Solid Waste Management

CENTENNIAL 1912-2012

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NEW MEXICO

LAND OF ENCHANTMENT

Overview: Solid Waste Management

Solid waste is collected in a number of ways -- at the curb, convenience centers, and drop-off locations-- as well as directly hauled to a disposal facility. The New Mexico Solid Waste Act is legislation that provides statutory requirements for the handling of solid waste in the state. This statute is implemented by the New Mexico Environment Department's Solid Waste Bureau.

Each of the 33 counties that comprise the state is responsible for solid waste within its respective county.

There are 21 landfills in the State of New Mexico that provide for the proper disposal of municipal solid waste. There are also asbestos, construction and demolition, and other specialty landfills within the state. In addition, a variety of recycling and waste recovery services - ranging from the curbside collection of recyclables to the provision of recycling drop-off locations - are offered throughout New Mexico.
The New Mexico Solid Waste Rules were adopted by the New Mexico Environmental Improvement Board pursuant to authority granted in the Solid Waste Act. These rules are administered and enforced by the New Mexico Environment Department's Solid Waste Bureau.

The bureau's responsibilities include the permitting, enforcement, training, and other regulatory services for the state's solid waste infrastructure. Outreach is an important part of the Solid Waste Bureau's efforts and the bureau works through both the New Mexico Roadrunner Chapter of the Solid Waste Association of North America and the New Mexico Recycling Coalition.

Overview (cont'd)

Collection: The collection of solid waste is provided by both public and private entities. These entities' service levels vary from curbside collection to convenience centers and drop-off locations as well as direct hauling to a disposal facility. Collection of municipal solid waste is provided in all communities with a population of 3,000 or more.

The collection of solid waste for communities with a population less than 3,000 is more frequently accomplished via convenience centers or drop-off locations.

The public sector provides the majority of collection services in the state, with both cities and counties providing collection. A city's or county's geographic size or population dictates the level and extent of services offered.

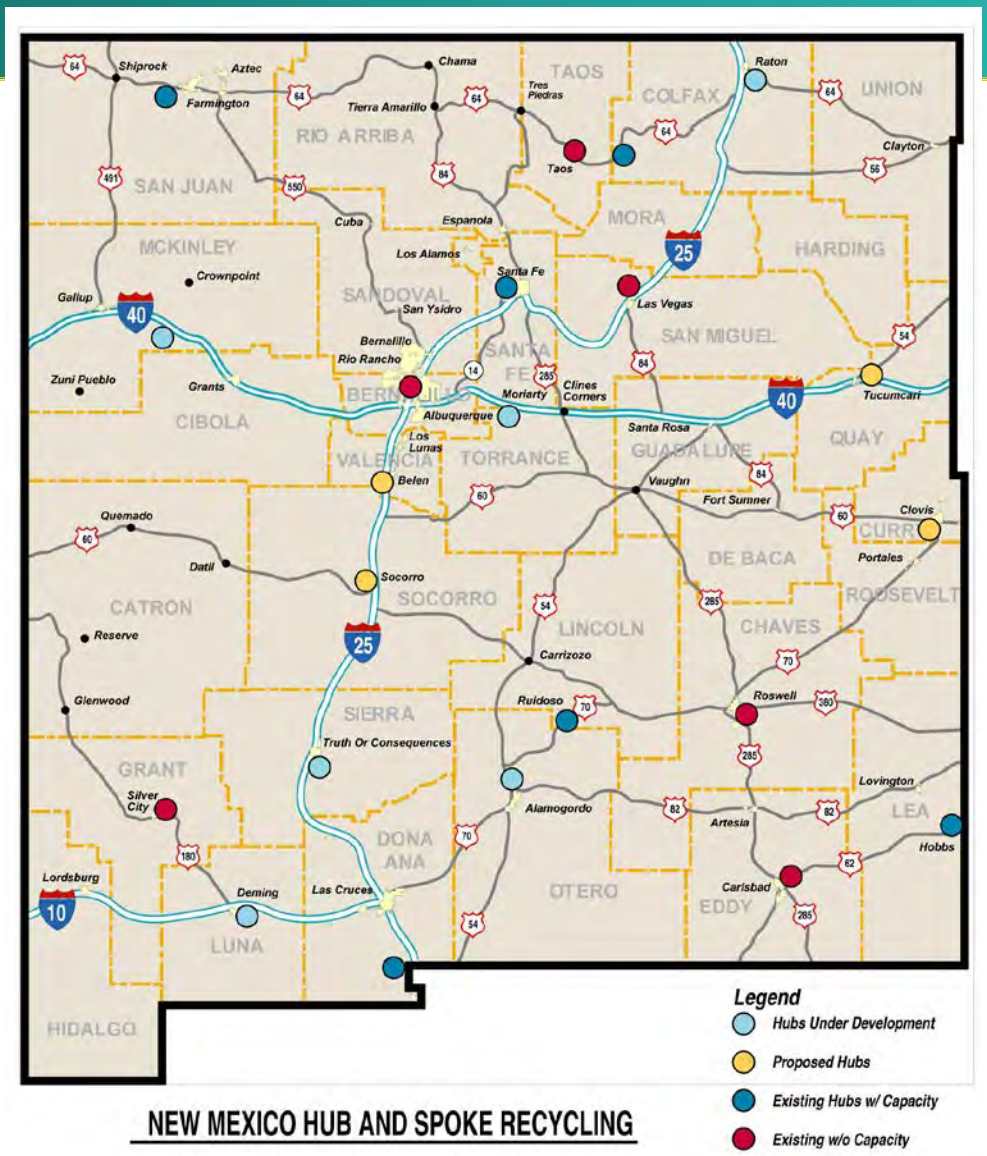
Disposal: The proper disposal of municipal solid waste within New Mexico is provided by 22 (20 permitted and two registered) active landfills, with varying capacities. The total remaining capacity of all 22 landfills is more than 240,000,000 cubic yards.

Operations at the Taos Regional Landfill. Photo provided by Engineering Solutions & Design, Inc. (2002)

NEW MEXICO SOLID WASTE FACILITIES MAP

(Information provided by New Mexico Environment Dept Solid Waste Bureau)

This map provides the location of all landfills, including those that provide for the disposal of construction and demolition debris or other special wastes. Each landfill is permitted or registered under the New Mexico Solid Waste Rules; and all of the landfills in New Mexico are operated as loose-fill landfills.



NEW MEXICO HUB AND SPOKE RECYCLING

Overview (cont'd)

Solid waste recycling and reuse in New Mexico is provided through curbside collection, drop-off centers, and various local collection programs. The New Mexico Environment Department's Solid Waste Bureau supports recycling and reuse efforts through bureau programs as well as its support of the New Mexico Recycling Coalition's efforts. The New Mexico Recycling Coalition has implemented a number of public education programs and has assisted with and supported the establishment of recycling facilities throughout the state. The New Mexico Recycling Coalition is presently spearheading a program that establishes recycling processing centers in strategically located areas of the state and links these centers with recycling drop-off centers. This "hub-and-spoke" concept is the first large-scale effort of its kind in the United States and is being utilized as a testing ground for this type of program. Please see the map in this section to see the location of these "hub-and-spoke" operations.

Sort Line at Bio Pappel Material Recovery Facility in Albuquerque, New Mexico.

Photo provided by Engineering Solutions & Design, Inc. (2009)

Overview (cont'd)

The New Mexico solid waste infrastructure was evaluated utilizing a number of techniques and resources. These included surveying representatives of various communities and counties within the state, accessing the Solid Waste Bureau's database of information, conversations with individuals who are very familiar with the solid waste system in New Mexico, and direct observations of solid waste efforts in New Mexico.

The results of this evaluation have been reviewed by the New Mexico Section of ASCE and have been provided to the local chapter of the Solid Waste Association of North America, the New Mexico Recycling Coalition, and the New Mexico Environment Department's Solid Waste Bureau.

As noted previously, the condition, capacity, maintenance, safety, funding, planning, consequences of failure, and state and local policy relating to New Mexico's solid waste infrastructure were evaluated. The active landfills in the state have significant life expectancy. There are 20 modern landfills (and one additional landfill permitted but not constructed) that service all 33 of New Mexico's counties.

Condition

In addition, there are 15 permitted transfer stations and approximately 170 small registered collection centers presently operating within the state. A number of composting and recycling operations are also in place. The majority of the state's landfills have new constructed lined cells to protect groundwater, and most of the active landfill cells have been constructed within the past 6 to 10 years.

Transfer stations in the state are also relatively new; however, the condition of these transfer stations vary throughout the state. Recycling facilities within the state are also relatively new and the condition of these facilities vary depending on their location. Those counties with smaller populations and significant distance between communities tend to have less maintained facilities.

Capacity

The capacity of New Mexico's solid waste infrastructure is very good. Landfills in the state have more than 240,000,000 cubic yards of available airspace. There are two unlined landfills that are nearing their present landfill capacity and these will be closed within the next two or three years.

One permitted landfill has 17 years of remaining capacity and the operators are in the process of investigating possible options (siting a new landfill or transfer station). One new landfill was just permitted in March 2012, and an application for another new landfill has been received for consideration. With these efforts being pursued, it is likely that the capacity of the state's landfills will remain adequate or increase in the future.

The State of New Mexico generates approximately two million tons of municipal solid waste annually. With present capacity, the overall life of landfills in New Mexico exceeds 60 years. In most locations, the state's transfer stations and recycling facilities are sized to meet present demand. The state is experiencing continued population growth, and with this growth will be an increase in solid waste generation. To meet this growth, expansion of the transfer stations' or recycling facilities' capacities may be required.

Operation and Maintenance

Adequate funding for the maintenance of solid waste facilities continues to be a problem.

The level of maintenance varies significantly within the state and is typically better in the state's larger communities. Limited efforts regarding maintenance have had an adverse impact on solid waste systems in the state.

This is reflected in all phases of the solid waste system. For collection, maintenance issues impact the prompt and consistent collection of waste. For landfills, maintenance issues typically relate to availability of adequate amounts of staff and equipment. The loss of a critical piece of equipment can debilitate the proper operation of a landfill. In addition, the lack of funds to support litter control, surface

Public Safety

Funding

water drainage way cleaning, and access road maintenance have significant negative impacts on landfill operations. The state's recycling facilities also experience production and collection impacts when equipment and structural maintenance is delayed or simply not conducted.

Public Safety

There is an inconsistency in the safety record in New Mexico. Efforts have been made to improve safety both at the state and local level. These efforts include safety training by the New Mexico Chapters the Solid Waste Association of North America and the Recycling Coalition. In spite of these efforts the solid waste industry is still one of the most dangerous industries in the country (ranked 7th in a most recent study by the National Safety Council). From anecdotal information the problem appears to be that personnel tend to experience lapses in judgment which often result in negative consequences. These lapses in judgment include not setting the safety switch on the blade on the solid waste vehicle or entering traffic areas without looking in all directions.

The lack of long-term funding for solid waste at all levels continues to be a problem in New Mexico. Funding is especially a problem in rural areas with small population centers, as waste must be hauled long distances, and it is difficult to obtain economies of scale.

Inconsistent rate increases at the local and county levels, the lack of any funding from the federal government, adequate amounts of state funding available for grant programs, and variable state funding via Legislature Capital outlay appropriations has made it difficult for some owners/operators to maintain their system and to set aside the necessary funds for financial assurance requirements.

Additionally, the Solid Waste Bureau's funding is tied directly to the state's general fund and results in on-going cuts in budget funding. Inadequate or incorrectly calculated tipping fees and inconsistent funding affect the overall operation and development of solid waste facilities.

Funding (cont'd)

Significant efforts have been made to improve the situation in recent years by targeting those systems in greatest need of fiscal and technical assistance, by providing greatly enhanced operator certification training, focused use of limited grant funds, and ensuring that the selection and design of solid waste facilities are consistent with the solid waste management needs and fiscal capacity of the community.

There is some inconsistency in planning efforts within the state. Some agencies at the local level are very forward thinking while other solid waste operations do not consider planning an integral part of their program. Examples of this are agencies that have developed long-term plans, greater than 10 years, which are aggressively followed and adjusted on an annual basis compared to some counties in the state that have no plans and depend on the support of the state or other agencies.

Resilience

There has been an improvement in the link between the funding of solid waste programs and planning for future needs. There is a lack of vision at the local level; most planning efforts are focused on addressing immediate problems rather than long-term issues. There does appear to be an effort to improve planning efforts related to the state's solid waste infrastructure; however, these efforts need continued support at the state level.

Resilience

The policy of state and local governments is relatively supportive of solid waste systems but inconsistent. It appears from past problems within the state that solid waste issues are typically addressed only in an emergency.

The priority for addressing solid waste issues takes a back seat to that of water, waste water, and transportation issues.

SOLID WASTE MANAGEMENT:

Resilience and the Consequence of Failure

Given the state's solid waste infrastructure and the willingness of the New Mexico Environment Department's Solid Waste Bureau to support solid waste facilities during emergencies, the potential impact of system failures is relatively controlled. The size of the state and the distance between facilities is the biggest concern regarding response to emergencies. The identification of other options for facilities that experience emergencies, particularly when there is a need for the long distance transfer of solid waste, is lacking.

Summary NM Solid Waste Management 2012:

C

Categories	Grade
Capacity	B
Condition	B
Operation and Maintenance	C
Public Safety	C-
Funding	C
Planning	C
Resilience	C+
State and Local Policy	C
Solid Waste Final Grade = C (77.3)	

Recommendations

Considering the geographical size of the state, low population, how the population of the state is dispersed, and the state's arid environment, the condition of the state's solid waste infrastructure is fair to good. This is a tribute to the hard work of the personnel who provide solid waste services throughout the state on a daily basis.

It is also a tribute to the New Mexico Environment Department's Solid Waste Bureau and solid waste system and operations managers throughout the state. Implementation of the following recommendations would provide the opportunity to further improve New Mexico's solid waste infrastructure:

Efforts need to be made by national solid waste organizations to educate the federal government about the importance of funding for solid waste management and infrastructure in the United States. No federal dollars are available for RCRA Subtitle D implementation by states or local governments.

Identify permanent funding sources for state's solid waste infrastructure.

Establish a planning program at both the state and regional level.

Link state and local policies to ensure the solid waste infrastructure users are well served.

Establish a more aggressive safety program that is consistent and proactive across the state.

Recognize and support innovations in solid waste infrastructure through grants and exceptions to potentially restrictive rules.