Co.: 11%
- Public Service Co. of New Mexico: 46%
The number of customers buying electricity has increased every year over the past four years (Figure 5). The increase in the residential sector from 2003 through 2007 was 13.6 percent and the increase in the total number of ultimate customers in New Mexico was 13.3 percent. Total revenues from the 2007 sales of electricity in New Mexico were $1.63 billion (Figure 6).
Figure 7 shows the price paid per kilowatt-hour in New Mexico and the U.S. for 2003 through 2007 in the residential, commercial and industrial sectors. (Price is derived by dividing revenue by kilowatt-hour sales.) The price paid in New Mexico increased 4.6 percent in the residential sector, 2.0 percent in the commercial sector and 14.8 percent in the industrial sector over this four-year period. In 2007, New Mexico’s prices compared to U.S. prices were: 15.1 percent lower in the residential sector, 21 percent lower in the commercial sector and 12.5 percent lower in the industrial sector.

**CARBON DIOXIDE EMISSIONS:** Carbon dioxide emissions from the consumption of energy sources amounted to 59.5 million metric tons in 2005 (latest data available). Emissions from coal were 51 percent (30.1 million metric tons), petroleum 29 percent (17.4 million metric tons) and natural gas 20 percent (12.0 million metric tons) (Figure 8). Almost all of the coal consumed generated electricity.

**ENERGY CONSUMPTION:** Total New Mexico energy consumption was 835.9 trillion British Thermal Units (tBTU) in 2006 (latest data available). Most of the energy consumed in the state comes from coal (316.2 tBTU), followed by petroleum (273.1 tBTU) and natural gas (229.5 tBTU) resources. In 2006, renewables contributed 2.0 percent or 17.1 tBTU. Wind energy provided almost 75 percent of total renewable energy due to significant growth in wind farm developments since 2003. Net energy consumption for in-state needs was actually 683 tBTU after subtracting the energy used for exported electricity (Figure 9).

Of New Mexico’s net energy consumption (based on 2006 data), the industrial sector consumed the most energy at 33.4 percent (228.0 tBTU), followed by the transportation sector 33.3 percent (227.8 tBTU), the commercial sector 17.7 percent (120.7 tBTU) and the residential sector 15.6 percent (106.7 tBTU). New Mexico’s residential sector consumes less energy out of total consumption compared to the nation, the industrial and commercial sectors consume about the same energy as national percentages and the transportation sector consumes more (Figure 10).
New Mexico Primary Energy Consumption (2006)

835.9 trillion BTUs

Note 1: NM was a net exporter of 153.8 tBTUs of energy in the form of electricity.

Note 2: Renewables subdivision: wind, 1.5%; biomass, 0.4%; hydroelectric, 0.1%; solar, 0.02%; ethanol, 0.01%.

Net Instate Energy Consumption
833 trillion BTUs
(0.69% of US Energy Consumption)

Primary Energy Expenditures (billions)
- Coal $0.49 7.5%
- Natural Gas $1.05 16.0%
- Petroleum $5.00 76.3%
- Renewables- (biomass) $0.01 0.2%
- Renewables- (wind,solar,geothermal,hydroelectric) $0.00 0.0%
- Total $6.55

U.S. Department of Energy, Energy Information Administration, 2006 Update, State Energy Data System

Figure 9
RENEWABLE ENERGY CONSUMPTION: Total New Mexico renewable energy consumption was 18.4 tBTU in 2006 (latest data available). Of that amount, wind accounted for 68 percent (12.5 tBTU), residential wood/waste 12 percent (2.2 tBTU), hydropower 11 percent (2 tBTU) and nonresidential wood/waste 5 percent (0.9 tBTU). Other renewables such as solar photovoltaic, solar thermal and geothermal accounted for 4 percent (0.8 tBTU). Wind energy continues to grow as the major renewable energy used in the state and also was the major factor contributing to a 67 percent increase in total renewable energy consumption in the state from the previous year.

ENERGY EXPENDITURES: New Mexico’s 2006 (latest data available) primary source energy expenditures were $6.56 billion. Most expenditures were for petroleum at $5 billion (76 percent). Natural gas expenditures were $1.05 billion (16 percent), coal $494 million (7.5 percent) and renewable energy $11.9 million (0.2 percent, all biomass). For other renewable energy forms – wind, solar, hydroelectric and geothermal – there were no fuel expenditures. Of the coal-fired power generation, electricity valued at $859 million was exported, while in-state retail electricity sales were $1.55 billion.
Forestry Division
A Message from New Mexico State Forester Arthur “Butch” Blazer

What do the words “forest and watershed health” mean to you? Just a few short years ago, the health of our forests and water probably wasn’t even on the average New Mexican’s radar. But thanks to several years of drought, highly visible insect and disease devastation and an overall increase in our knowledge of our natural resources, more people are paying attention to the effects of the elements and our own carelessness.

It is my honor to work with the Forestry Division in leading the charge to tackle the issue of collaborative restoration on public, private and tribal lands, working with local, state, federal and tribal agencies as well as private organizations with a vested interest in our ecosystem’s health. Where, in the past, many barriers or typical “red tape” issues have kept us from working together with inter-agency partners, we’re finding ways to work around these obstacles and accomplish some meaningful on-the-ground work that will ensure the legacy of our natural resources for generations to come.

New Mexico’s population base expands further into the wildland-urban interface every year. The Forestry Division has become more proactive in reaching out to these communities to help them learn to manage their land in a way that will not only foster healthy growth, but will also serve to protect them from the seemingly ever present wildfire danger we face these days.

In some ways, the efforts we are undertaking may seem like baby steps; but every journey begins this way. There are no quick fixes to heal our landscape but, over time, we are accomplishing goals that we believe will last far into the future when our children’s children are the ones who will be responsible for taking care of our land.

The Forestry Division staff has my gratitude and appreciation as they have worked tirelessly on our many initiatives and continue to reach out to all segments of New Mexico to impart their knowledge and foster an awareness of how healthy our forests and watershed can be if we all work together.

My hope is that you enjoy reading about our accomplishments and that you will have a better understanding of the work we are doing. For more information about this report and our other important programs, please log onto www.nmforestry.com.
Forestry Division

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

Forestry assists New Mexico communities by evaluating those most at risk to wildfire and insect infestation by developing appropriate management programs and implementing mitigation projects. Assistance is also provided for developing sustainable forests that enhance quality of life by providing tree care training, distributing low-cost seedlings, developing resource management plans, and delivering forest health project funding.

PROGRAMS: Forestry works to develop the forest products industry (e.g., landscaping, construction, woody biomass) that use thinning by-products. In addition, Forestry oversees an inmate work camp, which utilizes trained minimum-security inmate crews for work on conservation projects and wildland fire suppression.

The division 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.

Operated by Forestry, the New Mexico Forest and Watershed Health Office works to implement the New Mexico Forest and Watershed Health Plan and acts as a clearinghouse of information related to the overall improvement of forest and watershed health in New Mexico. The Forest and Watershed Health Office serves as a centralized contact point for local, state, federal and tribal activities that work toward a common goal of improved forest and watershed health, including enhanced wildlife habitat, reduced susceptibility to pathogens and wildfire, improved water quality and reduced wildfire risk to communities.

Landowners and communities receive assistance 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 and other urban forestry programs; conservation easements through the Forest Legacy Program; and numerous educational presentations on these topics.

Accomplishments

FOREST AND WATERSHED HEALTH: In 2008, Forestry continued its efforts to address areas that have traditionally presented a barrier to proper treatment and land management on private lands in New Mexico through the implementation of the New Mexico Forest and Watershed Health Plan. Implementation occurs through support for local on-the-ground efforts, state-level strategic planning and coordination, and state-level management and administration.

Staff from the division’s district offices as well as its Forest and Watershed Health Office, working closely with interagency partners, assisted community groups and non-governmental organizations in drafting land management plans, project design and funding identification for restoration/management projects as well as outreach and education activities.
These activities included:

Management of 19 Forestry grants to produce county-wide Community Wildfire Protection Plans.

Providing technical assistance to regional and community groups involved with various stages of planning and carrying out forest and watershed restoration projects.

Developing several state-funded forest and watershed health restoration projects including the development of unprecedented partnerships with the Santa Clara and Taos pueblos.

Developing, through the Forest and Watershed Health Office, specialized interagency task groups and committees that help make changes that allow more effective and efficient restoration work, removing barriers that have, in the past, caused duplication of efforts and completion delays.

**BIOMASS UTILIZATION:** Forestry and its interagency partners believe that, in order to protect forests from harm while enhancing the public benefit, the southwestern United States needs a regional utilization component to complement similar federal, state and local efforts in fuel reduction and forest restoration by increasing opportunities for greater woody biomass utilization of our forest and woodland species. The Southwest Sustainable Forest Partnership (SWSFP) was created in response to this need and will develop value-added products from small diameter ponderosa pine and other underutilized coniferous species in New Mexico and Arizona. In the past these small diameter species were characterized as being of a lower grade than other forest resources and thus, were largely regarded as having little economic value.

The SWSFP is a results-oriented partnership whose goal is to develop an environmentally and economically sustainable forest and wood products industry - one that will utilize small diameter materials removed during forest thinning and restoration treatments. The SWSFP is dedicated to addressing the ecological, economic and social effects of creating sustainable community- and tribal-based forest and wood products enterprises in the Southwest.

Forestry administers SWSFP activities in New Mexico, providing technological, business and marketing expertise necessary for building sustainable community-based wood product enterprises, both large and small. SWSFP also helps these businesses identify funding opportunities to help with appropriately-sized technology development and facility construction.

The division continues to work with EMNRD’s Energy Conservation and Management Division and other state partners to convert the Ft. Bayard Medical Center’s existing gas-powered heating system to a woody biomass system. The new heating system is expected to be operational by spring 2009.
**FIRE PLANNING TASK FORCE:** The Forestry-led New Mexico Fire Planning Task Force continues to aggressively pursue the development and creation of Community Wildfire Protection Plans (CWPP) across the state. A CWPP is a community-based planning and prioritization process that acts as a guide for wildfire prevention and preparedness for a single community or an entire county. When completed, these plans identify hazardous fuels treatment areas and recommend measures to improve building codes so that communities are better protected against wildfire. The plans are developed collaboratively between community residents, their leaders and government agencies. Forestry provides consultation and follow-up training for the community leaders generating the plans.

In 2008, 22 comprehensive, county-wide CWPPs were approved by the Task Force with four additional plans in progress. To date, there are 53 plans statewide. The Task Force also approved 13 new CWPPs for New Mexico communities including the Pueblo of Santa Clara. Five hundred and twenty-eight (528) New Mexico communities have been identified as “at-risk” to wildfire. CWPPs helped identify these communities and gave them the tools necessary to improve their ability to save lives and property in the event a wildfire occurs. The list of communities and additional information on fire prevention and CWPPs are available at www.nmforestry.com.

**FIRE MANAGEMENT:** 2008 was a unique year for wildland fire in New Mexico, with a majority of fires occurring in the grassy plains on the eastern side of the state. The winter of 2007/2008 provided plenty of rain and snow to northern parts of the state, but those same storms caused high winds across the southeast, drying out abundant grassy fuels and causing high fire danger.

In addition to the fires in eastern New Mexico, two large fires devastated homes and affected the lives of residents in the land grant communities of Manzano, Tajique and Torreon, in the Manzano Mountains. The Trigo and Big Spring fires burned a combined 19,187 acres and destroyed more than 60 residences and other structures. Because these fires affected private land and residences, Forestry was able to apply for and received Fire Management Assistance Grant funding from the Federal Emergency Management Agency to pay for fire suppression costs incurred by the division and the fire departments under its jurisdiction during the incidents.

RESOURCE REHABILITATION AND PROTECTION: In 2008, the rehabilitation of Blue Hole Cienega in Santa Rosa continued with the planting of several hundred cottonwood and Black Willow trees. Forestry’s Rare and Endangered Plant Species Program utilized students from the nearby Santa Rosa Middle School to plant the trees, which will restore native vegetation and provide wildlife habitat for the 100-acre property. The division purchased the Blue Hole Cienega property from the City of Santa Rosa in part to protect the endangered Pecos Sunflower, Wright’s Marsh Thistle and the Great Plains lady-tresses orchid.

In 2008, Forestry’s Legacy Program purchased the development rights to the 316-acre Circle A Ranch. This former summer camp for girls exists in pristine riparian woodland, northwest of Cuba in Sandoval County. Surrounded on three sides by the Santa Fe National Forest, the area serves as a vital wildlife habitat and source of water for farms and communities in a nearby valley. While the land remains in private ownership, under the Legacy Program, the rights to development, subdivision and surface mining have been retired.

In 2008, Forestry:

- Provided resource management technical assistance and development for 186 forest stewardship and treatment plans that affected approximately 32,215 acres of state and private land. These plans and projects included treatments such as fuels reduction, erosion control, reforestation and wildlife habitat improvement.

- Provided wildland fire training for 1,262 volunteer municipal, state, federal and tribal firefighters.

- Distributed 139,322 seedlings through the Conservation Seedling Program and through sales during the New Mexico and Southern New Mexico State fairs.

- Provided crews from the Los Lunas Inmate Work Camp to work on projects for 53 different local, state, federal and private cooperators, performing 10,277 man-days of work. Crews trained in wildland fire fighting were assigned to numerous wildland fires. Additionally, their training in land management and treatment became vital in the rehabilitation of land affected by the wildfires that devastated thousands of forested acres in the Manzano Mountains.

- Developed and published the Spanish language version of Living with Fire – A Guide for the Homeowner. Based on a publication created by the University of Nevada, Reno, Living with Fire presents information on fire prevention and preparedness. Any state may use the publication, inserting state-specific information and pictures.

- Responded to 355 calls for law enforcement assistance, conducted 114 criminal investigations for wildfire, timber theft and damage, littering and trespass, executed an arrest on an individual with an outstanding warrant, issued two criminal citations and filed three criminal complaints.
Data and Statistics

While fiscal year 2007, statistically speaking, was a much milder year for fire, 2008 saw a dramatic increase in the number of grass fires on state and private land. During fiscal year 2007/2008, Forestry responded to 867 fires that burned approximately 422,012 acres on state and private land (Figure 1). The division continued an aggressive collaborative fire prevention campaign to further instill the fact that, depending on the weather and fuel conditions, wildfire in New Mexico can break out at any time.

Figure 1
2008 marked the return of two distribution periods for the State Seedling Program. Landowners were able to take advantage of the fall planting season to plant coniferous trees thanks to seedlings going on sale from July through October. With the combined distribution periods, 158,185 tree seedlings were distributed through sales and educational donations (Figure 2).

The Forestry-operated New Mexico Forest Re-Leaf Program awarded $31,780 in grant funding to the cities of Santa Fe and Elephant Butte, the Lordsburg Municipal School District and the Pueblo of Santa Ana (Figure 3). The program aids communities by providing funds for tree planting for conservation purposes, educational outreach, windbreak establishment and general beautification. Re-Leaf grants are funded completely through donations from corporate and private donors. Since 1990, more than $503,000 has been distributed to New Mexico communities for tree planting.
Mining and Minerals Division
A Message from Division Director Bill Brancard

The Mining and Minerals Division (MMD) seeks to serve the public by ensuring the responsible use and reclamation of land impacted by mining. We also encourage innovative approaches to mine reclamation and promote the involvement of the public in mining issues.

2008 was a rewarding and challenging year for MMD. Mineral production in New Mexico set another revenue record in 2007, and MMD experienced an increase in interest in exploration and mining permits. Uranium has been an area of great interest, and there is also interest in other commodities across the state. New Mexico’s first new surface coal mine in 15 years, El Segundo, begin production north of Grants in 2008. Near the end of 2008, declining global commodity process began to have an impact on mining activities in the state.

Encouraging successful and innovative mine reclamation has long been a priority for MMD. The fruits of those efforts continue to appear. For the second year in a row, MMD received one of the two highest national reclamation awards given by the federal government for an abandoned mine project. The U.S. Department of the Interior recognized the division’s innovative work on the Yankee-Vukonich Coal Mine Reclamation Project east of Raton. MMD also recognized innovative reclamation by granting Excellence in Reclamation awards to the McKinley Mine, the Continental Mine and the Lake Valley abandoned mine project.

We are also seeing progress in our work on abandoned uranium mines. MMD has developed a database of all uranium mines that recorded production in New Mexico, and in the past year we have been sponsoring projects to collect field information on mines where there is no record of reclamation. MMD continues to work, and share information, with a number of interested groups including the Navajo Nation and the federal government.

We hope to continue our efforts in mine reclamation and regulation in 2009. Our success is a credit to the great work performed by the division’s staff.
Mining and Minerals Division

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

PROGRAMS: New Mexico remains a leading mining state with significant production of coal, copper, potash and molybdenum. MMD personnel implement state and federal laws that regulate the registration, operation and reclamation of active coal and non-coal “hard rock” mining facilities and provide for the dissemination of valuable data regarding the economic impact of mining activities in New Mexico. MMD also provides services to safeguard inactive mine sites and reclaim abandoned mine sites to ensure that they are not a hazard to the public.

The Abandoned Mine Land (AML) Program works across the state to identify dangerous abandoned mine areas and to abate the hazards. MMD estimates there are more than 15,000 mine hazards scattered throughout New Mexico that remain un-reclaimed. The New Mexico AML Program has closed more than 4,500 hazardous mine openings over the past twenty-one years.

Coal has a long history in New Mexico, having been mined since the mid-1800s as a source for production of heat and energy, and it remains a leading mineral commodity in New Mexico. The demonstrated coal reserve base in New Mexico is 4.65 billion tons, or about 1 percent of the national reserves. The Coal Mine Reclamation Program oversees over 86,000 acres of permitted mine lands and over $293 million in financial assurance bonds.

Gold, silver, copper, molybdenum, perlite and uranium comprise the majority of the minerals covered by the New Mexico Mining Act of 1993, which provides for the reclamation of all extraction and exploration activities conducted at hard rock mines. The Mining Act Reclamation Program oversees almost 400 mining and exploration projects and over $602 million in financial assurance bonds.

In these increasingly uncertain economic times, decision makers throughout New Mexico benefit from the valuable statistical and trend information on the mineral industry and mineral resources in New Mexico compiled and disseminated through the Mine Registration, Reporting and Safeguarding Program. This program provides comprehensive public outreach not only on the mineral resources but also on mining activities, legislation, and MMD activities related to the mineral extraction industry.

Accomplishments

MMD strives to protect the public through effective and innovative reclamation of land disturbed by mineral extraction through cooperative efforts with the mining companies and contractual services funded by state and federal monies. Reclaimed lands are returned to the landowner for a beneficial use, whether it is grazing, commercial use or wildlife habitat. These efforts included a number of large ongoing reclamation projects at coal and hard rock mines, along with the completion of mine safeguarding and reclamation projects at abandoned mine sites across the state. Projects completed in 2008 ranged from large projects, such as the Tyrone Mine reclamation project, which reclaimed over 400 acres this year to complement the 475 acres reclaimed in 2007, to small projects, such as the reclamation of the CR Minerals Santa Fe Mill. The former mill site has been converted into a Rail Runner train station, one of four Santa Fe area stations for the new Rail Runner train service between Albuquerque and Santa Fe.
MINE RECLAMATION: New Mexico is a leader in effective mine reclamation and was recently recognized at the national level. The U.S. Department of the Interior selected New Mexico to receive one of its highest awards for abandoned mine reclamation for the Yankee-Vukonich project. The reclamation effort focused on reclaiming eroding coal mine waste piles and restoring a degraded ephemeral stream, while preserving historic mining artifacts and structures.

Work on the second phase of the Lake Valley Mine Safeguard Project was completed in July. A total of 14 toroid tire plugs were installed at the project site, the first use of this innovative technology in the United States. A technique developed in British Columbia, Canada, toroid tire plugs put a waste product – large-diameter spent tires from earth-moving equipment – to beneficial use. The tires are either stacked or placed adjacent to each other to plug horizontal, vertical or declined mine openings. The New Mexico Environment Department’s tire recycling program is highly supportive of these efforts to use spent tires from earth-moving equipment and highway trucks. In this phase of work at Lake Valley, over 60 mine openings were safeguarded, the majority of which were structural closures for the preservation of underground bat habitat. In September 2008, St. Cloud Mining Company received an Excellence in Reclamation award for its work at the project, particularly for the innovative installation of the plugs.

Chevron Mining Inc. was presented with a 2008 Excellence in Reclamation award for its work at McKinley Mine. The company’s reclamation strategy looks to the natural environment for watershed design and drainage control, referred to as geomorphic reclamation design. Instead of engineered solutions such as terraces and straight rip-rap drainages, geomorphic reclamation employs the custom design of drainages to watershed size, slope and velocity to control erosion, and complex slope design and aspect to create a more “natural” reconstruction of the terrain. This
method of reclamation has already been severely tested and proven by the elements, as reclamation work at the La Plata Mine has withstood a 100-year flood event with no damage, and a 500-year flood event with only minimal damage within the past year.

Cobre Mining Company was recognized with a 2008 Excellence in Reclamation award for exemplary coordination, implementation and completion of reclamation at the Hanover Empire Zinc Mine, Zinc Hill, and shaft and adit closures on Cobre property. Work included the closure of 47 mine shafts, 18 adits and 8 tunnels; the construction of 14 engineered bat structures; the de-watering, filling and re-grading of 2 quarries; the removal and re-grading of 15 stock piles; the installation of stream bank reinforcement structures; and the reseeding of disturbed areas.

**URANIUM:** In anticipation of the unique challenges posed by uranium, MMD is working with U.S. Forest Service, U.S. Bureau of Land Management, Navajo Nation Environmental Protection Agency and New Mexico Environment Department in the development of new criteria to address the reclamation of uranium exploration projects and mines in western states. The criteria address radiological standards that will be met at final reclamation and surface reclamation techniques that will reduce the rate of erosion at reclaimed mine units at uranium mines, limiting the possibility of re-exposure of radiological materials.

Using funding from the AML Program and other sources, MMD is currently inventorying inactive uranium mines to determine how many sites still require remediation. MMD created a database of all uranium mines located in New Mexico with verifiable production. The database was cross-checked with records of reclamation work conducted under federal, state or tribal laws. Of the 259 prior-producing uranium mines, over 50 percent have no record of any reclamation activities. Reclamation efforts are focusing on reducing the potential exposure of radiological contamination to humans, livestock and wildlife, as well as closing dangerous mine openings.

**PUBLIC OUTREACH:** MMD is excited to announce the launch of Online Mines, Mills and Quarries (MMQ) at www.emnrd.state.nm.us/MMD/MRRS/MinesMillsQuarriesWebMap.htm. Historically, MMQ was a printed directory of active mining, milling and smelting operations in the state, published every five years. The directory provided mine name, commodity, type of operation/facility, operator contact information, mineral estate ownership and locational data for all registered New Mexico mining operations. With Online MMQ, the mine information is now combined with interactive maps in a GIS (geographic information system) application. Data in this map are dynamically pulled from the Mine Registration database. The map features selectable layers with population, transportation, hydrology, surface and mineral ownership and mining district data.

MMD has released the new Permit Requirements Guidebook that summarizes permits issued by the State of New Mexico that are required for energy and mineral resource exploration, development, production and reclamation.
Data and Statistics

MINERAL RESOURCES OVERVIEW: Over $2.2 billion worth of minerals were extracted in New Mexico during 2007, exceeding the $2.1 billion production record value of 2006 (Table 1 and Figure 1). Higher commodity prices and increased production quantities have driven a 77.7 percent increase in mineral production values from 2000.

New Mexico remains a leading U.S. mineral producer, ranked first in potash, perlite and zeolite; third in copper; sixth in molybdenum; ninth in gold; tenth in silver; and thirteenth in coal production. According to the U.S. Geological Survey, New Mexico ranked fifteenth in 2007 when ranking states by the production value of non-energy minerals. Our state produces 2.23 percent of the U.S. total non-energy minerals production value. The principal minerals, in descending order of value, are copper, coal, potash, aggregates and molybdenum.

In 2007, copper overtook coal as New Mexico’s leading commodity for production value, and continued its recent trend of increased employment numbers and payroll. Coal remained the leading commodity for revenue generation and payroll. Copper, molybdenum and aggregates all set record production value records. Industrial mineral production and production value decreased as a result of falling demand for construction-related products. Figure 2 provides summary information on the mineral commodities produced in New Mexico in 2007.

<table>
<thead>
<tr>
<th>Mineral</th>
<th>Production 1</th>
<th>Production Value $</th>
<th>Employment 3</th>
<th>Reclamation Employment 4</th>
<th>Payroll $ 5</th>
<th>Revenue Generated $ 6</th>
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<tbody>
<tr>
<td>Coal</td>
<td>24,407,731</td>
<td>$670,316,349</td>
<td>1,645</td>
<td>96</td>
<td>$112,129,038</td>
<td>$26,232,792</td>
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<td>Copper</td>
<td>239,915,912</td>
<td>$775,386,528</td>
<td>1,809</td>
<td>182</td>
<td>$79,096,713</td>
<td>$6,549,747</td>
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<td>Gold</td>
<td>8,638</td>
<td>$6,019,468</td>
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<td>4</td>
<td>$128,500</td>
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<td>Industrial Minerals 7</td>
<td>2,110,308</td>
<td>$192,386,110</td>
<td>512</td>
<td>19</td>
<td>$20,651,710</td>
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<td>Aggregates 8</td>
<td>15,864,974</td>
<td>$140,214,362</td>
<td>1,200</td>
<td>84</td>
<td>$19,727,955</td>
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<td>Other Metals</td>
<td>60,845</td>
<td>$722,000</td>
<td>19</td>
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<td>Molybdenum</td>
<td>5,127,236</td>
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<td>412</td>
<td>25</td>
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<td>Potash 9</td>
<td>922,628</td>
<td>$273,946,696</td>
<td>1,163</td>
<td>2</td>
<td>$60,912,709</td>
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<td>0</td>
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<td>Uranium 10</td>
<td>-</td>
<td>$-</td>
<td>102</td>
<td>77</td>
<td>$3,128,543</td>
<td>$102,169</td>
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<td>TOTAL</td>
<td>$2,200,256,141</td>
<td>6,866</td>
<td>506</td>
<td>$316,383,296</td>
<td>$37,574,249</td>
<td>$9,219,400</td>
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Source: Mining and Minerals Division, unless otherwise noted.

1 Production for coal, industrial minerals, aggregates, other metals and potash is reported in short tons; copper and molybdenum in pounds; and gold and silver in troy ounces.
2 Production rank is based on 2007 production value in relation to other U.S. states.
3 Category includes direct and contract employees.
4 Gold, silver and other metals are co-products of copper production. Production-related employment and payroll for these commodities are reported in the copper numbers.
5 Gold employment and payroll are for reclamation activities at closed mines.
6 Reclamation employment is included in total employment numbers.
7 Payroll is for direct employees and does not include contract employees. Payroll does not include benefits.
8 Federal revenue (fiscal year 2007) includes 50% state share of federal royalties.
9 Sources: State data, the New Mexico Taxation and Revenue Department (www.state.nm.us/fax) and the New Mexico State Land Office (www.nmstatelands.org)
10 Federal data, Minerals Management Service (www.mms.gov)
11 Category includes gypsum, perlite, salt, limestone, calcite, dimension stone, silica flux, clay, humate, scoria, pumice and zeolites.
12 Category includes base and crushed rock, dimension flagstone, fill dirt, gravel, limestone, red dog, rip-rap, sand, scoria, topsoil and travertine.
13 Production is K2O mill production.
14 Employment and payroll numbers are for permitting, care and maintenance and reclamation activities.
Mineral industry payroll exceeded $316.3 million in 2007, a 10.6 percent increase over 2006 (Figure 3). Copper remained the largest employer in New Mexico’s mining industry, followed by coal and aggregates. The total number of employees in the mining industry topped 6,800, up 7.9 percent from 2006. Reclamation and contract employment continued their upward trends in 2007. Reclamation employment increased 8.4 percent to 506, the highest reported reclamation employment on record. Direct employment rose 2.0 percent to 5,384 workers, and contract employment increased 36.4 percent to 1,483 workers (Figure 4).
New Mexico has averaged 225 registered active mining operations in recent years. In 2007, New Mexico had 242 active registered mining operations. These operations included five coal mines; three potash mines and five potash refineries; one molybdenum mine and one molybdenum mill; two copper mines, one copper concentrator and two solvent extraction/electro-winning (SX/EW) plants; 20 industrial mineral mines and 18 industrial mineral mills; and 184 stone and aggregate operations (Figure 5). New Mexico mining companies spent $148.9 million on capital improvements and equipment in 2007, a third more than 2006 spending.
COAL: New Mexico ranked thirteenth in U.S. coal production for 2007, according to the U.S. Energy Information Administration. The majority of New Mexico’s coal reserves are located in the San Juan Basin of San Juan, McKinley and Cibola counties, and the Raton Basin of Colfax County. Smaller coalfields are dispersed throughout the state.
Five mines produced coal in New Mexico during calendar year 2007. Four surface coal mines were active: BHP Billiton's Navajo, Chevron's McKinley North and South and Peabody Natural Resources' Lee Ranch mines. BHP Billiton's San Juan Mine is the only active underground mine. The Navajo Mine was the fifteenth highest producing surface coal mine in the U.S. in 2007; the San Juan Mine was the eighth highest producing underground mine. In 2007, the Pittsburg and Midway Mining Company and Molycorp Inc., both wholly-owned subsidiaries of Chevron, merged to form Chevron Mining Inc. After 46 years of operations, Chevron is closing the McKinley Mine. Active mining operations in the McKinley South permit area ceased in 2007; operations in the McKinley North permit area are scheduled to cease in late 2009.

New Mexico coal production decreased 6.7 percent to 24.4 million short tons in 2007; coal production value decreased 6.6 percent to $670 million. New Mexico coal production reached an all-time high in 2001; production and value have fluctuated within a narrow range over the past 20 years (Figure 6). The winding down of mining at the McKinley Mine was the cause of the production decreases.

On June 20, 2008, Lee Ranch Coal Company initiated coal shipments from the newly opened El Segundo Mine. Activities at the new coal mine, located northwest of Grants in McKinley County, focused on the construction of rail transportation, haul roads and facilities in 2007. Stripping operations at the mine commenced in May 2008. The mine is forecast to produce 102 million short tons of coal over the next 30 years. Lee Ranch says it spent about $70 million developing the new mine.

While direct coal employment remained stable at 1,412 in 2007, the number of contract employees increased 121.9 percent to 233. Due to the closure of the McKinley Mine, coal employment is expected to decrease in 2008 and 2009. Some of the employment losses are expected to be offset by the addition of approximately 100 miners when El Segundo reaches full operational capacity.

According to the Energy Information Administration, coal is the only fossil fuel that has continued to increase in cost at electric plants each year since 2000. Increased delivered coal costs resulted from new safety regulations requiring mining equipment retrofitting, from higher coal extraction taxes and from higher diesel fuel costs. Approximately 30 percent of New Mexico coal was sold to industrial clients in 2007, the rest was used for electricity generation. The primary customers for New Mexico’s coal are four power plants located in the Four Corners region. Lee Ranch Mine
provides coal to the Plains Electric Generating Station in Prewitt; San Juan Mine, the San Juan Generating Station in Waterflow; Navajo Mine, the Four Corners Generating Plant in Fruitland; and McKinley Mine, the Cholla Power Plant in Joseph City, Arizona. The proposed 1,500-megawatt Desert Rock Generating Plant is in the planning and permitting process. A draft Environmental Impact Statement for the project was released during summer 2007. The U.S. Environmental Protection Agency’s appeals board is reviewing the plant’s air permit.

The Coal Mine Reclamation Program focuses on promoting successful and innovative approaches to reclaiming areas disturbed by coal mining. Approval of final reclamation is a difficult achievement. BHP Billiton’s Black Diamond Mine met its final reclamation criteria and attained final bond release in January 2007. After six years of geomorphic design and construction work, earth-moving at BHP Billiton’s La Plata was completed in December 2008. La Plata revegetation activities will continue into spring 2009. BHP turned 40 acres of the La Plata facility over to San Juan County on September 5, 2007, for use as an industrial park. Geomorphic reclamation projects are also ongoing at the McKinley and San Juan mines. Chevron continues to perform maintenance projects at its York Canyon Complex mines.

**COPPER:** For the fourth straight year, New Mexico experienced a significant increase in production value in the copper mining sector. The two active Freeport-McMoRan operations in New Mexico are the Chino and Tyrone mines. The Chino Mine consists of the Santa Rita pit, the 43,000 ton per day Ivanhoe Concentrator and a 150 million ton per day SX/EW plant. The Tyrone Mine consists of a SX/EW plant and large open pit operations. The third operation, Cobre Mining Company’s Continental Mine, has been on standby since 1999 and is not currently producing copper. Continental 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. Freeport-McMoRan submitted an application in November 2007 to renew the standby status of its fourth New Mexico property, the Little Rock Mine.

While copper production value reached a record high of $775.3 million in 2007, copper production decreased 3.8 percent to 239.9 million pounds (Figure 7). Copper mining operations continue to be the largest employer in the New Mexico mining industry. Copper employment increased 8.2 percent and payroll increased 15.7 percent. Reclamation employment in the copper sector remained stable due to ongoing reclamation projects at Tyrone, Chino and Cobre. These production and employment trends continued through fall 2008 as spot copper prices rose from $3.23 per pound in 2007 to $3.63 per pound in September 2008. Spot prices dropped to $1.69 per pound in November 2008 and $1.63 per pound in December 2008. Due to the falling prices, Freeport-McMoRan announced layoffs of 95 people at Chino and 36 at Tyrone in November 2008. A month later, Freeport-McMoRan announced it plans to suspend open pit mining and concentrator activities at Chino, resulting in the layoff of an additional 600 workers. Mining at Tyrone will be reduced by 50 percent.

New Mexico ranks third in domestic copper production after Arizona and Utah. New Mexico-produced copper is used in the manufacture of electrical components and wire. Freeport-McMoRan Copper & Gold Inc. subsidiaries produce copper and by-product base metals (including gold, silver and molybdenum) at two mines in Grant County in southwestern New Mexico. On March 19, 2007, Phelps Dodge Corporation became a wholly-owned subsidiary of Freeport-McMoRan Copper & Gold Inc.

Reclamation efforts at the Continental Mine have focused on the closure of historic shafts and adits of the abandoned metal, industrial mineral and gemstone mines in the Fierro, Hanover and Bayard areas. Over 40 historic mine openings have been safeguarded and closed at the Pearson-Barnes, Hanover-Empire Zinc, Copper Flats, Cupola, Gooseneck, Hate, Malachite, Monahan, Republic, Silver King, Summit and Thunderbolt mines.
Freeport-McMoRan completed engineering designs and work plans for the reclamation of the majority of the inactive tailings impoundments at the Chino Mine. Grading on the old tailings began in June 2008. Reclamation continues for portions of the Tyrone property: 647 acres of disturbed mine lands were reclaimed in 2007. Reclamation activities have focused on the tailing impoundments and stockpiles and are scheduled to continue beyond 2010.

The skyline of southwestern New Mexico was permanently altered when the smokestacks at both the Hidalgo and Hurley smelters were razed in May and June of 2007. Remediation of contaminated soils at the smelters and the town of Hurley is continuing.

In 2007 there were two copper exploration projects permitted by the Mining Act Reclamation Program in Grant County: Galway Resources’ Lone Mountain project and New Mexico General Minerals’ Gold Lake project.

**POTASH:** New Mexico ranks first in the nation in potash production. The 2007 production value rose to $273.9 million, a 15.3 percent increase (Figure 8). Potash mill production increased 11.7 percent to 922,000 pounds K₂O equivalent. Potash production and value increased as a result of rising demand. Consumption has steadily increased since 2004 as world crop production has increased, especially in Brazil, China and India. 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. These trends continued through fall 2008, when both New Mexico potash producers sold out their 2008 inventory. Potash prices have risen from $200 per short ton in 2007 to $500 per short ton in summer 2008 to a peak of $900 per short ton in fall 2008.

Potash is a mined salt containing water-soluble potassium. The Carlsbad potash district represents 2 percent of worldwide potash production and more than three-quarters of all domestic potash production. Both sylvite (KCl) and potassium-magnesium sulfate langbeinite (K₂Mg₄(SO₄)₄) are mined by underground methods and are beneficiated by flotation, heavy-media separations or dissolution-recrystallization methods. New Mexico-produced sylvite is used primarily as an agricultural fertilizer or animal feed supplement and in drilling muds. Langbeinite products have a high potassium, magnesium and sulfur content and are marketed as a special-use...
fertilizer to chloride-sensitive crops such as tobacco, citrus fruits and vegetables. Farmers in nearby states use most of the New Mexico-produced potash; approximately 25 percent is exported to Central and South America, the Caribbean and Asia.

Two companies operate three mines and five mills/plants in Eddy and Lea counties in southeastern New Mexico. Intrepid Potash, Inc. operates the Intrepid East, Intrepid West and Intrepid North facilities. Intrepid Potash, Inc., a wholly-owned subsidiary of Intrepid Mining, was incorporated on November 19, 2007, and had its initial public offering on April 7, 2008. Intrepid’s East facility consists of an underground mine, a dual sylvite/langbeinite refinery and compaction plant; the West facility, an underground mine and sylvite refinery; and the North, a compaction plant and product storage facility. Mosaic Potash Carlsbad, Inc. operates an underground mine, a sylvite refinery, a langbeinite refinery, a compaction plant and product storage.

Intrepid also owns two idled potash mines in Eddy and Lea counties. Intrepid is working on re-opening the old Eddy Mine, idle since 1999, as a solution mine. The project is in the permitting phase with the New Mexico Environment Department and the U.S. Bureau of Land Management. The HB Solar Evaporation Potash Production project is expected to start production in 2009 after permit approval. Intrepid is preparing a feasibility and design study for reopening the North Mine, idle since 1982.

**MOLYBDENUM:** New Mexico remains a major producer of molybdenum, ranking sixth in domestic molybdenum production. Molybdenum is used primarily in the manufacture of steel and other alloys. Continued high levels of steel production and consumption in the Pacific Rim created a stable demand for molybdenum in 2007.

The state’s primary molybdenum producer is Chevron Mining Company’s Questa mine and mill in Taos County. In August 2007, Molycorp Inc. and Pittsburg and Midway Coal Company, both subsidiaries of Chevron, were combined to form Chevron Mining Company. The Questa operation, an underground gravity block cave mine, produces molybdenite concentrate (MoS₂) and is one of three primary producing molybdenum mines in the U.S. Chevron is currently developing a new ore body and is evaluating other development opportunities to sustain long-term production.
Molybdenum is also produced as a by-product of copper production at Freeport-McMoRan operations in Grant County. Strong copper prices and a deficit of refined copper in 2007 allowed New Mexico copper mines to increase by-product molybdenum production.

Molybdenum-related employment increased 8.4 percent to 412, payroll increased 38.9 percent to $20.5 million, and reclamation employment remained stable at 25 in 2007. New Mexico molybdenum production increased 26.3 percent to 5.1 million pounds and production value increased 63.1 percent to a record high $138.1 million. The rise in production value is due to higher molybdenum prices that approached 2005’s record highs. Higher molybdenum prices continued through fall 2008, averaging $33 per pound, until falling to $9 per pound in December 2008.

Recent efforts at Questa have focused on the long-term stabilization of the several hundred million tons of waste rock in nine rock piles at the site. Analysis of the stability of the other rock piles at the mine continues.

Galway Resources had an active molybdenum exploration project at Victorio Mountain in Luna County.

URANIUM: Rising market prices are leading to renewed interest in uranium recovery and production. The spot price of yellow cake (U₃O₈) rose from a low of $6.50 per pound in fall 2000 to $60.00 per pound in fall 2006, and peaked at $138 per pound in July 2007. As of November 2008, the spot price of yellow cake was $55 per pound. According to the Energy Information Administration, New Mexico ranks second, behind Wyoming, in domestic uranium reserves with 341 million tons of U₃O₈ at $50 per pound.

Uranium recovery in New Mexico ceased in December 2002. There are only two uranium mine operations permitted by the Mining Act Reclamation Program in the state: Rio Grande Resources’ Mount Taylor Mine and Rio Algom’s Old Stope mining properties. The Mount Taylor Mine, a flooded underground mine in Cibola County, remains on standby status and must amend its permit before mining can commence. The Old Stope mines are undergoing reclamation.

New Mexico has experienced a significant increase in uranium exploration activity in the past three years. In January 2006, MMD received the first uranium exploration application since 1998. Twenty-two uranium exploration applications were submitted between 2006 and 2008. As of November 2008, eight applications have been approved, one is pending and thirteen have been denied, withdrawn or are in enforcement (Table 2 and Figure 9).

While uranium mining companies are eager to move 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 milling 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. Third, the All Indian Pueblo Council passed a resolution in June 2007 calling for the protection of Mount Taylor and the cultural properties of the pueblos of Acoma and Laguna. Fourth, in June 2008 the New Mexico Cultural Properties Review Committee approved the emergency listing of Mount Taylor on the State Historic Register as a Traditional Cultural Property. A final Register nomination must be approved within a year of the temporary emergency listing.

Currently, uranium mining activity in New Mexico focuses on the reclamation of the mines and mills left over from the boom years. New Mexico uranium employment is at a twelve-year high due to reclamation activities at Rio Algom’s Ambrosia Lake/Old Stope properties. Both the United Nuclear Corporation Mill in Church Rock and the Homestake Mill in Milan are also undergoing reclamation. United Nuclear Corporation continues work toward approval of closeout and reclamation plans, as required by the New Mexico Mining Act, for its Section 27 and St. Anthony mines. Kennecott Energy Company is also working toward closeout and reclamation plan approval for the Sohio JJ No. 1 Mine.
### Approved Applications

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Operator</th>
<th>Surface Ownership</th>
<th>Number of Holes</th>
<th>Drilling Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambrosia Lake</td>
<td>Neutron Energy</td>
<td>State</td>
<td>6</td>
<td>summer 2007</td>
</tr>
<tr>
<td>La Jara Mesa</td>
<td>Laramide Resources</td>
<td>U.S. Forest Service</td>
<td>10</td>
<td>fall 2006, winter 2007</td>
</tr>
<tr>
<td>Riley</td>
<td>Max Resources</td>
<td>U.S. Forest Service</td>
<td>14</td>
<td>spring 2007</td>
</tr>
<tr>
<td>Riley No. 2</td>
<td>Max Resources</td>
<td>U.S. Forest Service, Private</td>
<td>5</td>
<td>summer 2008</td>
</tr>
<tr>
<td>Roca Honda</td>
<td>Strathmore Mineral Resources</td>
<td>State</td>
<td>4</td>
<td>summer &amp; fall 2007, spring 2008</td>
</tr>
<tr>
<td>Section 13 ISR</td>
<td>Uranium Resources, Inc.</td>
<td>Private</td>
<td>10</td>
<td>2009</td>
</tr>
<tr>
<td>Treeline</td>
<td>Western Energy Development</td>
<td>Private</td>
<td>6</td>
<td>summer 2006</td>
</tr>
</tbody>
</table>

### Pending Applications

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Operator</th>
<th>Surface Ownership</th>
<th>Number of Holes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marquez Canyon</td>
<td>Neutron Energy</td>
<td>Private</td>
<td>44</td>
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</tbody>
</table>

### Denied, Withdrawn and Enforcement Applications

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Operator</th>
<th>Surface Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Church Rock Exploration</td>
<td>Strathmore Resources (US) Ltd.</td>
<td>Bureau of Land Management</td>
</tr>
<tr>
<td>Crownpoint</td>
<td>Quincy Energy</td>
<td>Indian Trust</td>
</tr>
<tr>
<td>DD No. 1</td>
<td>Todd D. Sterk, Rampart Resources</td>
<td>Private</td>
</tr>
<tr>
<td>Hosta Butte Section 3</td>
<td>Quincy Energy</td>
<td>Indian Trust</td>
</tr>
<tr>
<td>La Jara Mesa Extension</td>
<td>Urex Energy Corp.</td>
<td>U.S. Forest Service</td>
</tr>
<tr>
<td>Roca Honda Sec. 10</td>
<td>Roca Honda Resources, LLC</td>
<td>U.S. Forest Service</td>
</tr>
<tr>
<td>Roca Honda Sec. 5,9&amp;10</td>
<td>Roca Honda Resources, LLC</td>
<td>U.S. Forest Service</td>
</tr>
<tr>
<td>San Mateo Mesa</td>
<td>United Energy</td>
<td>U.S. Forest Service</td>
</tr>
<tr>
<td>Section 11</td>
<td>Southwest Resources</td>
<td>Private</td>
</tr>
<tr>
<td>Section 12</td>
<td>Southwest Resources</td>
<td>Private</td>
</tr>
<tr>
<td>Treeline II</td>
<td>Western Energy Development</td>
<td>U.S. Forest Service</td>
</tr>
<tr>
<td>Treeline III</td>
<td>Western Energy Development</td>
<td>Private</td>
</tr>
<tr>
<td>West Ranch</td>
<td>REECO Uranium LP</td>
<td>Private</td>
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</tbody>
</table>

* Status current as of November 30, 2008

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**Table 2**

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**Figure 9**

(Uranium Exploration Permits Location & Status)

- **Uranium Exploration Applications**
  - Pending
  - Approved
  - Denied
  - Enforcement
  - Withdrawn

- **Highways and Roads**
- **Mr. Taylor Traditional Cultural Property**
- **Surface Ownership**
- **U.S. Bureau of Land Management**
- **U.S. Department of Defense**
- **U.S. Forest Service**
- **Tribal**
- **National Park Service**
- **Private**
- **State**

Permit status accurate as of December 1, 2008.
HRI Energy continues to pursue permitting and licensing from the Nuclear Regulatory Commission and Environmental Protection Agency to mine uranium by in-situ leach at locations in Church Rock and Crownpoint. These permits are the subject of pending litigation before the Tenth Circuit Court of Appeals.

Louisiana Energy Services is constructing a gas centrifuge uranium enrichment plant in Lea County. The Nuclear Regulatory Commission license authorizes Louisiana Energy to enrich uranium up to 5 percent of the fissile isotope uranium-235 for use in the manufacture of nuclear fuel for commercial power plants. When operations commence in 2009, approximately 350 workers will be employed at the plant.

GOLD, SILVER AND OTHER METALS: The only gold and silver currently produced in New Mexico is a by-product of copper processing at Freeport-McMoRan copper operations in Grant County. Production and production value of these commodities peaked in the 1980s and has steadily declined since that time.

Gold production in 2007 decreased 35.9 percent to 8,638 troy ounces; production value decreased 26.1 percent to $6.0 million. Silver production rose 10.1 percent to 230,453 troy ounces; production value increased 27.6 percent to $3.0 million. According to U.S. Geological Survey, New Mexico was one of the top ten domestic producers of gold and silver in 2007.

In 2006, Santa Fe Gold Corporation, formerly Azco Mining Company, purchased the Summit mine in Grant County and the Lordsburg Banner mill in Hidalgo County. Santa Fe Gold is currently working on the new unit mining permit for a new mill, permit transfer and securing capital for project development.

LAC Minerals continues to perform reclamation and groundwater remediation work at the closed Cunningham Hill Gold Mine, located in the Ortiz Mountains in Santa Fe County.
One new minimal impact gold mine is under development in New Mexico – the San Lorenzo Claims in Socorro County. Two new gold mines had Mining Act permit applications under review in 2007: the Northstar Mine in Rio Arriba County and the Groom Mine in Grant County. Production has not started at these mines.

Exploration for gold, silver and other precious metals continues in New Mexico. In 2007, the Mining Act Reclamation Program permitted ten precious and base metal exploration projects in Catron, Grant, Lincoln and Sierra counties. Great Western Exploration’s Iron Mountain bertrandite exploration project in Sierra County was renewed in 2007.

**INDUSTRIAL MINERALS:** Industrial mineral production value fell from the 2006 record high to $192.3 million in 2007 (Figure 10). Industrial mineral production decreased 7.6 percent to 2.1 million short tons, employment decreased 1.0 percent to 512 workers and payroll decreased 4.5 percent to $20.6 million. Reclamation employment rose to 19 workers. The decrease in production value is related to decreased demand for construction-related materials like gypsum wallboard and scoria/pumice masonry blocks.

Industrial mineral resources are widely dispersed across the state. New Mexico’s more important industrial mineral resources include gypsum, perlite, salt, limestone, dimension stone, calcite, humate, pumice and zeolite. In 2007, there were 20 mines and 18 mills producing industrial minerals in the state. In addition, one humate mine and one silica mine were on standby status. Two industrial mineral mines were under development: one garnet and one zeolite. Table 3 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 is one of the main producers of pumice. Zeolite is produced at St. Cloud’s Zeolite Mine and Greg Richards’ Coyote Cliff Nos. 1 and 2 mines. Active perlite operations include Dicaperl Minerals’ El Grande and Socorro Mine/Mill properties, and Harbortlite’s No Agua Mine/Mill facilities. Pumice operations include Copar Pumice’s El Cajete mines and the San Ysidro and Española plants, CR Minerals’ Rocky Mountain Mine and Santa Fe plant, and Utility Block’s U.S. Forest Service Mine. Humate mines include Rammsco’s Eagle Mesa Mine, Morningstar’s San Juan Mill, Horizon Ag-Products’

CR Minerals Company closed its Santa Fe mill in spring 2007. The site has been reclaimed and is now the site of a Rail Runner train station. CR Minerals moved its milling facilities to a new plant on the Ohkay Owingeh Pueblo. During summer 2007, Copar Pumice Company reclaimed approximately 20 acres at its El Cajete Mine. Morningstar Corporation closed its humate mine in McKinley County.

During 2007, the Mining Act Reclamation Program oversaw five exploration permits for garnet, agate and specimen fluorspar in Luna, Socorro and Otero counties.

**STONE AND AGGREGATE:** 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. 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 200 active and 16 standby stone and aggregate operations in New Mexico in 2007. Production value for stone and aggregate set a new record high of $140.2 million in 2007. Aggregate and stone production fell to 15.8

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Production Rank</th>
<th>County</th>
<th>Employment</th>
<th>Reclamation Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay</td>
<td>-</td>
<td>Bernalillo, Doña Ana</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Dimension Stone</td>
<td>-</td>
<td>Valencia</td>
<td>32</td>
<td>0</td>
</tr>
<tr>
<td>Gypsum</td>
<td>12</td>
<td>Bernalillo, Doña Ana, Sandoval</td>
<td>139</td>
<td>2</td>
</tr>
<tr>
<td>Humate</td>
<td>-</td>
<td>Sandoval, San Juan, McKinley</td>
<td>28</td>
<td>1</td>
</tr>
<tr>
<td>Limestone</td>
<td>-</td>
<td>Bernalillo</td>
<td>84</td>
<td>0</td>
</tr>
<tr>
<td>Perlite</td>
<td>1</td>
<td>Socorro, Taos</td>
<td>66</td>
<td>7</td>
</tr>
<tr>
<td>Pumice</td>
<td>3</td>
<td>Bernalillo, Sandoval, Santa Fe, Rio Arriba</td>
<td>51</td>
<td>5</td>
</tr>
<tr>
<td>Salt</td>
<td>11</td>
<td>Eddy</td>
<td>78</td>
<td>0</td>
</tr>
<tr>
<td>Silica Flux</td>
<td>-</td>
<td>Grant, Santa Fe</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Zeolite</td>
<td>1</td>
<td>Sierra</td>
<td>28</td>
<td>4</td>
</tr>
</tbody>
</table>

**TOTAL** 512 19

1 Source: USGS 2007 Ranking
2 Includes both direct and contract employees.
3 Reclamation employment is included in the employment number.
4 Location and employment is for mills only. Mine employment included in aggregates.

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<tr>
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<tr>
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<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Dimension Stone</td>
<td>-</td>
<td>Valencia</td>
<td>32</td>
<td>0</td>
</tr>
<tr>
<td>Gypsum</td>
<td>12</td>
<td>Bernalillo, Doña Ana, Sandoval</td>
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<tr>
<td>Humate</td>
<td>-</td>
<td>Sandoval, San Juan, McKinley</td>
<td>28</td>
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<tr>
<td>Limestone</td>
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<td>Bernalillo</td>
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<tr>
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<td>1</td>
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<td>66</td>
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<tr>
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<td>Bernalillo, Sandoval, Santa Fe, Rio Arriba</td>
<td>51</td>
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<tr>
<td>Salt</td>
<td>11</td>
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<td>78</td>
<td>0</td>
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<tr>
<td>Silica Flux</td>
<td>-</td>
<td>Grant, Santa Fe</td>
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<td>0</td>
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<tr>
<td>Zeolite</td>
<td>1</td>
<td>Sierra</td>
<td>28</td>
<td>4</td>
</tr>
</tbody>
</table>

**TOTAL** 512 19

1 Source: USGS 2007 Ranking
2 Includes both direct and contract employees.
3 Reclamation employment is included in the employment number.
4 Location and employment is for mills only. Mine employment included in aggregates.
million short tons, a 17.9 percent decrease (Figure 11). While employment increased 4.9 percent to 1,200 workers, payroll decreased 4.4 percent to $19.7 million in 2007. Reclamation employment remained stable at 85 workers.

Table 4 details the production and production value of the different stone and aggregate commodities produced in the state.

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**Figure 11**

**New Mexico Aggregate Production and Value, 1989 - 2007**

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

---

**Table 4**

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Production (short tons)</th>
<th>Value ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Course</td>
<td>3,264,027</td>
<td>24,875,127.12</td>
</tr>
<tr>
<td>Caliche</td>
<td>111,109</td>
<td>202,659.15</td>
</tr>
<tr>
<td>Clay &amp; Shale</td>
<td>59,582</td>
<td>60,797.26</td>
</tr>
<tr>
<td>Crushed Rock</td>
<td>343,964</td>
<td>2,596,417.90</td>
</tr>
<tr>
<td>Fill Dirt</td>
<td>1,521,810</td>
<td>7,641,930.43</td>
</tr>
<tr>
<td>Flag &amp; Dimension Stone</td>
<td>5,726</td>
<td>873,055.68</td>
</tr>
<tr>
<td>Gemstone</td>
<td>withheld</td>
<td>withheld</td>
</tr>
<tr>
<td>Gravel</td>
<td>5,275,660</td>
<td>55,918,598.98</td>
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<tr>
<td>Limestone</td>
<td>1,170,069</td>
<td>1,300,407.01</td>
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<tr>
<td>Other</td>
<td>1,511,517</td>
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<tr>
<td>Red Dog</td>
<td>withheld</td>
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<tr>
<td>Riprap</td>
<td>801,029</td>
<td>10,181,437.87</td>
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<tr>
<td>Sand</td>
<td>1,441,260</td>
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<td>Scoria</td>
<td>344,267</td>
<td>3,524,298.00</td>
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<tr>
<td>Top Soil</td>
<td>11,079</td>
<td>113,941.12</td>
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<tr>
<td>Travertine</td>
<td>3,592</td>
<td>223,284.00</td>
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</tbody>
</table>

TOTAL 15,864,974  $ 140,214,362
Aggregate production value increases can be attributed to increased transportation costs due to both longer shipment distances and rising fuel surcharges. The decrease in aggregate production can be attributed to the stagnating demand for construction aggregates and dimension stone by the road, railroad and home-building industries. Residential building permits were down by 37 percent in 2007 and 2008. Aggregate production and consumption for residential and commercial construction are expected to decrease in 2009 and 2010. Aggregates are a high-volume/low-unit price commodity and track the local economy – they are not tied to the global markets. With funding shortfalls predicted for highway and road construction, the infrastructure sector is also expected to experience decreased demand over the next several years. It remains to be seen if Governor Richardson’s Investment Partnership (GRIP) and the Spaceport America projects will maintain infrastructure aggregate demand.

Increased rail traffic and the construction of dual rail lines in southern New Mexico by Union Pacific Railroad have led to increased demand for railroad ballast and rail bed materials. This trend continued through 2008 as Union Pacific began construction of a new terminal facility near Santa Teresa and the New Mexico Department of Transportation extended Rail Runner service between Albuquerque and Santa Fe.

The aggregate industry continues to move existing 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.
Oil Conservation Division
Oil Conservation Division

A Message from Division Director Mark Fesmire

The Oil Conservation Division is committed to the prevention of future contamination of New Mexico’s water and soil from oil and gas operations, and to the identification and remediation of historical conditions caused by oil and gas operations that have damaged our state’s resources.

Several initiatives to meet this commitment came to fruition in 2008. We have now collected over $31 million in financial assurances for wells on state and private land that have been inactive for more than two years. This money can be used by the state to properly plug wells if the well operators are not financially able to do so when necessary.

This year the Oil Conservation Commission adopted a revised rule to address the use, management and clean up of pits used in the development of oil and gas wells. The Commission also restructured all of its rules to ensure consistency and provide accurate cross-references among the rules.

The Oil Conservation Division was asked by the Governor to lead the multi-agency task force to gather the public’s questions about potential drilling in Santa Fe County and the Galisteo Basin. The final report also identified and evaluated existing laws, regulations, policies and planning documents to be certain that the State of New Mexico fully and appropriately exercises its powers to ensure that no oil and gas drilling activity occurs in Santa Fe County or the Galisteo Basin that is contrary to the interests of the state and its citizens.

The division continues to be active in leading all oil- and gas-producing states toward new initiatives such as those to regulate carbon sequestration and to increase the diversion from disposal of water produced from oil and gas operations.

The Oil Conservation Division staff members are committed to the protection of human health and the environment from the effects of development of the state’s oil, gas and geothermal resources. We will continue to enhance and enforce our regulations to this end, and to share our knowledge with all stakeholders in these activities.
Oil Conservation Division

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.

PROGRAMS: 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. The Legal Bureau provides legal advice and support, works with well operators to implement and manage Agreed Compliance Orders and participates 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, and information about wells including completions, spacing, pools, operators, and inactive 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 the division’s budget and procurement needs. The Administrative Bureau provides administrative support for the division, manages the plugging bond program, manages the hearing process and maintains records of cases and orders. The Oil Conservation Commission is a three-member commission that makes rules governing oil and gas production in New Mexico.

The division works with representatives from diverse groups to consistently enforce its regulations and identify areas where regulations can be improved. OCD is actively involved in nationwide federal, state and industry organizations that share information on new technologies and discuss best practices and success stories in areas such as web-based deliverables, carbon sequestration, beneficial uses of produced water and the protection of ground water.

OCD employees also participate in and lead committees involved in the development of municipal oil and gas regulations, oil and gas workplace safety programs, youth seminars and emergency response planning.

Accomplishments

ENFORCEMENT: The final stage of the division’s 2005 enforcement rules went into effect on January 1, 2008. This last stage requires additional financial assurance for wells on state and private land that have been inactive for long periods of time so that funds will be available to plug the wells if needed. Thus far these new inactive well financial assurances total over $31 million.

The division’s web-based enforcement tools are seasoned now and provide daily notification to the well operators and the public regarding division orders, well inactivity and operatorship. The division’s enforcement staff continues to work with well operators to ensure compliance through inspections, meetings, agreed compliance orders and hearings.
POTENTIAL DRILLING ACTIVITY IN THE GALISTEO BASIN AND SANTA FE COUNTY: Pursuant to an Executive Order issued by Governor Richardson, the division acted as the lead agency in work with other executive agencies in preparing the Galisteo Basin Report. The report identified and evaluated existing laws, regulations, policies and planning documents to ensure that the State of New Mexico has fully and appropriately exercised its police powers to ensure that no oil and gas drilling activity occurs in Santa Fe County or in the Galisteo Basin that would be contrary to the interests of the state and its citizens. The division is currently proposing special rules governing oil and gas operations in Santa Fe County and the Galisteo Basin.

INACTIVE WELL MANAGEMENT: The division committed to a new measure of its performance in 2008 related to the number of inactive wells in the state. This measure compares wells that were inactive at the beginning of the year to the status of the same wells at the end of the year. A well can leave inactive status through return to production, successful Temporary Abandonment testing or proper plugging. This new program has been so successful that the full year’s target was met in the first quarter.

RULE ENHANCEMENT: The new pit rule became effective in June 2008. Representatives from the Environmental Bureau conducted training sessions throughout the state and the bureau continually updates frequently asked questions on the website to share information.

OCD and the Oil Conservation Commission restructured and revised their rules to make them easier to read and to use. Changes included restructuring the rules under 33 headings accurately reflecting the subject matter, adopting consistent use of terms throughout the rules, changing rules related to OCD forms to reflect current requirements and practices and corrections to information that had become inconsistent due to updates over the years.

Also in 2008, a new pool, the Basin Mancos pool, was created to consolidate fractured shale and stratigraphic traps in the thick Mancos Formation that lies between the Mesa Verde Group and the Dakota Formation in the San Juan Basin.

CARBON SEQUESTRATION: The division continues to be active among other states in research on statutory and regulatory requirements to accomplish geologic sequestration of carbon dioxide to significantly reduce anthropogenic emissions of the greenhouse gas carbon dioxide (CO2) over long time scales.

BUREAU OF LAND MANAGEMENT PARTNERSHIP: The Bureau of Land Management continues to be a key partner to the OCD due to New Mexico’s very high percentage of wells and drilling activity on federal land. The two organizations share office space, well inspections and a software program that records inspection information. They collaborate on plans related to pits, spills, transporters, plugging, mapping and the drilling of horizontal wells.

ORPHAN WELLS: Orphan wells are inactive wells with no well operator who is financially able to plug the well. The division plugs orphan wells with funds from the Oil and Gas Reclamation Fund which is funded by a percentage of the severance taxes paid by the well operators and by forfeited financial assurances. In FY08, 64 percent of the orphan wells identified at the beginning of the year were no longer orphan wells at the end of the year.
PARTNERSHIP WITH NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY: New Mexico Tech received a grant to help small oil and gas producers in the state gather the information required for permits, and they have asked for consultation from the OCD. We look forward to working on another successful venture with New Mexico Tech.

USE OF PRODUCED WATER: The division continues to explore the reclamation of water produced during oil and gas operations into productive use and is partnering with organizations in the state that are succeeding in this effort.

GEOTHERMAL ENERGY: Hearings are taking place to permit the first geothermal power plant in the state. At this time a number of issues remain to be resolved including the specific locations of the wells, ground water monitoring and concerns of a neighboring business.

APPLICATIONS FOR EXCEPTIONS: The division evaluates well operators’ requests for exceptions to OCD’s rules and ensures that the rights of interest owners are protected. The results of these requests, the complex evaluations they require and the related hearings are called administrative orders. In 2008, the Engineering Bureau issued 90 percent of all administrative orders within 30 days of the application receipt; our goal for 2009 is to complete 95 percent in 30 days. The overall average turnaround time for issuing these administrative orders in 2008 was 20 days; our goal for 2009 is to reduce this to 16 days.

ELECTRONIC SYSTEMS LEADERSHIP: The division’s web-based systems continue to be a valuable resource to the well operators, other government agencies and to the public. The imaging system displays hundreds of thousands of permits, orders, well files and well logs that used to be housed only in OCD offices throughout the state. The division’s electronic permitting system processed over 22,000 permits to drill, well production reports, sundry notices and operator changes in the past year. These systems are self-training and have allowed the division and the well operators to concentrate their human resources on the most productive activities.

In 2009 we will deliver a new web-based well information system which will instantly provide data about every well including construction, orders, pits, inspections, violations, production and direct links to images.

BRINE WELLS: Two brine wells collapsed in New Mexico in 2008, each resulting in very large sink holes. OCD conducted additional compliance evaluations of all brine wells after the first collapse to assess adherence with existing discharge permits, to identify caverns that have reached their production capacity for proper plugging and abandonment, and to assess any threats to public health and safety from brine wells in New Mexico. Our activity in this area will continue throughout 2009.
Data and Statistics

OVERVIEW: The natural gas produced and sold in New Mexico accounts for close to one-tenth of the country’s production. Almost one-third of this gas is coalbed methane; New Mexico rivals Colorado as the top producer of coalbed methane in the nation. The San Juan Basin in northwest New Mexico and in southern Colorado contains the nation’s largest field of proven natural gas reserves.

New Mexico’s crude oil production as of July 2008 is 4.2 percent of the annual U.S. total. In 2007, New Mexico’s crude oil reserves were 3.4 percent of the country's total reserves. Most of today’s oil production occurs in the New Mexico portion of the Permian Basin in southeast New Mexico. The U.S. Energy Information Administration of the Department of Energy is the source of this nationwide information.

New Mexico is a national leader in both production and reserves of CO2. As of December 2008, there were 23,321 active oil producing wells, 28,253 active gas producing wells, 524 active CO2 injecting wells, 3,797 active enhanced recovery injection wells and 688 active salt water disposal wells.

Record prices for oil and natural gas continued through most of 2008 but are now markedly down. As of December 5, 2008, West Texas Intermediate Crude oil prices were $40.81 per barrel and gas prices averaged nearly $5.742 per MMBtu (Million British Thermal Units) Henry Hub.

Total New Mexico crude oil production in 2007, including condensate, was 59.1 million barrels. New Mexico natural gas production in 2007 was 1,528 BCF (billion cubic feet).
New Mexico State Revenues from Oil and Gas Production

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State General Fund:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil and Gas Emergency School Tax¹</td>
<td>$297,070,343</td>
<td>$380,901,701</td>
<td>$483,240,216</td>
<td>$420,254,277</td>
<td>$557,332,449</td>
</tr>
<tr>
<td>Oil and Gas Conservation Tax¹</td>
<td>13,550,705</td>
<td>17,621,567</td>
<td>22,564,448</td>
<td>19,915,703</td>
<td>29,115,356</td>
</tr>
<tr>
<td>Natural Gas Processors Tax¹</td>
<td>13,477,994</td>
<td>21,727,404</td>
<td>26,841,174</td>
<td>35,627,328</td>
<td>30,617,748</td>
</tr>
<tr>
<td>Federal Mineral Leasing Royalties¹</td>
<td>334,883,305</td>
<td>434,153,453</td>
<td>556,540,613</td>
<td>501,123,515</td>
<td>564,180,000</td>
</tr>
<tr>
<td>State Land Office Rents, Bonuses, etc.²</td>
<td>22,060,805</td>
<td>42,044,343</td>
<td>52,695,563</td>
<td>50,409,672</td>
<td>45,236,743</td>
</tr>
<tr>
<td>Total -- General Fund Revenue</td>
<td>681,043,151</td>
<td>896,648,468</td>
<td>1,141,882,013</td>
<td>1,027,330,495</td>
<td>1,226,482,296</td>
</tr>
<tr>
<td><strong>Severance Tax Permanent and Bonding Fund:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil and Gas Severance Tax¹</td>
<td>314,122,849</td>
<td>389,927,942</td>
<td>488,952,323</td>
<td>425,403,323</td>
<td>567,447,973</td>
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<tr>
<td><strong>Land Grant Permanent Fund:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Land Office Royalties²</td>
<td>236,277,777</td>
<td>312,251,910</td>
<td>405,343,063</td>
<td>390,449,484</td>
<td>459,916,308</td>
</tr>
<tr>
<td>Grand Total of All Funds</td>
<td>1,231,443,777</td>
<td>1,598,828,320</td>
<td>2,036,177,400</td>
<td>1,843,183,302</td>
<td>2,253,846,576</td>
</tr>
</tbody>
</table>

(1) Source: New Mexico Taxation and Revenue Department: Tax Analysis, Research and Statistics Office.
Note: For FY 2004 - 2007, the data reported are actual audited figures that were distributed to the General Fund. FY 2008 data are preliminary, unaudited numbers.
(2) Source: State Land Office

Table 1

Oil Production by Year *

<table>
<thead>
<tr>
<th>Year</th>
<th>SE Crude</th>
<th>SE Condensate</th>
<th>NW Crude</th>
<th>NW Condensate</th>
<th>Total Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>55,716,417</td>
<td>8,028,133</td>
<td>1,163,504</td>
<td>1,674,405</td>
<td>66,582,459</td>
</tr>
<tr>
<td>2004</td>
<td>55,268,531</td>
<td>8,559,992</td>
<td>1,069,627</td>
<td>1,620,209</td>
<td>64,518,359</td>
</tr>
<tr>
<td>2005</td>
<td>53,050,590</td>
<td>5,183,598</td>
<td>1,046,353</td>
<td>1,559,732</td>
<td>60,840,273</td>
</tr>
<tr>
<td>2006</td>
<td>51,970,227</td>
<td>4,771,673</td>
<td>1,008,963</td>
<td>1,619,873</td>
<td>59,370,736</td>
</tr>
<tr>
<td>2007</td>
<td>52,256,928</td>
<td>4,343,329</td>
<td>1,002,947</td>
<td>1,531,582</td>
<td>59,134,786</td>
</tr>
</tbody>
</table>

*Volumes are adjusted to reflect amended production reports filed with the Oil Conservation Division.
Source: Oil Conservation Division as of December 1, 2008

Table 2
Figure 1: FY 2008 State General Fund Revenue from Oil and Gas Sales

Figure 2: Oil and Gas Prices vs. Rig Count
### Natural Gas Production *

<table>
<thead>
<tr>
<th>Year</th>
<th>SE Casinghead</th>
<th>SE Dry Gas</th>
<th>NW Casinghead</th>
<th>NW Dry Gas</th>
<th>Total Natural Gas **</th>
<th>Coal seam Gas (Includes NE)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>210,287,444</td>
<td>363,392,492</td>
<td>15,249,467</td>
<td>993,521,606</td>
<td>1,597,311,527</td>
<td>479,606,655</td>
<td>5,544,742</td>
</tr>
<tr>
<td>2004</td>
<td>227,016,814</td>
<td>340,796,082</td>
<td>13,396,760</td>
<td>1,011,138,134</td>
<td>1,611,857,898</td>
<td>594,862,369</td>
<td>5,700,408</td>
</tr>
<tr>
<td>2005</td>
<td>226,005,978</td>
<td>326,008,789</td>
<td>12,823,663</td>
<td>1,003,331,625</td>
<td>1,591,923,512</td>
<td>520,147,744</td>
<td>5,266,065</td>
</tr>
<tr>
<td>2006</td>
<td>225,563,698</td>
<td>317,069,294</td>
<td>12,940,053</td>
<td>1,006,491,947</td>
<td>1,588,463,966</td>
<td>524,654,526</td>
<td>5,275,077</td>
</tr>
<tr>
<td>2007</td>
<td>219,763,886</td>
<td>303,829,380</td>
<td>12,120,182</td>
<td>966,629,622</td>
<td>1,528,337,403</td>
<td>497,496,178</td>
<td>5,325,675</td>
</tr>
</tbody>
</table>

*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

Source: Oil Conservation Division as of December 1, 2008

### Table 3

### 2007 Oil and Gas Production by County

<table>
<thead>
<tr>
<th>County</th>
<th>Oil (Barrels)</th>
<th>Rank</th>
<th>Gas (Thousand Cubic Feet, MCF)</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lea</td>
<td>34,650,946</td>
<td>1</td>
<td>594,820,613</td>
<td>1</td>
</tr>
<tr>
<td>Eddy</td>
<td>21,134,681</td>
<td>2</td>
<td>382,809,046</td>
<td>2</td>
</tr>
<tr>
<td>Rio Arriba</td>
<td>1,275,626</td>
<td>3</td>
<td>262,524,023</td>
<td>3</td>
</tr>
<tr>
<td>San Juan</td>
<td>1,148,248</td>
<td>4</td>
<td>233,857,841</td>
<td>4</td>
</tr>
<tr>
<td>Chaves</td>
<td>520,587</td>
<td>5</td>
<td>25,994,333</td>
<td>5</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>297,382</td>
<td>6</td>
<td>24,805,865</td>
<td>6</td>
</tr>
<tr>
<td>Sandoval</td>
<td>90,583</td>
<td>7</td>
<td>2,478,963</td>
<td>7</td>
</tr>
<tr>
<td>McKinley</td>
<td>20,072</td>
<td>8</td>
<td>1,130,425</td>
<td>8</td>
</tr>
<tr>
<td>Santa Fe</td>
<td>81</td>
<td>9</td>
<td>19,978</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>59,138,206</td>
<td></td>
<td>1,528,441,087</td>
<td></td>
</tr>
</tbody>
</table>

Source: Oil Conservation Division as of December 3, 2008

### Table 4

### Wells Drilled and Completed by Year by Well Type

<table>
<thead>
<tr>
<th>Year</th>
<th>Gas</th>
<th>Oil</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>1,069</td>
<td>511</td>
<td>56</td>
<td>1,636</td>
</tr>
<tr>
<td>2004</td>
<td>1,208</td>
<td>571</td>
<td>63</td>
<td>1,842</td>
</tr>
<tr>
<td>2005</td>
<td>1,299</td>
<td>617</td>
<td>64</td>
<td>1,980</td>
</tr>
<tr>
<td>2006</td>
<td>1,253</td>
<td>747</td>
<td>52</td>
<td>2,052</td>
</tr>
<tr>
<td>2007</td>
<td>1,036</td>
<td>607</td>
<td>29</td>
<td>1,672</td>
</tr>
</tbody>
</table>

Source: Oil Conservation Division

### Table 5
Figure 3

- Federal: 42%
- State: 38%
- Private: 19%
- Indian: 1%

2007 Oil Production by Land Type

Figure 4

- Federal: 62%
- State: 18%
- Private: 17%
- Indian: 3%

2007 Gas Production by Land Type
State Parks Division
Americans are an optimistic people who face challenges with determination, courage, and innovation. And so it was that in the midst of the Great Depression—one of the most difficult eras in our nation’s history—the state parks movement was born across the United States and in New Mexico. State parks were conceived as a way to protect natural resources, provide recreation for the people, and invest in America.

In New Mexico, the first state parks were established in 1933 with the help of the Civilian Conservation Corps. Seventy-five years later, this vision is alive and strong; New Mexico state parks are more valuable and meaningful than ever before. The Parks Division has evolved into a vibrant system of 34 parks serving over 4 million people annually. State parks protect our heritage, provide low-cost, family-friendly recreation that puts millions of adults and children in touch with nature, and generate huge economic benefits.

State Parks celebrated its Diamond Anniversary throughout 2008. Overall, it was a year full of progress and accomplishment; with rebounding visitation, discounts and fun promotions for visitors, and improved park programs in all respects. We took the occasion to honor our past as well as look forward. To steer a wise course for the future, we must know our own history, remember how far we have come, and respect the people who got us here. Thus, it is to the men and women of New Mexico State Parks Division, and to all the citizen supporters of state parks, to whom our work during 2008 is dedicated. Their efforts will continue to inspire our generation, and generations to come, as stewards of a noble endeavor. May we learn our history lessons well, rededicate ourselves to the vision, and make New Mexico state parks—indeed, parks and protected areas of all kinds across America and the world—a priority for social well-being in the 21st century and forever.
State Parks Division

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

HISTORY: New Mexico State Parks was founded in 1933 in conjunction with the Civilian Conservation Corps efforts during the Great Depression. Over 75 years, this division has evolved from a New Deal initiative into a vibrant system of 34 parks serving over four million people annually. Today, the state park system encompasses 19 lakes and 182,978 acres of land. With the anticipated addition of Cerrillos Hills/Galisteo Basin State Park in 2009, the state park system will have 35 units and a total acreage of 184,094. New Mexico’s state parks offer spectacular scenery, outstanding land- and water-based recreational areas, and provide educational programs for visitors of all ages.

Accomplishments

HAPPY 75TH BIRTHDAY, STATE PARKS! This past year, State Parks marked its 75th Anniversary. Governor Bill Richardson declared August 31, 2008, as ‘State Parks Day,’ and State Representative Kiki Saavedra sponsored a resolution in the House of Representatives that recognized 2008 as the 75th Diamond Anniversary of State Parks.

This year-long celebration involved special discounts, new programs, and more special events than ever. Among other elements of the 75th Anniversary, State Parks offered a Diamond Anniversary Pass with a 25 percent camping savings; conducted the first-ever “NM State Parks Geocaching Challenge”; gave away a three-carat diamond bracelet; held “birthday parties” for four of the oldest state parks; honored the Civilian Conservation Corps; expanded the new Outdoor Classroom Program; planted trees; completed a history of State Parks; acquired new land; and saw the grand opening of a new state park.

More than 60 park “signature” events included star parties, festivals, guided walks, live concerts, triathlons, boat races and fishing derbies across the state. Several new and ambitious events were launched, from live outdoor concerts to butterfly, kite and paddling festivals. The U.S. Army Corps of Engineers and State Parks together celebrated the 75th Anniversary of the New Deal and Parks’ 75th Anniversary at Conchas Lake Dam in July. State Parks and the Sierra County New Deal Celebration Committee dedicated a 6-foot bronze statue, CCC Worker, at the Dam Site Recreation Area to commemorate the 75th Anniversary of both State Parks and America’s New Deal heritage. State Parks also participated in the National Public Lands Day celebration that took place across America in late September by declaring the state parks free of charge that day.

VISITATION, REVENUE, AND IMPROVING VALUE FOR PARK VISITORS: The public responded to good outdoor recreation conditions throughout 2008, several camping and fee discount programs, and the myriad of special events going on at state parks all year. Visitation increased 14 percent over the previous year (to about 4.6 million), which was the fourth year in a row that visitation exceeded 4 million.
State park entrance, camping and boating fees remained stable throughout 2008. [Camping fees have not changed since 1998 and boat registration fees have not increased since 1984.] Self-generated revenue from entrance and camping fees totaled almost $3.9 million – an increase of 6 percent, thanks to increased visitation.

State Park’s operating budget increased by about $3.6 million. This was one of the largest single-year increases in recent years and provided much-needed funds to fill vacancies, cover rising operating costs and address unmet needs in critical programs.

**FACILITY IMPROVEMENTS:** State Parks constantly strives to improve visitor facilities by upgrading campgrounds and water/wastewater systems; repairing and renovating park buildings, roads and historic structures; addressing safety issues; expanding boat access and boat ramps; improving access for disabled visitors; and enhancing interpretive exhibits. This year saw the completion of numerous park improvements.

In one of the most exciting accomplishments of the year, State Parks completed construction of the 7,000-square-foot visitor center complex at the new Mesilla Valley Bosque State Park along the Rio Grande in Las Cruces. The new facility opened in December 2008 as a premier environmental learning center in southern New Mexico. State Parks is also working with the Bureau of Land Management to add an additional 640 acres of sand hills to the park’s existing 305 acres.

Some of the other major construction projects completed during 2008 include:

- A $250,000 project to pave the access road to the South Monticello campground and boat ramp at Elephant Butte Lake State Park. The project improved boating access to the northern part of the lake.

- A $725,000 project to renovate the water and wastewater systems at Sims Mesa Recreation Area at Navajo Lake State Park, which improved the reliability of the water system to supply park visitors with drinking water and requires much less maintenance by staff.

- Completion of two livestock barns at Living Desert Zoo and Gardens State Park at a cost of $1.2 million, which are designed specifically to meet Association of Zoos and Aquariums’ requirements for animal handling and veterinary care.

- A $400,000 renovation of the roof and HVAC system at the Rio Grande Nature Center. The new, innovative ground-source heat pump technology that State Parks installed greatly reduces electrical consumption while the roof system dramatically increases the insulation value. These two systems working in tandem have reduced the electrical demand at the Visitor Center by 25 percent.

- Renovation and replacement of sewer lift stations and sewage lagoons at Conchas Lake State Park at a cost of $266,000.

- A $400,000 project to restore and improve the restaurant building and patio at the historic Dam Site area at Elephant Butte Lake State Park.

- New interpretive exhibits at Brantley Lake State Park.
State Parks projects stress conservation and efficiency, including active and passive solar energy features. At Mesilla Valley Bosque State Park, for example, the new facilities blend the past, present and future. While constructed in the style of an historic hacienda, the facility has numerous energy and resource conservation features, including 10-inch-thick adobe walls, an innovative ground-source heating and cooling system that uses 25 percent of the energy demanded by a standard system, and a rooftop-mounted photovoltaic array that generates electricity from the sun. The combination of these renewable energy and design features means that the facility could function with net zero-energy usage.

State Parks also installed a photovoltaic solar array at Pancho Villa State Park, which was funded with the assistance of the Energy Conservation and Management Division. This system should significantly reduce the electrical demand of the facilities at this park and serve as a template for other renewable energy projects that are currently planned elsewhere in the State Park system.

The division began building a new 2,500-square-foot visitor center at Eagle Nest Lake State Park. The facility, which is scheduled for completion in June 2009, is expected to be a net zero-energy consumption building and will also incorporate numerous sustainable design features. State Parks also broke ground on a large project to make over the main entrance area at Elephant Butte Lake State Park. Phase I work will include a new access road and entrance, and renovations to the park’s maintenance area and administrative offices.

State Parks also announced that Heron Lake State Park will be the site for the division’s third astronomy observatory, scheduled for completion in 2009. The astronomy center will cost about $120,000 and will be similar to the state park observatories at Clayton and City of Rocks, with some site-specific modifications and improvements.

EDUCATION AND RESOURCE PROTECTION PROGRAM: State Parks was busy in 2008 with programs and projects to protect natural and cultural resources and help connect people to nature.

The Outdoor Classroom Program (OCP), a partnership among State Parks, the Public Education Department, other state agencies, and numerous non-profit organizations to increase outdoor education and connect New Mexico children with the outdoors, entered the second year of its pilot phase. The OCP has been funded by appropriations by the Legislature, special appropriations from individual legislators, the New Mexico State Park Foundation, and funds from the “Kids to Parks” transportation program that come from the voluntary check-off option on the New Mexico Personal Income Tax form. State Senator Cynthia Nava and Representative Jimmie Hall have been leaders in supporting the program; both were honored in December with the New Mexico State Parks Foundation’s 2008 Amistad Award.

In 2008, State Parks worked with its diverse partners on the four main components of the OCP: teacher training/curriculum development, transportation grants, educational materials for students, and service learning. Over the first two years of the program, the OCP has been active in 30 school districts – funding 130 transportation grants, reaching approximately 27,000 students, and training over 100 teachers.

Over the past year, State Parks also pushed ahead with four curriculum and teacher training projects as part of the OCP. They included the Bioregional Math and Science Outdoor Education Project in Farmington; the Lower Pecos River/Roswell Basin Curriculum Guide; the completion of the Lower Rio Grande Education Guide for southern New Mexico; and completion of a curriculum based on the dinosaur trackway at Clayton Lake State Park. Improvements to online teacher resources and evaluation of the OCP are underway as well.

Thanks to a $20,000 grant from the Cimarron Watershed Alliance, New Mexico students took part in stream monitoring and restoration projects at Cimarron Canyon and Eagle Nest Lake state parks. Scientists from Sandia and Los Alamos National laboratories helped mentor the students and advised on research methods. This
collaborative effort among State Parks, Game and Fish, local schools and federal laboratories provides valuable scientific information to the parks.

State Parks and 13 National Park Service (NPS) units in New Mexico expanded their cooperative efforts in 2008 to get kids to state and national parks. State Parks joined with the NPS on "Junior Ranger Day" in April; made coupons good for free state park visits available at NPS units in New Mexico; and made plans for a joint State Park-National Park “teacher-ranger-teacher” program. These steps made New Mexico one of the first states to implement a "Children and Nature Plan for Action" charter signed in September 2007 by the National Association of State Park Directors and the NPS.

State Parks entered into a new partnership with the state’s Game and Fish Department to help publish New Mexico Wildlife. Support from State Parks is allowing the magazine to publish quarterly and it now dedicates 25 percent of its pages to State Parks topics.

State Parks also conducted many natural and cultural resource protection projects in 2008. State Parks produced an extensive cultural resource inventory and cultural landscape report for the Dam Site Historic District at Elephant Butte which will inform planned future efforts to preserve the historic Civilian Conservation Corps buildings at the site. Land acquisition projects got underway at Sugarite Canyon State Park and along the lower Rio Grande in the Selden Canyon area south of Hatch. Forest health projects took place at Sugarite and at Coyote Creek State Park. The Federal Highway Administration and State Parks teamed up to complete a wetlands project at Fenton Lake State Park as part of mitigation related to the reconstruction of Route 126 through the Jemez Mountains. Night sky protection continued to be a priority for State Parks as well; the agency’s efforts helped influence communities such as Union County to enact a local night sky protection ordinance. State Parks also completed its first formal natural resource management policy.

**BOATING SAFETY AND LAW ENFORCEMENT:** State Parks manages the recreational boating safety program on navigable waters across the state in accordance with the New Mexico Boat Act. State park staff worked throughout 2008 to implement the new boating safety law that requires boating safety education for all motorboat operators under the age of 18 as of January 1, 2007. The expanded boating safety program – which offers both instructor-led and on-line courses – continues to expand and reached over 1,300 students. The program’s goal is to minimize boating-related accidents and have zero boating-related fatalities. In 2008 there were three boating-related fatalities within state parks. State Parks also completed a significant revision to its Law Enforcement Policy.
State park staff demonstrated courage and coolness under pressure many times during the year in efforts to assist and protect visitors. Twenty-three employees received the Division’s Lifesaving Award for courageous acts during 2008.

**TRAILS:** The Recreational Trails Program awarded seven trail project grants totaling almost $600,000 in 2008 to various organizations. The funding will support development of 20 miles of new trail and maintenance of some existing trails. One of the most significant projects supported by State Parks will construct the first trails at the Glorieta Battlefield unit of Pecos National Historical Park, which will create public trail access that has never existed before at this National Park Service site.

State Parks hosted the 2008 New Mexico Trails Conference, which was held in coordination with the annual conference of the New Mexico Recreation and Park Association. The Trails Conference brought together trail professionals, advocates, and users from numerous state, federal and local agencies and organizations for the first time in almost 20 years. The conference was dedicated to the memory of Jessica R. Terrell, the State Parks trail coordinator (2006-2008), who lost her life in an automobile accident in January. State Parks also established a new division award in her honor. The first recipients were Dan and Doris Puskas (volunteers at Caballo) and Marcia de Chadenedes (Bureau of Land Management). State Parks also plans to construct a new trail at Elephant Butte that will be named for Jessica Terrell.

State Parks continued efforts to assist with major long-distance trails in New Mexico. State Parks awarded $128,280 to the non-profit Continental Divide Trail Alliance in a competitive bidding process to help complete sections of the Continental Divide Trail across New Mexico. Due in part to State Parks’ investments, New Mexico moved from fifth to third in the ranking of Continental Divide Trail states with the highest percentage of the trail completed.

Another visionary trails project, this one led by State Parks, is the Rio Grande Trail. State Parks completed a major trail corridor study for the sections of the Rio Grande Trail between Belen and Sunland Park. The study will serve as a framework for developing the trail. Completion is nearing on several Rio Grande Trail segments within Elephant Butte Lake State Parks with the Youth Conservation Corps program assisting with two large grants for the project. Additional trails were completed at City of Rocks, Sumner Lake and Heron Lake state parks.

**DEDICATED STAFF, INCREDIBLE FRIENDS:** Volunteers are valuable members of the State Parks team and an essential component of park operations. Volunteers assist staff, enhance visitors’ experiences, and bring communities and parks together. Nearly 4,000 volunteers contributed 312,000 hours to State Parks operations in FY08 – a three percent increase in volunteers and a two percent increase in volunteer hours over last year. Volunteer effort translates into 150 full-time employees and a savings of $5 million in labor costs.

State Parks’ friends groups provide hours of dedicated effort, helping staff visitor centers, operate gift shops, complete park projects, and raise funds to supplement park budgets. Four new cooperative agreements with friends groups were renewed in FY08 and there are now a total of 16 formally-established friends groups with written agreements with State Parks. Two more friends groups are in the process of forming.
State park staff demonstrated exemplary performance during 2008, handling a 14 percent visitation increase and the increased activity associated with new programs and the 75th anniversary with great results. The division’s annual awards, which recognize outstanding sustained achievement throughout the year, were handed out at the Fall Conference in Farmington. Among the many recipients, some of the top honors included: Villanueva State Park (Exemplary Park Award); Christy Tafoya (Secretary’s Award); Thomas Turnbull (Governor’s Award); Arthur Benavidez, Adrian Stiteler, Ray Casados and Rob Yaksich (Director’s Awards); and Sumner Lake State Park staff and the State Park Marketing Team (Customer Service Awards).

**PARTNERSHIPS, EXPANSIONS AND NEW PARKS:** In 2008, State Parks witnessed a number of successes with both established and new public and private partnerships, and increased interest in ideas for new state parks.

Efforts to open the new Cerrillos Hills/Galisteo Basin State Park moved ahead. State Parks concluded an agreement with Santa Fe County to co-manage the park; the park’s first employee was hired; and archaeological remote sensing, archival research and test excavations were conducted on property acquired for the new visitor center in the Village of Cerrillos.

Eastern New Mexico University (ENMU) and State Parks celebrated the completion of a project to improve visitor facilities at Blackwater Draw Archaeological Site near Portales, which is owned by ENMU. Using funds requested by Governor Richardson and appropriated by the state legislature, State Parks funded an $80,000 project to install a large group shelter and new interpretive/educational signs throughout the world-famous site that was designated a National Historic Landmark in 1961. The legislature also requested a study of the Blackwater Draw site as a possible new state park.

In September, Governor Richardson announced his support for legislation to be introduced in 2009 to establish Pecos Canyon State Park along the Pecos River north of the Village of Pecos. The proposed legislation would authorize State Parks to enter into an agreement with Game and Fish, allowing State Parks to legally manage recreation on lands currently owned by the State Game Commission.

The Legislature also requested new park feasibility studies for the Shiprock Pinnacle on the Navajo Nation and an area near Placitas that has a small wild horse herd. The Shiprock study contemplated a unique tribal park-state park partnership approach that might protect and interpret Shiprock, which is already a designated National Natural Landmark but has no formal protection or general public access.

**SHINING BRIGHTLY FOR A DIAMOND ANNIVERSARY:** New Mexico State Parks’ 75th Diamond Anniversary in 2008 was an opportunity to share the magic of parks with the public, thank state park visitors, and lay the groundwork for additional historic accomplishments to benefit state parks for generations to come.
New Mexico
Radioactive Waste
Consultation Task Force
- WIPP Transportation Safety Program
New Mexico Radioactive Waste Consultation Task Force - WIPP Transportation Safety Program

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 other state agencies collaborate on the Waste Isolation Pilot Project (WIPP) Transportation Safety Program: Department of Public Safety, Department of Homeland Security and Emergency Management, Department of Health, Environment Department, Department of Transportation, and State Fire Marshal’s Office.

The task force coordinator, through the WIPP Working Group, manages and implements the WIPP Transportation Safety Program. The WIPP Working Group comprises operations management staff in each of the participating agencies. The program includes the setting and updating of policies and operating procedures; training and equipping emergency responders along all of New Mexico’s WIPP shipping routes; keeping the public informed on radioactive materials issues; monitoring and maintaining highway safety; and inspecting all WIPP shipments at their point of origin or at the New Mexico ports of entry.

Accomplishments

In 2008, the WIPP Transportation Safety Program:

- Maintained 17 joint powers agreements 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 radiological emergency response equipment to 36 agencies in 24 New Mexico communities
- Trained more than 500 emergency responders in 22 New Mexico communities
- Trained over 50 police officers in "emergency response officer" skills
- Revised and updated the Emergency Response Officer Field Operating Guides - last updated in 2004
- Inspected (from October 1, 2007, through September 30, 2008) 795 radioactive waste shipments heading for WIPP. Seventy-one percent of those shipments received Commercial Vehicle Safety Alliance Level VI inspections. Radiological surveys were performed on 100 percent of those shipments.
Youth Conservation Corps
A Message from Youth Conservation Corps Executive Director Wendy Kent

This year marked the 75th anniversary of the Civilian Conservation Corps (CCC). In 1992, Dr. Vicente Ximenes co-founded the New Mexico Youth Conservation Corps (YCC), a youth conservation group patterned after the CCC. As a young man, Dr. Ximenes joined the CCC and that experience had an enormous impact. “It was while in the corps that I acquired the values I have taken with me throughout my life,” he said. “And I hope New Mexico youth will learn them, too.”

The CCC was the centerpiece of the New Deal legislation which aided relief and recovery of the people of the United States during the Great Depression while greatly enhancing the conservation, use and enjoyment of our nation’s public lands. Inspired by this groundbreaking program, the YCC has sought since its establishment in 1992 to do much the same for the young people of our great state today: to provide jobs, skills, education, positive experiences and role models to young people while delivering projects of lasting value to the people of New Mexico.

Since 1992, YCC has employed 7,492 young people between the ages of 14 and 25, representing over $29.6 million in funding distributed across every county in New Mexico. This year alone, the program has awarded over $2.9 million to 31 projects. The result of this work can be seen in projects across our entire state - ranging from new animal habitats at the Spring River Zoo in Roswell, to riverside trails and improvements in Farmington, to preservation and restoration of historic adobe structures in Española, to completion of large sections of the Continental Divide Trail.

Perhaps more important to the future of New Mexico is the lasting benefit that comes from the impact made on the lives of the young people employed. YCC projects provide valuable opportunities to young people in communities across our state where opportunities are in short supply, from inner-city Albuquerque to rural Grant County. The skills, experiences and educational opportunities provided by YCC will truly endure throughout the lifetimes of many, in a strong work ethic, good citizenship, and hope and vision for the future.
Youth Conservation Corps

The Youth Conservation Corps (YCC) Commission believes the YCC Act, the program’s vision, mission, goals and policies provide the “best practices” for organizing youth corps. New Mexico has such a diverse culture and the YCC program provides the flexibility to allow each community to design projects that meet specific community needs. The YCC Commission and staff are committed to providing the highest degree of customer service to our Corps members and project sponsors.

THE PURPOSE OF YCC: The YCC Act [9-5B-1 to 9-5B-11 NMSA 1978] provides a process to employ young persons in public projects that conserve New Mexico’s natural resources and provide community benefits of lasting value. New Mexico will benefit by having its natural and urban environments improved and enhanced and its youth instilled with an appreciation of natural resources, cooperation, hard work and accomplishment.

VISION: YCC members contribute to the quality of life for all people of New Mexico.

MISSION: Promote the education, success and well-being of the youth in our communities and provide community benefits of lasting value through the conservation and enhancement of New Mexico’s natural resources.

GOALS: Together we strive for healthy natural resources and lasting community benefits; instilling values of hard work and accomplishments; and promotion of education and training.

VALUES: We strive to be responsible stewards of the state’s resources and positive role models for New Mexico’s youth

FUNDING CRITERIA: An application should meet certain criteria to be considered for funding, as follows:

A comprehensive work plan including the quality of the plan, reasonableness of the schedule, the priority for hiring youth, and the project’s compliance with the conservation and community service objectives as set forth in the YCC Act;

The level of educational curriculum that will enhance academic skills including the opportunity to earn high school or college credit hours toward graduation, the opportunity to have new learning experiences relevant to the workplace, and the opportunities the project provides in the development of skills, discipline and good work habits;

A complete project cost estimate that illustrates the commitment to hire youth as demonstrated by dollars to be spent on Corps member wages, the quality and reasonableness of cost estimates which includes the sponsor’s ability to contribute the necessary financial and human resources to the project; and

The project’s ability to provide visible benefits with a lasting value to the communities and citizens of New Mexico.
**GRANT AWARD PROCESS:** The Commission solicits potential applicants by publishing, at a minimum, 10 legal advertisements requesting proposals in various newspapers around the state. In addition, over 700 requests for proposals (RFPs) are sent out to local government agencies, school districts, federal agencies, state agencies, Native American tribes and non-profit organizations. Applications are accepted for two categories, urban and rural, according to the Economic Development Department's identification of Metropolitan Statistical Areas. The funding is equally distributed between the two categories:

1) Urban projects are located in Bernalillo, Sandoval, Valencia, Doña Ana, Los Alamos, Santa Fe, and San Juan counties

2) Rural projects are located in all other counties.

The Commission reviews the proposals and awards grants based on the criteria above. Once the applications (Figure 1) are scored and ranked, the grants are awarded until the contractual line item budget has been depleted. The Commission feels this process results in the most equitable distribution of funds to New Mexico communities, meets the Procurement Code and can be defended if challenged. The RFP process has been established by the legislature and the Department of Finance and Administration, and has been accepted by the public as a fair means to distribute tax dollars (Figure 2).
The nine-member YCC Commission has a legislative responsibility to provide a process to employ young people in public projects that conserve New Mexico's natural resources and provide community benefits of lasting value. Funding for YCC comes from 10 percent of the revenue obtained through the Governmental Gross Receipts Tax Collections. Since the inception of the program in 1992, YCC has employed over 7,492 New Mexico youth in 513 projects that received more than $29 million in funding.

Based on the YCC Act, the Commission has used its authority to design a system it feels best meets the needs of New Mexico's youth and communities. The focus of the program has always been on providing the greatest number of youth the opportunity to have a positive work experience. New Mexico benefits by having its natural and urban environments improved and enhanced and its youth instilled with an appreciation of natural resources, cooperation, hard work and accomplishment. The Commission believes the YCC Act, rules, policies and systems can be used as a model for other youth employment programs. YCC demonstrates the "best practices" to enable employment organizations to set high standards and implement effective programs with positive results.

**EDUCATION AND YCC:** The Commission believes that Corps members should be provided quality educational experiences while participating in YCC projects. Each project is locally driven so the educational opportunities are designed to meet the needs of the Corps members in that project. YCC breaks those needs down into four main categories: life skills, on-the-job training, certificate/licensure and service learning. Identified under life skills are healthy lifestyles, conflict resolution, sexual harassment awareness training, drug use prevention, parenting classes, teamwork, work ethics, financial readiness and job preparedness. On-the-job training includes safety, tool use, trail construction, building construction, public speaking, landscaping, public art and other skills related to work projects. Certificate/licensure programs include CPR/First Aid, First Responder, OSHA regulations, defensive driving and heavy equipment operation. In relation to service learning, in the last few years, the YCC program has been encouraging project sponsors to work with local school districts and colleges to develop curriculum (based on New Mexico Public Education Department's Benchmarks and Standards) around the work experience and training Corps members receive while participating in a YCC project. The Commission is pleased to report more high school, college and/or concurrent credit hours are being earned by Corps members (Figure 3).
The YCC Act allows for Corps members who have served in YCC for 12 months in a 48-month period to earn either a $500 cash bonus or a $1,500 tuition voucher. Since the inception of the scholarship program in 2002 through July 1, 2008, $127,700 has been distributed to 172 Corps members (Figures 4 and 5). Figure 6 displays the total value of contracts as $3,779,047.29, a figure that combines the amount expended, $2,240,448.24 with the number of in-kind contributions, $1,538,599.50.

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*Not all contractors have submitted their final reimbursements.

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Figure 5
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Figure 6
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ANNUAL REPORT 2008
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)

For more information on the Energy, Minerals and Natural Resources Department, or to view an electronic version of this report, visit our web site at www.emnrd.state.nm.us

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