



Protecting the Environment,  
Preserving the Enchantment

Solid Waste Bureau

*2007*  
*New Mexico*  
*Solid Waste*  
*Annual Report*





# 2007 New Mexico Solid Waste Report

## Notes from the Secretary—July 2007



NMED Secretary Ron Curry (L), and E. Gifford Stack, NMED Solid Waste Bureau at the NENMRL Landfill, Wagon Mound NM, Waste Inspection Sweep

Dear Elected Officials, Solid Waste Administrators, and Residents:

It is a pleasure to provide you with this year's annual solid waste report, covering January 1 – December 31, 2006. The Department continued and enhanced its efforts to direct and encourage appropriate management of wastes, including reuse, recycling, diversion, beneficial use, and composting of materials. In the past year, the following significant initiatives, firsts, milestones, or activities took place:

- The Environmental Improvement Board approved revision of 20 NMAC 9.1 Solid Waste Management Regulations. These revised rules are the first environmental rules in New Mexico and one of the first in the US to include Environmental Justice provisions as part of the solid waste facility permitting process.
- The New Mexico Tire Recycling Regulations 20 NMAC 9.2 were repealed and replaced by the Recycling, Illegal Dumping and Scrap Tire Management Rules. These rules allow 30 percent of the Recycling and Illegal Dumping Fund's grant monies to be used for non-tire recycling projects.
- The Solid Waste Management Plan was updated.
- Two 10-year landfill permits were issued for protective lined landfills: San Juan County Regional Landfill, and Valencia Regional Landfill & Recycling Facility.
- The Los Alamos Transfer Station and Greentree Transfer Station and Recycling Center were issued 20-year permits, and the Closure Plan for the Los Alamos County Landfill was approved.
- Twelve Administrative Compliance Orders (ACO) were issued, nine of which settled and paid penalties. The remaining three are pending.
- An unannounced two-day waste inspection "sweep" was completed by Department Solid Waste staff at the Northeastern New Mexico Regional Landfill in Wagon Mound. As a result, one ACO and two Notices of Violation were issued to two local hospitals and a waste hauling company for inappropriate delivery of regulated medical wastes.
- New shorter, easy to use Annual Solid Waste Report Forms were created and sent to 133 facilities to allow for gathering of disposal recycling, diversion, beneficial use and composting data. The easy to use forms included explicit instructions, a capacity calculation worksheet, definitions, conversion factors, and helpful examples. Submissions could be filled out and returned to the Solid Waste Bureau electronically.
- Two pre-subtitle D landfills were closed in Mora County. These facilities had been out of compliance with the closure requirements for more than 10 years.

Most encouraging, the state is recycling and diverting at almost a 10 percent rate, a significant increase over the estimated three to five percent rate in previous years. However, our volume of material placed in landfills continues to increase – some 3.5 million tons went into the 22 permitted solid waste, two special waste, and 15 registered landfills across the state. The reported amount of solid waste managed is up approximately 12 percent as compared to reported tonnage in 2005. This number includes 625,000 tons of out-of-state waste.



# 2007 New Mexico Solid Waste Report

## Solid Waste Management Act Requirements

The New Mexico Solid Waste Act of 1990 charged the New Mexico Environment Department with:

- Preparing an inclusive annual state solid waste management report;
- Overseeing the requirements in the Act; and
- Developing a comprehensive Solid Waste Management Plan and program for New Mexico.

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The purpose of the annual report is to provide the Governor and the Legislature with a solid waste program status report to assist with improvement of solid waste management efforts in New Mexico.

This document is the eighth report from the Secretary of the Environment Department

## Purpose of the Report

regarding the current management of solid waste in our State.

Information in this report is included for the period from January 1, 2006 through December 31, 2006.

The contents of this report are prepared in accordance with the mandates of the New Mexico Solid Waste

Act (Act). Data used in this report has been compiled from annual reports provided by the owners and operators of solid waste facilities in New Mexico.



## Introduction—New Mexico Solid Waste Management Program



The Solid Waste Bureau (SWB) has established and continues to implement the majority of the elements in the comprehensive solid waste program as required by the Act and the Tire Recycling Act. Those elements include:

- A program to provide standards for facility construction and operation, to process and issue permits, and to review and approve closure plans;
- A program to ensure protection of groundwater by

requiring completion of groundwater monitoring at solid waste facilities;

- A program to inspect and audit facilities to ensure operating and recordkeeping standards are maintained;
- A program to educate, address, and enforce against illegal dumping and improper handling of waste;
- A program to certify facility operators, publish educational brochures, and provide technical assistance to the solid waste community;
- A program to develop regulations, compile and analyze report data, publish an annual report, and produce special reports as required;
- A protocol to review

applications for Recycling and Illegal Dumping Scrap Tire Grant Funds;

- A scrap tire management program; and
- A program that provides technical assistance that includes a statewide recycling directory for the proper handling and disposal of household hazardous waste (HHW).

This information is posted on the New Mexico Environment Department's (NMED) Web site at:

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

Select "**Solid Waste**" in the left hand column.



# Solid Waste Management Recommendations



*The greatest need to meet the goals of the Solid Waste Management Act in New Mexico is the provision of sustainable funding of state and local solid waste management, recycling, and diversion programs.*

## **Recommendation:**

Many New Mexicans in both urban cities and rural communities do not have access to basic residential drop-off recycling centers or residential and commercial curbside recycling programs. Recycling is not just a “feel-good” exercise. As discussed later in this report, waste prevention and recycling **reduces** greenhouse gas emissions. Using the 2005 national recycling rate of 32 percent, the Environmental Protection Agency (EPA) calculates recycling results in greenhouse gas reductions equivalent to removing over 39.6 million cars from the road. In 2006, New Mexicans recycled enough material to remove the equivalent of emissions from 101,657 passenger cars. Sustained access to recycling services is Inhibited by lack of funds for the establishment of collection and processing centers or curbside routes. Cities, counties, pueblos, and tribal governments need funds to purchase recycling bins and hauling equipment, and to provide education to residents.

- The Legislature can play a key role in helping to increase access to recycling services for all New Mexicans, and reducing greenhouse emissions by:
  1. Establish at a minimum a paper recycling program (office papers, corrugated cardboard, and newspaper) at the Roundhouse and at all State agencies.
  2. Approve adequate budget funds for the General Services Department (GSD) for recycling services at all State office buildings to bring State agencies in compliance with the Act. GSD currently does not have an adequate budget for purchase or rental of bins and recycling pick-up.
  3. Pass a Recycling Resource Economic Opportunity Bill similar to the bill passed in Colorado last year. Establish a Recycling Resource Economic Opportunity Fund using a mechanism based on recommendations of New Mexico stakeholders. Funds would be used by SWB and local communities to implement sustainable waste reduction and recycling programs and to is grants to develop sustainable waste practices.

## **Recommendation:**

There are more than 20 old substandard landfills that will have to close and be capped within the next several years to remain in compliance with the new Solid Waste Rules. By August 2008, owners of these facilities must submit either a closure plan or a permit application to the Department, which will require the services of an engineer. Closure can cost hundreds of thousands of dollars, and on-going groundwater monitoring and post-closure care of these sites is required for 30 years. Many of these facilities are located in rural, poor counties, that do not have the necessary funds.

- In lieu of recharging the Solid Waste Facility Grant Fund, Capital Outlay funds should be provided to communities for closures. Solid Waste Capital Outlays should be:
  1. As large as possible and on-going;
  2. Awarded on an annual cycle with specified work plan goals and milestones;
  3. Awarded to those applicants that include plans for economically viable and sustainable access to solid waste services, recycling, and diversion activities;
- 4. Tailored to reward communities closing substandard landfills and transitioning to the transfer of wastes;
- 5. Prioritized to help jump start recycling and diversion activities in accordance with the Act, and the Solid Waste Management Plan (SWMP).



# Solid Waste Management Recommendations

**Recommendation:**

To improve the quality and timely completion of solid waste Capital Outlay projects, and before finalizing Capital Outlay requests for solid waste management programs, Legislators should schedule a meeting with SWB and involved applicants to determine if all necessary items have been included in the request, and to evaluate conformity of the project with the Act and rules.

**Recommendation:**

Implementation of solid waste management programs is one of the few programs for which Federal funding is not available. As a result, SWB is almost entirely funded via the General Fund. The costs of managing solid waste continue to rise. Within the next 10 years, it is estimated that the costs to properly manage solid waste in some rural areas of New Mexico will increase by more than 500 percent. Grant funding via the Solid Waste Facility Grant Fund is no longer available, and the fund has not been recharged. Funding of SWB must be maintained and supplemented to support the program priorities and reach goals as specified in the Act and SWMP.

**Recommendation:**

The following educational needs have been identified by stakeholders as necessary to increase waste diversion, beneficial use and reuse, and recycling in New Mexico.

- An integrated state-wide plan for on-going education activities is needed. At this time, funds are not available to create a plan or to implement an on-going program.
- A mechanism must be found to secure and provide sustainable funding for on-going education of all target audiences, especially children.

Members of the Legislature should come forward as champions of waste diversion and recycling to increase the visibility of these issues and to assist with implementation of these programs. Provide funding to NMED to prepare a public outreach campaign stressing:

- “Buy Only What You Need” and “How and Where to Recycle”
- “How to Find Safe Products” to reduce the amount of HHW purchased
- Increase citizen understanding of proper management and disposal of wastes, prevent illegal dumping, and promote proper management of HHW and common products such as latex paints, which can be disposed of in landfills if allowed to harden before placing in with the trash.

**Recommendation:**

State purchasing policy must be changed to include the procurement of recycled content commodities such as post-consumer papers and re-refined oil, among others.

**Recommendation:**

Support the establishment of a \$1-\$2 million Annual Recycling, and Household Hazardous Waste Grant/Low-Interest Loan Program Fund based on a Legislative Appropriation to provide needed funds to reimburse successful applicants for the collection and proper management of electronic wastes and HHW.



*State and local governments, and the private sector have taken positive steps to increase the amount of waste diversion and recycling in New Mexico.*

*However, we are at a cross roads, and in order to keep the momentum going, additional funds are needed from the Legislature for sustained educational efforts and program implementation by the Solid Waste Bureau and General Services Department.*

# Goals of Solid Waste Management in New Mexico

The goals of solid waste rules and programs directed by the SWB include, but are not limited to:

- Protecting public health and quality of life of all residents of New Mexico and safeguarding the quality of the environment;
- Directing the continued establishment of a comprehensive, cost-effective, and environmentally sound solid waste management program in New Mexico;
- Promoting and encouraging cost-effective waste reduction, reuse, diversion, recycling, and composting of materials to conserve resources and landfill disposal space;
- Ensuring that the siting, design, operation, and closure of engineered waste containment systems (landfills) isolate solid wastes from the environment to minimize possible groundwater and environmental impacts, while allowing for some flexibility in design;
- Regulating requirements for special waste such as treatment of infectious waste using alternate technologies, handling of asbestos waste, as well as manifesting and chain-of-custody documents, to assure that these wastes are handled and disposed of properly;
- Encouraging and providing incentives to counties and municipalities to create regional solid waste management systems and new point-of-entry solid waste convenience centers and transfer stations; and
- Providing regulatory control of commercial and special waste haulers.

**The Solid Waste Bureau is the agency within the New Mexico Environment Department responsible for developing, implementing, and enforcing the comprehensive program defined in the Solid Waste Act and the Solid Waste Management Plan.**

## Solid Waste Act Priorities



- Most Efficient
- More Economic Value
- Less Ecological Damage



- Less Efficient
- Most Wasted Economic Value
- Greater Ecological Damage

The Act establishes a priority hierarchy to be used for developing a solid waste management program in New Mexico. The solid waste priorities are:

- First, source reduction and recycling;
- Second, environmentally safe transformation (incineration); and
- Third, environmentally safe landfill disposal.

The Act charges the NMED with overseeing the requirements in the Act and developing a comprehensive plan.

## Status of, and Compliance With the Solid Waste Act



- Recycling and Beneficial Use rates increased from three to five percent in 2005 to nearly 10 percent in 2006 due to increased opportunity and improved data collection.
- As of December 2006, there were 20 permitted Municipal Solid Waste (MSW) landfills meeting the strict requirements of Subtitle D—18 are currently operating.
- Two, 10-year permits were issued, adding 105 years of site capacity.

- Jump started programs for:
- State agency recycling efforts.
  - Post-secondary educational recycling.

# Success in Meeting Solid Waste Reduction Goals 74-9-6

<b>2006 Recycling Rate Calculation</b>	
<b>Base Year</b>	<b>1992</b>
Base year population	1,583,774
Conversion Factors	
4 lb/person/day	
365 days/year	
1 ton/2000 lb	
<b>Base Year</b>	
Base year Tons of Solid Waste Generated at 4 lbs /person/day	1,156,155
1995 Recycling target - divert 25% of MSW tonnage generated in the Base year	289,039
<b>2000</b> Recycling target - divert 50% of MSW tonnage generated in the Base year	578,077
<b>Year 2006</b>	
2006 Tons of MSW Generated	1,966,566
2006 Tons of Solid Waste Disposed in New Mexico	3,499,966
2006 Recycling Tonnage including compost w/o sludge and metals	191,601
State Recycling Rate % of Target (2006 / 2000 base year target )	33%
State Recycling Rate (2006 recycled materials / <b>2006</b> MSW total generation)	9.74%
State Diversion Rate (2006 diverted materials / <b>2006</b> Solid Waste totals that could be diverted) from Page 10.	<b>9.88%</b>



*There is considerably more recycling and diversion activity in New Mexico than is being reported.*

**The 2006** Solid Waste Annual Reports indicate that New Mexicans diverted 191,601 tons or 9.74 percent of MSW from landfills via recycling and composting. On a per capita basis, using a New Mexico 2005 population of 1,887,200, the diversion rate equates to 203 pounds per person per year recycled from the waste stream. On a daily basis, this averages 0.56 pound recycled per person per day.

For comparison, EPA's 2005 study of MSW in the US found a national recycling/composting rate of 32 percent of MSW, for an average of 1.5 pounds per person per day diverted from 4.5 pounds per person per day generated.

This year the New Mexico data collected is comparable to EPA's accepted data. Therefore, New Mexico's data can be compared to the national averages.

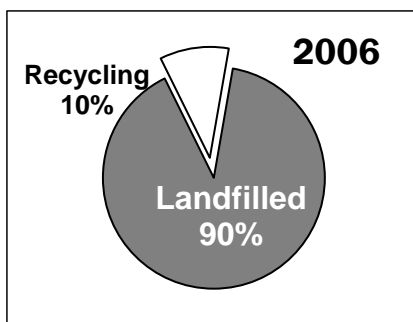
According to EPA, the 2005 net per capita discard rate in the US, after recycling and composting, was 3.00 pounds per person per day. In contrast, New Mexico's net per capita discard rate, after 0.56 pounds per person per day recycled/composted, is calculated to be 5.15 pounds per person per day, based on total MSW generated in the state.

As shown in the Figure to the left, the materials recovery rate is about 10 percent in New Mexico (0.56 lbs/ 5.15 lbs), which is about one-third of the nationwide average of 32 percent.

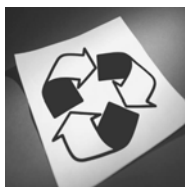
**Cardboard** is the item that is most often recycled in New Mexico.

**By weight, scrap metal, appliances, aluminum, steel cans, and car batteries** are the most recycled items.

## New Mexico Recycling



According to the EPA total materials recovery was calculated to be 32% nationwide



Like many other states that set ambitious recycling goals in the early 1990s, New Mexico did not meet the 50 percent recycling goals as specified in the Act for a number of reasons, including:

- Recycling markets and recycling processing capacity are limited in New Mexico. Some private and municipal markets exist in larger cities with industrial bases or in metropolitan areas such as Phoenix, AZ. or Denver, CO.
- As a whole, solid waste management systems and recycling efforts were, and continue to be, under funded.
- Rural areas of New Mexico lack the population base and sufficient materials to make recycling or diversion activities cost effective.
- Recyclables must be consolidated in large quantities to create economies of scale, cover handling and long distance transportation costs, and improve marketability.
- Rural residents often lack access to basic recycling services due to lack of financial resources and personnel to provide such services.



## New Mexico Recycling Rate Increases

This year, SWB is using the EPA's guidelines for determining the standard MSW Recycling Rate. By using the EPA guidelines, SWB hopes to standardize the recycling rate and make it easier to compare to other states.



**This year, New Mexicans recycled at rate of 9.74%, with 191,601 tons of materials recycled**

EPA provides guidelines which defines MSW as including all normal household waste, commercial waste, recyclable materials, appliances, scrap tires, lead acid batteries, antifreeze, brush and green waste, food scraps, paper, cardboard, newspaper, office paper, phone books, plastic, glass, steel and aluminum containers, electronic waste, etc. The scope of materials that are **not** included in the MSW generation rate, is special waste, construction and demolition waste (C & D), motor oil, car bodies, mining waste, heavy equipment, windows, food processing waste or out-of-state waste.

Data compiled from this year's revised and improved annual report form shows that New Mexico had an overall recycling rate of 9.74 percent with 191,601 tons of materials recycled. The recycling rate is moving in the right direction but still far from the goal of 50 percent.

The recycling rate is calculated by dividing all in-state recycled materials, by all in-state MSW totals. In 2006, the total generation of in-state MSW was 1,966,566 tons and the total amount of materials recycled was 191,601 tons.



$$\text{Recyclable Material} = \frac{191,601 \text{ tons}}{1,966,566 \text{ tons}} = .0974 \times 100 = 9.74 \% \text{ MSW}$$



### Highest Recycling Rate in New Mexico by County

**#1**

**Lincoln County:**

*59% recycling rate.*

*(31,642+ tons MSW managed and 18,671 tons recycled)*

Lincoln County achieved this astounding recycling rate due to the large scale composting operations in the County: 17,967 tons of green waste and other waste were composted, saving landfill space, transportation cost, and tipping fees; and 710 tons of other recyclables (cardboard, newspaper, containers, scrap metal, and electronic waste) were collected and sent off site for recycling.





The following counties had the next top four recycling rates in the State. Each county is a different size, has a different population, and has promoted the type of recycling that works for their area.



### **Los Alamos County:**

**#2** 22.9 % recycling rate. (21,593 tons of MSW; 4,952 tons recycled)

Los Alamos County Solid Waste Division provides weekly curbside pick-up for recyclables along with quarterly pick-up of large items and brush. They also require all self-haulers to segregate their recyclable from the disposable waste material. Their program includes composting of yard and green wastes. In addition, the county provides comprehensive information regarding the



recycling program on the Solid Waste Division's web page and promotes recycling by giving presentations at local schools, community groups and clubs during November's "Recycling Awareness Month".



### **Torrance County:**

17.7 % recycling rate.

**#3** 16,169 tons of MSW; 2,858 tons recycled) The Estancia Valley Solid Waste Authority achieved this recycling rate by mulching green waste, removing tires from the waste stream to be made into crumb rubber, and sending scrap metal to be recycled. All convenience stations accepting waste for transfer to the Torrance County/Bernalillo County Landfill are required to separate recyclable metals from the waste stream and deliver the recyclable metals to the approved storage area at the landfill.



### **Chaves County:**

17.4 % recycling rate.

**#4** (69,487 tons MSW; 12,097 tons recycled)

The Roswell Municipal Landfill dedicates separate roll-offs for the collection of cardboard, tires, and metal at the landfill site. In addition, the City of Roswell operates a recycling center, has nine recycling roll-off containers located throughout the city, and advertises on television and radio to encourage recycling.



### **Bernalillo County:**

15.6 % recycling rate

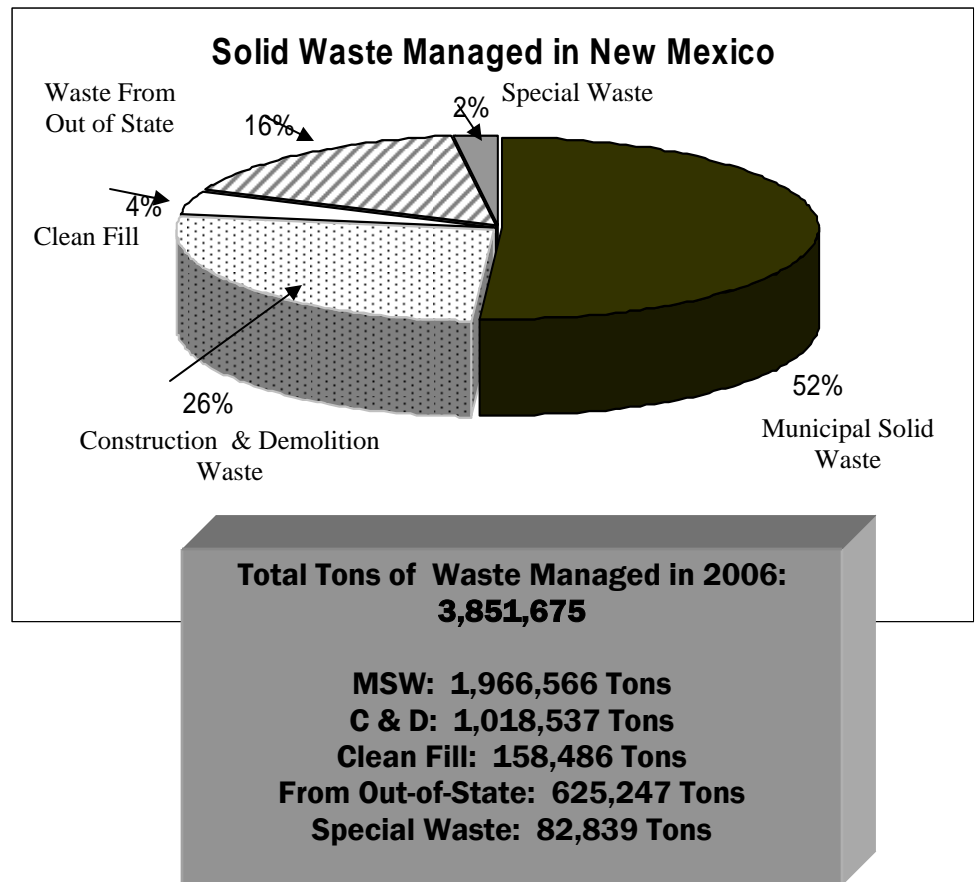
**#5** (600,452 tons MSW; 93,619 tons recycled)

The City of Albuquerque operates an Intermediate Processing Facility where co-mingled recyclable materials are sorted, baled, and sent to recycling facilities. The city provides weekly curbside pick-up of recyclables, as well as 12 recycling drop off locations throughout the city. There are a number of high volume recycling facilities that accept source separated materials and at least two large scale composting facilities in the County.

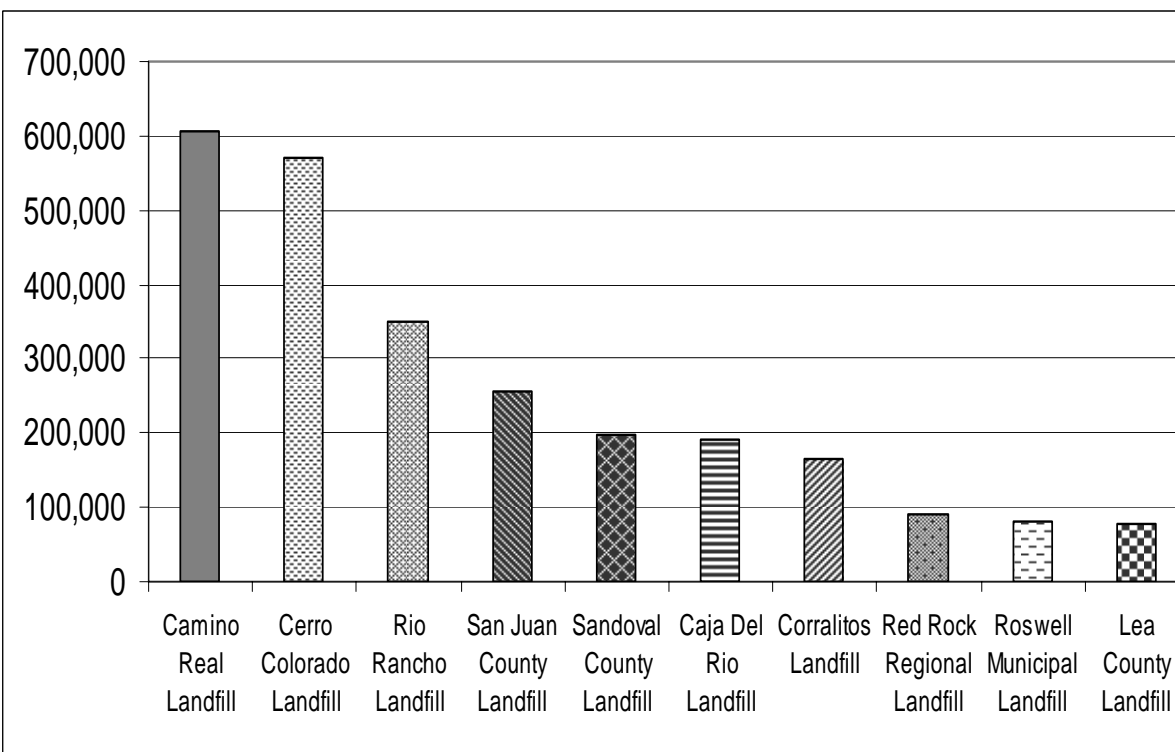


## Analysis of Solid Waste Generation and Disposal

Solid waste facilities throughout the state managed a total of 3,851,675 tons of waste in 2006. 52 percent of the total waste managed is classified as in-state MSW, which includes residential and commercial waste and recyclables. C & D accounts for 26 percent of the total tonnage. While 16 percent of the waste managed by New Mexico solid waste facilities originated from out of state. Two percent of the total tonnage was special waste. Special waste includes materials such as petroleum contaminated soils, chemical spills, infectious waste, sludge, asbestos, ash, etc. The remaining four percent of the waste was clean fill (concrete blocks, brick, etc.). A total of 3,851,675 tons was managed by facilities, with 3,499,966 tons landfilled. New Mexico landfills more than 90 percent of the waste managed.



## Facilities Managing the Most Tons of Solid Waste in 2006



**Trends**  
The amount of waste managed continues to increase. This may be a result of better recordkeeping and more accurate reporting by operators.

2006 C & D disposal remains comparable to 2005 totals.

Clean fill and special waste data were captured for the first time in 2006.

## Analysis of Solid Waste Generation, Recycling and Diversion

Tons by County	MSW TOTALS	Recycled Totals	% Recycling Rate	Total of all Materials that could be diverted (MSW + C & D + Clean Fill)	Beneficially Used	Diversion Totals (Recycled + Beneficially Used)	% Diversion Rate
Bernalillo	600,451.57	93,619.41	15.59	1,092,367.83	4,967.85	98,587.26	9.03
Catron	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chaves	69,486.69	12,097.21	17.41	92,717.09	0.00	12,097.21	13.05
Cibola	17,520.49	0.00	0.00	18,417.03	0.00	0.00	0.00
Colfax	23,326.95	824.32	3.53	25,016.41	60.33	884.65	3.54
Curry	71,173.44	6,685.09	9.39	86,462.57	4,959.59	11,644.68	13.47
De Baca	1,572.72	204.75	13.02	2,005.52	57.60	262.35	13.08
Dona Ana	151,834.10	14,371.76	9.47	208,787.97	2,510.00	16,881.76	8.09
Eddy	60,419.84	1,245.10	2.06	71,590.83	3,369.97	4,615.07	6.45
Harding	241.64	1.35	0.56	253.86	0.21	1.56	0.61
Hidalgo	4,431.92	117.47	2.65	4,586.52	265.12	382.59	8.34
Grant	26,157.24	1,380.97	5.28	40,350.24	8,128.00	9,508.97	23.57
Guadalupe	3,511.98	91.42	2.60	4,243.20	616.26	707.68	16.68
Lea	66,704.01	5,484.38	8.22	82,592.60	10.00	5,494.38	6.65
Lincoln	31,642.15	18,671.42	59.01	37,976.64	3,433.00	22,104.42	58.21
Los Alamos	21,593.00	4,952.00	22.93	36,353.00	10,707.00	15,659.00	43.07
Luna	25,625.00	11.33	0.04	28,692.00	14.00	25.33	0.09
McKinley	64,978.47	181.40	0.28	65,662.56	0.00	181.40	0.28
Mora	13,644.52	57.66	0.42	15,623.49	146.88	204.54	1.31
Otero	64,002.69	3,906.99	6.10	139,777.41	40,799.77	44,706.76	31.98
Quay	10,792.73	194.50	1.80	43,857.98	33,060.75	33,255.25	75.82
Rio Arriba	26,332.91	1,324.12	5.03	26,641.61	452.00	1,776.12	6.67
Roosevelt	1,696.08	162.00	9.55	1,716.33	7.00	169.00	9.85
San Juan	179,878.00	1,137.00	0.63	210,490.75	0.00	1,137.00	0.54
San Miguel	12,993.99	1,168.81	9.00	13,355.16	10.00	1,178.81	8.83
Sandoval	193,294.11	6,675.65	3.45	496,409.61	1,080.00	7,755.65	1.56
Santa Fe	143,131.39	11,811.25	8.25	204,213.76	239.20	12,050.45	5.90
Sierra	8,855.84	243.48	2.75	9,425.64	42.27	285.75	3.03
Socorro	10,162.62	225.12	2.22	17,064.07	38.11	263.23	1.54
Taos	31,297.43	853.74	2.73	34,523.45	3,851.70	4,705.44	13.63
Torrance	16,169.08	2,858.34	17.68	19,514.70	0.00	2,858.34	14.65
Union	1,092.80	0.00	0.00	1,534.50	0.00	0.00	0.00
Valencia	12,013.94	1,043.32	8.68	12,015.78	98.05	1,141.37	9.50
<b>Totals</b>	<b>1,966,566.3</b>	<b>191,601.36</b>	<b>9.74</b>	<b>3,144,240.11</b>	<b>118,924.66</b>	<b>310,526.02</b>	<b>9.88</b>

### Recycling Rate

The recycling rate is calculated by dividing all in-state generated recycled materials, by all in-state generated MSW totals. Included in the MSW stream is the normal household waste and commercial waste, food scraps, glass, lead-acid batteries, metals, paper, plastics, textiles, tires, wood, yard trimmings, and other waste (electronic scrap, mattresses, etc.). MSW does **not** include out-of-state waste, C & D, clean fill, industrial waste, infectious waste, and other special waste.

In 2006, the total generation of in-state MSW was 1,966,566 tons, and the total amount of materials recycled was 191,601 tons, for a recycling rate of 9.74 percent.

### Diversion Rate

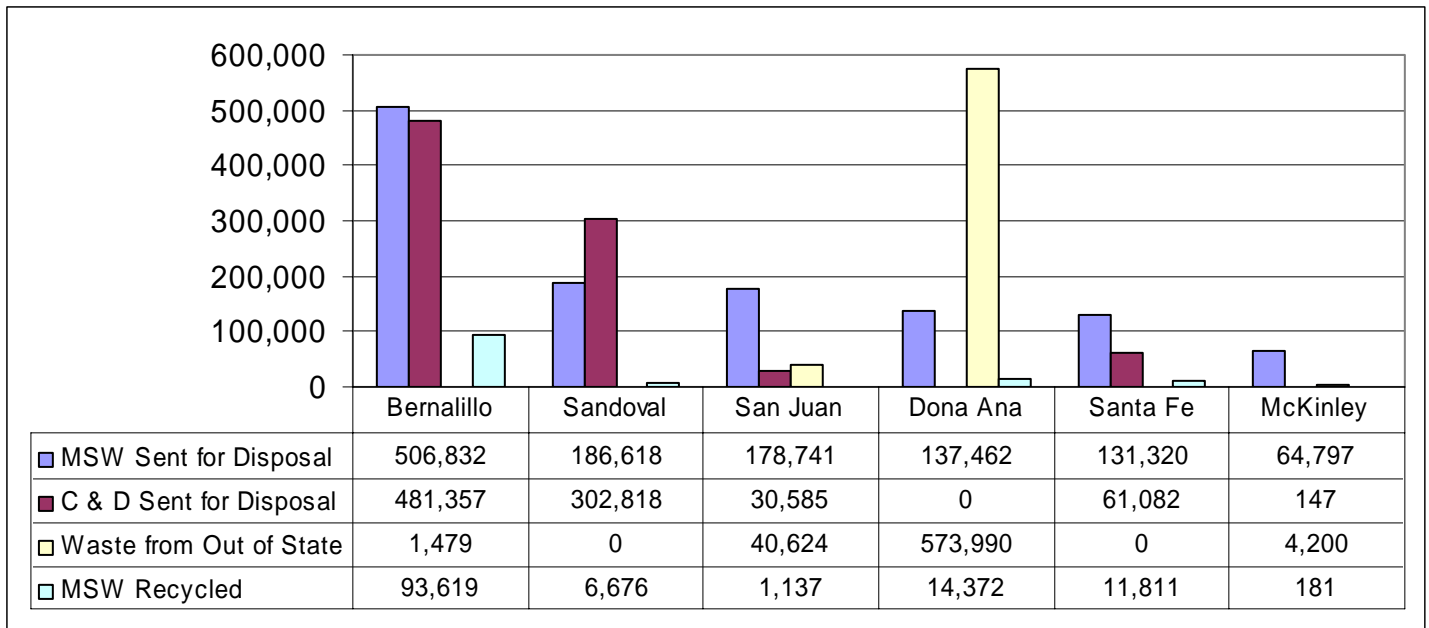
The diversion rate in New Mexico includes all materials recycled plus materials beneficially used. The diversion rate is calculated by dividing all in-state generated recycled and beneficially used materials, by all in-state generated MSW, C&D, and clean fill totals.

In 2006, the total generation of in-state MSW, C&D, and clean fill was 3,144,240 tons with a total amount of materials diverted from the landfill at 310,526 tons. This gives New Mexico a total diversion rate of 9.88 percent.

$$\begin{aligned} \text{Recycled+ Beneficially Used Material} &= \underline{310,526 \text{ tons}} \\ \text{MSW + C \& D + Clean Fill} &= 3,144,240 \text{ tons} \end{aligned}$$

## Analysis of Solid Waste Generation and Management

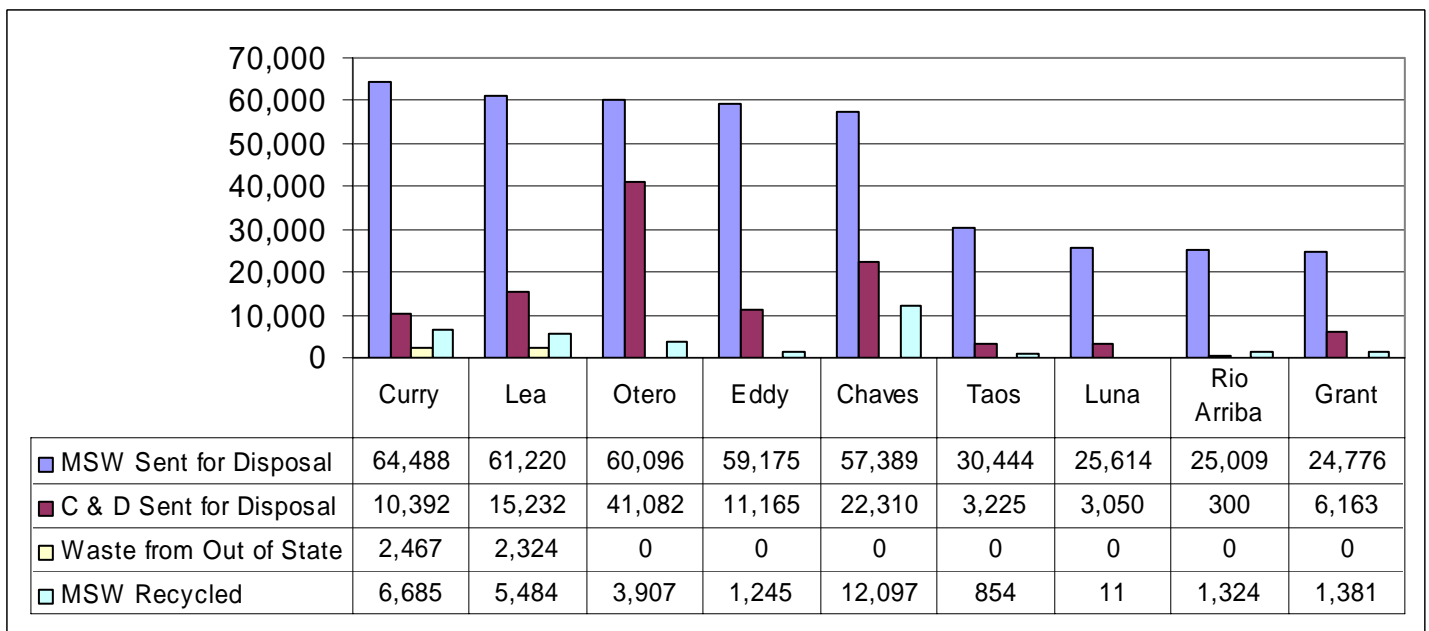
**Figure A. Counties Managing Greatest Tonnage of MSW**



According to the 2005 US Census Bureau estimates, the six counties in Figure A account for over 64 percent of the population in New Mexico. Information provided to the Bureau indicates

these counties managed 77 percent of all the materials in the state. Bernalillo County was among the top five recycling counties, accounting for 93,619 tons of recycled materials.

**Figure B. Counties Managing Mid-Range Tonnage of MSW**

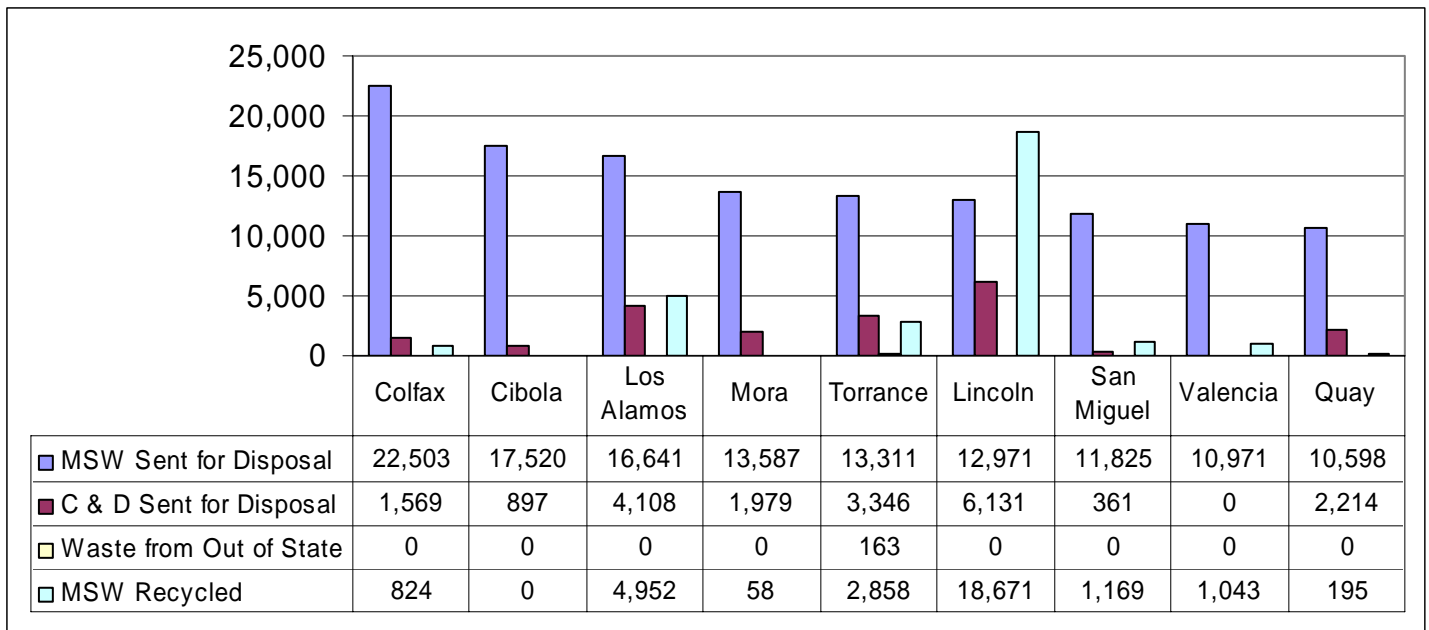


According to the 2005 US Census Bureau estimates, the nine counties in Figure B account for over 21 percent of the population in New Mexico. Information provided to the Bureau

indicates these counties managed 16 percent of all the materials in the state. Chaves County was among the top five recycling counties, accounting for 12,097 tons of recycled materials.

## Analysis of Solid Waste Generation and Management

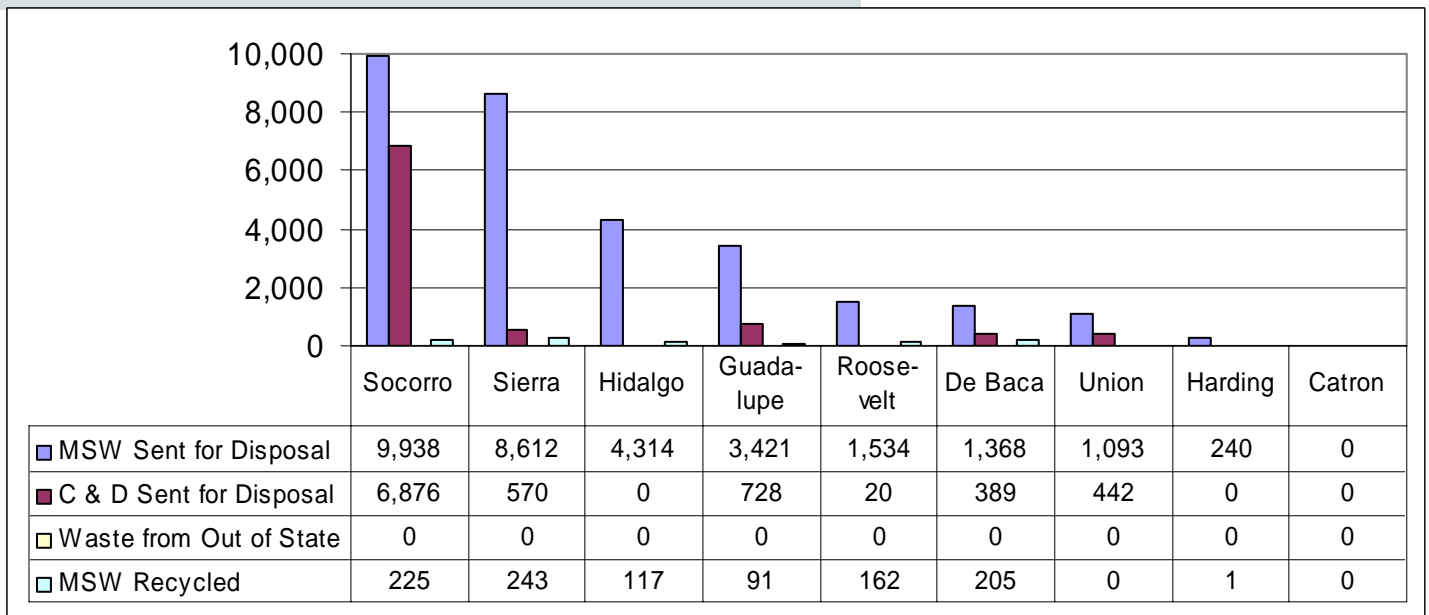
**Figure C. Counties Managing 10,000-25,000 Tons of MSW**



According to the 2005 US Census Bureau estimates, the nine counties in Figure C account for over 11 percent of the population in New Mexico. Information provided to the Bureau indicates these counties managed six percent of all the materials in the

state. Los Alamos County and Torrance County were among the top five recycling counties accounting for 7,810 tons of recycled materials. *Cibola, Lincoln, and San Miguel Counties export waste for disposal in other counties.*

**Figure D. Counties Managing Less Than 10,000 Tons of MSW**



According to the 2005 US Census Bureau estimates, the nine counties in Figure D account for over three percent of the population in New Mexico. Information provided to the Bureau indicates these counties managed one percent of all the materials in the state.

(No information was provided by Catron County facilities, therefore Catron County population was not included in the total.) *Harding, Hidalgo and Roosevelt Counties export waste for disposal in other counties.*

## Reported Tons of the Waste Stream Commonly Diverted Prior to Disposal

Combined Facility Tons by County	Brush/Green Waste	Scrap Tires	Motor Oil	Anti-freeze	Lead Acid Batteries	HHW
Bernalillo	128,237.04	1,204.10	59.25	11.65	206.00	35.28
Catron						
Chaves	9,186.00	270.00	6.40		5.00	643.00
Cibola	267.18					
Colfax	2,760.20	8,974.82	1.39		0.52	
Curry	1,532.42	76.51	54.38		128.17	0.18
De Baca	141.80	18.80	6.00	0.02	1.00	
Dona Ana	10,799.33	39.63	204.87	1.39	34.32	
Eddy	3,252.18	88.70	5.96			
Harding		0.21	12.22			
Hidalgo	11.33	110.52				
Grant	35.00	101.00	27.20	1.00	17.00	
Guadalupe	9.00		2.97			
Lea	3,976.11	2.96	10.00		14.00	
Lincoln	9,022.00	3,073.00	5.60	0.21	8.00	
Los Alamos	1,243.00	40.00	33.00		1.00	9.00
Luna	6,398.00	14.00	17.00			
McKinley	355.56					
Mora		189.24			1.02	
Otero	446.22	669.34	135.04	4.02	47.89	
Quay	1,995.00	48.13	4.50			
Rio Arriba	400.00	252.00	8.70	1.32	5.44	4.79
Roosevelt	7.00					
San Juan	23,889.00	550.00	27.75			
San Miguel	396.84	246.27				
Santa Fe	6,659.17	192.20				111.20
Sandoval	2,579.13	1,185.00				
Sierra	688.15	42.27			3.60	
Socorro	46.40	38.11	25.52			
Taos	3,223.61	309.01	1.41		3.36	
Torrance	2,205.00	236.98				
Valencia	1,275.82	13.31	1.84		0.40	
Union						
<b>Totals</b>	<b>221,037.49</b>	<b>17,986.11</b>	<b>651.00</b>	<b>19.61</b>	<b>476.72</b>	<b>803.45</b>

The materials listed in this chart are generally diverted, recycled, beneficially used, or sent off-site to be properly treated and disposed. This chart describes the tonnage of these materials that solid waste facility operators reported managing.

Brush/green waste is tree waste and brush trimmings commonly diverted from landfills to conserve space. This waste is typically chipped and used for landscaping mulch, erosion control, or compost feedstock. Many New Mexico facilities continue to landfill brush/green waste.

Scrap tires are often excluded from a landfill because they can cause operational problems. Many scrap tires are baled in New Mexico for use in engineering projects or shipped out of state. Some New Mexico landfills still bury tires.

Motor oil, antifreeze, and lead acid batteries are components of the waste stream that are banned from disposal at landfills by SWMR. Operators often collect and recycle these materials.

HHW is hazardous waste that originates from the home (insecticides, cleaning products, paints, varnishes, etc.). At least eight communities in New Mexico attempt to collect this waste stream and either recycle, reuse, or treat and dispose of the HHW in a safe and environmentally friendly manner.

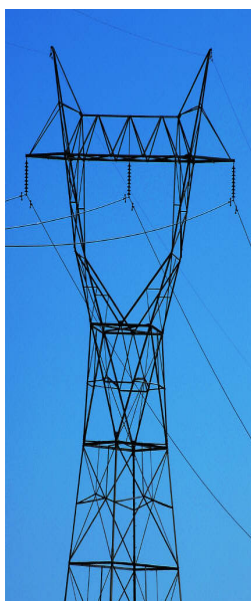


**Year-Round Oil Collection  
Santa Fe County**



Household Hazardous Waste Collection by Jurisdiction	Year-Round Collection	Occasional Drop-off Events
City of Albuquerque/Rinchem	X	
County of Bernalillo/Rinchem	X	
City of Farmington		X
City of Las Cruces/Doña Ana County	X	
City of Rio Rancho		X
City of Roswell	X	
City of Santa Fe		X
County of Los Alamos		X

## Benefits of Waste Prevention and Recycling— Energy Savings and Greenhouse Gas Reduction



- **Waste prevention and recycling** (including composting) divert organic wastes from landfills, thereby reducing the methane released when these materials decompose.
- **Recycling saves energy.** Manufacturing goods from recycled materials typically requires less energy than producing goods from virgin materials.
- **Waste prevention is even more effective at saving energy.** When people reuse things or when products are made with less material, less energy is needed to extract, transport, and process raw materials and to manufacture products. When energy demand decreases, fewer fossil fuels are burned and less carbon dioxide is emitted to the atmosphere.
- **Trees absorb carbon dioxide from the atmosphere and store it in wood, in a process called "carbon sequestration."** Waste prevention and recycling of paper products allow more trees to remain standing in the forest, where they can continue to remove carbon dioxide from the atmosphere.



## New Mexico Recycling Totals and Energy Savings

Commodity	Tons Recycled in New Mexico	Total Million BTU	Total MTCE
Aluminum Cans	3,672	(758,044)	(13,591)
Steel Cans	416	(8,304)	(203)
Glass	541	(1,150)	(41)
Corrugated Cardboard	64,023	(987,119)	(54,325)
Newspaper	15,321	(252,575)	(11,664)
Office Paper	4,277	(43,115)	(3,327)
Phonebooks	47	(534)	(34)
Dimensional Lumber	514	302	(344)
Mixed Paper, Office	4,495	(62,713)	(4,189)
Mixed Metals	27,113	(2,028,183)	(38,875)
Mixed Plastics	1,610	(84,400)	(656)
Mixed Recyclables	823	(13,920)	(654)
Personal Computers	299	(12,975)	(184)

EPA's Waste Reduction Model (WARM) incorporates the emissions factors and enables waste managers to analyze their potential to reduce greenhouse gas emissions based on the waste stream. In terms of climate benefits, waste prevention is generally the best management option. Recycling is the next best approach.

### *New Mexico Recycling Totals for 2006*

Recycling materials reduces greenhouse gas emissions. EPA estimates that current national recycling efforts—32 percent recycling in 2005—yield annual greenhouse gas emission reductions equivalent to removing over 39.6 million cars from the road.

Using the New Mexico recycling totals reduced energy consumption by 4,252,731 million BTUs. **This is equivalent to one year's energy consumption for all the homes in Chaves County or 34,002,416 gallons of gasoline!**

Using recycling totals, the WARM also calculated New Mexico's reduction of greenhouse gas emissions, which are equivalent to removing 101,657 passenger cars from the roadway for a year!

### Total Change in Energy Use: 4,252,731 Million BTU

This is equivalent to...

**22,454 Households' Annual Energy Consumption**

**733,229 Barrels of Oil**

**34,002,416 Gallons of Gasoline**

### Total Change in GHG Emissions (MTCE): 128,088 MTCE

This is equivalent to:

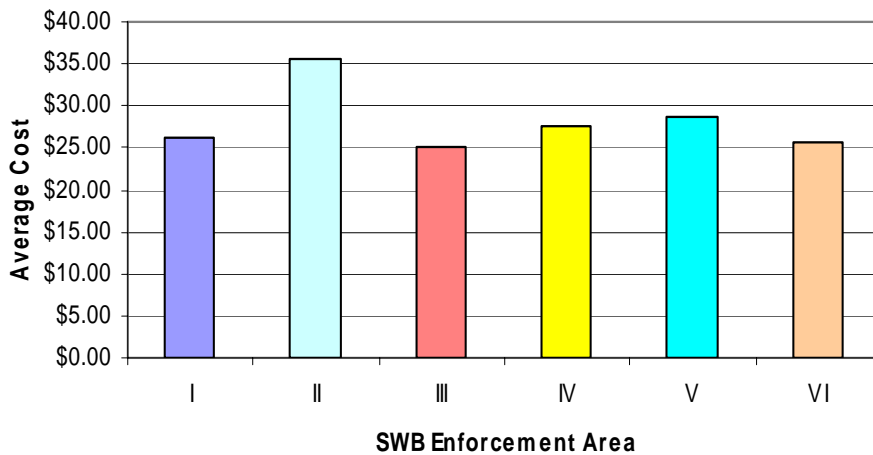
Removing 101,657 **Passenger Cars** each Year

MTCE= Metric Ton s Carbon Equivalent ;

BTU= British Thermal Unit; GHG=Greenhouse Gas

# Solid Waste Landfill Fees, Remaining Capacity, and Trends

**2006 Average per Ton Tipping Fee  
By Enforcement Area**



## Waste Shed Map (Opposite Page)

Some landfills receive waste from a wide area in their region, as shown by the colored lines that end at a facility dot. Facilities without lines, manage wastes in their local area only.

## Trends

As also seen in the map to the right, the general current disposal and diversion trends in New Mexico are:

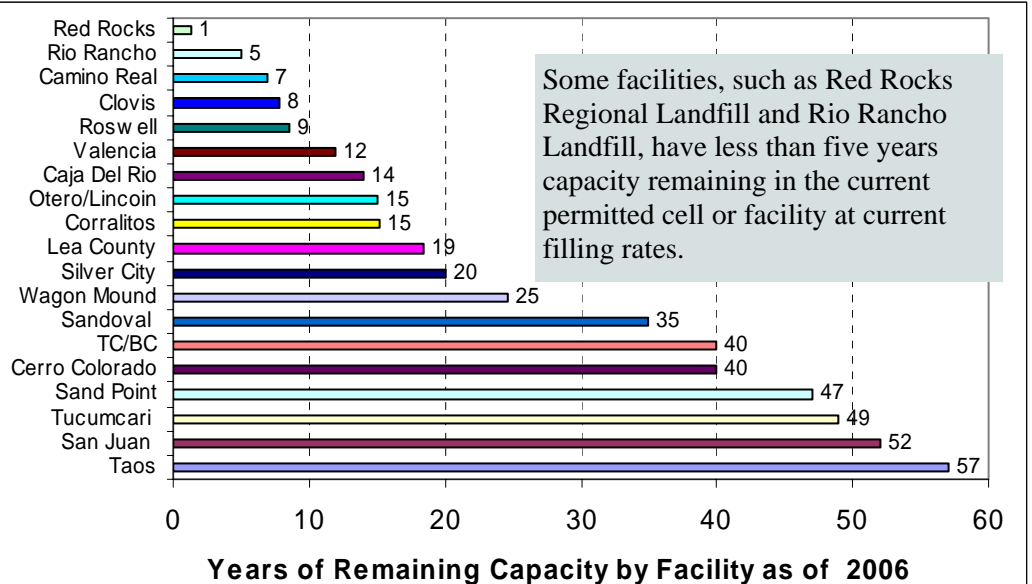
- The new SWMR require that old, registered, unlined landfills close and be capped within three years (yellow-orange facility dots).
- Unless an owner can permit a landfill that complies with the new SWMR on or near the existing sites, wastes will have to be hauled to regional landfills, increasing costs.
- Several other facilities will have to renew their permit applications to continue operation past five years.

Enforcement Area	Average Tipping Fee	Tipping Fee Range
Enforcement Area I	\$26.30 per ton	* \$9.75 per month (Utility Bill)-\$29.00 per ton
Enforcement Area II	\$35.60 per ton	\$25.00-\$45.00 per ton
Enforcement Area III	\$25.00 per ton	*\$15 per month (Utility Bill)-\$45.00 per ton
Enforcement Area IV	\$27.70 per ton	\$24.00-\$34.00 per ton
Enforcement Area V	\$28.80 per ton	\$28.31-\$29.24 per ton
Enforcement Area VI	\$25.70 per ton	*Free-\$28.10 per ton

Monthly charges on utility bills and Free disposal at the landfill were not included in the *Average Tipping Fee* calculations.

## Remaining Disposal Capacity

**Ten Landfills have 19 years or less of waste disposal capacity, while nine facilities have more than 20 years. Six landfills have more than 40 years of site capacity remaining.**

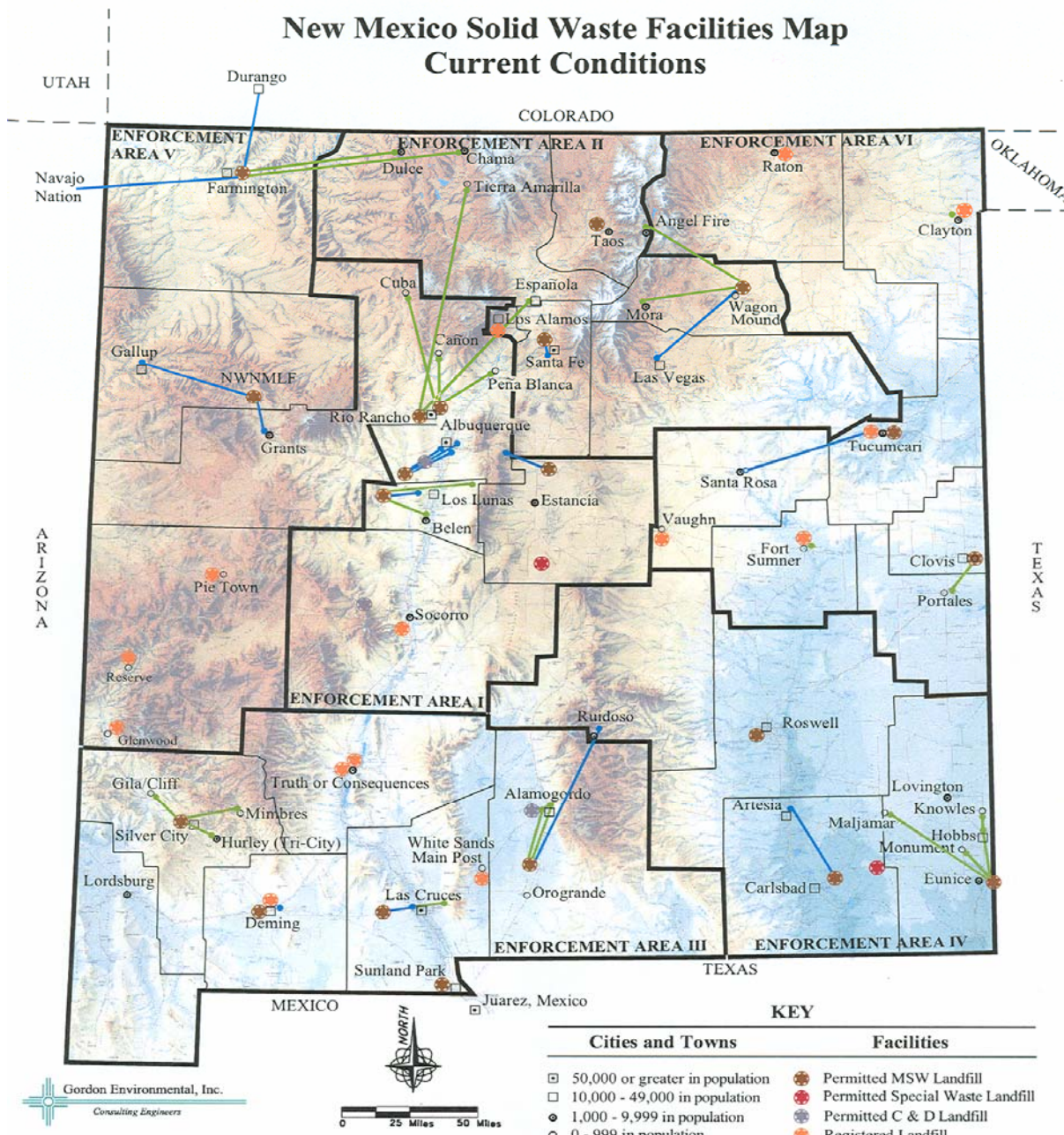


Some facilities, such as Red Rocks Regional Landfill and Rio Rancho Landfill, have less than five years capacity remaining in the current permitted cell or facility at current filling rates.



# Waste Shed Map – (Current Solid Waste Delivery Patterns)

## New Mexico Solid Waste Facilities Map Current Conditions



A table showing the landfills that manage non-hazardous special waste is located on page 29 of this report.

The two landfills that accept special waste only are represented on this map by red dots.

They are Keers Asbestos Landfill near Mountainaire, and Lea Land, Inc. Industrial Solid Waste Landfill, east of Carlsbad.

Gordon Environmental, Inc.  
Consulting Engineers

### Disclaimer and Limitations:

1. GEI makes no warranty of any kind with respect to this Map.
2. This Map/File is not to be modified by any person for any reason.
3. User of Map assumes all risk and liability for using this Map.

Map used with permission of Gordon Environmental, Inc.

### Trends (continued)

- Many communities that close an old, unlined landfill may also have to build one or more convenience centers or transfer stations to collect wastes. Many owners do not have funds to construct or operate new facilities.
- Small, rural counties will be the most impacted economically, and

residents in these areas will continue to have the least opportunity to recycle and divert wastes.

- For example, based on current knowledge, by 2010 Catron County, including Pie Town, Reserve, and Glenwood may have no local or regional solid waste disposal options within a reasonable hauling distance.

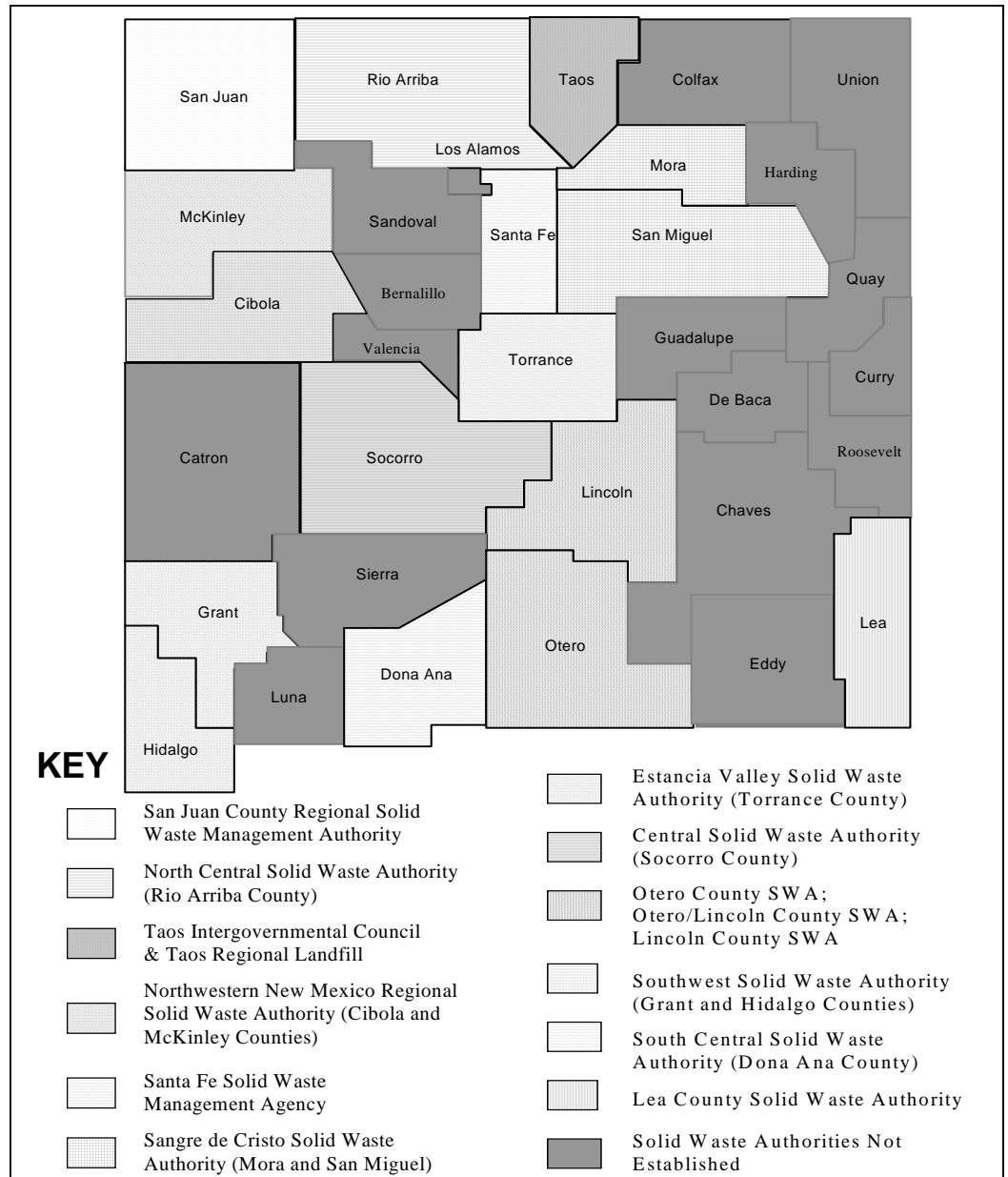
- There will continue to be unequal access for disposal of special wastes. For example, as seen on Page 29 herein, only two facilities in New Mexico are approved to accept asbestos (a defined special waste). Some areas of the state do not have local access to facilities that are permitted to take any special waste.

## Solid Waste Authorities and Regional Agreements

### Evaluation of the Development and Implementation of Local Solid Waste Management Programs

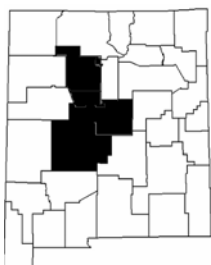
Regionalization, as described in 74-9-11 of the Act, is occurring as a result of financial realities, as opposed to government mandate.

As seen in The figure to the right, significant progress has been made to consolidate waste management by the creation of 12 regional solid waste authorities.



## Evaluation of Local Waste Management by Solid Waste Bureau Enforcement Area— 2006

### Area I



**Enforcement Area I** includes Bernalillo, Sandoval, Socorro, Torrance, and Valencia Counties. This district has an estimated population of 801,459. At present disposal rates, it is estimated that this area has approximately 40 years of permitted landfill capacity remaining in six solid waste landfills (five permitted and one

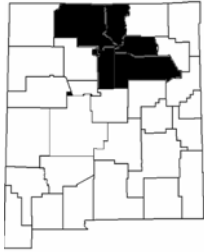
registered), 17 years capacity in the C & D landfill and five years in the asbestos landfill. The eight landfills consist of one C & D landfill, one asbestos landfill, four municipally-owned MSW landfills and two privately-owned MSW landfills. During this year, operators in this area landfilled 832,091 tons of MSW; plus 870,403 tons of C & D, special

waste, or out-of-state waste. Operators in this district reported recycling 104,421 tons of materials and green waste.

**The solid waste generation rate in this area was 5.7 lbs / person/day, with a recycling rate of 0.7 lbs/person/day and a MSW disposal rate of 5 lbs/person/day.**

# Waste Management by Solid Waste Bureau Enforcement Areas – 2006

## Area II



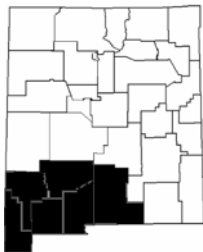
**Enforcement Area II** includes Los Alamos, Mora, Rio Arriba, Santa Fe, San Miguel, and Taos Counties. This area has an estimated population of 262,576. At present disposal rates, the remaining permitted disposal life of the four landfills (three permitted and one registered) ranges from two years to 57 years. The landfills consist of

three municipally-owned solid waste landfills and one privately-owned landfill. It is anticipated that one small registered landfill will close in 2008. In the calendar year 2006, operators in Area II landfilled 248,993 tons of MSW ; plus 81,871 tons of C & D, special waste, or out-of-state waste.

Operators in this district reported recycling 19,313 tons of materials and green waste.

**The solid waste generation rate was 5.2 lbs/person/day, with a recycling rate of 0.4 lbs/person/day and a MSW disposal rate of 4.8 lbs/person/day.**

## Area III



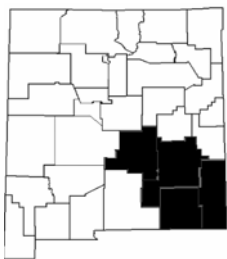
**Enforcement Area III** includes Dona Ana, Grant, Hidalgo, Luna, Otero, and Sierra Counties. This area has an estimated population of 321,607. At present disposal rates, the remaining permitted disposal life of the seven landfills (four permitted and three registered) ranges from five years to 20 years. The landfills consist

of six municipally-owned landfills and one privately-owned landfill. In calendar year 2006, operators landfilled 280,907 tons of MSW; plus 730,101 tons of C & D, special waste, or out-of-state waste. Operators in this area reported recycling 20,032 tons of materials and green waste. The City of Deming in Luna County

will be permitting a new landfill and plans to close the existing registered landfill.

**The MSW generation rate was 4.8 lbs/person/day, with a recycling rate of 0.3 lbs/person/day and a MSW disposal rate of 4.5 lbs/person/day.**

## Area IV



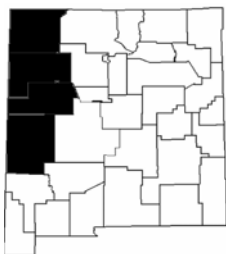
**Enforcement Area IV** includes Chaves, Eddy, Lincoln, and Lea Counties. This area has an estimated population of 187,962 and encompasses a total area of 19,476 square miles. At present disposal rates, the remaining permitted disposal life of the three permitted landfills ranges from nine years to 47 years.

This district also has an “industrial waste only” landfill with an anticipated life of more than 50 years. In calendar year 2006, operators in Area IV landfilled 228,253 tons of MSW; plus 64,324 tons of C & D , special waste, or out-of-state waste. Operators in this district reported recycling 37,498

tons of materials and green waste.

**The MSW generation rate was 6.7 lbs/person/day, with a recycling rate of 1.1 lbs/person/day and a MSW disposal rate of 5.6 lbs/person/day.**

## Area V



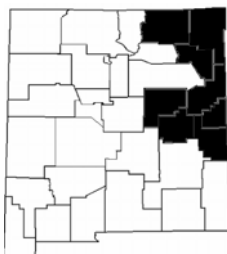
**Enforcement Area V** includes Catron\*, Cibola, McKinley, and San Juan Counties. This area has an estimated population of 214,194 and encompasses a total area of 22,429 square miles. At present disposal rates, the remaining permitted disposal life of the two permitted landfills ranges from one year to 52 years.

Both landfills are municipally-owned but one landfill is privately-operated. In the calendar year 2006, operators in Area V landfilled 262,377 tons of MSW; plus 77,997 tons of C & D, special waste, or out-of-state waste. Operators reported that 1,318 tons of materials or green waste were recycled.

*\*Catron County facilities did not submit reports, as a result, their waste generation and population totals were not included in this section.*

**The MSW generation rate equaled the disposal rate of 6.7 lbs/person/day, with a recycling rate of 0.03 lbs/person/day.**

## Area VI



**Enforcement Area VI** includes Colfax, De Baca, Curry, Guadalupe, Harding, Quay, Roosevelt, and Union Counties. This district has an estimated population of 99,310 and encompasses a total area of 21,796 square miles. At present disposal rates, the remaining permitted disposal life of the five landfills (two permitted and

three registered) ranges from one year to 49 years. In the calendar year 2006, operators in Area VI landfilled 113,408 tons of MSW; plus 51,887 tons of C & D, special waste, or out-of-state waste. Operators in this area reported recycling 8,163 tons of materials and green waste. The small registered landfill in Union County stopped accepting waste

in October 2006. Other solid waste management options are being discussed.

**The MSW generation rate was 6.3 lbs/person/day, with a recycling rate of 0.5 lbs/person/day and a MSW disposal rate of 5.8 lbs/person/day.**

# Solid Waste Bureau

## Permit Section



The six staff in this section are responsible for the technical review of permit applications, permit renewals, mid-term permit reviews and permit modifications. They complete reviews of closure and post-closure care plans for existing landfills to ensure compliance with the SWMR. They provide technical assistance and detailed reports regarding findings of their reviews. Reviews are also completed of the Hydrologic Evaluation

Landfill Performance (HELP) model demonstrations for proposed liners and covers for landfills. Staff also reviews groundwater monitoring suspension requests, evaluates groundwater monitoring system



plans and sampling reports, and oversees field activities (i.e. landfill liners and caps, and well installations) as necessary. Regulatory oversight is provided for well installations. Scientists verify the implementation and completion of approved closure plans at inactive solid waste facilities. Also, staff testifies at public hearings as expert witnesses for NMED.



## Outreach Section



The Outreach Section's primary mission is to help educate citizens, companies, government agencies, and municipal staff

about beneficial and cost-effective ways to handle waste; including waste reduction, diversion alternatives, recycling, composting, transfer, and landfilling. This is accomplished via

operator certification classes, presentations at conferences, assemblies, and civic gatherings; workshops on solid waste issues; development of comprehensive waste management planning; tracking various waste management efforts; meeting with interested parties and stakeholder groups; and providing grants for recycling projects and the abatement of illegal dumps. Six outreach staff are key in working with stakeholder groups, including the

Secretary-appointed Recycling Alliance, tribal groups, and the New Mexico Recycling Coalition, among others.



**Field Exercise at a Landfill Certification Course**

## Enforcement Section



The Enforcement Section personnel conduct inspections of regulated solid waste facilities, tire recycling

facilities, commercial waste haulers, scrap tire haulers, and infectious waste generators to verify proper handling, transport, and disposal of solid waste and tires. Seven staff document and investigate

complaints of illegal dumping and unlawful handling or transportation of solid waste.

Additionally, staff review and approve (or recommend approval) of special waste disposal management plans, commercial waste hauler registrations, small facility registrations, and minor amendments to solid waste facility operating plans; prepare and issue reports of investigation, notices of violation, compliance orders –

assessing monetary penalties; provide testimony at public hearings; and respond to questions from the regulated community and other governmental entities.



**2006 Illegal Dumping Case**



# Revision of Solid Waste Management Rules Approved in 2006

## *Revision of the New Mexico Solid Waste Management Rules*

New Mexico has had solid waste management regulations in place since 1974. This most recent revision is the fifth time the solid waste management regulations have been updated. The existing Solid Waste Management Regulation (20 NMAC 9.1) became effective on November 30, 1995. Discussions to revise the 1995 regulations started as early as 1996.

*New Mexico Environment Department incorporated public comments from Public Meetings, held from 2002 through 2005 into three draft revisions of the Rules*

Public meetings to gather input from the stakeholders began in 2002, and continued through 2005. In June 2005, a draft of the revised rules was ready for public examination and comment.

On May 2-5, 2006, the final version of the revised Rules went to a public hearing before the Environmental Improvement Board (EIB). Ten groups testified before the EIB: some supporting, some wanting language changes or clarification, and some opposing sections of the revised rules.

The revised rules were adopted by the EIB during their October 3, 2006 meeting. A statement of reasons for the adopted rules was approved on December 5,

2006. The rules were filed with state records on July 2, 2007, and became effective August 2, 2007.

## *Solid Waste Management Plan Updated*

A draft of the SWMP update of the 1993 version was developed and reviewed by six ad hoc working groups and other stakeholders in 2006. The final version was approved by the EIB in April 2007.

## *Approval of the Recycling, Illegal Dumping and Scrap Tire Management Rules*

The Recycling and Illegal Dumping Act, signed by Governor Richardson in April 2005, became effective June 17, 2005. In the spring of 2005, NMED assembled a task force to begin drafting the rules. Information was provided to approximately 475 interested individuals and 253 tire dealers across the state. The new Recycling, Illegal Dumping and Scrap Tire Management Rules were adopted December 5, 2006. A statement of reasons for the adopted rules was approved on January 3, 2007. These rules were filed on July 2, 2007, and became effective August 2, 2007.

The Recycling, Illegal Dumping and Scrap Tire Management Rules have several new requirements/provisions that are significant:

- Allows for one third of grant monies to be used for non-tire recycling or illegal dumpsite abatement projects
- Expands eligibility for grants to include pueblos, tribes and nations; solid waste authorities; cooperative associations; and land grant communities; as well as municipalities and counties
- Defines role of the Recycling and Illegal Dumping Alliance for review of grants and recommendations of grant awards
- Adopts a criminal penalty system for violations similar to that contained in the Solid Waste Act
- Requires use of a manifest system by tire generators, haulers, and end users
- Mandates that a scrap tire hauler acquire a surety bond of \$10,000
- Requires financial assurance for large storage facilities, large processors, and large civil engineering projects for land reclamation
- Includes explicit requirements regarding storage of scrap tires, including bales

The New Solid Waste Rules, the Recycling, Illegal Dumping and Scrap Tire Rules, and Solid Waste Management Plan can be found on-line at <http://www.nmenv.state.nm.us/SWB>

## Significant Accomplishments– Permit Section

### San Juan County Regional Landfill 10-Year Permit

On January 12, 2006, a 10-year permit was issued to Waste Management of New Mexico, Inc. to operate the San Juan County Regional Landfill.

The 160 acre tract is located in northeastern San Juan County, about four miles southwest of Aztec, New Mexico on County Road 3140. The design capacity of the landfill is expected to fill the solid waste disposal needs of the San Juan County area for the next 30 years.



Preparing the area for a landfill liner system at the San Juan County Regional Landfill



In addition to the acceptance of MSW, the San Juan County Regional Landfill was issued a permit to accept and dispose of the following special wastes: industrial solid waste, treated formerly characteristic hazardous waste, non-hazardous sludge, spills of non-hazardous chemical or commercial products, packing house and killing plant offal, and petroleum contaminated soils.

*The San Juan County Regional Landfill is expected to fill the solid waste disposal needs of the San Juan County area through 2036*

### Valencia Regional Landfill and Recycling Facility 10-Year Permit

On November 20, 2006, a 10-year permit to operate a municipal and special waste landfill was signed by Secretary Curry and issued for the Valencia Regional Landfill and Recycling Facility.

The Valencia Regional Landfill and Recycling Facility is located approximately 17 miles west of Los Lunas, New Mexico and six miles south of NM 6. The landfill, formerly known as Tri-Sect Landfill, was an existing facility that opened in 1988 and operated under the registration number 320605 with NMED.

The total landfill site is approximately 496 acres with a solid waste disposal footprint of 360 acres. The anticipated life expectancy of the landfill is 75 years. Valencia Regional Landfill and Recycling Facility was also permitted to dispose of the following special wastes: industrial solid waste, treated formerly characteristic hazardous waste, non-hazardous sludge, spills of non-hazardous chemical or commercial products, packing house and killing plant offal, and petroleum contaminated soils. The Valencia Regional Landfill and Recycling Facility provides solid waste disposal options for the residential, commercial, and industrial needs of Valencia County and the Rio Grande corridor.



# Significant Accomplishments– Permit Section

## Los Alamos County Transfer Station 20-Year Permit



On July 14, 2006, a permit to operate a transfer station was issued to Los Alamos County. The Los Alamos

County Transfer Station will replace the function of the existing landfill located at 3701 E. Jemez Road, Los Alamos.

The 7.0-acre transfer station site is on land owned by the US Department of Energy. The transfer station will handle MSW and recyclables, primarily from Los Alamos County. The MSW will be transported to a permitted landfill for final disposal. Recyclable materials will be transported to various end user markets or made available for local use. Anticipated start-up date for the facility is January 2008.

## Greentree TS and Recycling Center 20-Year Permit



On June 7, 2006, a permit to operate the Greentree Transfer Station and Recycling Center was issued to Lincoln County Solid Waste Authority. This facility will replace the smaller Lincoln

Convenience Station located at 222 Second Street in Ruidoso Downs.

The 8.49-acre facility site is located at the eastern boundary of the Village of Ruidoso Downs. The facility will include a convenience station where residents may deliver solid waste for disposal and recycling; an enclosed transfer station for collection vehicles; and a recycling center. MSW will be transported by tractor trailer to the Otero/Lincoln County Landfill. The facility is expected to open in September 2007.

### Permit Applications, Modifications and Renewals Submitted and Under Review in 2006

County	Facility Name	Type of Application
Bernalillo	Stericycle Infectious Waste Processing and Transfer Facility	Permit Renewal
Bernalillo	Southwest Landfill, LLC	Permit Renewal
Chaves	Roswell Landfill	Permit Renewal
Doña Ana	Camino Real Landfill	Permit Renewal and Modification
Lea	Lea Land, Inc. Industrial Landfill	Permit Renewal
*Lincoln	Greentree Transfer Station and Recycling Center	Permit Application
*Los Alamos	Los Alamos Co. Transfer Station	Permit Application
Luna	Butterfield Trail Landfill	Permit Application
McKinley	Red Rocks Regional Landfill	Permit Modification
Mora	Northeastern New Mexico Regional Landfill	Permit Renewal and Modification
*San Juan	San Juan County Regional Landfill	Permit Application
Socorro	City of Socorro Landfill	Permit Application
Torrance	Keers Asbestos Landfill	Permit Renewal
*Valencia	Valencia Regional Landfill and Recycling Facility	Permit Application

- *In general, each permit process takes 18 months to complete.*
- *All applications and engineering designs/plans are reviewed for completeness and compliance with the SWMR.*
- *Applications are typically five or more 3-inch volumes, plus engineering plans, including:*
  - *all landfill modeling performance demonstrations are reviewed and verified;*
  - *Operating Plans, Contingency Plans, and Groundwater Monitoring Plans are reviewed and approved;*
  - *financial assurance is required and verified; and*
  - *community impact assessments may be included in the review.*
- *A public hearing is held for each application.*

\* Facility permitted in 2006

# Significant Accomplishments– Outreach Section

## Operator Certification Training Courses

SWB, in conjunction with the New Mexico Recycling Coalition and the New Mexico Chapter of the Solid Waste Association of North America, offers four operator certification courses twice a year. The training courses were developed by SWB to assist facility operators in improving the safety, efficiency, and code compliant practices at their facility. The courses offered are: Landfill Operator Certification Course, Compost Facility Operator Certification Course, Recycling Facility Operator Certification Course and Transfer Station Operator Certification Course.



**Compost Facility Operator Certification Course in Roswell**  
Cindy Salter demonstrates the proper technique for analyzing compost moisture content .



**Landfill Operator Certification Course in Silver City**  
Solid Waste Bureau Chief, Auralie Ashley-Marx demonstrates groundwater principles.

To become a certified operator, applicants must attend and complete the course, achieve a score of at least 70% on the certification exam, and meet the experience or educational requirements.

In order to provide convenient access for facility operators, each certification course is held twice a year in a different cities throughout New Mexico.

**A total of 235 people attended certification courses in 2006.**

## The 2006 Certified Operators Training Course Schedule

Compost Facility	April 18-12	Roswell
	October 17-19	Albuquerque
Landfill	March 27-31	Albuquerque
	September 18-21	Farmington
Recycling Facility	May 16-18	Las Cruces
	December 5-7	Santa Fe
Transfer Station	June 27-29	Gallup
	November 7-9	Santa Rosa

- *During calendar years 2003 through 2006, 67 pueblo/tribal operators participated in the certification program.*
- *The greatest number of operators attended the transfer station courses. One session had 38 participants.*
- *One special course, Mortality Compost Training Session was held.*



# Significant Accomplishments– Outreach Section

## Solid Waste Bureau Meetings with Pueblo and Tribal Officials

SWB hosted five informational meetings with representatives of the Santo Domingo Pueblo, San Felipe Pueblo, Zuni Pueblo, Jicarilla Apache Nation, and Eight Northern Indian Pueblos Council, Inc. These informal meetings were designed to meet individuals involved with solid waste management issues within the SWB, and the pueblos, tribes, and sovereign nations; to discuss various solid waste programs and illegal dumping problems; and to exchange information. The meetings have opened a line of communication and fostered a closer relationship between SWB and the tribes.



**Technical Assistance: Sheep Mortality Composting at the Santo Domingo Pueblo**

During these meetings, funding and grant opportunities for the cleanup of tire and illegal dumping sites were discussed. Santo Domingo Pueblo, San Felipe Pueblo, and Zuni Pueblo indicated they have identified illegal dump sites that may be eligible for grant funding.

SWB provided on-site training for mortality composting at the Santo Domingo Pueblo. Opening of the piles showed that this effort was successful. SWB also participated in environmental fairs at the Santa Ana Pueblo and the Santo Domingo Pueblo.

## Mortality Composting— Technical Assistance



In response to concerns raised by the New Mexico Livestock Board regarding the lack of options to manage wastes generated from butchering of livestock and wild game, SWB established a pilot composting facility in Raton. This program uses waste wood chips to successfully compost large quantities of these wastes (including whole, dead animals) without odors or invasion by other animals. In conjunction with the Cornell Waste Management Institute, SWB held a two-day training session for 50 persons in Roswell. In attendance were several dairy operators and meat processors.

## Governor’s Summit on Higher Education

On October 16, 2006, SWB gave a presentation entitled “Learning to Love the Solid Waste Act” to 54 of the 500 college and university facilities managers and administrators attending the Governor’s Summit on Higher Education in Albuquerque.

The presentation focused on the Act provisions that call for post-secondary institutions in New Mexico to join with all other citizens and sectors in efforts to recycle valuable materials and reduce the waste stream being sent for landfill disposal. Successful recycling best practices were also presented.

## NMED Recycling in the Runnels Building

In order to fulfill the Act’s mandate that all state agencies recycle, in July 2006, NMED established the Runnels Recycling Rascals (or Tri-Rs). The efforts of NMED’s 11 dedicated volunteers supplemented the existing white office paper recycling program at the Runnels Building in Santa Fe, adding aluminum cans, plastic bottles, glass containers, newspapers, magazines, and junk mail to the materials recycled.

At 174,092 square feet, and home to about 900 NMED and Department of Health employees, the Runnels Building is New Mexico’s largest state-maintained office building. Tri-Rs monitored the recycling stations and delivered materials to the Buckman Road Recycling and Transfer Station. The results are impressive: Runnels employees recycled over 15 tons of white office paper in 2006 and 1.5 tons of the expanded program materials from July through December 2006.

### NMED Santa Fe Office’s Paper Recycling, 2006

Santa Fe Offices	Pounds of Paper
Galisteo	3,251
Marquez	2,222
Rodeo Road	3,702
Runnels	28,660
<b>Total Paper Recycled</b>	<b>37,835</b>

# Significant Accomplishments-Enforcement Section

## **Northeastern New Mexico Regional Landfill Unannounced “Sweep” Inspection**

On April 18 and 19, 2006, 17 NMED employees (14 SWB, one Occupational, Health and Safety Bureau, one Radiation Control Bureau and one Ground Water Quality Bureau) conducted a load inspection sweep at the Northeastern New Mexico Regional Landfill near Wagon Mound. The two-day waste screening operation involved the inspection of every load of solid waste that arrived at the landfill. The registration status of each commercial hauler of solid waste was also verified.

Loads of solid waste were tipped and spread upon the ground near the working face of the landfill and NMED inspectors physically opened bags and inspected the waste to ensure that unauthorized waste had not been transported to the landfill for disposal.

When unauthorized waste was discovered, it was flagged, photographed, logged, and when appropriate, sampled. As a result of the two-day sweep, the following waste hauler and generators were found to be in violation of the SWMR:

### **Violations Resulting From Sweep**

#### **(1) Meadow City Refuse Company, LLC – Las Vegas (Commercial Waste Hauler)**



On June 6, 2006, the Department issued a Notice of Violation to the Meadow City Refuse Company, LLC, citing six violations of the SWMR, including

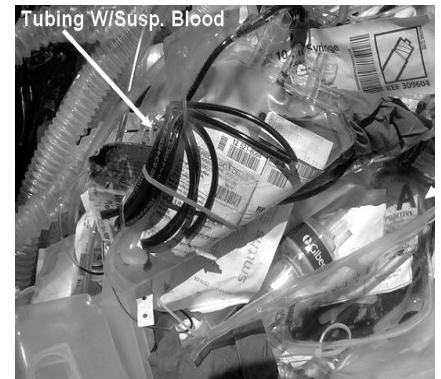
the improper and unsafe handling, transportation, and disposal of infectious waste.



*NMED staff inspecting of a load of solid waste arriving at the Northeastern New Mexico Regional Landfill*

#### **(2) Alta Vista Regional Hospital - Las Vegas, NM**

On July 10, 2006, the Secretary issued an ACO to Alta Vista Regional Hospital, compelling compliance and assessing a civil penalty of \$44,500. The ACO cited five violations of the SWMR, including the improper and unsafe disposal of infectious waste. Several loads of MSW were determined to be mixed with significant quantities of infectious waste that had been generated by the Alta Vista Regional Hospital. The hospital settled the case by agreeing to pay a reduced civil penalty, which it paid on October 16, 2006.

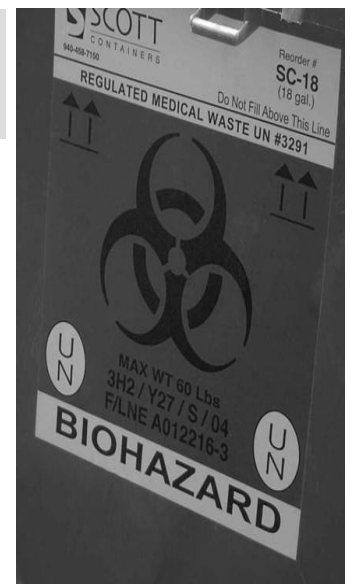


*NMED discovered infectious waste improperly delivered by*

#### **(3) Las Vegas Medical Center - Las Vegas, NM**

On June 5, 2006, NMED issued a Notice of Violation to the Las Vegas Medical Center, citing three violations of the SWMR, including the improper and unsafe disposal of infectious waste.

A July 7, 2006 inspection by an SWB verified the hospital's compliance with the infectious waste portions of the SWMR.



# Significant Accomplishments-Enforcement Section



## Guzman Construction Solutions, LLC Bernalillo County

On September 1, 2006, the Secretary issued an ACO to Guzman Construction Solutions (GCS), LLC, compelling compliance and assessing a civil penalty of \$203,500. The ACO cited several violations of the SWMR as a result of the company’s unlawful disposal of approximately 5,500 cubic yards of C & D debris upon the ground and within an unpermitted on-site pit located upon GCS’ property. The offending waste had been transported to GCS’ business location from Albuquerque area demolition projects instead of being taken to a permitted landfill for proper disposal.

GCS settled the ACO by agreeing to excavate and properly dispose of the solid waste, and by paying a reduced civil penalty.

On June 11, 2007, SWB verified that all improperly disposed waste had been removed from the property and transported to a permitted landfill for proper disposal.

## San Geronimo Land Grant Assoc. San Miguel County

On September 12, 2006, the Secretary issued an ACO to the San Geronimo Land Grant Association (SGLGA), compelling compliance and assessing a civil penalty of \$76,800. The ACO cited the SGLGA for allowing the illegal dumping of several hundred cubic yards of MSW, C & D, land clearing debris, and old motor vehicles within an arroyo upon its land. The dumping stretched for about a quarter of a mile and had been accumulating for several years.

The SGLGA submitted an abatement plan on November 9, 2006, which at the time of this report was pending revision and approval. The SGLGA submitted a grant application to NMED for clean up funds and also submitted requests for financial assistance from San Miguel County. SWB continues to monitor progress in the clean up of this illegal dump site and resolution of the ACO.



### Additional Administrative Compliance Orders issued in 2006:

5/1/06	Richard & Charlotte Roybal	\$6,300	Pending
5/16/06	J. D. Home Models	\$1,000	Penalty paid; closed
6/14/06	North Central Solid Waste Authority/ La Loma Transfer Station	\$70,400	Penalty paid; corrective action taken; closed
7/7/06	Montoya Trucking	\$19,500	Settled; corrective action pending; penalty being paid
10/5/06	Bridges Trash Hauling	\$1,000	Penalty paid; completed necessary registration; closed
11/13/06	City of Socorro Landfill	\$61,575	Penalty paid; closed

## Recycling and Illegal Dumping Grants Awarded in 2006

In 2006, Recycling and Illegal Dumping Fund Grants were issued to communities to clean up illegal dump sites, to purchase tire baling equipment, to construct tire bale projects, to transport scrap tires to tire recycling facilities, and to purchase ground rubber produced from New Mexico scrap tires.

Bernalillo	Bernalillo County Department of Environmental Health	\$15,083	Abate three tire dumps and transport tires to tire recycling facility.	Project in progress
Bernalillo	Bernalillo County Parks and Recreation Department	\$38,750	Purchase ground rubber produced from NM scrap tires to reconstruct turf at the Equestrian Park, soccer fields, and county owned and maintained landscaped areas.	Project in progress
Torrance	Estancia Valley Solid Waste Authority	\$26,000	Transport stockpile of scrap tires at TC/BC landfill to State Rubber for production of crumb rubber.	Project in progress
Guadalupe	City of Santa Rosa	\$135,000	Engineering, equipment rental, and construction cost of a tire bale screen wall using approximately 300 tire bales.	Project in progress
Taos	Taos County	\$110,000	Purchase tire baler, tire cutter, de-rimmer and wire to establish a tire recycling facility	Project in progress
<b>TOTAL AWARDED</b>		<b>\$324,833</b>		



During the heavy rainstorms of 2005, water filled this low lying area. Scrap tires floated to the surface of the land owner's property and that of two adjacent land owners. Luna County was awarded a \$200,000 grant in 2005, in addition to an EPA Border 2012 grant to clean up the site. The clean up work began in 2006. The EPA grant, awarded to Professor Larry Olsen of New Mexico State University, brought students from the university to work with Luna County personnel to clean up the tire dump and bale the loose tires.

In 2005, a \$125,000 grant was awarded to Lincoln County Solid Waste Authority to construct an erosion control wall at the new Greentree Transfer Station and Recycling Center near Ruidoso Downs in Lincoln County. The work began in 2006, using scrap tires from Lincoln and Otero Counties. The tires were baled at the La Luz Transfer Station near Alamogordo and taken to Greentree for the construction of this bale wall. Approximately 1,200 tire bales (120,000 passenger tires) were used in this project.



## Permitted Facilities

<b>Permitted Landfills</b>		<b>Permit Issued Date</b>
1	Caja del Rio	6/27/1995
2	Camino Real	3/5/1997
3	Cerro Colorado	6/22/2000
4	Clovis	6/15/1998
5	Corralitos	8/9/1995
6	Lea County Regional	12/17/1997
7	Magdalena C&D (Not open yet)	8/7/2000
8	Mesa Verde C&D	3/12/2001
9	Northeastern NM Regional	3/26/1997
10	Red Rocks Regional	10/12/1995
11	Otero/Lincoln Regional	10/4/1993
12	Rhino (Not open yet)	1/30/2002
13	Rio Rancho	4/29/1994
14	Roswell	5/21/1997
15	Sand Point	3/2/1994
16	Sandoval County	6/17/2005
17	San Juan County Regional	1/12/2006
18	Southwest, Inc. (C & D)	5/8/1997
19	Southwest NM Regional	12/19/1994
20	Taos	8/16/2001
21	Torrance County/Bernalillo County	6/18/1997
22	Tucumcari (New LF not open yet)	5/31/2005
23	Valencia Regional	11/20/2006
<b>Permitted Special Waste Landfills</b>		
1	Keers Asbestos	7/16/1993
2	Lea Land, Inc. Industrial	2/27/1996

<b>Permitted Transfer Stations</b>		<b>Permit Issued Date</b>
1	Artesia	3/16/1995
2	Buckman Road (Santa Fe SWMA)	5/7/1996
3	Cibola County	1/23/1996
4	Deming	11/11/2001
5	Don Reservoir	8/24/2000
6	Eagle Rock	8/7/2000
7	East Mountain	12/2/2002
8	Las Vegas	10/19/1999
9	Los Alamos County	7/14/2006
10	Los Lunas	11/17/1999
11	McKinley County	1/23/1996
12	Montessa Park	5/11/1998
13	Gavilan Canyon (Ruidoso)	12/19/1994
14	Greentree TS and Recycling Center	6/07/06
15	South Central SWA (Las Cruces)	11/2/1995
<b>Permitted Processing Facilities</b>		
1	Stericycle	7/15/1994
<b>Permitted Recycling Facilities</b>		
1	Camino Real	3/5/1997
2	Cerro Colorado IPF	8/5/1999
<b>Permitted Composting Facilities</b>		
1	Albuquerque	8/5/1999
2	Artesia	9/17/1993
3	Los Alamos County	1/16/1996

Not all facilities are required to be permitted. The New Mexico SWMR allow for smaller facilities to be registered with the State. The facilities requiring a registration include:

- Small collection centers or transfer stations collecting less than 240 cubic yards;
- Recycling facilities that accept only source separated recyclable materials;
- Compost facilities that accept only source separated compostable materials;
- Small animal crematoria; and
- Air curtain incinerators

All facilities must provide the required information before they are issued a registration. All registered facilities must go through the registration process every five years.



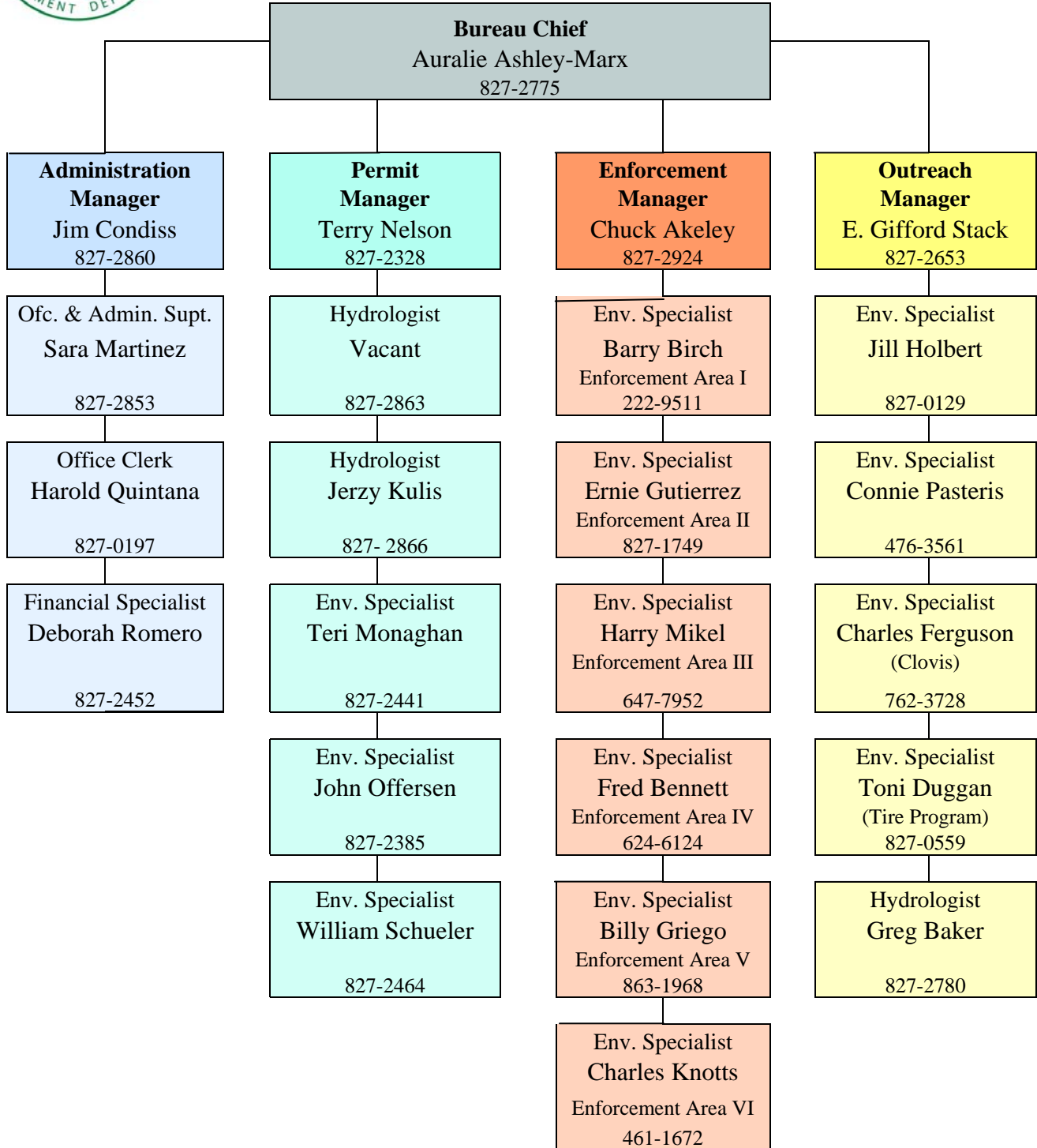
### Landfills Accepting Special Waste

Landfills Accepting Special Waste	County	Phone # (505)	Asbestos	Ash	Chemical Spill Residue	Industrial Process Waste	Offal	Sludge (Municipal)	Sludge (Other)	PCS	Treated Formerly Hazardous Waste
Caja Del Rio Landfill	Santa Fe	424-1850								X	
Camino Real Landfill	Doña Ana	589-9440				X		X		X	
Cerro Colorado Landfill	Bernalillo	761-8300			X	X	X	X		X	X
Corralitos Landfill	Doña Ana	528-3583						X			
Keers Asbestos Landfill	Torrance	823-9006	X								
Lea County Regional Landfill	Lea	394-9109			X	X		X		X	
Lea Land Inc. Industrial Solid Waste Landfill	Lea	887-4048		X*		X		X	X	X	
Northeast New Mexico Regional Landfill	Mora	862-8402	#			#				#	
Otero/Lincoln County Regional Landfill	Otero	439-4355	X					X		X	
Red Rocks Regional Landfill	McKinley	862-8402				X				X	
Rio Rancho Landfill	Sandoval	892-2055		X*	X	X	X	X		X	X
San Juan County Regional Landfill	San Juan	334-1121			X	X	X	X	X	X	X
Sandoval County Landfill	Sandoval	867-0816						X			
Southwest NM Regional Landfill	Grant	388-8051					X				
Torrance County/ Bernalillo County Regional Landfill	Torrance	384-4270								X	
Truth or Consequences Landfill	Sierra	894-6671						X			
Tucumcari Landfill (Not Open Yet)	Quay	461-3451					X*			X*	
Valencia Regional Landfill and Recycling Center	Valencia	892-2055			X	X	X	X	X	X	X
White Sands Missile Range Main Post Landfill	Doña Ana	678-2073	#								

X = Permitted to Accept    X\* = Not accepting at this time    # = Pending Permit Approval    PCS = Petroleum Contaminated Soil



**NEW MEXICO ENVIRONMENT DEPARTMENT  
SOLID WASTE BUREAU  
ORGANIZATIONAL CHART  
7/1/2007**





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