SOLID WASTE MANAGEMENT PLAN FOR NEW MEXICO, 2006

New Mexico Environment Dept
Solid Waste Bureau
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ACKNOWLEDGEMENTS

This Plan represents the combined efforts of a large group of dedicated New Mexicans and others who generously contributed their time, ideas, and knowledge to formulate a practical, action-oriented blueprint for integrated waste management in the state.

Special recognition goes to Ms. Cindy Padilla, former New Mexico Environment Department Solid Waste Bureau Chief, who in late 2004 mobilized the process to engage concerned stakeholders in developing the first updated Solid Waste Management Plan for New Mexico since 1993.

Special thanks also go to the many other individuals from all sectors who participated in drafting this Plan. The Solid Waste Bureau expresses warm thanks to all who contributed. For a list of participants and their affiliations, kindly see Appendix A.

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EXECUTIVE SUMMARY

(Placeholder)

CHAPTER 1. INTRODUCTION

1.1 1993 Solid Waste Management Plan

The New Mexico Solid Waste Act of 1990 required development of a comprehensive solid waste management program by December 1, 1992, with implementation by July 1, 1994. The Act charged the Environment Department (NMED) with overseeing most of the requirements in the Act and developing a solid waste management plan (Plan).

NMED published the first New Mexico Solid Waste Management Plan in 1993. That Plan included many far-reaching recommendations to dramatically overhaul solid waste management in the state. Highlights are outlined below:

1. The Plan advocated integrated waste management following the solid waste hierarchy:
   - First reduce, reuse, and recycle (or compost) discards
   - Then use environmentally safe transformation, such as incineration with energy recovery, for discards that cannot be reduced, reused or recycled (Note: There are no solid waste incinerators or other transformation facilities in NM.)
   - Finally, use landfill disposal for what remains.
2. The Act set goals to divert 25 percent of all solid waste from disposal facilities by July 1, 1995, and 50 percent by 2000.
3. The Plan emphasized collaboration among state agencies, the private sector, local governments, community organizations of all types, the general public, and many others to implement and participate in education and waste diversion initiatives.
4. The Plan and Solid Waste Regulations launched a framework and process for closing sub-standard landfills around the state and constructing disposal facilities meeting more stringent RCRA Subtitle D requirements for protecting ground water, air, soil, the environment, and public health.
5. The Plan encouraged neighboring governments to form regional solid waste management districts, authorities, or agencies for economies of scale in building new disposal facilities.
6. The Solid Waste Facilities Grant Fund and Recycling Grant Fund, both established in 1990/91, provided funding to help overhaul the state's waste management system.

1.2 Status of Recommendations and Goals in the 1993 Solid Waste Management Plan

Since the first Plan was adopted, the principal focus of state and local efforts and resources has been to make environmentally sound waste disposal available to New Mexicans. By 1993, the waste disposal situation in the state had evolved from a landfill shortage — only 22 out of 33 counties had landfills in 1970 — to a proliferation of substandard "dumplings" constructed at inadequate sites that needed to be brought up to standards or closed.

The need to implement an infrastructure of modern landfills and transfer stations took precedence over other goals and recommendations in the first Plan for priority use of limited economic and staff resources. Since 1993, many solid waste management system improvements have been made in New Mexico:

1. Local governments and the Solid Waste Bureau made significant progress closing substandard landfills and opening facilities that comply with all applicable Federal and State requirements:
   - 93 facilities have been closed or are in the process of closing
   - 19 permitted and 16 registered landfills are operating
   - Two landfills are permitted to accept only special waste and one medical waste facility is in operation
   - Scales have been installed at any landfill built using Solid Waste Facility Grant funds
   - Thirteen transfer stations have been permitted and are routing discards to larger regional landfills.
2. Twelve Solid Waste Management regions formed, and in other areas individual governments were able to site needed disposal facilities.
3. Residents have access to recycling services and/or drop-off centers in over 70 communities.
4. Twenty-eight composting operations actively divert or create a beneficial use for organic materials in New Mexico.
5. The Solid Waste Facility Grant Fund awarded $22.3 million in funding to 111 projects for waste management facility construction, landfill closures, recycling programs, and equipment from 1991 to 2002.
6. The Recycling Grant Fund awarded $3.7 million — matched by $4.6 million in local funds — to help launch recycling programs from 1991 to 1997.

1.3 Status of Recycling and Diversion Goals in New Mexico

Like many other states that set ambitious recycling goals in the early 1990s, New Mexico did not meet the goals 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 and personnel resources to provide such services.
- In many areas of New Mexico, the cost per ton to landfill waste is less than the cost of diverting or recycling materials.

1.4 Process for Developing the Solid Waste Management Plan for 2006-2009

The proposed new Solid Waste Management Plan for 2006-2009 was developed through an extensive public participation process encouraging input from all sectors — local governments,

state agencies, business, the agriculture sector, waste management officials, recycling professionals, environmental and community organizations, citizens, universities, and others. Over 140 individuals participated in the planning process through public meetings, working groups, and email updates.

Phase 1

From December 2004 to May 2005, the Bureau held Brainstorming meetings to focus and prioritize efforts on the Plan elements specified in the Solid Waste Act. This led to creation of five volunteer Working Groups:

- Diversion — addresses source reduction, recycling, composting, special waste and household hazardous waste (HHW) program planning
- Education — reviews existing and needed outreach and information resources supporting diversion, illegal dumping abatement, and environmentally safe waste disposal
- Facilities — surveys solid waste and diversion facilities in New Mexico, and projects capacity needs
- Waste Characterization — determines the types, quantities and sources of waste generated in the state
- Funding — appraises existing funding sources, looks at mechanisms used in other states, and identifies funding options for additional support to promote an integrated waste management strategy including the above-listed elements.

Phase 2

The Diversion, Education, Facilities, and Waste Characterization groups met from May till November 2005, to gather findings and develop recommendations. During Phase 1, the Bureau also held two progress meetings with all stakeholders. When the Recycling Alliance was appointed in August 2005, the Diversion group transferred its recommendations to the Alliance for review and further development.

Phase 3

With stakeholder input added, draft sections of the SWMP were posted on the Bureau's website in early December. At this point, the Funding group reconvened to evaluate funding resources, needs, and strategies to implement the components proposed by other working groups.

Also at this point, the Bureau organized a sixth committee, the Environmental Justice Working Group, to create an EJ component for the draft Plan. This group includes 16 volunteers from the stakeholder process, and additional participants recruited from the EJ Listening Sessions. The overall Planning Process and Timeline is summarized in Appendix A.

1.5 2006 Solid Waste Management Plan Objectives, Priorities and Goals

The Working Groups recommended a dual-purpose Plan that is both a user-friendly guidance document with practical information to assist waste management decision-makers and

practitioners, and an "action-oriented blueprint to help communities expand waste diversion activities."

Stakeholders collected extensive data to appraise the present status of solid waste management in the state, and serve as the basis for setting realistic goals that can be attained in a three-year period. They determined the overarching priorities, objectives and goals for this plan to be:

- Address the statutory requirements and goals specified in the Solid Waste Act.
- Where possible, define objectives for a three-year planning period.
- Develop a practical strategy framework supporting a phase-in of the solid waste management hierarchy in New Mexico. The priorities are:
  - Diversion first – waste reduction, reuse, and recycling
  - Safe transformation second, and
  - Lastly, environmentally sound landfill disposal.
- Set the diversion/recycling goal in terms of creating *access* to basic recycling opportunities for all New Mexico residents, as opposed to setting a numerical goal or percent of total waste targeted for diversion.
- Foster access to recycling via a tier strategy that encourages all communities, at a minimum, to target and provide drop-off or collection services for the easiest and most readily recycled materials.
- Initiate a process to improve reporting systems and assemble adequate information on which to base long-term planning of environmentally sound waste management and waste reduction facilities and capacity.
- Identify and analyze challenges to overcome to meet objectives and goals.

CHAPTER 2. STATUS OF SOLID WASTE MANAGEMENT IN NEW MEXICO

This chapter summarizes the status of solid waste disposal, recycling, and composting in New Mexico, drawing on information from 2004 Solid Waste Annual Reports (SWARs) submitted to the Solid Waste Bureau (SWB), input from SWMP working group members, and other sources.

2.1 Solid Waste Management Facilities and Capacity

Since 1989, New Mexico communities have made excellent progress closing substandard landfills and opening modern Subtitle D landfills compliant with RCRA and state regulations. A total of 93 landfills stopped accepting waste and are closed or in the process of closing. Presently 19 permitted and 16 registered landfills are active in New Mexico.

Figure 2.1 shows local government progress consolidating waste management through formation of 12 regional solid waste authorities. Other permitted facilities include: 13 transfer stations, 5 recycling facilities[1], 3 compost facilities[1], and 1 infectious waste treatment facility.

According to 2004 SWARs, New Mexico has 30 years of remaining aggregate disposal capacity statewide. However, this capacity is not evenly distributed throughout the state. Chapter 5 and Appendices E and F provide further detail on disposal trends and capacity.

2.2 Solid Waste Generation and Disposal in New Mexico

Data for calendar year 2004 shows that New Mexico disposal and recycling facilities received a total of 3,413,874 tons of solid wastes. This figure represents total *disposed* wastes reported to the Solid Waste Bureau, including construction and demolition debris (C&D) and Out-of-State waste. It does not include waste stream fractions monitored by other agencies, such as auto bodies, municipal sludges, combustion ash, agricultural wastes, and industrial process wastes.

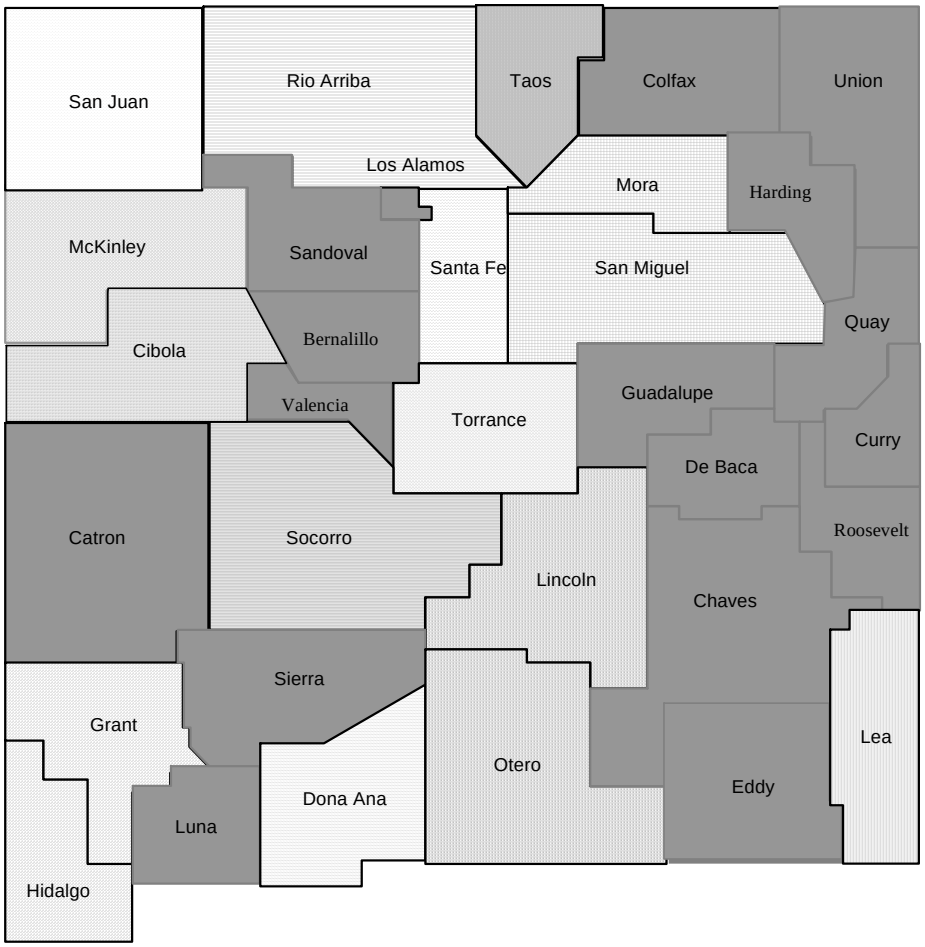
As seen in Figure 2.2, construction and demolition debris comprises 28% of waste disposed at New Mexico facilities. For planning purposes, C&D waste is included in solid waste *generation* figures shown in Table 2.1. Although the Environmental Protection Agency (EPA) does not include C&D in its definition of municipal solid waste (MSW), the large quantity of C&D generated in New Mexico requires substantial disposal capacity. In 2004, MSW and C&D together totaled over 3,016,000 tons of generated solid waste.

Excluding C&D and out-of-state waste gives the sub-set that is strictly MSW. New Mexicans generated a total of 2,004,955 tons of MSW in 2004. On a population basis, this represents an average of 1.04 tons per person/year, or 5.69 pounds per person/day. New Mexico's per capita MSW generation rate is approximately 1.19 pounds more per day than the Environmental Protection Agency's (EPA) estimated national average of 4.5 pounds per person/day.

[1] Note: In 2005 the New Mexico Environment Department modified the policy on solid waste permits to remove recycling and composting facilities from this requirement. This policy change is reflected in the proposed revised Solid Waste regulations.

Figure 2.1

New Mexico Solid Waste Authorities



- San Juan County Regional Solid Waste Management Authority
- North Central Solid Waste Authority (Rio Arriba County)
- Taos Intergovernmental Council & Taos Regional Landfill
- Northwestern New Mexico Regional Solid Waste Authority (Cibola and McKinley Counties)
- Santa Fe Solid Waste Management Agency
- Sangre de Cristo Solid Waste Authority (Mora and San Miguel)
- Estancia Valley Solid Waste Authority (Torrance County)
- Central Solid Waste Authority (Socorro County)
- Otero County SWA; Otero/Lincoln County SWA; Lincoln County SWA
- Southwest Solid Waste Authority (Grant and Hidalgo Counties)
- South Central Solid Waste Authority (Dona Ana County)
- Lea County Solid Waste Authority
- No Solid Waste Authorities Established

Figure 2.2 New Mexico Solid Waste Generation and Disposal by Type

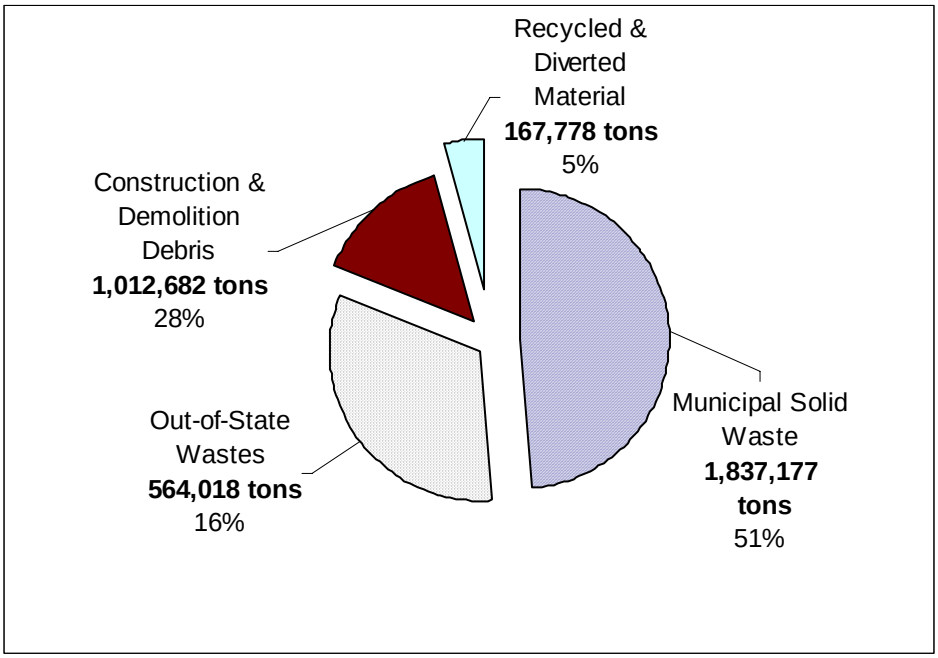


Table 2.1 Total Solid Waste Generated In New Mexico,1994-2004 (Tons x 1000 Rounded)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Municipal Waste (before recycling)	1,396	1,789	2,009	2,081	2,261	1,940	1,501	2,021	1,975	2,004
Construction and Demolition (C&D) Waste	919	990	898	840	776	1,225	996	948	842	1,012
TOTAL WASTE GENERATED (excluding out-of-state tonnage)	**2,315**	**2,779**	**2,907**	**2,921**	**3,037**	**3,165**	**2,497**	**2,969**	**2,817**	**3,016**

Source: 2004 Solid Waste Annual Reports submitted to the Bureau

Figures 2.3–a through 2.3–f illustrate waste component breakdowns by counties in NMED Enforcement Areas, and show urban and rural area variations, as well as locales with greatest diversion efforts.

Figure 2.3 – a

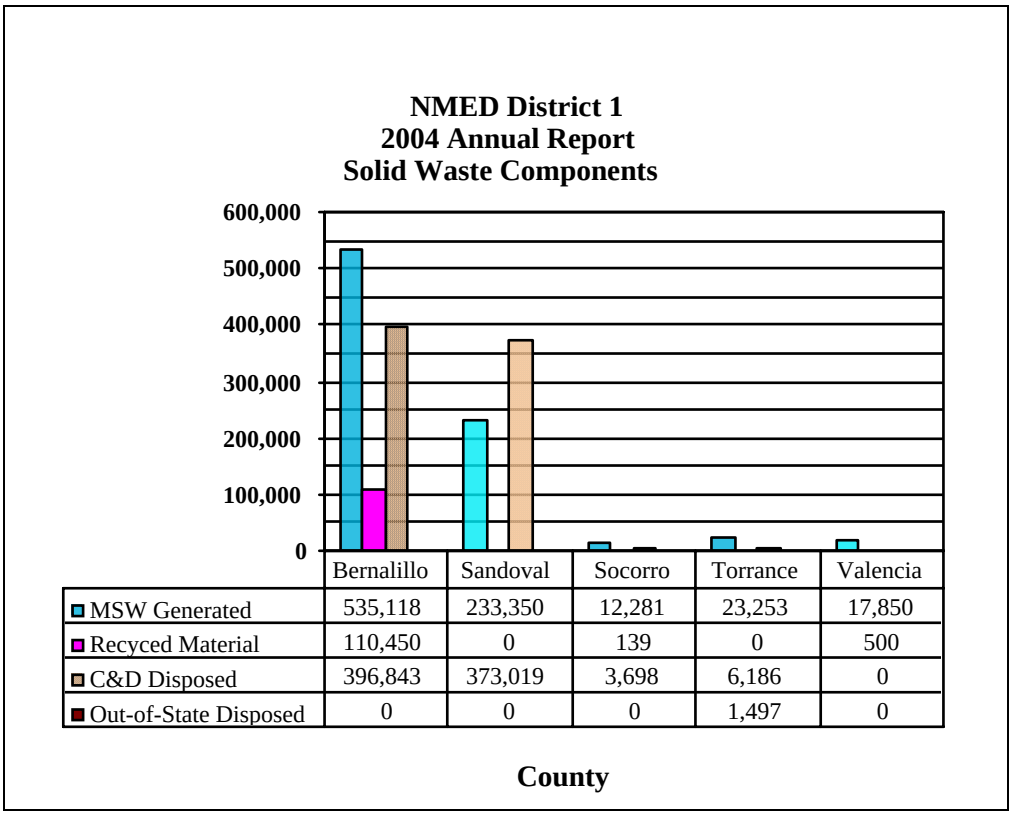


Figure 2.3 – b

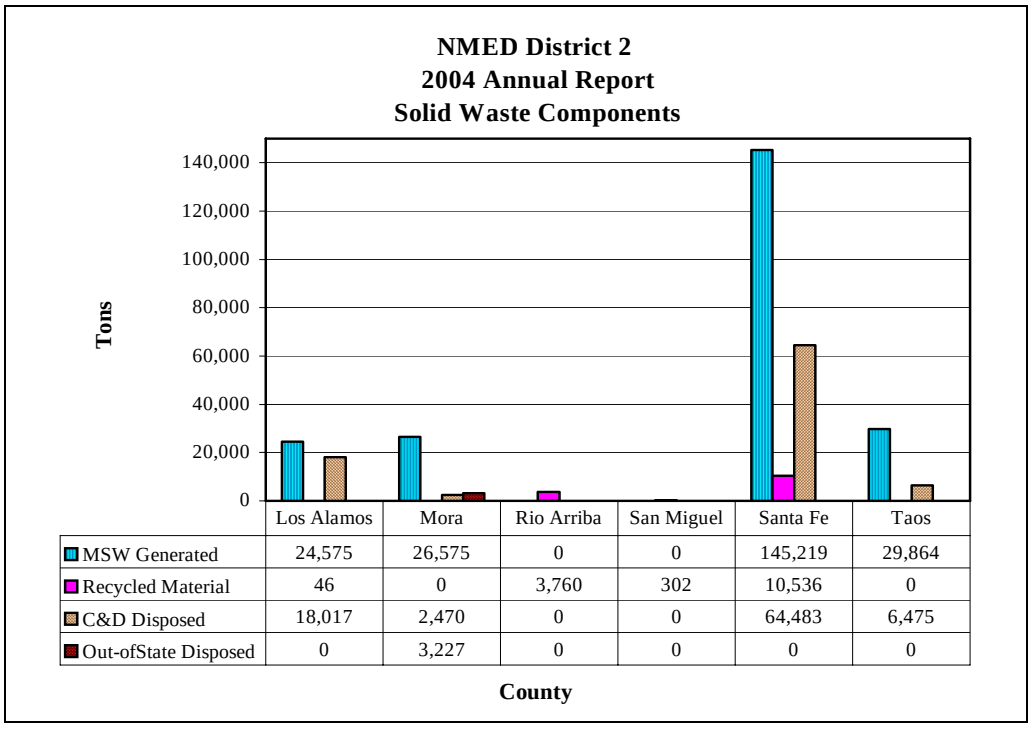
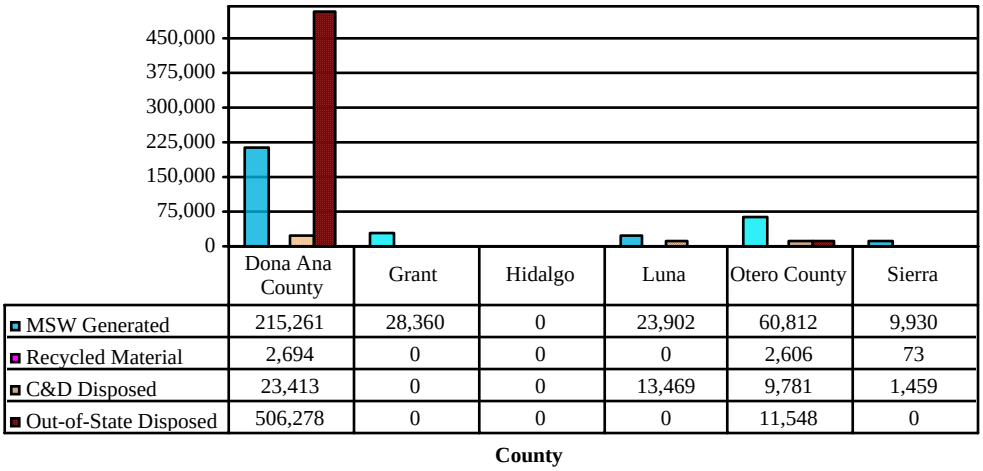
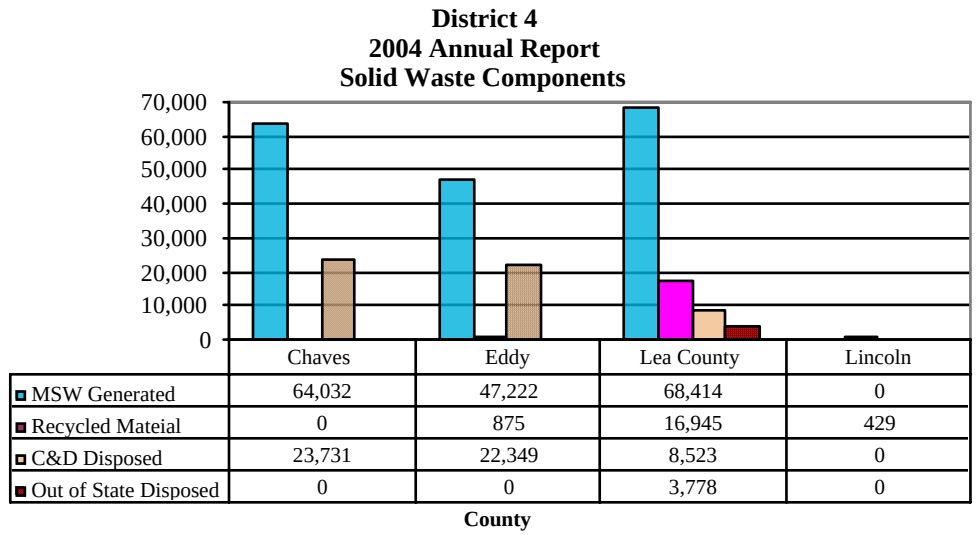


Figure 2.3 – c



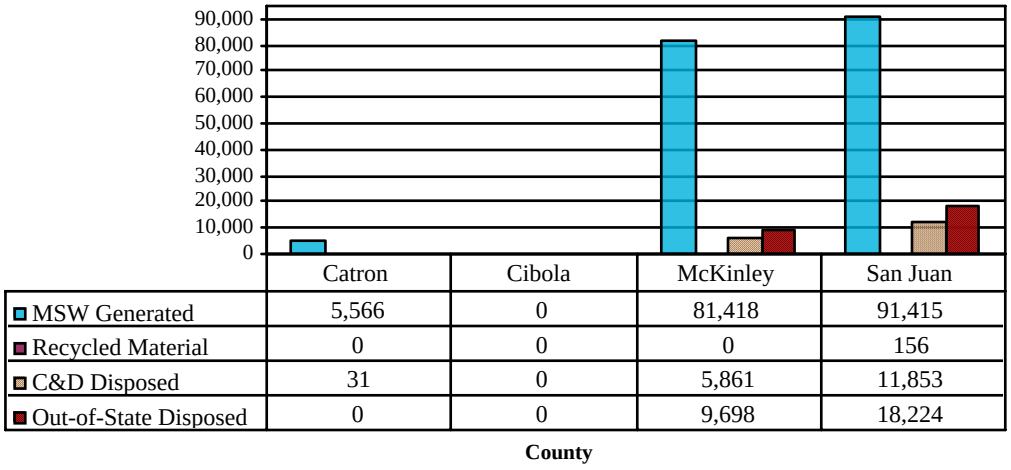
	Dona Ana County	Grant	Hidalgo	Luna	Otero County	Sierra
MSW Generated	215,261	28,360	0	23,902	60,812	9,930
Recycled Material	2,694	0	0	0	2,606	73
C&D Disposed	23,413	0	0	13,469	9,781	1,459
Out-of-State Disposed	506,278	0	0	0	11,548	0

Figure 2.3 – d



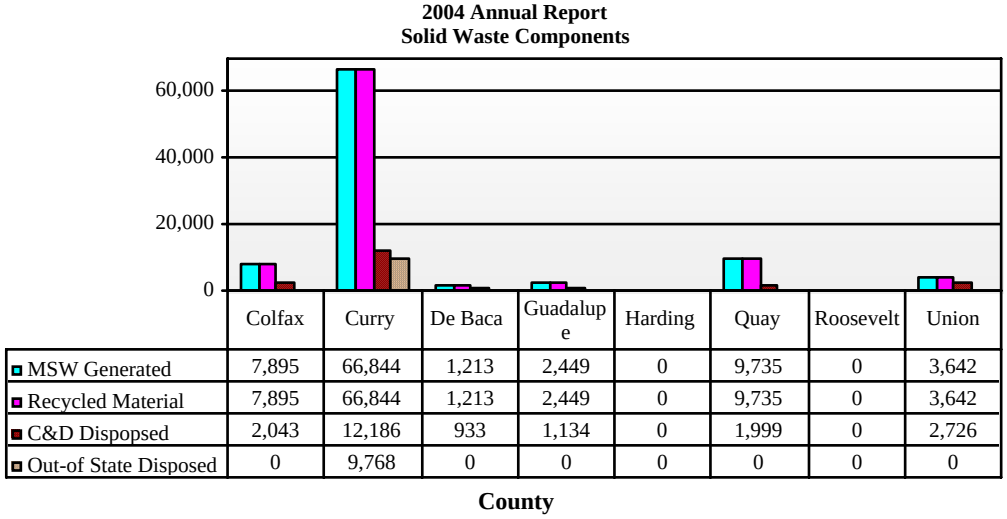
	Chaves	Eddy	Lea County	Lincoln
MSW Generated	64,032	47,222	68,414	0
Recycled Mateial	0	875	16,945	429
C&D Disposed	23,731	22,349	8,523	0
Out of State Disposed	0	0	3,778	0

Figure 2.3 – e



	Catron	Cibola	McKinley	San Juan
MSW Generated	5,566	0	81,418	91,415
Recycled Material	0	0	0	156
C&D Disposed	31	0	5,861	11,853
Out-of-State Disposed	0	0	9,698	18,224

Figure 2.3 – f



	Colfax	Curry	De Baca	Guadalupe	Harding	Quay	Roosevelt	Union
MSW Generated	7,895	66,844	1,213	2,449	0	9,735	0	3,642
Recycled Material	7,895	66,844	1,213	2,449	0	9,735	0	3,642
C&D Dispopsed	2,043	12,186	933	1,134	0	1,999	0	2,726
Out-of State Disposed	0	9,768	0	0	0	0	0	0

2.3 Recycling and Diversion in New Mexico

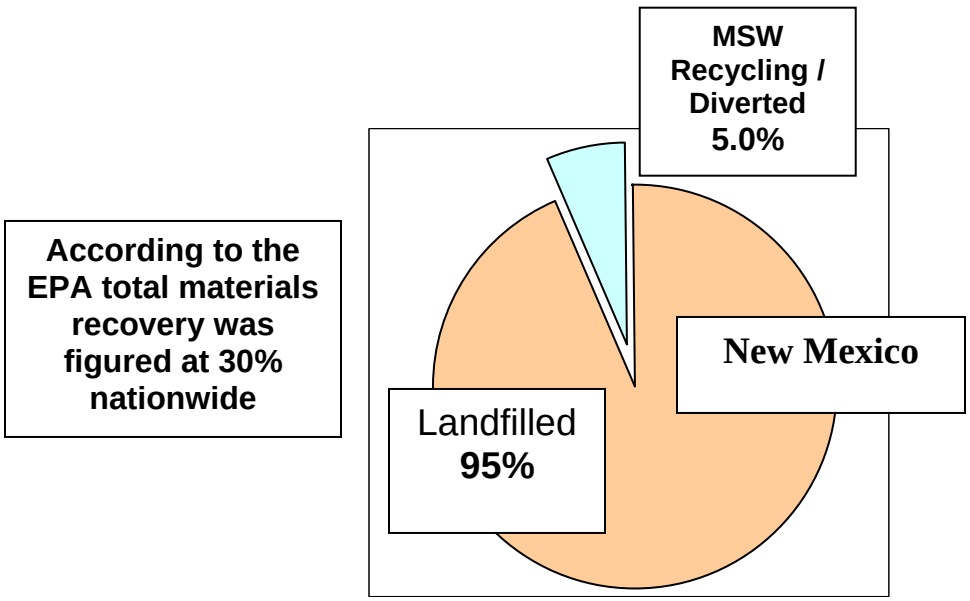
Solid Waste Annual Reports indicate that New Mexicans diverted 167,778 tons of MSW from landfills through recycling and composting in 2004. On a per capita basis, using New Mexico's estimated 2004 population of 1,927,373, the recycling-plus-composting rate works out to 174 pounds per person/year diverted from the waste stream. On a daily basis, this averages 0.47 pound per person/day.

For comparison, EPA's 2003 study of MSW in the US found a national recycling/composting rate of 30 percent of MSW, or an average of one pound per person/day diverted out of 4.5 pounds per person/day generated.[2] Though EPA and New Mexico data and reporting differ, this gives a rough picture of how New Mexico's diversion rate compares to the national average.

According to EPA, the 2003 net per capita discard rate in the US, after recycling and composting, was 3.09 pounds per person/day. In contrast, New Mexico's net per capita discard rate, after 0.47 pounds per person/day recycled/composted, is calculated at 9.21 pounds per person/day, based on total solid waste *disposed* in the state.

As shown in Figure 2.4, this yields a materials recovery rate of about 5 percent in New Mexico (0.47 lbs/ 9.68 lbs), which is one-sixth the nationwide average of 30 percent**.**

Figure 2.4 New Mexico Recycling Rate, 2004



2.4 Calculated New Mexico Diversion Rate

The Solid Waste Act stipulated a base year (1992) target and calculation formula for determining solid waste diversion based on a per capita generation rate of 4 pounds of MSW per person/day,

[2] *MSW in the United States: 2003 Facts & Figures,* US EPA.

and using the state's 1990 population. As seen in Table 2.2, the state is currently at approximately 29% of the anticipated recycling rate for 2004. The current calculated recycling rate is 4.91 percent

Table 2.2 2004 State Recycling Rate Calculation

Input	
Base Year	1992
Base year population	1,583,774
Conversion Factors	
4 lb/person/day	
365 days/year	
1 ton/2000 lb	
Base Year	
Base year Tons of Solid Waste Generated at 4 lbs per person/day	1,156,155
1995 Recycling target - divert 25% of MSW tonnage generated in the Base year	289,039
2000 Recycling target - divert 50% of MSW tonnage generated in the Base year	578,077
Year 2004	
2004 MSW Generated	2,004,955
2004 Solid Waste Disposed in New Mexico	3,404,541
2004 recycling tonnage including compost w/o sludge and metals	167,778
State Recycling Rate % of Target (2004 / 2000 base year target)	29.02%
State Recycling Rate (2004 recycled materials / 2004 MSW generation total)	8.37%
State Recycling Rate (2004 recycled materials / 2004 Solid Waste disposed total)	4.91%

Table 2.2 shows that New Mexico's calculated recycling rate ranges from 4.91 percent to 8.37 percent when factored against total *solid waste disposed* or *MSW generation*, respectively. In turn, the net per capita discard rate ranges from a low of 5.69 pounds per person/day, based on in-state MSW generation only, to a high of 9.68 pounds per person/day, based on total solid waste disposed in the state.

This range of 5.69 to 9.68 pounds per person/day reported for New Mexico exceeds the range of per capita figures reported in two long-term national studies — one by US EPA, and the other by BioCycle Magazine. For further discussion of New Mexico's recycling rate compared with other US states, see Chapter 3 Waste Characterization. Additional information is provided in Appendix G "The State of Garbage in America," reporting on the BioCycle survey; and Appendix H *Recycling Goals and Progress, US States 2005*, by Raymond Communications, Inc. (Both publishers graciously gave permission for the SWB to use these copyrighted works in developing the new Solid Waste Management Plan.)

Appendix H provides helpful information, also, on state recycling goals, mandates, budgets, and funding sources.

2.5.1 Unreported Recycling

There may be considerably more recycling and diversion activity in New Mexico than is being counted. Only 5 large recycling and 3 large composting operations required to have solid waste permits have been obligated to report diversion tonnages to the SWB[3]. However, other sources indicate that over 70 government units have recycling programs. Table 2.3 gives a tally of recycling programs drawn from 2004 SWARs and a 2003 New Mexico Recycling Coalition (NMRC) survey. Appendix B lists all the jurisdictions with government-run recycling programs.

Table 2.3 Government Recycling Programs, 2003-2004

Recycling Program Type	Number
Drop-off Only	51
Drop-off / Curbside (residential)	13
Drop-off / Commercial Collection	2
Drop-off / Curbside / Commercial	3
Special collection events	1
Total Recycling Programs	**70**
Towns / Cities w/ No Recycling	43

Besides government recycling programs, there are private sector recyclers, such as scrap metal and office paper dealers, and a thriving used goods sector of companies handling everything from auto parts to rare books. Data on material quantities diverted through these channels is not presently available to the Bureau.

Also, many businesses are known to have in-house recycling for corrugated cardboard, pallet wrap, office paper, and other commodities, but this information is not presently available to the Bureau. As well, there are informal reuse outlets like garage sales and the FreeCycle online exchange that keep heavy items like furniture and swing sets out of the waste stream. Tracking systems for capturing this diversion and source reduction data have yet to be developed.

2.5.2 More Composting than Reported

Likewise, the Bureau has Annual Report information on only 3 composting programs, though the NM Organic Recyclers Organization (NMORO) lists 28 active composting operations in the state (See Appendix C for a list of these programs and companies). Table 2.4 listing SWAR information on composting operations utilizing MSW materials, but not bio-solids, provides a partial tally of composting statewide.

[3] As previously noted, a 2005 policy change removed recycling and composting facilities from the definition of solid waste facilities, which means they no longer require a permit. This change will be codified when the proposed revised Solid Waste regulations are adopted. A different reporting method will be implemented for recycling, composting, and other diversion activities.

Table 2.4 Materials Composted in 2004, Excluding Bio-Solids

Composting Facility	Material Diverted (Tons)
Soilutions, Inc	1,488.0
Holloman AFB Recycling Center	58.0
Lovington Composting Facility	298.0
Soil Foods, Inc	800.0
Las Cruces Landfill/Composting	5,519.0
Las Cruces Recycling	5,518.9
Total	13,681.9

2.5.3 Household Hazardous Waste Collections

A brief phone survey of jurisdictions known to provide collection services for household hazardous wastes (HHW) yielded the sampling of current programs shown in Table 2.6.

Table 2.6 Sampling of HHW Programs

Jurisdiction	Year-round Collection	Occasional Drop-Off Events	Quantity of HHW Collected in 2004
City of Albuquerque/Rinchem	X		103 tons
City of Farmington		X	NA
City of Las Cruces & Dona Ana County	X		7,951 gallons[4]
City of Roswell	X[5]		965 gals, 950 lbs
City of Santa Fe		X	17,403 gallons

[4] This represents an accumulation of several years before an overhaul in program management. After the overhaul, total collection in 2005 was 1,560 gallons.
[5] HHW diverted at landfill by city personnel; no separate arrangement for citizens to drop off HHW.

CHAPTER 3. WASTE CHARACTERIZATION ELEMENT

3.1 Waste Characterization Goals

The goals of this section of the Plan are to:

- Support decision-makers in creating long term, cost-effective and environmentally sound solid waste management systems for New Mexicans.

- Increase the amount of waste diversion in New Mexico, and encourage the use of local alternative disposal methods to conserve landfill space.

- Provide information to allow managers/operators at landfills, and decision-makers within municipal boundaries and/or as a group within waste sheds to complete at least one, and preferably two, waste surveys within the next three years.

- Begin a process for statewide collection of equivalent data from each landfill, municipal unit, and regional waste shed to allow for valid comparisons by waste categories both within the state and nationally as the basis for determining "realistic" waste reduction, diversion, and recycling rates and goals.

To assist with meeting these goals general information is provided on waste generation and composition trends. Tools for a preliminary waste survey are included in Appendix ?.

3.2 National Waste Characterization Data

There are two national waste characterization reports published annually — one by BioCycle Magazine, and the other by US EPA. The BioCycle study using data collected from 47 states in 2003 clearly shows that the US as a nation continues to generate increasing volumes of solid waste, most of which are landfilled. (See Appendix G. "The State of Garbage in America 2003 Survey.") According to this study, which has been repeated since 1989, Americans discarded 369 million tons of municipal solid waste (MSW, i.e., residential, commercial, and institutional discards) in 2002. This averages to 1.69 tons per person/year, or 9.21 pounds per person/day. (These figures and those below do not include C&D, industrial, agricultural, or imported wastes.)

According to the US EPA study also repeated for many years, "Since 1980, the total annual generation of MSW has increased more than 50 percent to its 2003 level of just over 236 million tons per year — topping 2002 by more than a half-million tons."[6] These findings indicate that the average American throws away 0.821 tons of discards per year, or 4.5 pounds per day.

The EPA study uses an input-output methodology based on Department of Commerce data on annual production of goods, population, and consumption patterns — not waste disposal data reported by states. This study generally yields more conservative figures, though it, too, shows significant growth in MSW generation, that is, waste creation.

[6] *MSW in the United States: 2003 Facts & Figures,* US EPA.

3.3 Solid Waste Data Collection in New Mexico

New Mexico has never done a formal statewide waste characterization study due to lack of funds for such a project. However, the Solid Waste Act requires that the Solid Waste Management Plan identify types and quantities of solid waste generated by season, and estimate per capita waste generation.

For purposes of this updated Plan, general information is provided on estimated quantities of wastes currently generated, as reported by counties in SWARs. However, it must be noted that the confidence level regarding accuracy of this data varies from 20%-90%. Data variability is primarily due to the lack of a single required data collection methodology.

At the largest seven municipal landfills, which account for 90% of wastes managed in New Mexico, the data confidence level is high because these facilities have professional staff, and all deliveries are weighed using scales. A high confidence level means there is an excellent chance of data being accurate within +/- 2%-3%.

For smaller disposal, recycling, and composting facilities, there is greater uncertainty about waste quantities disposed or recovered, because these facilities typically lack scales and visually estimate loads by volume. In these cases, the estimated margin of error ranges +/- 20%-25%.

Data on disposal and diversion activities at privately owned and operated landfills may not always be provided to the Bureau. Also, private sector diversion efforts, such as retailer corrugated recycling, are not currently captured unless materials are delivered to municipally operated facilities, or to in-state processors who report recovery figures to NMED.

In some cases recycling and diversion tonnages may be artificially high due to double-counting in reports by more than one entity. For example, a county may claim recycling tons delivered to another recycling facility, and the receiving facility may also claim this tonnage in their annual report.

Variability in data quality can be directly related to the presence or absence of a standardized reporting methodology based on scaled weights. Given these limitations, waste generation and diversion information provided here is for a general context of the current status of solid waste management in New Mexico.

The Waste Characterization Working Group identified a clear need to redouble efforts to obtain consistent data allowing for evaluation of viable waste diversion activities and a phased statewide process to divert wastes from landfills in the future. The consensus of the group is that there is room for significant improvement in solid waste data collection, and a need for a statewide systematic characterization of wastes.

In the absence of a formal waste characterization study, Table 3.1 provides estimates of waste generation by New Mexico counties as reported to the Bureau in Solid Waste Annual Reports.

The general current disposal and diversion trends in New Mexico are:

- There is an unequal distribution of access to even basic diversion and recycling programs/opportunities in New Mexico. Small, rural counties have the least opportunity to divert wastes.
- Construction and Demolition (C&D) debris tonnage continues to rise due to major construction projects for roads and other infrastructure in New Mexico. These wastes may currently consume up to one-third of existing landfill capacity.
- Out-of-State wastes are increasing and are projected to have a continued upward trend. However, tonnage from neighboring states like Texas can be unpredictable and vary based on local conditions. For instance, a short-term shortfall of out-of-state landfill capacity can occur if construction of a new cell falls behind schedule.

3.4. Waste Characterization Program Design

A successful waste management program is based on reliable information about the quantity and types of wastes generated by the service area (EPA, 1995). To obtain the necessary information, the state, county, municipal, or regional landfill or transfer station operator needs to conduct a systematic assessment to determine the types and amounts of materials disposed at solid waste facilities. These *waste characterization studies* have the following benefits:

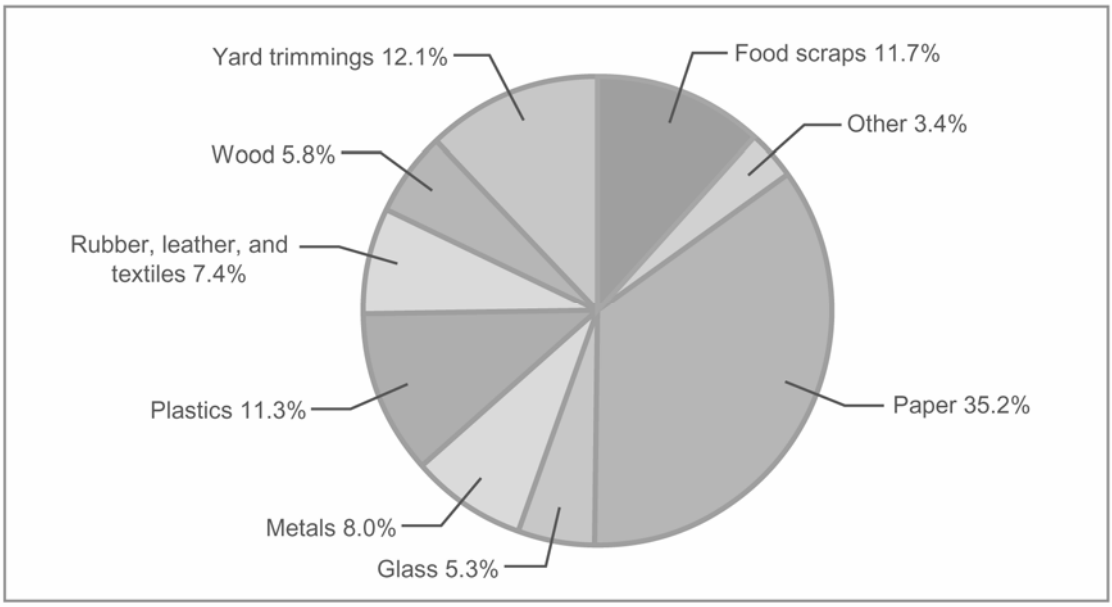
1. Provide detailed local information about the types and quantities of products being purchased, wastes generated, as well as current waste disposal practices
2. Give decision-makers the opportunity to target materials in a systematic manner to ensure that cost-effective, specific waste reduction, recycling, composting, and other diversion activities, plus landfill space conservation objectives are met
3. Create a baseline set of data to use as a starting point allowing comparative measures of the success of subsequent waste reduction, recycling, or diversion efforts and programs at local, state and federal levels.

A waste characterization study can be:

- As simple as a seasonal record of visually estimated percentages for material fractions delivered to a facility completed by an experienced operator at predetermined dates and times; and/or
- A survey form completed by haulers and/or generators in a defined service area; and/or
- The completion of a seasonal comprehensive analysis that involves a systematic sorting and weighing process at a landfill or transfer station to obtain more accurate estimates of waste composition.

The US EPA published the waste characterization summary shown in Figure 3.3 providing an “average” composition of material percentages in the US municipal solid waste stream in 2003.

Figure 3.3
2003 Total US MSW Composition – 236 Million Tons before Recycling



Source: US EPA, Municipal Solid Waste in the United States 2003 Facts & Figures

While this characterization is useful as a starting point, it must be noted that there is variability by region, state, county, and urban or rural areas. For example, the quantity of yard wastes in New Mexico is probably significantly lower than in wetter Northeastern areas of the US, as the arid climate reduces planting of large areas of lawn.

Waste types and quantities also vary by the sector (residential, commercial, etc) in which wastes are generated, and by delivery method. Waste characterization studies must be designed to capture generation patterns and diversion opportunities by classifying types, quantities, and mixtures of materials generated on the sector level. Also, characterization studies must be sufficiently representative to yield data supporting waste management planning and allocation of resources.

3.5 Waste Characterization and Data Collection Recommendations

Recommendation: Develop and implement systematic methods to obtain and properly quantify waste generation and diversion rates:

- Revise and modify the existing NMED Solid Waste Annual Report
  - Include detailed and specific instructions for preparation and submission of data

- Mandate use of a new form, preferably an online questionnaire that can be completed electronically
- Implement use of the new form for reporting 2006 tonnages
- Implement a more robust, comprehensive database allowing integrated management of all SWB information — Solid Waste Annual Reports; recycling, composting, and diversion reports; waste characterization data; permit, compliance, and enforcement records; illegal dumping reports; and so on.

➢ Implement required use of the Waste Characterization Data Collection Forms included in Appendix I

➢ Provide technical support by NMED staff to assist operators with systematic collection and reporting of waste disposal and diversion activities.

Recommendation: Include training modules in the Certification Courses for Landfill, Transfer Station, Composting, and Recycling Facility operators on proper data collection and reporting methods, as well as waste characterization instruction and hands-on field exercises.

Recommendation: Assure consistency of waste collection data by requiring that all facilities install scales for weighing waste by 2008; and/or obtain scale data for wastes delivered from disposal sites (landfill).

➢ In lieu of scaled weights, all waste disposal or diversion data must be converted from volume to tons using an approved formula on the annual report form provided by NMED. Methods used to obtain volume data must be specified by the operator and reviewed in the field by NMED staff

➢ For facilities or municipalities that report data inconsistent with the best available population-based waste generation data, details must be provided on why the discrepancy exists, and what corrective measures will be taken to resolve data collection problems.

Targets:

- Within the next three years every municipal solid waste facility (landfill, transfer station, recycling facility) shall have completed at least one, and preferably two, waste characterization efforts

- Data shall be compiled and evaluated by NMED staff and a report of waste characterization findings prepared

- Within five years, secure state funding and conduct a formal statewide waste characterization study.

Targets:

- Obtain authorization from the State Legislature or Governor to establish a Solid Waste Infrastructure Grant program that will allow qualifying municipalities to obtain funds to purchase and install appropriate waste scales

- Issue the first grants and have scales installed and operational within the next five years.

Recommendation: Include in revised Solid Waste regulations a requirement that all recycling, composting, and other diversion efforts report annual recovery data to NMED.

Targets:

- Within the next three to five years establish reporting requirements for all public and private sector entities engaged in diversion activities in New Mexico to provide data to NMED on tonnages of all materials diverted from landfill disposal
- Within three years promulgate revised regulations to establish the above reporting requirements
- Within five years implement data systems and reporting methodologies to capture public and private sector diversion activities.

3.6 Sample Waste Characterization Data Collection Forms and Instructions

Appendix I includes instructions, forms, and a waste generation sector table as tools for conducting characterization surveys to analyze quantities and composition of New Mexico's waste stream from 2006 to 2009, and provide a sound basis for planning future diversion and disposal strategies.

CHAPTER 4. DIVERSION ELEMENT

The Diversion Working Group took a very pragmatic approach in developing the recycling and diversion strategy outlined below. They ruled out adopting a new strategy with numerical diversion goals in light of: recycling markets; the state's low recycling rates of 5-9 percent in recent years; and the lack of ongoing state funding for recycling education or recycling programs.

Following appointment of the Recycling Alliance, a new planning task force formed under the Recycling and Illegal Dumping Act (2005) to create statewide strategies to increase recycling and reduce illegal dumping, the Diversion group transferred its recommendations to the Alliance for further development. On November 1, 2005, the Recycling Alliance adopted the primary and secondary diversion plan and goals proposed by the Diversion working group.

4.1 Diversion Goals

The Diversion group retained the overarching priorities set forth in the Solid Waste Act:

- Diversion first
- Transformation second
- Disposal last

Within this context, the group elected to set near-term, achievable goals for the 2006-2009 Plan, and they opted for a "groundswell" strategy encouraging communities to create citizen *access* to recycling services for the most readily recycled materials in New Mexico.

As one group member put it, "New Mexico will have a paper drive." The Durango-McKinley corrugated cardboard mill in Prewitt, NM, and the Master Fibers newsprint mill in Snowflake, AZ, both can accept all the recycled feedstock New Mexicans can generate. Targeting fibers first for recovery can build a sustainable recycling and diversion foundation in any community. (See section 4.4 for more on the recycling market outlook in New Mexico.)

4.2 Diversion Recommendations

4.2.1 Primary Diversion Plan and Goals

The primary goal of the Diversion Plan for 2006 through 2009 is to increase *access* to recycling utilizing existing markets and market development for recycled materials. This goal will be met by creating a voluntary program for counties, cities with populations over 3,000 people, tribes and other organizations (referred to here as "Participating Organizations").

Through this voluntary program, Participating Organizations will agree to provide access to recycling to the populations they serve. In order to encourage counties, cities, tribes and other organizations to participate in the program, there ***must be*** incentives and grants available to support the Participating Organizations.

Once a Participating Organization has chosen to participate, it will select the Tier (as listed below) at which it is now providing, or has a plan to provide, access to recycling to its population served. (Counties shall only be considered to be serving those people in their counties not living in the city limits of a Participating Organization. For example, if the City of Albuquerque becomes a Participating Organization under this plan, then Bernalillo County will be considered to be all people living outside of the city limits of Albuquerque.) As long as the Environment Department determines that a Participating Organization is working towards an economically viable and sustainable system for providing access to recycling, that entity will retain Participating Organization status, even if it has not yet accomplished the access to recycling listed in Tier 1.

Participating Organizations shall be entitled to the incentives created for the program and shall be entitled to receive technical assistance made available from the Environment Department to improve access to recycling in their areas.

Participating Organizations are required to provide the reports created under the Solid Waste Management Plan documenting access to recycling.

4.2.2 Community Recycling Plans

Each year, every Participating Organization will prepare a Community Recycling Plan that identifies:

1. The tier that the Participating Organization has achieved or is working toward achieving (see below)
2. The diversion and recycling goals
3. Target commodities
4. Performance measures, and
5. Anticipated or potential barriers to success.

The Community Recycling Plan shall be economically feasible and sustainable.

4.2.3 Definition of Access to Recycling

A Participating Organization is considered to be providing “access to recycling” if:

1. The Participating Organization can identify at least one entity (referred to here as “Service Center”) in the Participating Organization’s area that collects or accepts each of the materials targeted for recycling as listed on the Tier chosen by the organization; and
2. The Participating Organization must also show that a Service Center exists for each of the targeted materials so that 50 percent of the population served by the Participating Organization has access to recycling of those items without driving more than 30 minutes to a Service Center.
   Note: Access to recycling does not have to be at a landfill.

4.2.4 Access to Recycling Tiers

The Tier structure is described below.

A. Tier 1

• Tires	Diverted for a beneficial use
▪ Motor Oil	Required by law to be separated from trash at a landfill
▪ Lead acid car batteries	Required by law to be separated from trash at a landfill
▪ Corrugated Cardboard	Collected, sold, and shipped to a viable recycling market
▪ Newspaper ONP #7	Collected, sold, and shipped to a viable recycling Market

▪ Other items diverted as approved by the SWB to count towards this tier.

B. Tier 2

<u>Recycling or diverting the items listed in Tier 1 and</u>
<u>Choose 2 additional items to recycle or put to a beneficial use</u>
Cans
Glass containers
Scrap metal/ appliances
Green waste and/or woody landscaping waste (e.g., for producing compost or mulch)
Mixed paper
Office paper
Plastic bottles
Phone books
Construction and Demolition (C&D) debris
Concrete
E-waste
Household hazardous waste
Boxboard/Paperboard
Textiles/Clothing
Other items diverted as approved by NMED to count towards this program

C. Tier 3

<u>Recycling or diverting the items listed in Tier 1 and</u>
<u>Choose 4 of the list in B</u>

D. Tier 4

<u>Recycling or diverting the items listed in Tier 1 and</u>
<u>Choose 6 of the list in B</u>

4.3 Recommendations on Grants and Reporting

The Alliance will consider the following Diversion group recommendations when it looks at grant protocol.

4.3.1 Grants and Incentives

1. The grant fund should be as large as possible
2. Grants should be awarded on an annual cycle
3. Grants should be given only to those Participating Organizations providing an economically viable and sustainable plan for providing access to recycling
4. Grants should be prioritized so that entities seeking to reach Tier 1 status are given first preference; entities at Tier 1 status are given second preference; entities at Tier 2 status are given third preference; etc
5. NMED should look at other sources of funding for grants (such as the tire recycling fund and water quality grants) in order to provide the largest listing of resources possible.

4.3.2 Recycling Access Reporting

Participating Organizations required to provide SWARs will complete additional information sections documenting access to recycling. For Participating Organizations not already required to submit SWARs, SWB will provide a short form for reporting the necessary data. Participating Organizations will provide requested information on an annual basis. They will list all known services offered in their area that accept each item identified for recycling or diversion (including composting and beneficial use), and provide diverted tonnage data.

SWB shall work to:

- Ensure that reporting forms can be, and are encouraged to be, submitted electronically
- Create a mechanism so that data can be compiled automatically when received
- Compile the information on Participating Organizations' Community Recycling Plans, performance in providing access to recycling and/or diversion, and diverted volume data, and make this information available to the public.

4.4 Secondary Diversion Goals

The Diversion group recommended the following secondary diversion goals for the 2006-2009 Solid Waste Management Plan, which were reviewed and adopted by the Recycling Alliance:

- Encourage diversion in addition to recycling
- Promote recycling at landfills
- Start a reporting system so that accurate counting is possible by 2009 when the next Solid Waste Management Plan is being developed
- Educate the community to ask for/about recycling
- Enlist champions to help move programs forward

- Work to encourage counties to participate, and allow other entities to participate in the program as long as they agree to provide the data.

4.5 Recycling Potential in New Mexico

The *2004 Strategic Plan for Transforming the Economics of Recycling*, representing the best thinking of a dedicated, multi-sector task force of professionals, provides a good picture of recycling potential in New Mexico. Excerpts below give a context for the recommended Diversion Plan and Goals.

"The quantities of key materials generated and recycled in New Mexico [in 2003] are shown in Table 4.1. Those materials with excellent markets could be recycled at rates close to 100%. If paper and metal were recycled at 70% instead of 11%[7] and 47% respectively, that alone would increase the overall recycling rate to 30%. This indicates that there are immediate opportunities to reduce waste disposal and increase the recycling industry in New Mexico, and that a goal of 25 percent is a reasonable target for the overall recycling rate."

Table 4.1 Potential for Recycling in New Mexico (2004)

Material	Volume in NM waste (tons)	Volume recycled in NM (tons)	Percentage recycled	Notes
Mixed Paper	685,000	75,000	11%	Excellent in-state markets
Yard trimmings	234,000	11,000	5%	Biomass, NMDOT Revegetation
Food Scraps	218,000	0	0%	
Plastic	213,000	**500**	0%	Good out of state markets, lack processing
Metals	151,000	71,000	47%	Excellent markets
Rubber, Leather, Textile	136,000	900	1%	
Glass	105,000	900	1%	
Wood	109,000	0	0%	
Other	65,000	9,000	14%	
TOTAL	**1,916,000**	**168,300**	**Overall Recycling Rate 9%**	

Source: *2004 Strategic Plan for Transforming the Economics of Recycling*

[7] The national paper recycling rate is 50 percent [2003].

4.6 Research Diversion Activities and Opportunities

In reviewing the status of solid waste management in New Mexico, it is apparent that a number of programs and activities — particularly source reduction, recycling, composting, and other diversion efforts like beneficial use — are uncounted in current reporting systems. The following recommendations aim to fully appraise these activities and opportunities:

Recommendation: Overhaul reporting and data systems with thought given to methodologies, models, and databases already developed and tested to capture recycling and diversion information from the private sector, as well as small recycling operations and reuse programs.

Recommendation: Capture diversion volumes from all composting operators in the state, including home composting.

Recommendation: Review and possibly modify regulations on calculating the state solid waste diversion rate to allow for capturing information on non-MSW materials diverted for *beneficial use*.

For example, the Solid Waste Regulations exclude bio-solids composting from the diversion rate, because EPA does not classify these fractions as municipal solid waste. However, beneficial use diverts these materials from landfill disposal, extends the life of expensive landfill space, and helps avoid the costly and sometimes contentious process of siting new landfill capacity.

Recommendation: Research C&D material reuse and recycling potential. Although EPA does not count C&D recovery as MSW diversion, this material is almost one-third of wastes sent to New Mexico landfills. Key stakeholders urge following the example of other states (e.g., CA, OR, MN), and revising New Mexico standards and regulations to allow C&D recycling and reuse to be counted as diversion.

C&D is often generated in large quantities, concentrated at the point of generation, and has the potential to be reused locally, which can simplify logistics for rural areas and small towns, as well as urban areas. Composition studies elsewhere have found that over 75 percent of C&D materials are recyclable. Developing C&D recycling markets and counting C&D recovery in the state diversion rate bear further evaluation.

Recommendation: A concerted effort should be made to promote and document existing and potential *source reduction* programs in New Mexico. The Solid Waste Bureau should coordinate with the NMED Green Zia education and recognition programs in helping to expand private sector efforts to reduce quantities and toxicities of solid waste. Also, reuse programs that intercept discards before they actually enter the solid waste stream should be among the activities tracked as *source reduction*.

4.7 Special Waste: Household Hazardous Waste and CESQG Element

4.7.1-a Household Hazardous Waste

Many products used in the home for cleaning, painting, workshop activities, maintaining or repairing automobiles or equipment, craft projects, and yard care contain hazardous ingredients. Any product that is labeled with warning words such as poison, toxic, corrosive, volatile, flammable, inflammable, combustible, explosive, danger, caution, warning or harmful contain hazardous ingredients. These materials need to be used, stored and disposed of safely to protect the public health, water supplies, and the environment. Improving the management of HHW can diminish these threats and reduce the long-term environmental liability faced by local governments and private landfill operators for possible contamination of groundwater around landfill sites.

Under the federal Comprehensive Environmental Response Compensation and Liability Act (CERCLA or Superfund), a community incurs liability proportional to the quantity of hazardous waste it has accepted and disposed of at a solid waste facility. To limit these future impacts, consumers should minimize the purchase of these products, and save and safely store any unused HHW for special collection events.

Once unused portions of such products are no longer wanted and citizens discard them, the products become household hazardous wastes (HHW). HHW exhibit the characteristics of regulated hazardous waste, meaning that they are toxic, flammable, corrosive, or that they react adversely with other chemicals, air or water. Household-generated hazardous wastes are exempt from federal and state hazardous waste regulations because of their household origin.

A typical home contains three (3) to eight (8) gallons of hazardous material. Over time an average homeowner can accumulate as much as 100 pounds of HHW in the garage or basement. The largest components of HHW are oil-based paints, solvents and thinners, automotive products, garden chemicals, hobby supplies, cleaners, pool chemicals, batteries, and other miscellaneous items. HHW comprises 1-2 percent of the solid waste stream. More than 50 percent of these wastes can be reused, treated, or recycled, especially paints, motor oil, and antifreeze.

In New Mexico, a homeowner may dispose of HHW at a transfer station or landfill. However, any liquid wastes, including any characterized hazardous wastes, cannot be accepted for disposal at transfer stations or landfills. Many landfill operators are refusing to accept HHW with increasing frequency.

Five collection/management models exist:

- **Limited collection programs** accept easily recyclable or reusable materials such as motor oil, lead-acid batteries, used antifreeze, and household batteries. Many communities collect some of these items at regional convenience centers or transfer stations. Private firms also accept these materials for recycling — especially used motor oil, lead-acid batteries, and some household batteries

- **Single-day special collection programs** are held once or twice a year and residents are allowed to deliver a wide range of unused HHW to a specified city/county site. These programs are the most common, and they require a significant publicity and volunteer staffing effort. An appropriate hazardous waste contractor is retained to sort, package, manifest, and properly recycle, treat and/or dispose of collected materials. Some HHW programs in the US also accept wastes from Conditionally Exempt Small Quantity Generators (CESQG) at these special events. The costs for such programs currently range from $50 -$110 per participant

- **Permanent HHW Facility** accepts HHW year-round during specified hours at a specially dedicated site. Such a site requires development of approved storage and handling procedures, trained staff, and education of users. Annual operating costs can range from $250,000 - $500,000 depending on quantities and types of materials accepted

- **Mobile HHW Collection** for a fee can be provided by trained staff for remote or rural areas. Establishing such services is expensive due to equipment, staffing, and disposal costs

- **Regional Centers for use by multiple jurisdictions** can be established to allow cost-sharing for HHW services. This approach has not been implemented yet in New Mexico due to high costs and difficulty negotiating joint agreements.

Program Recommendations:

1. Educational Efforts

    - Prepare a public outreach campaign stressing "Buy Only What You Need—Find Safe Products" to reduce the amount of HHW purchased
    - Increase citizen understanding of proper management and disposal for latex paints, which can be disposed of in landfills if allowed to harden before disposal
    - Encourage formation of a waste exchange network for reuse of HHW materials.
    - State purchasing policy shall be changed to include policies for the procurement of recycled commodities such as re-refined oil
    - State contracts should be developed to allow local communities, cities, and counties to procure HHW services under a state bid contract
    - Include HHW training module in transfer station and landfill certification courses.

2. Funding Mechanisms

    - Expand the scope of Solid Waste Facility Grant Fund to include funding or low interest loans for HHW collection programs in New Mexico
    - Consider establishing a HHW/CESQG Grant Fund to help communities off-set collection program costs.

4.7.2-b Conditionally Exempt Small Quantity Generators (CESQG)

Conditionally Exempt Small Quantity Generators are businesses and industries that generate less than 220 pounds of hazardous wastes or 2.2 pounds of acutely hazardous wastes per month in the course of their operations. Examples of CESQGs are: dry cleaners, auto repair shops, auto dealers, print shops, photographic developers, miscellaneous wholesalers and retailers, and demolition, construction, and painting contractors. New Mexico has an estimated 2,000 businesses considered to be CESQGs.

The US EPA allows for CESQGs to be exempt from the full hazardous waste regulations that apply to larger generators, provided they comply with three basic waste management requirements:

1. The business operator must identify all hazardous wastes generated
2. The business may not store more than 2,200 pounds of hazardous wastes on-site at any time
3. The business must ensure delivery of hazardous wastes to an approved facility that is:

    - A federally regulated hazardous waste treatment, storage or disposal facility
    - A facility permitted, licensed or registered by a state to manage municipal or industrial solid waste
    - A facility that uses, reuses or legitimately recycles the wastes, or treats the waste prior to use, reuse or recycling
    - A universal waste[8] handler or destination facility subject to the universal waste requirements of 40 CFR Part 273.

CESQG regulations are designed to protect human health and the environment, and to encourage businesses to minimize hazardous waste quantities produced. The less generated, the fewer regulations apply.

A waste is any solid, liquid or contained gaseous material that a business no longer uses and must either recycle, sort, or dispose. For regulatory purposes the two categories of hazardous waste are *listed* hazardous wastes and *characteristic* hazardous wastes. Listed hazardous wastes are 400 specific substances that have been determined to be hazardous and are included in the Resource Conservation and Recovery Act (RCRA). Characteristic hazardous wastes have certain properties that make them harmful to human health and the environment. Characteristic hazardous wastes are ignitable, corrosive, reactive, or toxic.

Current Status

- The largest components of the CESQG waste stream are used motor oil and lead-acid batteries. Studies in other states have found that waste motor oil comprises 50-66 percent of the hazardous waste stream. Lead–acid batteries (automobile and equipment batteries) range 7-14 percent of the hazardous waste stream. These items are currently banned

[8] Federal regulations define universal wastes as including certain batteries, recalled and collected pesticides, and mercury-containing thermostats and lamps (fluorescent and HID lamps).

from landfill disposal in New Mexico and many public and private collection and recycling opportunities are available in most areas of the state.

- With the exception of lead-acid batteries, it is estimated that liquids are 97 percent of hazardous wastes discarded by exempt generators. Examples include paints, dry-cleaning solvents, photographic chemicals, anti-freeze and other equipment fluids, and liquid-based pesticides and fungicides. New Mexico Solid Waste regulations currently ban liquids from disposal at solid waste facilities.

- Private firms that manufacture and sell these chemicals have well-established collection, recycling, and treatment services to prevent the need for local disposal of these items. It is estimated that currently 98 percent of these chemicals are properly managed. Also, research and development have created less hazardous alternatives to substitute for hazardous chemicals, and/or closed recirculation systems allowing for chemical reuse.

- Review of years' of groundwater data at permitted New Mexico landfills has not found problems associated with hazardous constituents such as petroleum products, volatile organic compounds, pesticides, or herbicides in the monitoring wells. There are problems with some older un-lined landfills that probably accepted these items in the past. This finding reinforces the hypothesis that monitoring mechanisms in place at permitted facilities are effective in protecting the health and environment of New Mexico residents. More and more facilities are completing waste quality checks to confirm that hazardous materials are not delivered to their sites.

- Aside from private sector efforts, New Mexico does not have an existing public infrastructure in place to assist with managing hazardous wastes. Most communities do not have the necessary funds or trained staff to manage these materials.

- Private sector collections are limited for universal wastes.[9] Some firms accept batteries, but pesticides and mercury-containing wastes remain problem waste types.

- Banning CESQG wastes from all landfills and transfer stations is not feasible at this time. A ban at this time will encourage additional illegal disposal of these materials outside of the current solid waste management system in arroyos, and on public lands.

[9] See footnote 8.

CESQG Recommendations:

As precedent exists in New Mexico to regulate several specific wastes such as used motor oil, lead-acid batteries, and liquids, and as mercury-containing lamps are currently listed as a Universal Waste, and as these wastes have not been previously addressed, it is recommended that the Solid Waste Regulations be amended to include requirements for these waste.

Mercury containing lamps

- Many waste fluorescent lamps are hazardous wastes due to their mercury or in some cases lead content. The accumulation of mercury in the environment and the food chains is a serious environmental and health hazard. EPA published a final rule in July 1999 that added hazardous waste lamps to the Universal Waste Rule (64 RFR 36465-36490). This rule was adopted by New Mexico in 2005. Other examples of discarded lamps commonly classified as hazardous waste include: high-intensity discharge (HID), neon, mercury vapor, high-pressure sodium, and metal halide lamps. In an effort to protect the public health and environment of New Mexico, standard mercury-containing fluorescent and HID lamps which fail the Toxicity Characteristic Leaching Procedure (TCLP) must be managed as a hazardous waste in accordance with state or federal hazardous waste regulations or the Universal Waste Rule. Switching between the traditional RCRA approach and the Universal Rule is prohibited. Mercury-containing lamps must be counted in determining a generator's status. *Lamps generated by CESQGs or lamps handled under the Universal Waste Rule cannot be put in a trash dumpster or in a disposal pit at a transfer station, because they would not be handled in a way to minimize breakage*.

- Low-mercury or green end cap lamps that pass the TCLP test should not be regulated as stringently as other lamps. However, as even these lamps contain some mercury these items should be regulated as follows. Certain small businesses, with 100 or fewer employees, disposing of 15 or fewer non-hazardous low-mercury or green end cap lamps per month are exempt from disposal prohibitions.

- All businesses are strongly encouraged to recycle their-mercury-containing lamps. The NMED is instructed to prepare and maintain a current list of lamp recyclers.

- Firms considering lamp crushers to manage these wastes must be advised that the Universal Waste Rule requires that lamps remain whole. CESQGs can be exempt from this rule (1) if they crush lamps on-site as the first step of a recycling process, and (2) if the lamps are sent to a mercury recycler.

Other Recommendations:

- Establish a HHW and CESQG Fund based on a Legislative Appropriation to help implement management, collection, and recycling programs for hazardous items.

- Conduct a study and evaluate management data within three years to determine current status of the problem and possible impacts. Focus on rural areas. Results will assist with a determination to potentially ban of these materials with a curbside hauler exemption during the next Solid Waste Management Plan review period.

- Coordinate with, and scale up efforts through the Green Zia Program to include more businesses in training and recognition programs for properly managing hazardous wastes.

- Include a waste quality, screening, and segregation training module in landfill and transfer station certification courses.

- Expand and enhance NMED education and outreach efforts to the affected community.

CHAPTER 5. FACILITIES ELEMENT

5.1 Facilities Goals

The goals of the Facilities Working Group were to review available data on existing and projected disposal capacity in the state, evaluate siting issues, and develop findings and recommendations for the Solid Waste Management Plan.

5.2 Findings

Conditions in New Mexico have changed dramatically since the September 1993 Plan, and several Plan objectives have been achieved. The number of landfills has been reduced from over 100 to 35, of which 19 are regional Subtitle D facilities. The proposed revised Solid Waste regulations will set timetables for closure or upgrading of remaining non-compliant landfills.

Market conditions have driven the initiative toward regionalization, with fewer and larger disposal sites. Smaller and rural communities cannot generally afford modern landfills, and they will be taking on a much larger financial burden when forced to transport their waste greater distances.

5.3 Solid Waste Facility Siting

The NMED Solid Waste Bureau (SWB) has established technical standards for the siting of landfills and transformation facilities. These solid waste facilities should be sited, designed, operated, and closed in accordance with Environmental Justice principles. The Facilities group believes the updated Solid Waste Management Plan should address the siting of recycling, composting, and transfer facilities in furtherance of state goals, and the Solid Waste Regulations should foster and simplify the siting of these facilities.

Economies of scale have promoted development of regional Subtitle D landfills in areas where sufficient waste volumes are available. “Regionalization”, as described in 74-9-11 of the Act, is occurring as a result of financial realities, as opposed to government mandate. Most regions with populations greater than 10,000 have NMED permitted landfills with capacities in excess of the 10-year planning window (74-9-6.E).

There will be 10-15 small, un-permitted landfills closed within the next 2 to 3 years as a result of the proposed revised regulations. The updated regulations should encourage the siting of solid waste transfer stations as a logical alternative for smaller communities that cannot afford modern local landfills. For some rural areas, the costs to manage the MSW are estimated to increase by more than 500%. The Facilities group recommends funding sources be identified for communities transitioning from landfill to transfer to offset increased infrastructure and transportation costs.

5.5 Solid Waste Facility Siting Recommendations

The recommendations of the Facilities group with regard to siting are summarized as follows:

- The solid waste regulations have been effective at protecting the environment, but smaller population centers are experiencing the greatest cost impacts
- The NMED Solid Waste Regulations should foster and simplify the siting of recycling and composting facilities to achieve waste diversion objectives listed in the Act, and to extend the life of expensive remaining landfill space
- The Regulations should also facilitate siting of transfer stations and convenience centers to reduce the cost and complexity of solid waste management for smaller communities
- Funding sources should be identified for smaller communities closing local landfills and transitioning to transfer
- Funding sources should be identified for recycling and composting initiatives.

5.6 Solid Waste Management Capacity

Nearly all population centers in New Mexico greater than 10,000 have developed disposal capacity with a longevity over 10 years, or are currently transferring their waste to a regional Subtitle D landfill. Regional solid waste authorities have had mixed success, but local governments have been effective in siting new landfills.

The Facilities group recommendations regarding capacity focus on the data that is available to monitor the status of each facility, and to identify regional capacity shortfalls in advance. However, the data collected and compiled by NMED in the Solid Waste Annual Report (SWAR) process is inadequate to make this evaluation.

5.7 Solid Waste Capacity Recommendations

The Facilities group recommends the following efforts to improve information needed for evaluating present capacity and future needs:

- Improve the uniformity and validity of the data reported by each facility, and simplify the Reporting Process
- Develop additional tools to assist NMED in compiling and evaluating the data (i.e., electronic database, “waste shed” mapping, metrics, etc.)
- Identify funding sources to upgrade the data collection and analysis effort.

5.8 Next Steps

To implement these recommendations, the Facilities group proposes the following steps:

Recommendation: Improve the collection, validity and application of solid waste data:

- Develop an updated, forward-looking inventory of landfills, transfer stations, convenience centers, recycling, composting, and other diversion facilities. This matrix (see working draft Tables 5.1 and 5.2) will identify data with regard to permit status, capacity, longevity, waste receipt rates, etc., necessary to meet the 10-year and 20-year planning windows. The analysis focuses on facilities that are expected to outlive the

mandatory closure requirements of the proposed regulatory revisions. This task will also include the development of uniform definitions (e.g., permit capacity vs. ultimate capacity). Table 5.1 illustrates the lack of uniformity of the reported data, and highlights the need for improved data collection.

- Prepare a Solid Waste Facilities Map (see working draft Figure 1) that identifies site locations as well as service areas, or "waste sheds." This map connects transfer stations and public convenience centers with destination disposal sites. Boundaries would be estimated in order to evaluate population equivalents, haul distances, etc; and most importantly, highlight areas that require new facilities and/or financial assistance. This is a more functional approach than using the six NMED Solid Waste Districts, which were established for enforcement purposes, not to reflect disposal market conditions.

- Prepare a Solid Waste Diversion Map (see working draft Figure 2) showing locations of recycling, composting, and other diversion operations (e.g., reused building material outlets), and indicating the flow of recovered materials to processing facilities, markets, and end-use manufacturers. This map will show which areas of the state offer access to recycling, as recommended by the Diversion group, and which areas will need technical, funding, or other assistance to implement diversion capabilities.

- Improve the value and applicability of the current database on solid waste facilities as updated by Annual Reports submitted by each government unit or waste management entity. This will include several initiatives:

  - Revise the Reporting Form (the Texas TCEQ form in Appendix J has been suggested as a template)
  - Make the Reporting Form more user-friendly (e.g., allow electronic completion/ filing; furnish historic site-specific data online, etc.)
  - Require that reporting for waste receipts at major disposal sites, to the extent practical, be recorded in actual weights to promote uniformity of data
  - Mandate in the Regulations that annual reporting documentation submitted by each solid waste facility be authenticated by the operator using, for example, certification by a knowledgeable landfill operator (certified by NMED), or a registered professional engineer with specific knowledge of the facility
  - Expedite preparation and distribution of the required Annual Report by SWB
  - Provide funding for implementation of the above, as well as updates to data collection and analysis programs.

Recommendation: Promote the siting of recycling, composting, and transfer facilities in furtherance of statewide waste management and waste reduction goals.

- The Solid Waste Regulations (Regulations) should foster and simplify the siting of recycling, composting, and transfer facilities
- Funding sources should be identified for communities which are transitioning from landfill to transfer to offset increased infrastructure and transportation costs.

Table 5.1 New Mexico Solid Waste Facility Inventory - Landfills

		2004 Data (draft)							
Facility Name	**Permit Status Issued : Expires**	**2004 Reported Beginning Capacity (SWB)** (cy)	**2004 Reported Used Capacity (SWB)** (cy)	**2004 Tons Accepted (SWB)** (tons)	**2004 Reported Remaining Capacity (SWB)** (cy)	**2004 Facility Daily Usage Rate (SWB)** (cy)	**Years Remaining (SWB table)** (yrs)	**Years Remaining (via calc.)** (yrs)	**2004 Facility Daily Intake Rate (SW** (tons)
Subtitle D Landfills									
Caja Del Rio	6/27/1995 : 06/27/2015	6,375,191	317,566	210,690	6,057,625	870	19	27	1,1
Camino Real	3/5/1997 : 3/5/2007	7,573,179	978,315	568,850	6,594,864	2,680	7	9	3,1
Cerro Colorado	6/22/2000 : 6/22/2020	81,392,000	1,080,092	533,730	80,311,908	2,959	74	104	2,9
Clovis	6/15/1998 : 6/15/2018	1,682,881	135,374	88,800	1,547,507	371	11	16	4
Corralitos	8/9/1995 : 8/9/2015	16,762,937	335,037	134,020	16,427,900	918	49	69	7
Lea County	12/17/1997 : 12/17/2017	3,965,198	128,656	73,160	3,836,542	352	30	42	4
Northeastern NM Regional	3/26/1997 : 3/26/2007	5,417,500	53,960	32,270	5,363,540	148	99	139	1
Northwestern NM Regional	10/12/1995 : 10/12/2015	0	0	96,980	0	0	NP		5
Otero/Lincoln Regional	10/4/1993 : 10/4/2013	83,893	8,067	76,990	75,826	22	9	13	4
Rio Rancho	4/29/1994 : 4/29/2004	4,531,465	435,395	354,220	4,096,070	1,193	9	13	1,9
Roswell	5/21/1997 : 5/21/2017	1,419,372	196,213	87,760	1,223,159	538	6	9	4
Sand Point	3/2/1994 : 3/2/2014	2,590,630	111,137	69,570	2,479,493	304	22	31	3
Sandoval County	6/17/2005 : 6/17/2025	0	0	252,150	0	0	NP		1,3
SW NM Regional	12/19/1994 : 12/19/2014	1,829,833	67,296	28,040	1,762,537	184	26	37	1
Taos	8/16/2001 : 8/16/2021	3,038,000	72,800	36,340	2,965,200	199	41	57	1
Torrance/Bernalillo County	6/18/1997 : 6/18/2017	4,357,349	58,057	24,950	4,299,292	159	74	104	1
Tucumcari	5/31/2005 : 5/31/2025	0	0	2,700	0	0	NP		
Pending Permits (currently registered)									
De Baca County		0	0	2,150	0	0	NP		
Deming		923,000	108,800	37,370	814,200	298	7	11	2
San Juan County		0	0	121,490	0	0	NP		6
Socorro		0	0	15,980	0	0	NP		
Valencia Regional/Tri-Sect		9,918,750	0	17,850	9,918,750	0	NP		
Vaughn		0	0	1,060	0	0	NP		
C & D Landfills									
Magdalena C & D	08/7/2000 : 8/7/2020	not listed	not listed	not listed	not listed	not listed			not listed
Mesa Verde C & D	3/12/2001 : 3/12/2021	450,966	15,911	5,150	435,055	44	27	38	
Southwest	5/8/1997 : 5/8/2007	1,378,415	301,531	189,840	1,076,885	826	4	5	1,0
Permitted Sp. Waste (only) Landfills	**Permit Issued**								
Keers Asbestos (2)	7/16/93								
Lea Land Industrial (2)	2/27/96								

Notes:
(1) NP = not provided on SWB table
(2) Source: SWB Permit Section

Table & estimates courtesy of Gordon Environmental, Inc, 200

Table 5.2 Proposed Draft Template

Table 5.2 New Mexico Permitted Transfer, Recycling, and Composting Facilities (Draft - To Be Completed)

Facility Name	Permit Status Issued : Expires	Design Capacity	Annual Waste Receipts (2004 Annual Report)	Service Area (2004 Annual Report)	Waste Destination
Transfer Stations					
Artesia	3/16/1995 : 3/16/2015				
Cibola County	1/23/1996 : 1/23/2016				
Deming	11/11/2001 : 11/11/2021				
Don Reservoir	8/24/2000 : 8/24/2020				
Eagle Rock	8/7/2000 : 8/7/2020				
East Mountain	12/2/2002 : 12/2/2022				
Las Vegas	10/19/1999 : 10/19/2019				
Los Lunas	11/17/1999 : 11/17/2019				
McKinley County	1/23/1996 : 1/23/2016				
Montessa Park	5/11/1998 : 5/11/2018				
Ruidoso (Gavilan Canyon)	12/19/1994 : 12/19/2014				
Santa Fe	5/7/1996 : 5/7/2016				
South Central SWA	11/2/1995 : 11/2/2015				
Recycling Facilities					
Cerro Colorado IPF	8/5/1999 : 8/5/2019				
Environmental Control	1991 : 2001				
Master Fibers	11/15/1996 : 11/15/2006				
Durango-McKinley Fiber Co.	4/17/1996 : 4/17/2006				
Composting Facilities					
Albuquerque	8/5/1999 : 8/5/2019				
Artesia	9/17/1993 : 09/17/2013				
Los Alamos	1/3/1996 : 1/3/2016				
Sandoval	6/17/2005 : 6/17/2025				

Table courtesy of Gordon Environmental, Inc, 2006

Figure 5.1

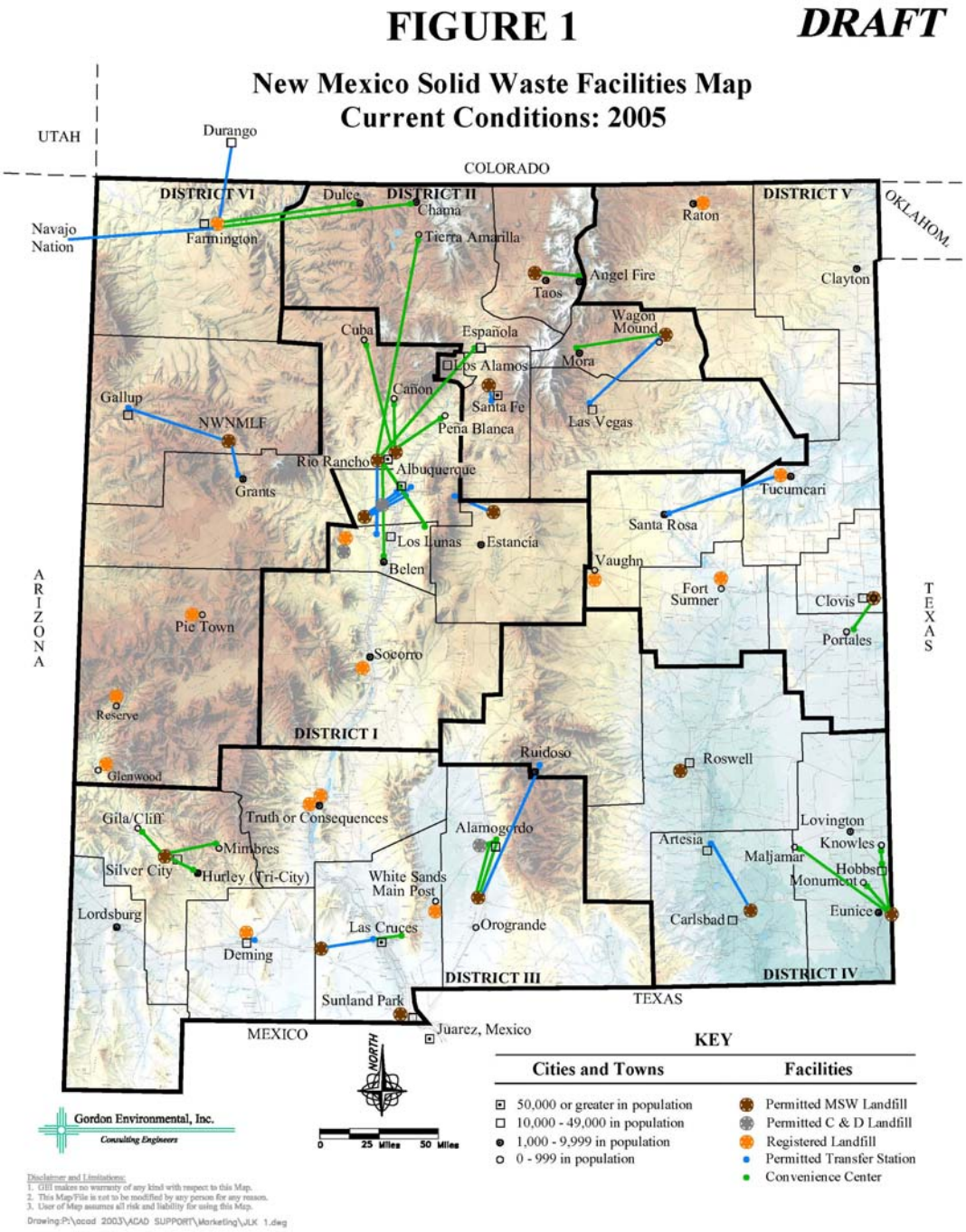
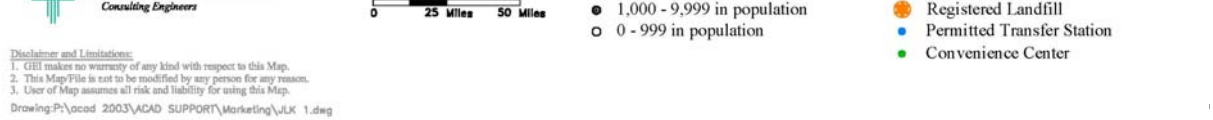


FIGURE 1
DRAFT
New Mexico Solid Waste Facilities Map
Current Conditions: 2005
UTAH
COLORADO
OKLAHOMA
ARIZONA
TEXAS
MEXICO
Durango
Navajo Nation
Farmington
Dulce
Chama
Tierra Amarilla
Raton
Angel Fire
Taos
Clayton
Wagon Mound
Cuba
Española
Los Alamos
Mora
Cañon
Santa Fe
Las Vegas
Gallup
NWNMLF
Pena Blanca
Rio Rancho
Albuquerque
Grants
Tucumcari
Santa Rosa
Los Lunas
Estancia
Belen
Vaughn
Fort Sumner
Clovis
Portales
Pie Town
Socorro
Reserve
Glenwood
Ruidoso
Roswell
Gila/Cliff
Truth or Consequences
Alamogordo
Lovington
Knowles
Artesia
Maljamar
Hobbs
Monument
Mimbres
Silver City
Hurley (Tri-City)
White Sands Main Post
Lordsburg
Las Cruces
Orogrande
Carlsbad
Eunice
Deming
Sunland Park
Juarez, Mexico
DISTRICT I
DISTRICT II
DISTRICT III
DISTRICT IV
DISTRICT V
DISTRICT VI
NORTH
0 25 Miles 50 Miles
KEY
Cities and Towns
50,000 or greater in population
10,000 - 49,000 in population
1,000 - 9,999 in population
0 - 999 in population
Facilities
Permitted MSW Landfill
Permitted C & D Landfill
Registered Landfill
Permitted Transfer Station
Convenience Center
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.
Drawing:P:\acad 2003\ACAD SUPPORT\Marketing\JLK 1.dwg


Consulting Engineers
0 25 Miles 50 Miles
1,000 - 9,999 in population
0 - 999 in population
Registered Landfill
Permitted Transfer Station
Convenience Center
Disclaimer and Limitations:
1. GEI makes no warranty of any kind with respect to this Map.
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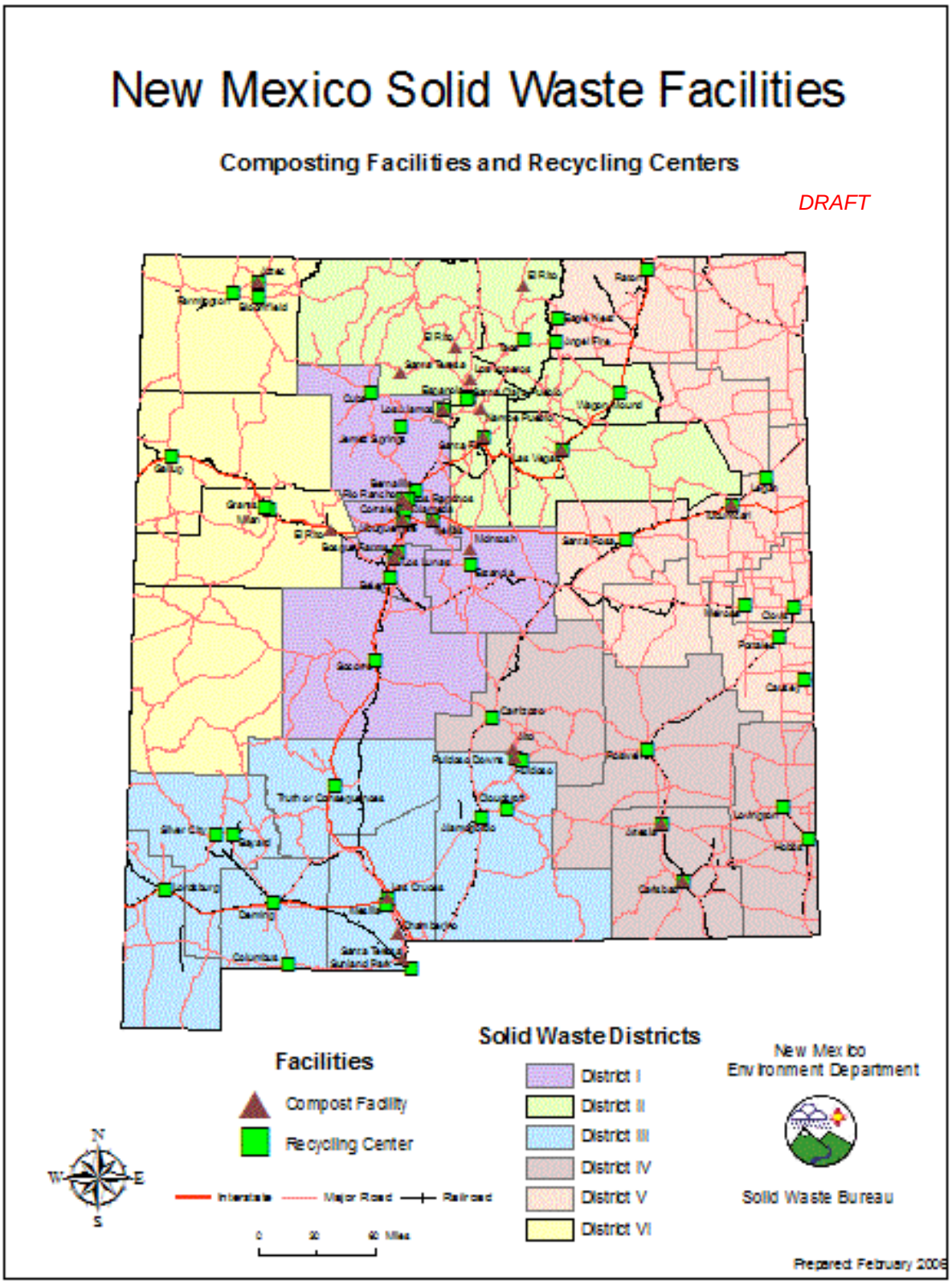
Drawing:P:\acad 2003\ACAD SUPPORT\Marketing\JLK 1.dwg

Figure 5.2


New Mexico Solid Waste Facilities
Composting Facilities and Recycling Centers
DRAFT
Solid Waste Districts
District I
District II
District III
District IV
District V
District VI
Facilities
Compost Facility
Recycling Center
Interstate
Major Road
Railroad
0 20 40 Miles
N
S
E
W
New Mexico
Environment Department
Solid Waste Bureau
Prepared February 2006

CHAPTER 6. EDUCATION ELEMENT

6.1 Education Goals

The goals of the Education Working Group were to identify past and current recycling and diversion education programs and resources, and recommend priority education strategies for 2006 to 2009, with emphasis on optimizing efforts with a minimal budget. The group then submitted its recommendations to the Recycling Alliance for further development, and to the Funding Working Group.

6.2 Education Group Findings

6.2.1 Past Funding for Recycling and Diversion Education in New Mexico

From 1990-1997, the Energy, Minerals, and Natural Resources Department administered a Recycling Grant Fund established as a result of an environmental infraction. EMNRD awarded a total of $478,000 in grants for recycling education, which, combined with local match funds, accounted for a little over 10 percent of total project funds. Appendix L shows funding for recycling education and lists recipient jurisdictions.

The education programs funded through EMNRD grants supported local recycling efforts, and none of these programs is still in effect.

6.2.2 Current Recycling Education Funding

Currently there are no state grants or funding for recycling, illegal dumping, or diversion education. The Recycling and Illegal Dumping Act (RAID, 2005) will reallocate the Tire Recycling Grant Fund to make available about $200,000 in grants later in 2006 for municipal-level recycling and illegal dumping projects. However, this funding may not be devoted solely to education. The Recycling Alliance will set funding criteria and priorities, and these could include support for a range of programs.

6.2.3 Survey of Recycling Education Needs

In 2005, the New Mexico Recycling Coalition (NMRC) surveyed its members to assess the public's understanding of recycling. Key survey findings are:

- Fifty percent of the public does not understand how to recycle
- The majority does not understand household hazardous waste (HHW)
- Two-thirds of the public does not understand the importance or impact of recycling
- The public does not understand how to buy recycled content products at all.

This survey highlights the importance of ongoing education and awareness campaigns to keep all members of the public informed on how and why to participate in recycling and waste reduction activities.

6.2.4 Target Audiences for Recycling, Diversion, and Illegal Dumping Education

The Education group identified the following target audiences for education efforts:

- Elected officials
- Public staff (e.g., solid waste departments, law and code enforcement officials, clean and beautiful organizations, extension agents)
- Teachers and students
- Private waste service providers
- Communities/generators of waste (e.g., public, business, industry, institutions, schools, hospitals, agriculture sector, tribes, land grant communities)
- Agencies and nonprofits to partner with to reach audiences (e.g., New Mexico Association of Counties, New Mexico Municipal League, Association of Commerce and Industry, local Chambers of Commerce, Sierra Club, NMRC, SWANA, PIRG, etc)

6.2.5 Current Education Resources Available

The Education group identified existing programs, resources, and partners that could be tapped to help promote diversion and recycling. Appendix M provides a preliminary listing of these resources.

With this starting list — and coordinated effort — there is potential to begin raising public awareness for general support of recycling and waste reduction, and helping to curb illegal dumping. However, funding and much more comprehensive, ongoing education programs are needed to make real progress towards significant waste reduction and diversion levels in New Mexico.

6.3 Strategies and Priorities for 2006 to 2009

The Education group mapped out the following strategies and priorities for 2006 through 2009, and to build the base for future years:

6.3.1 Education Ideals

- Create a statewide public message campaign
- Identify champions to carry the message forward
- Survey trash generators
- Target appropriate audiences
- Create materials where needed
- Look into workshops.
- Train the trainers
- Offer field days or tours

- Create instructional media
- Identify and train on what can be recycled

6.3.2 Best Use of State Dollars

- Develop a common message
- Conduct market research
- Media campaigns for specific programs with statewide PSAs
- Education on reuse and other ways of reducing the consumption-throwaway pattern
- Find support for on-going program costs
- Outreach and connection with tribal communities

6.4 Education Recommendations

6.4.1 Areas of Most Need

- Formulate an integrated plan for education
- Identify priority program areas for education emphasis
- Secure sustainable funding for ongoing education of all target audiences

6.4.2 Consider Two Types of Education

- Statewide educational program
- Specific education for focus of the Plan over the next 3 years

6.4.3 Program Suggestions

- How to Set Up a Community Recycling Program
- Create Online Recycling Market Directory
- Outreach Program for Elected Officials
- Reduce and Reuse Awareness Campaign Aimed at Citizens

6.4.5 Final Thoughts

- Identify partners
- Identify priorities
- Create marketing product with unified message
- Provide funding to maintain list of resources
- Identify target audiences and distribute marketing product to them
- Identify verification measures to confirm that education strategies are working (messages are heard)

6.5 Next Steps

The Education proposals were presented for development and inclusion in the Statewide Recycling Strategy. Also, the Education group reported education and funding recommendations for consideration by the Funding Working Group.

CHAPTER 7. FUNDING ELEMENT

7.1 Funding Goals

The goals of the Funding Working Group were to:

- Assemble information on past and currently available state funds for solid waste management and diversion
- Look into additional funding prospects
- Examine funding options set forth in the Solid Waste Management Act of 1990
- Review funding mechanisms utilized in other parts of the US.

The group concurred on the need to renew state funding for ongoing support of program priorities recommended by the other Working Groups. They also agreed to keep the field open for considering a range of funding methods, pending more information on methods used in other states and additional resources available in New Mexico.

7.2 Prior Funding for Disposal and Diversion

As discussed elsewhere, New Mexico had two funds in place for solid waste management and recycling programs:

The Solid Waste Facilities Grant Fund (SWFGF) awarded $22.3 million for solid waste management projects from 1991 to 2002, and is currently inactive pending a further General Fund appropriation. This fund provided grants to government units for regional solid waste management plans; landfill closures; monitoring wells; transfer station construction; disposal trucks and equipment; convenience centers; and so on. Only 6 percent of SWFGF grants went to diversion programs (recycling, composting, mulch production).

From 1991 to 1997, the Energy, Minerals, and Natural Resources Department managed a Recycling Grant Fund that was established from a fine paid on an environmental infraction. EMNRD awarded $3.68 million in grants, which leveraged $4.59 million in local match funds, for a total of over $8.2 million in recycling funding through 1997, when the fund was depleted. This program helped communities offset start-up costs for recycling program education and operation. Appendix L summarizes this grant funding and provides a complete list of funded programs and a map of counties served.

7.3 Solid Waste Funding Available for FY 2005/2006

For the current fiscal year there is limited funding available for solid waste disposal or diversion programs. Table 7.1 summarizes funding identified for this period. A small balance remains in the SWFGF, but this is being held in reserve until the fund is renewed. Twenty local solid waste projects may receive legislatively approved funds from the Infrastructure Capital Improvement Program or State Bonds. The SWB will continue operating at the same budget level, with no programmatic funds included for statewide initiatives.

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7.4 Preliminary Funding Recommendations

After evaluating the current funding situation, the Funding group reviewed requests from the other Working Groups and developed recommendations on funding priorities. They concluded that two types of funds should be established, as described below.

7.4.1 Capital Outlay Revolving Fund

Within the next three years, a capital outlay revolving funding source should be created. Capital outlay expenditures that are within the control of NMED should come out of this revolving funding source. The funding criteria should contain both sustainability and accountability components.

Examples of existing revolving funds that could be looked at as models include:

- Water Trust Fund
- EPA Clean Water Revolving Fund
- Mortgage Finance Authority or New Mexico Finance Authority funds as sources
- Revolving loans funds as used in other states to build recycling industry capacity.

7.4.2 Statewide Programmatic Initiatives Fund

Within the next three years, an on-going source of funding should be enacted that is dedicated to support the program priorities listed below, and is separate from the capital outlay revolving funding source. The fund should have an annual budget of $1,500,000 to support these priorities:

1. Data projects

    - Installation of scales at all solid waste disposal, composting, and other discard management facilities for accurate reporting of materials handled by weight
    - Upgrading of the NMED Annual Report form and database to improve the accuracy and reliability of information needed to assess current solid waste management activities statewide, project future capacity needs and plan accordingly
    - Support for interim waste sampling surveys at landfills, transfer stations, recycling/ composting facilities, and other discard handling operations over the next three years
    - Conducting a statewide waste composition study within the next 3-5 years yielding waste generation quantities and projections by population and other relevant factors as a basis for sound planning.

2. Technical assistance to participating organizations working on diversion goals in the Plan and working towards integrated solid waste management systems, including:

    - Technical assistance and training on the interim waste sampling protocol
    - Technical assistance and training on the new SW reporting systems

- Technical assistance, training, and information resources on setting up recycling and composting programs, marketing materials, building public participation, etc.

3. Support educational goals established in the plan:

   - Implement a statewide message campaign (see Chapter 6)
   - Foster public awareness of recycling, reuse, reduction, correct disposal of HHW, illegal dumping abatement, and other diversion activities in which people can participate on their own, even before an organized recycling program may be available in their community.

4. Depending on recommendations from the Environmental Justice Working Group, keep open the possibility of supporting a program to assure that EJ interested parties have access to, and participation in, solid waste management planning and decisions, including support for a public participation process in developing the next SWMP.

7.4.3 Funding Criteria

When NMED has funding for the Statewide Programmatic Initiatives Fund for the purposes listed above, the Department should require that funding requests contain assessment plans to evaluate program performance, sustainability, and accountability. The Department should review its existing criteria for funding that are in place now and ensure that they have sustainability, accountability, and evaluation components. Applicants proposing diversion projects should include projections of waste reduction and diversion quantities expected as a result of project implementation.

For the Capital Outlay Revolving Loan Fund to establish waste disposal and diversion capacity infrastructure projects, applicant local planning bodies should also include program evaluation measures. Criteria to be considered for this fund include:

- Provision of local match funds
- An advance feasibility analysis projecting long-term sustainability and accountability of proposed projects
- Parameters and methods for evaluating and reporting project performance at the conclusion of the funding cycle. For example, waste reduction and diversion programs should report diversion rates achieved compared to projected diversion
- A repayment schedule and evidence of ability to repay loans
- Government units applying for funds from future capital outlay funding programs should first demonstrate that they have fully utilized the Environmental Services Gross Receipts Tax (ESGRT) for local needs.

7.5 Funding Discussion

The Funding Working Group has not reached consensus on what funding mechanisms could be used to create the $1,500,000 annual budget dedicated to support the Statewide Programmatic Initiatives Fund described above. The group discussed several ideas.

7.5.1 Funding Ideas Being Considered

- Secure an additional $1.5 million annually from the general fund to support program priorities
- Seek a legislatively funded trust that would provide interest sufficient to provide $1.5 million in interest income for program priorities
- Ask the legislature to enact a surcharge on some identified item, such as a per-ton fee on waste sent to landfills, or a tax on plastic retail bags, and dedicate the resulting revenues to a solid waste management/diversion fund

  NOTE: It was very important to some working group members to ensure that a surcharge, if imposed, contain limits that would prevent the fee from being increased for other purposes later.
- Add an additional percentage to the ESGRT in general to fund program priorities
- Bottle bill – Though this type of legislation has been introduced a number of times before in NM, reportedly the earlier bills and redemption programs they set forth were poorly designed. The Hawaii and California redemption systems (bottle bills) offer good models to follow in crafting a sound bill
- Ask the legislature to enact disposal fees on tires or other problem waste items, with the resulting monies earmarked to a solid waste management/diversion fund.

  NOTE: A disposal fee on tires could allow the state to recoup "disposal fees" tire dealers are already charging to customers, but that are presently being retained by dealers rather than actually going to support tire disposal, as legislators and others believe.

7.5.2 Additional Funding Research Findings

Appendix ? presents descriptions of 14 funding mechanisms utilized by various states for integrated waste management, and includes Table ?.? showing sample state recycling budgets. This information can be useful for the Funding group, and the overall planning process for the 2006-2009 Plan and beyond. Additional funding references are provided in Appendices H through Q.

7.6 Next Steps

Further research is needed to appraise funding mechanisms in other states and fees proposed in the Solid Waste Act of 1990. Likewise, more research is necessary to pinpoint the amount of funding sufficient to implement recommendations in this Plan to upgrade New Mexico waste reduction and waste management systems The information collection process mapped out in this Plan should provide a stronger basis for determining funding needs and mechanisms.