

1 Solid Waste Management Plan 2014

2

3 Proposed Final

4

1	Contents	
2	Executive Summary.....	5
3	From the Bureau Chief.....	6
4	Introduction	7
5	About the New Mexico Solid Waste Management Plan.....	7
6	About the Input Process	7
7	About this Plan.....	7
8	Background	8
9	Waste in New Mexico	8
10	Solid Waste Data.....	8
11	Waste Stream Composition	9
12	Waste Management Hierarchy.....	9
13	Facilities	10
14	Regionalization.....	10
15	Capacity.....	12
16	Trend toward Transfer Station.....	12
17	Diversion	13
18	Hub and Spoke	13
19	Development of Recycling Programs.....	14
20	Single Stream	14
21	Product Stewardship / HM56	15
22	Recycling Rate / HM51.....	15
23	Cost and Funding	15
24	Goals	16
25	Waste Characterization.....	17
26	Short-term Goal: Continue to improve data collection.....	17
27	Objective: Provide oversight and training to assist facility operators with corrective measures to	
28	resolve data collection problems.....	17
29	Objective: Provide technical assistance and include training modules on waste characterization	
30	methods in the certification courses.	17
31	Objective: Require all facilities to install scales.	17
32	Objective: Use ReTrac system statewide.....	17

1	Objective: Develop a strategy to obtain diversion data from private businesses and state agencies.	
2	18
3	Objective: Participate in EPA’s effort to standardize state input to improve national numbers	18
4	Long-term Goal: Revisit feasibility of a statewide waste characterization study.....	18
5	Diversion	19
6	Short-term Goals.....	19
7	Objective: Use the Integrated Waste Management hierarchy to guide decision making regarding	
8	solid waste management and diversion.	19
9	Objective: Create access to recycling and diversion opportunities for all residents.....	19
10	Objective: Promote cost-effective, regionalized recycling collection programs.	20
11	Objective: Target large-volume and readily recyclable materials first.....	20
12	Objective: Increase diversion from businesses and institutions.....	20
13	Objective: Increase diversion of organics.	20
14	Objective: Increase reuse and recycling of C&D materials.....	20
15	Objective: Increase diversion of HHW.	21
16	Objective: Develop local markets for recyclable materials	21
17	Long-term Goals.....	21
18	Facilities	22
19	Short-term Goals.....	22
20	Objective: Improve environmental monitoring at landfills	22
21	Objective: Improve safety for all solid waste workers.....	22
22	Objective: Improve management of household hazardous waste at solid waste facilities	22
23	Objective: Assist communities to use full, unsubsidized cost of solid waste management.....	23
24	Long-term Goals.....	23
25	Objective: Plan for adequate landfill capacity in all regions.....	23
26	Objective: Plan for regionalized facilities to allow cost-effective waste management.....	23
27	Education	24
28	Short-term Goals.....	24
29	Objective: Help the general public and elected officials understand the benefits of proper solid	
30	waste management and the necessary steps in the process.	24
31	Objective: Teach the Integrated Waste Management Hierarchy, with source reduction as the top	
32	priority.....	24
33	Objective: Update SWB website.	24

1	Objective: Educate about illegal dumping.	25
2	Long-term Goals.....	25
3	Objective: Educate on the real, unsubsidized cost of managing solid waste.	25
4	Objective: Develop a statewide message campaign to advance environmentally sound solid waste	
5	management, household hazardous waste management and diversion for New Mexico.	25
6	Funding	26
7	Short-term Goals.....	26
8	Objective: Encourage local entities to adopt funding mechanisms that fully cover solid waste	
9	management costs.....	26
10	Objective: Prioritize funding for rural communities.	26
11	Long-term Goals.....	26
12	Objective: Find new funding sources for statewide programs.....	26
13	Objective: Adopt product stewardship for certain products.....	27
14	Objective: Pursue economic development incentives to bring recycling businesses to New Mexico.	
15	27
16	Environmental Justice	28
17	Objective: Provide information and assistance fairly to all New Mexicans.....	28
18	Objective: Apply principles of process justice.	28
19	Objective: Increase procedural justice in order to attain equal protection from environmental	
20	hazards	29
21	Appendices.....	30
22		
23		

- 1 **Executive Summary**
- 2 *To be included in final version*

- 1 **From the Bureau Chief**
- 2 *To be included in final version*

1 **Introduction**

2 **About the New Mexico Solid Waste Management Plan**

3 The New Mexico Solid Waste Act calls for the creation of a Solid Waste Management Plan (“Plan”) to
4 guide decision making at the state level. The first Plan was created in 1993. In 2007, a new Plan was
5 developed based on input from more than 140 stakeholders who collaborated in working groups over a
6 two-year period.

7 The 2007 Plan has proved to be helpful, guiding New Mexico to success in several measures: increasing
8 our statewide recycling rate to 16% (2013), increasing access to recycling by 113 percent, improving the
9 annual reporting tools, and implementing environmental justice policies in our permitting process.

10 Although much of the information and many of the recommendations in the 2007 Plan are still valid, the
11 Solid Waste Bureau (SWB) set out to update the Plan to reflect current conditions, to reorder priorities,
12 and to set goals and objectives for the coming years.

13 **About the Input Process**

14 The Solid Waste Bureau conducted an online survey in March 2013 as a first step in the input process.
15 The survey was announced through a press release, on the SWB website, and through several mailing
16 lists (Solid Waste Association of North America—NM Chapter, New Mexico Recycling Coalition, NM
17 Association of Counties, and NM Municipal League), as well as by direct email to a group of stakeholders
18 who were involved in creation of the 2007 Plan. Although the mailing lists undoubtedly overlap, the
19 Bureau estimates that at least 1000 individuals were invited to take part in the survey.

20 Response to the survey was low, with 46 people participating. An average of seven people submitted
21 comments to each question with a write-in box. Many of the questions asked participants to rate a
22 recommendation from the 2007 Plan on a 1-to-5 scale, with 1 being very low priority and 5 as very high
23 priority. Nearly all the recommendations were rated 3 or 4 (medium to high priority).

24 The Solid Waste Bureau interprets the low level of participation, limited number of comments, and
25 evident support for the 2007 recommendations as an indication that stakeholders are generally satisfied
26 with the existing Plan. Rather than creating a new Plan, we therefore have updated background
27 information and translated the Plan content into a goals and objectives format to help communities
28 more easily identify steps they can take to meet the Plan’s intent.

29 **About this Plan**

30 The following chapter, *Background*, offers background information on the current state of solid waste
31 management in New Mexico as well as some historical information. Data obtained from SWB databases
32 and files is included. The most recent data available has been used, typically from calendar year 2013.

33 The next six chapters (*Waste Characterization, Diversion, Facilities, Education, Funding, and*
34 *Environmental Justice*) include short- and long-term goals for each topic area identified in the 2007 Plan.
35 These goals were created based on materials in the 2007 Plan, on input from the online survey, and on
36 input gathered informally from stakeholders during the course of creating this document.

1 Background

2 The landscape of solid waste management in New Mexico has changed dramatically since the original
3 Solid Waste Management Plan (“Plan”) was published in 1993. At that time, the state was home to more
4 than 100 “dumplings,” unlined landfills that needed to be brought up to standards or closed. Those
5 dumplings are now closed and communities have opened permitted, lined landfills for environmentally
6 safe disposal of municipal solid waste (MSW).

7 The more stringent requirements mean the cost of managing solid waste has increased, and
8 communities have responded by increasing the amount of waste that is diverted from the waste stream
9 through recycling and composting, and by developing efficient systems for transporting waste to larger,
10 regional landfills.

11 This chapter describes some of the progress that has been made in solid waste management since the
12 2007 Plan was published.

13 Waste in New Mexico

14 Facilities in New Mexico managed 3.12
15 million tons of solid waste in 2013. MSW
16 generated in the state totaled 1.87 million
17 tons, or an average of 4.9 pounds per
18 person per day, based on a population of
19 2.086 million (2012 Census Bureau
20 estimate). This is slightly higher than the
21 national average of 4.38 pounds of waste
22 generated per person per day (2012 EPA
23 estimate).



Figure 1. Solid Waste Managed in NM, 2013. (Source: SWB data)

24 Solid Waste Data

25 All solid waste facilities in New Mexico are required to submit data regarding their waste handling
26 activities annually. SWB then compiles this data to prepare a statewide annual report for the governor
27 and legislature. SWB created a new annual reporting system in 2007 in order to improve the data
28 collection process.

29 National waste characterization reports are published periodically by EPA and by *BioCycle Magazine*, in
30 collaboration with the Earth Engineering Center at Columbia University. The most recent EPA figures
31 were published in February 2014 and the most recent *BioCycle* report in October 2010.

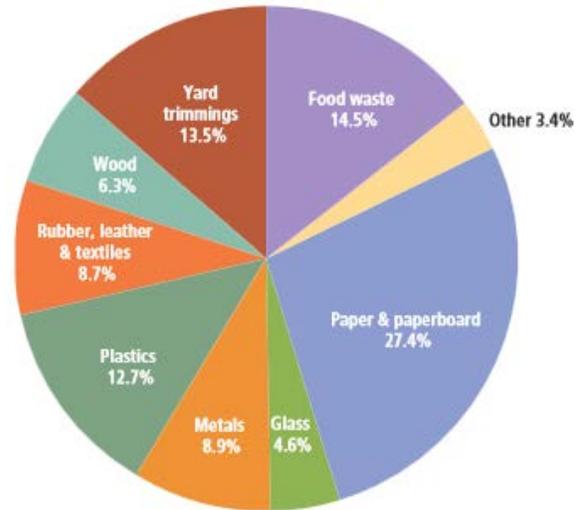
32 The two national reports differ significantly, due to different data sources and collection methodologies
33 used. The EPA study uses a mass balance approach based on Department of Commerce data on annual
34 production of goods, population, and consumption patterns. The result is an estimate of how much
35 would theoretically be disposed in a given year, but is not based on actual disposal data. The *BioCycle*
36 report is based on disposal data reported to the study team by states. Since the way states collect and
37 categorize data is not uniform, these figures also include some inaccuracy.

1 EPA has recognized that its solid waste data is flawed and has undertaken an effort to improve its
2 approach. The agency recently began asking states to supply disposal and diversion data to a centralized
3 database. As more states participate in this effort, the EPA waste characterization data is expected to
4 improve. Questions remain regarding the uniformity of reporting by the various states, however.

5 **Waste Stream Composition**

6 A waste characterization study has not been
7 conducted to accurately determine the
8 composition of the waste stream in New Mexico.
9 EPA publishes national waste stream composition
10 data biannually, and this data can be used to
11 approximate the amounts of various waste
12 materials generated in the state. Certain segments
13 are undoubtedly inaccurate; for example, New
14 Mexico’s arid climate means the proportion of
15 yard trimmings in our waste is likely smaller than
16 the national average.

17 Figures from the most recent EPA report are
18 shown in Figure 2.



19 **Figure 2.** Total MSW generation by material. (Source:
20 “Municipal Solid Waste (MSW) in the United States: Facts and
21 Figures,” EPA, 2012)

19 **Waste Management Hierarchy**

20 The New Mexico Solid Waste Act embraces a
21 hierarchical approach to waste management. The
22 Act gives priority to source reduction and recycling, with environmentally safe transformation (also
23 known as energy recovery or waste to energy) a second priority and environmentally safe landfill
24 disposal third. This scheme parallels the EPA Integrated Waste Management Hierarchy, shown in Figure
25 3.

26 The hierarchy reflects costs associated with the
27 various approaches to managing waste: reducing
28 waste at the source is most cost-effective, while
29 landfilling is most expensive overall. In New
30 Mexico, transformation has not proved to be
31 economically viable and in practice, landfilling
32 has been a more feasible approach. Current
33 requirements ensure that landfilling is done in
34 an environmentally safe manner.

35 The hierarchy guides decision making regarding
36 solid waste management for state government
37 as well as local communities.



38 **Figure 3.** EPA Waste Management Hierarchy (Source: EPA)

1 **Facilities**

2 The passage of the federal Resource Conservation and Recovery Act in 1976 and subsequent
3 enhancement of the New Mexico Solid Waste Act have resulted in the creation of solid waste facilities
4 that protect water, land, air, and human health to a much greater degree than did previous facilities.
5 New Mexico communities have made excellent progress closing substandard landfills and opening
6 modern, lined landfills compliant with RCRA
7 Subtitle D and state regulations. Although the initial
8 deadline for closure of noncompliant landfills was
9 April 9, 1997, the closures continued into the 2010s
10 as EPA and NMED allowed extensions to certain
11 communities. Between 2007 and 2014, 12 unlined
12 landfills were closed, and six more are on track to
13 close by 2015. The remaining two will close by
14 2016.

15 Siting, design, permitting, construction, and
16 operation of a RCRA-compliant landfill is more
17 expensive than for previous dumps. The benefits,
18 however, greatly outweigh the cost. The 1993 Plan
19 noted that health and environmental problems
20 were prevalent with many of the 240 unlined
21 landfills operating in the state at that time:

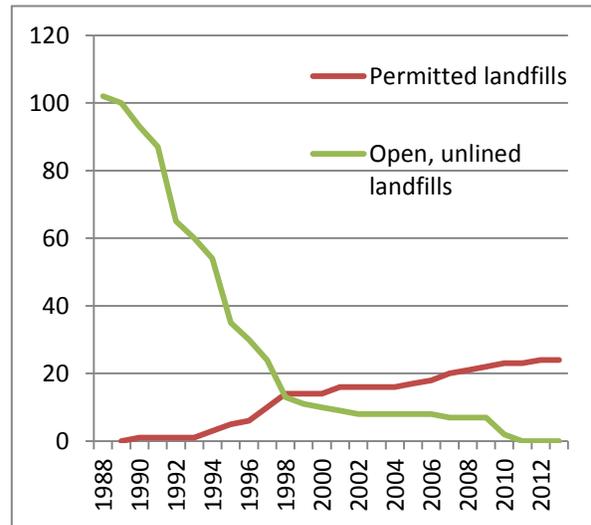


Figure 4. Number of landfills in NM over time. (Source: SWB data)

22 *Open burning, blowing trash, lack of cover, contaminated groundwater, and methane gas were*
23 *common. Leachate, which may contain hazardous materials, percolates to the bottom of the*
24 *landfill and into the soil and groundwater, unless there is a barrier. (Source: 1993 Plan)*

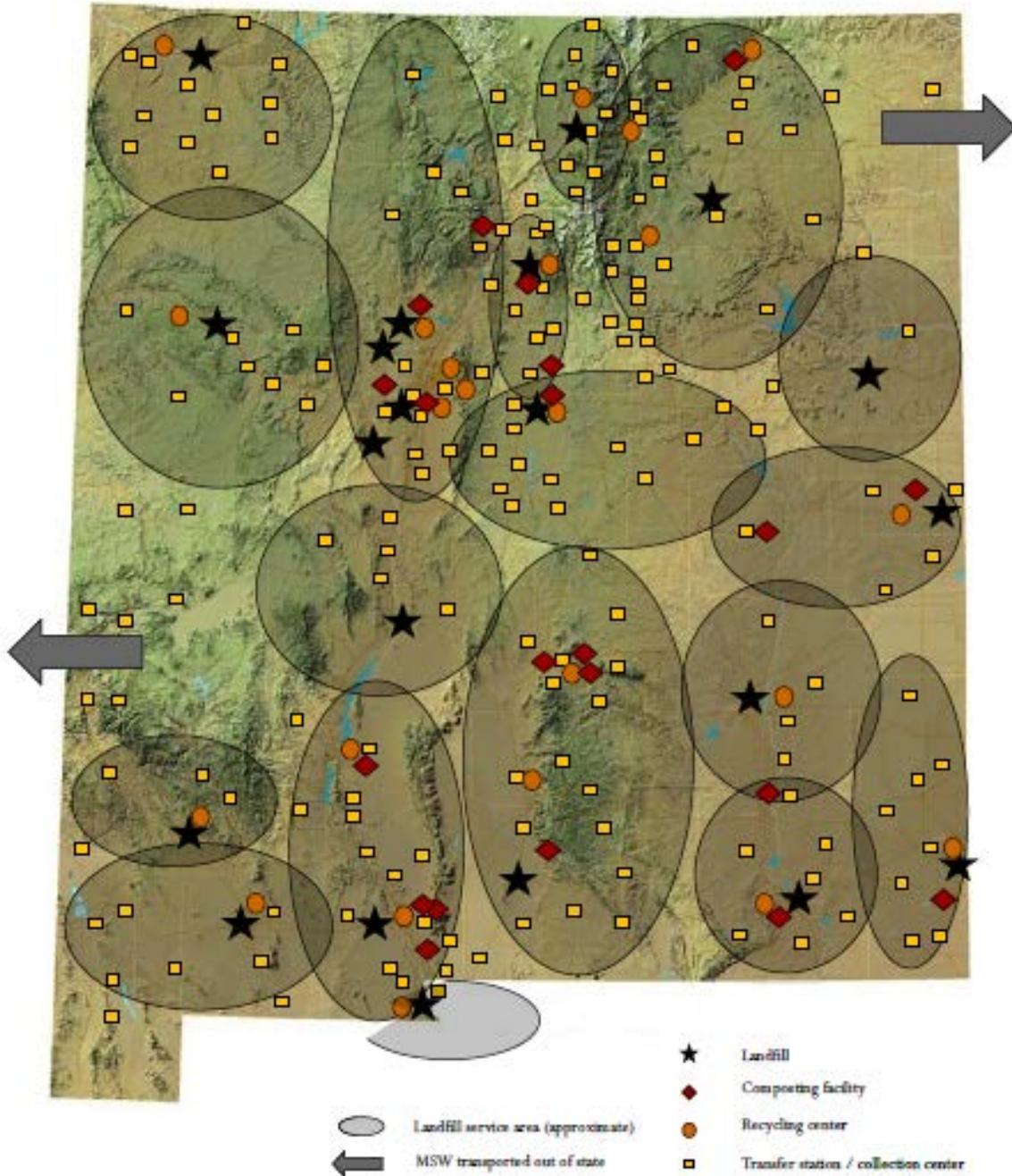
25 This statement makes clear that although residents in the past may have been able to dispose of trash
26 without paying a fee, trash disposal was never free. The protections offered by the liner system required
27 by RCRA and state laws mean communities will spend far less money on remediation, not to mention
28 the decreased cost to human health.

29 **Regionalization**

30 As a result of the increased cost associated with operating an
31 environmentally safe landfill, many communities in the state
32 entered into regional partnerships, such as solid waste
33 authorities, to pool resources and develop larger permitted
34 facilities to be used by many communities in the area. Indeed,
35 the 1990 Solid Waste Act calls for regionalization (74-9-11
36 NMSA 1978). By 2014, some of the solid waste authorities had
37 dissolved, but 10 remain active in managing the waste in their
38 region.

- Active Solid Waste Authorities**
- Lea County SWA
 - South Central SWA
 - Southwest SWA
 - Greentree SWA
 - Estancia Valley SWA
 - Santa Fe SWMA
 - San Juan County Regional SWA
 - Northwest NM Regional SWA
 - North Central SWA
 - Taos Intergovernmental Council and Taos Regional Landfill

NEW MEXICO SOLID WASTE FACILITIES



2

3 **Figure 5.** Solid waste facilities and landfill service areas

1 **Capacity**

2 Data reported to SWB in 2013 shows that most areas of the state have sufficient MSW disposal capacity
3 for 30-50 years using currently permitted landfills, with some areas having as much as 150 years
4 remaining. In addition, many of the landfills now operating have the potential to expand when
5 necessary. The NM Solid Waste Rules limit facility size to 500 acres, but this does not appear to pose a
6 barrier to providing sufficient landfill capacity for the state at this time.

7 While it is true that overall, the state will continue to have plenty of landfill capacity for many years,
8 certain areas have no environmentally safe, permitted landfill and must ship waste out of county or
9 even out of state. For these areas, large, efficient transfer stations have proved to be a more feasible
10 approach for management of solid waste.

11 **Trend toward Transfer Station**

12 When communities choose to use a regional facility, which may be located some distance away, they
13 can try to minimize transportation costs by transferring waste from collection trucks to larger, over-the-
14 road vehicles. Transfer stations provide a practical alternative to the problem of the increased cost of
15 building and operating a landfill. A system of transfer stations and smaller collection centers can
16 improve collection efficiency and also offer residents a place to self-haul trash without traveling long
17 distances.

18 In order to determine which is more cost-effective, operating a local landfill or transferring waste to a
19 more distant landfill, communities must calculate the expenses involved with both options. Similarly, the
20 choice between direct haul (in which collection trucks drive directly to the landfill) and transfer must be
21 calculated as well. The break-even point will be dependent on factors such as tipping fees, distance to
22 disposal site, vehicle maintenance, and fuel costs, which fluctuate. An example of the calculation is
23 shown in Figure 6.

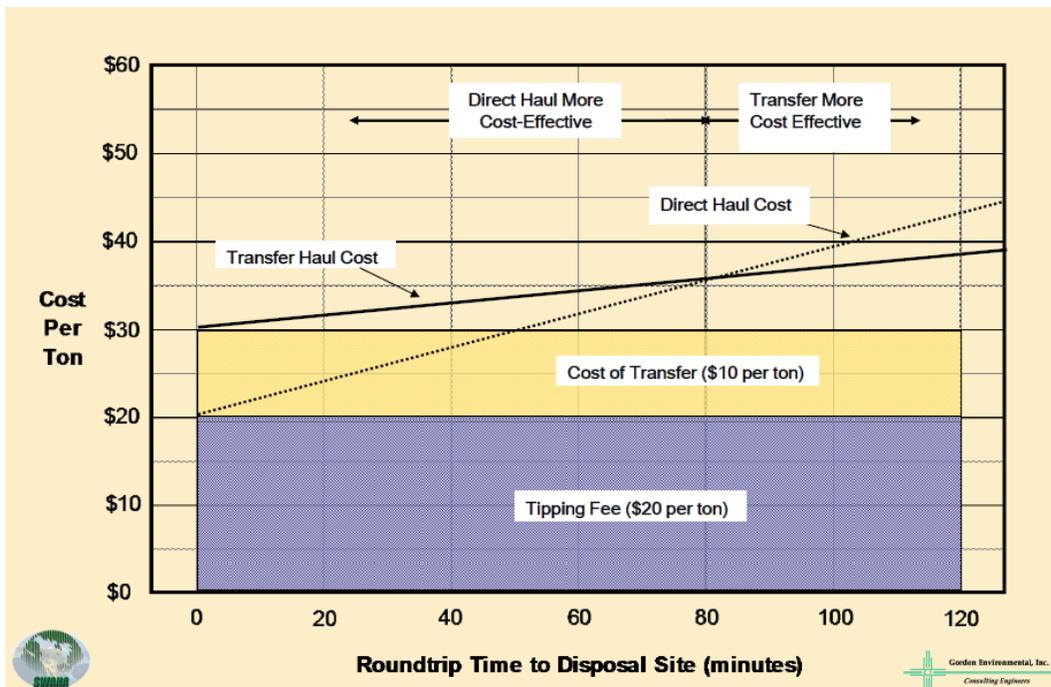


Figure 6. Economic comparison: transfer vs. direct haul. (Source: Gordon Environmental, 2013)

1 **Diversion**

2 Increased landfill costs mean that diverting as
 3 many materials as possible is crucial to
 4 operating a cost-effective solid waste
 5 management system. The 1990 Solid Waste
 6 Act called for a 25 percent diversion rate by
 7 1995 and a 50 percent rate by 2000, but did
 8 not include strategies for achieving those
 9 ambitious goals. Nevertheless, New Mexico’s
 10 recycling rate has increased significantly since

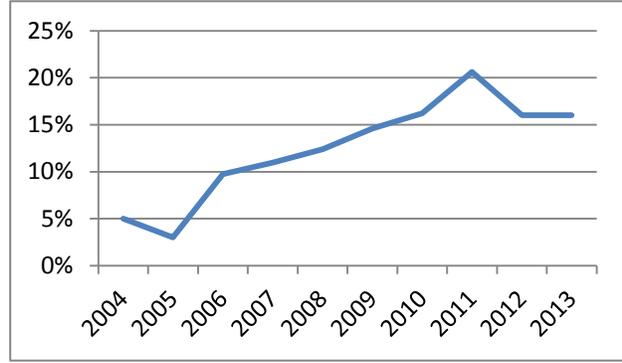


Figure 7. New Mexico recycling rate. (Source: NMED SWB data)

11 the first Plan. The 2007 Plan focused on creating access to
 12 recycling for residents, rather than achieving a certain
 13 percentage diversion. That approach has proven successful,
 14 with steady growth in the recycling rate since 2007.

15 To encourage diversion, NMED modified its policy and
 16 regulations regarding permitting of facilities and removed
 17 recycling and composting facilities from this requirement. The
 18 department now requires all landfills and certain other large
 19 facilities to be permitted, while smaller facilities
 20 such as collection centers, recycling centers, and
 21 compost facilities can operate under a less-rigorous
 22 registration.

Increased access to recycling

% Increase in access from 2007 to January 2013	113
Number of new locations from 2007 to January 2013	115

Source: NMRC

23 **Hub and Spoke**

24 To address the difficulty of collecting recyclable
 25 materials in a state with small, rural communities
 26 separated by long distances, NMED and New
 27 Mexico Recycling Coalition (NMRC) adopted a hub-
 28 and-spoke collection model. The hubs are regional
 29 recycling centers, located in larger communities,
 30 that accept materials from smaller towns and
 31 remote collection centers, called spokes. The
 32 system demonstrates how a regionalized approach
 33 can provide access to recycling for as many
 34 residents as possible with limited capital
 35 investment.

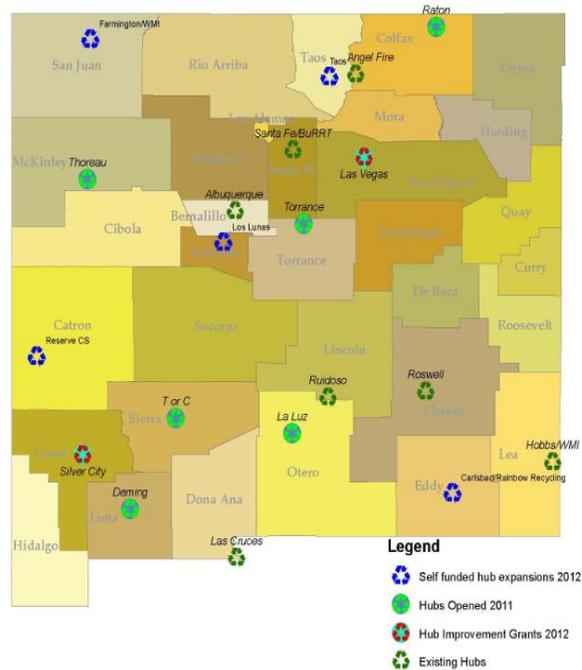


Figure 8. Recycling hubs, September 2012. (Source: NMRC)

36 Funding from the federal ARRA Energy Efficiency
 37 and Conservation Block Grant allowed creation of the hub-and-spoke system. SWB received \$500,000 in
 38 2010 and awarded the funds to three communities for purchase of balers and trailers, while NMRC

1 received \$2.8 million in 2010-12, enabling three additional communities to build infrastructure
2 (buildings, ramps) for recycling facilities.

3 As a result of these grants and related efforts, all but 16 communities in the state now have a recycling
4 collection or drop-off point within 30 miles, the standard for access to recycling.

5 **Development of Recycling Programs**

6 Communities with successful recycling programs often start out small and expand the program over
7 time. The 2007 Plan describes a tiered system, with lower tiers representing more readily recyclable
8 materials and easier program elements. The Plan encourages communities to begin a recycling program
9 by targeting items in the lower tiers, and adding those listed in the upper tiers as the program matures.
10 This Plan adds a new, lower level (Tier 0) for materials that are prohibited from landfills: used motor oil
11 and lead acid batteries. The other tiers have also been modified from the 2007 Plan to reflect more
12 accurately the relative difficulty of recycling various materials.

13 The tiers, shown in Figure 9,
14 are primarily used to assess
15 a community's progress in
16 developing a recycling
17 program, such as when
18 evaluating applications for
19 grant funding.

20 **Single Stream**

21 A number of communities
22 have now moved to single
23 stream recycling, in which
24 recyclable materials are
25 collected in one bin and
26 sorted at a materials
27 recovery facility (MRF).
28 Recently the state's two
29 largest cities adopted this
30 approach: Las Cruces began
31 offering single-stream
32 recycling in 2010, and in
33 2013, Friedman Recycling
34 opened a \$21 million MRF
35 via a public-private
36 partnership with the City of
37 Albuquerque.

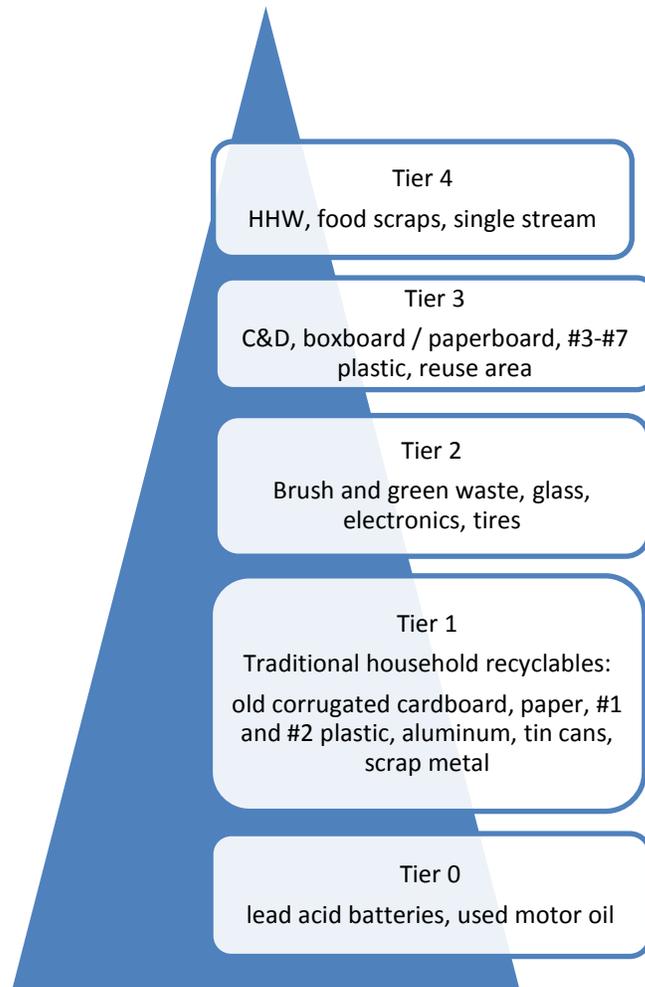


Figure 9. Tier system for recyclable materials.

1 **Product Stewardship / HM56**

2 A task force to study the potential for product stewardship programs
 3 in the state met in 2013 as a result of House Memorial 56,
 4 introduced by Rep. Jeff Steinborn, D-Las Cruces, and passed by the
 5 2013 New Mexico Legislature. The group, which included
 6 stakeholders representing solid waste facilities, private businesses,
 7 NMRC, and NMED, recommended that NMED pursue efforts toward
 8 establishing product stewardship programs in the state and
 9 identified three product categories as good candidates based on
 10 criteria shown in Figure 10.

11 In 2014, a Product Stewardship Advisory Group formed to facilitate
 12 research, collect stakeholder input, and develop potential programs.
 13 The effort is ongoing.

Product Stewardship
 minimizes health, safety,
 environmental, and social impacts
 of a product and its packaging,
 while maximizing economic
 benefits, throughout all lifecycle
 stages. The producer of the
 product has the greatest ability to
 minimize adverse impacts, but
 other stakeholders, such as
 suppliers, retailers, and
 consumers, also play a role.
 Stewardship can be either
 voluntary or required by law.

Products as potential candidate for product stewardship programs (ranked by the task force):

	Toxic	Increased materials recovery	Reduce waste management costs	Has success in other states as PS/EPR	Has producer/industry support	Good value of materials	TOTAL SCORE
CFLs*	✓	✓					2
Tires		✓	✓				2
Electronics	✓	✓	**	✓	½ ✓	✓	4 ½
Mattresses		✓	✓	✓	✓	✓	5
Paint	½ ✓	½ ✓	**	✓	✓	✓	4

*CFLs = Compact Florescent Lamps

**Management cost breakdown has not been established, though there is some known cost involved.

14
 15 **Figure 10.** Potential candidates for product stewardship programs. (Source: House Memorial 56 – Product Stewardship
 16 Programs Study, Report to Radioactive and Hazardous Materials Interim Committee, November 2013)

17 **Recycling Rate / HM51**

18 A group of stakeholders met in 2014 as a result of House Memorial 51, introduced by Rep. Jeff
 19 Steinborn, D-Las Cruces, and passed by the 2014 New Mexico Legislature. The memorial aims to explore
 20 ways to make a significant increase in the state’s recycling rate to move toward the 50 percent diversion
 21 goal set by the 1990 Solid Waste Act. The effort is being spearheaded by NMRC, which will report to a
 22 legislative committee later this year. Preliminary output from the stakeholder meetings has been
 23 incorporated into this Plan.

24 **Cost and Funding**

25 The cost of managing solid waste is primarily borne by local governments, which use revenue generated
 26 through customer fees, taxes, and other means determined locally.

1 A limited number of grant awards are available from the state each year through the Solid Waste Facility
2 Grant (SWFG) fund and the Recycling and Illegal Dumping (RAID) Grant fund. These funds are awarded
3 through a competitive process. The SWFG fund provides support for waste management facility
4 construction, landfill closures, recycling programs, and equipment. The RAID grants are awarded to
5 communities for recycling, illegal dumping, and scrap tire management programs.

6 In the past, another grant fund was available: the Recycling Grant Fund, administered by the Energy
7 Minerals and Natural Resources Department (EMNRD), awarded \$3.7 million—matched by \$4.6 million
8 in local funds—to help launch recycling programs from 1990 to 1997. In addition, Infrastructure Capital
9 Improvement Program (ICIP) and state bonds have been available in the past for funding solid waste
10 projects.

11 Regulatory oversight is provided by the state Solid Waste Bureau, which is supported by the state
12 general fund.

13 **Goals**

14 The following chapters outline goals and action steps for continuing to improve solid waste
15 management in New Mexico in the coming years. The chapters include both short- and long-term goals
16 and specific recommendations for action by NMED, local governmental entities, facilities, and others.

17 The chapters are divided according to topic areas as presented in the 2007 Plan.

1 Waste Characterization

2

3 Understanding the composition of the waste stream enables effective solid waste management. In some
4 cases, however, the costs associated with obtaining detailed waste characterization data may outweigh
5 the benefits. Knowledge of waste stream composition would primarily be used to plan for increased
6 diversion, and in New Mexico, diversion rates for the most readily recyclable materials are still low
7 enough that gains can be made without more accurate waste stream data.

8 In the longer term, once most of the easily recoverable components of the waste stream are being
9 diverted, a more accurate waste characterization might be useful.

10 Respondents to the online survey indicated that a statewide waste characterization study is not needed,
11 and prioritized several goals that can be achieved without such a study. Short-term goals include ways to
12 optimize the current data collection system, with a long-term goal to perform a waste characterization
13 study.

14 **Short-term Goal: Continue to improve data collection.**

15 **Objective: Provide oversight and training to assist facility operators with corrective** 16 **measures to resolve data collection problems.**

- 17 • Action steps for SWB:
 - 18 ○ Determine where problems lie
 - 19 ○ Offer one-on-one assistance to correct problems

20 **Objective: Provide technical assistance and include training modules on waste** 21 **characterization methods in the certification courses.**

- 22 • Action steps for SWB:
 - 23 ○ Teach operators the purpose and importance of collecting waste characterization data

24 **Objective: Require all facilities to install scales.**

- 25 • Action steps for SWB:
 - 26 ○ Add requirement for scales to new permit and registration applications and
 - 27 modifications
 - 28 ○ Phase in requirement at permitted and registered facilities
- 29 • Action steps for facilities:
 - 30 ○ Apply for grant funding
 - 31 ○ Build expense into budget
 - 32 ○ Purchase mobile loader bucket scales if the cost of full truck scales is prohibitive

33 **Objective: Use ReTrac system statewide.**

34 ReTrac is a commercially available, web-based database system that allows individual facilities to enter
35 annual waste data to be submitted automatically to the Solid Waste Bureau.

- 1 • Action steps for SWB:
- 2 ○ Request increased funding to cover subscription cost
- 3 ○ Schedule training for facility operators
- 4 • Action steps for facility operators:
- 5 ○ Budget time for operator training

6 **Objective: Develop a strategy to obtain diversion data from private businesses and state**
7 **agencies.**

8 Certain private businesses (large retailers, metal scrap dealers, etc.) divert a significant amount of
9 material from the waste stream in New Mexico, but this amount is not included in data SWB compiles
10 because these businesses are not required to report through the annual reporting system. In addition,
11 obtaining waste diversion data from state government agencies could be a first step in improving
12 recycling rates at these organizations.

- 13 • Action steps for SWB:
- 14 ○ Ask private businesses to participate in the annual reporting system
- 15 ○ Require state agencies to report diversion data to SWB
- 16 ○ Analyze approaches taken in other states to capture similar data

17 **Objective: Participate in EPA’s effort to standardize state input to improve national numbers**

18 EPA is undertaking an effort to gather waste and diversion data from each state, in order to compile
19 more accurate national data. EPA Region 6 is now asking states to voluntarily submit data.

- 20 • Action steps for SWB:
- 21 ○ Submit data to EPA as requested

22

23 **Long-term Goal: Revisit feasibility of a statewide waste characterization study.**

24 When diversion rates in the state rise to a level where fine-tuning is required in order to see further
25 increases, a more accurate view of waste stream composition may be helpful. A statewide waste
26 characterization study might identify materials to target to continue to increase diversion rates. Funding
27 for such a study would need to be addressed at that time.

1 **Diversion**

2

3 Diverting as much material as possible from the waste stream is crucial in order for communities to cost-
4 effectively manage their waste. Besides saving expensive landfill space, diversion of valuable materials
5 also creates a much-needed revenue stream. Diverting certain materials may also reduce greenhouse
6 gas emissions from landfills and reduce amounts of toxic materials that could potentially contaminate
7 water, land or air. In addition, a recent study by New Mexico Recycling Coalition indicates that increased
8 diversion would create a significant number of jobs in the state.

9 In New Mexico, transportation presents a challenge to diversion due to our large area and relatively
10 small, disperse population. Recycling of many materials ultimately means transporting them to a
11 manufacturing facility where they can be used as a feedstock for production of goods (often called
12 “remanufacturing”), which then must be distributed to areas where they can be sold. Since New Mexico
13 is home to neither a significant amount of large-scale manufacturing nor a large consumer base, many
14 steps in the recycling process require transportation over long distances. To address this, this Plan
15 recommends finding local uses for many materials (compost, mulch, C&D debris, glass) and encouraging
16 small-scale manufacturing enterprises for others.

17 **Short-term Goals**

18 **Objective: Use the Integrated Waste Management hierarchy to guide decision making**
19 **regarding solid waste management and diversion.**

- 20 • Action steps for local entities:
- 21 ○ Adopt a goal-driven, strategic Community Recycling Plan as a resolution
 - 22 ○ Prioritize (1) source reduction and reuse and (2) recycling and composting in
23 Community Recycling Plan
 - 24 ○ Pass a Local Economic Development Act to create incentives for remanufacturing and
25 recycling businesses
 - 26 ○ Establish and promote reuse areas at solid waste facilities
 - 27 ○ Encourage and publicize reuse opportunities
- 28 • Action steps for facilities:
- 29 ○ Include reuse areas, including household hazardous waste (HHW) reuse areas, in permit
30 or registration operations plan
 - 31 ○ Enact soft bans on readily recyclable materials at landfills

32 **Objective: Create access to recycling and diversion opportunities for all residents.**

- 33 • Action steps for RAID Alliance:
- 34 ○ Prioritize funding for communities currently without access to recycling
- 35 • Action steps for local entities:
- 36 ○ Apply for grant funding to enable collection or drop-off of recyclables
 - 37 ○ Aim to make recycling collection be as simple as trash collection for residents
- 38 • Action steps for SWB:

- 1 ○ Provide initiatives for voluntary programs that increase a community’s access to
- 2 recycling
- 3 ○ Elicit support from partner organizations, such as the New Mexico Municipal League and
- 4 the New Mexico Association of Counties

5 **Objective: Promote cost-effective, regionalized recycling collection programs.**

- 6 ● Action step for RAID Alliance:
 - 7 ○ Prioritize funding for recycling projects that make use of regional partnerships using the
 - 8 hub-and-spoke model
- 9 ● Action steps for local entities:
 - 10 ○ Partner with nearby communities to share equipment, collection systems, or other
 - 11 resources

12 **Objective: Target large-volume and readily recyclable materials first.**

- 13 ● Action steps for RAID Alliance:
 - 14 ○ Prioritize funding for communities on higher tiers, as described in the Background
 - 15 chapter
- 16 ● Action steps for local entities:
 - 17 ○ Target first tier of readily recyclable materials when starting a recycling program
 - 18 ○ Describe the community’s intention and approach to moving to higher tiers in the
 - 19 Community Recycling Plan

20 **Objective: Increase diversion from businesses and institutions.**

- 21 ● Action steps for local entities:
 - 22 ○ Include diversion from local businesses and institutions in Community Recycling Plan
 - 23 ○ Require participation in recycling program for P&Z or business license approval
- 24 ● Action steps for NMED Pollution Prevention Program:
 - 25 ○ Provide technical assistance for businesses and institutions starting a recycling program

26 **Objective: Increase diversion of organics.**

- 27 ● Action steps for SWB:
 - 28 ○ Provide technical assistance for community composting operations
 - 29 ○ Encourage landfills and transfer stations to have a brush and yard trimmings diversion
 - 30 program
 - 31 ○ Identify and promote end uses for organic materials
- 32 ● Action steps for local entities:
 - 33 ○ Apply for grant funding for composting program
 - 34 ○ Identify and engage local markets for mulch and compost
- 35 ● Action steps for facilities:
 - 36 ○ Consider a soft ban on brush and yard trimmings at landfills

37 **Objective: Increase reuse and recycling of C&D materials.**

- 38 ● Action steps for SWB:

- 1 ○ Identify and promote C&D material reuse and recycling
- 2 ○ Provide technical assistance on permitting or registration of C&D recycling facility
- 3 • Action steps for local entities:
- 4 ○ Identify large sources of C&D materials
- 5 ○ Identify and engage potential markets for reuse of C&D materials
- 6 ○ Apply for grant funding for C&D reuse and recycling activities

7 **Objective: Increase diversion of household hazardous waste (HHW).**

- 8 • Action steps for facilities:
- 9 ○ Set up HHW reuse areas
- 10 ○ Promote and educate on alternatives to hazardous household materials
- 11 • Action steps for SWB:
- 12 ○ Provide technical assistance on proper management of HHW reuse areas

13 **Objective: Develop local markets for recyclable materials**

- 14 • Action steps for local entities:
- 15 ○ Partner with NM-DOT to use rubberized asphalt, reuse concrete from C&D debris, and
- 16 use compost and mulch in local projects
- 17 ○ Provide incentives for remanufacturing businesses, including small-scale
- 18 ○ Encourage development of local markets for compost, mulch, and glass
- 19 ○ Encourage reuse of concrete, asphalt, and other C&D materials

20

21 **Long-term Goals**

22 Two current efforts will establish long-term diversion goals that can be incorporated into this Plan. A
23 task force established under HM51 is now forming a long-term strategy to increase recycling and
24 diversion in the state and the Product Stewardship Council, established under HM56, is developing an
25 approach to product stewardship legislation.

1 **Facilities**

2

3 Although the modern solid waste facilities in New Mexico offer much greater environmental protection
4 than the facilities described in the previous Plans, there are still a number of areas in which conditions
5 could be improved. Ensuring that all facilities adopt and follow best management practices will provide
6 optimal protection for land, water, and human health.

7 Short-term goals include improving environmental, safety, and economic conditions, while long-term
8 goals include ensuring facilities address regional needs.

9 **Short-term Goals**

10 **Objective: Improve environmental monitoring at landfills**

- 11 • Action steps for SWB:
 - 12 ○ Teach operators best management practices for leachate measurement, methane
 - 13 monitoring, and groundwater monitoring
- 14 • Action steps for facilities:
 - 15 ○ Adopt best management practices for leachate measurement, methane monitoring, and
 - 16 groundwater monitoring

17 **Objective: Improve safety for all solid waste workers**

18 The solid waste industry ranks as one of the top 10 industries nationwide in terms of work-related
19 injuries and fatalities. Ensuring the safety of all solid waste workers in New Mexico is of paramount
20 importance.

- 21 • Action steps for SWB:
 - 22 ○ Continue to include a safety module in all certification training courses
 - 23 ○ Work with NMED-OHSB to offer industry-specific training for all solid waste workers
- 24 • Action steps for facilities:
 - 25 ○ Develop effective safety and health programs
 - 26 ○ Offer frequent trainings on safety topics
 - 27 ○ Strictly enforce all safety policies and procedures
 - 28 ○ Request NMED-OHSB consultation

29 **Objective: Improve management of household hazardous waste (HHW) at solid waste** 30 **facilities**

- 31 • Action steps for SWB:
 - 32 ○ Conduct training on proper management of HHW collection areas and events.
- 33 • Action steps for facilities:
 - 34 ○ Assess local need for HHW collection and design an appropriate collection system
 - 35 ○ Budget for HHW disposal at appropriate intervals

1 **Objective: Assist communities to use full, unsubsidized cost of solid waste management**

- 2
- 3 • Action steps for SWB:
 - 4 ○ Offer training on full-cost accounting
 - 5 • Action step for RAID Alliance:
 - 6 ○ Prioritize funding awards for applications that include data based on full-cost accounting
 - 7 • Action steps for facilities:
 - 8 ○ Modify accounting practices to include all direct and indirect costs of solid waste management
 - 9 • Action steps for local entities:
 - 10 ○ Make decisions based on full, unsubsidized cost
- 11

12 **Long-term Goals**

13 **Objective: Plan for adequate landfill capacity in all regions**

- 14
- 15 • Action steps for SWB:
 - 16 ○ Create a waste shed map showing all solid waste facilities in the state and the regions they serve, including projected capacity
 - 17 ○ Prioritize permitting new facilities in underserved areas, as indicated by the waste shed map
 - 18 ○ Promote creation of recycling and composting facilities to reduce the need for landfill space, especially in underserved areas
- 20

21 **Objective: Plan for regionalized facilities to allow cost-effective waste management**

22 The 1990 Solid Waste Act requires regionalization for improved efficiency and cost savings.

- 23
- 24 • Action steps for SWB:
 - 25 ○ Assist communities with decision making on transfer vs. landfill
 - 26 • Action steps for RAID Alliance:
 - Prioritize funding awards for regional efforts

1 **Education**

2

3 Education is essential to counter the many misunderstandings surrounding solid waste management.
4 Citizens need to understand how their waste is handled and where it goes in order to see the value they
5 receive for their money; elected officials need to know about the many environmental protections
6 offered by modern landfills and related facilities in order to make the best decisions for their
7 constituents; facility operators need to understand how proper management of waste protects the
8 health of their communities in order to remain motivated to keep their facilities running optimally. In
9 addition, knowledge of the real cost of solid waste management can lead to an appreciation for why
10 source reduction and diversion is important, how the recycling and composting processes work, and
11 how each person has a role in that.

12 Short-term goals address the need for a greater understanding of the existing solid waste management
13 process, while longer-term goals include approaches to diversion.

14 **Short-term Goals**

15 **Objective: Help the general public and elected officials understand the benefits of proper**
16 **solid waste management and the necessary steps in the process.**

- 17 • Action steps for local entities:
 - 18 ○ Prepare short presentations for town council or county commission meetings, local
 - 19 service club meetings (Rotary, Kiwanis, etc.), senior citizen centers, and other
 - 20 community events
 - 21 ○ Promote tours of landfills, transfer stations, recycling centers, and compost facilities for
 - 22 elected officials, civic groups, and others
 - 23 ○ Use local media (radio, newspaper) to inform the community of solid waste
 - 24 management efforts
 - 25 ○ Educate the public and elected officials on the benefits of modern landfills vs. unlined
 - 26 dumps, in order to answer questions such as “Why can’t I dump in the arroyo?” and
 - 27 “Why did our local landfill have to close?”

28 **Objective: Teach the Integrated Waste Management Hierarchy, with source reduction as the**
29 **top priority.**

- 30 • Action steps for local entities:
 - 31 ○ Promote opportunities for source reduction, reuse, and recycling
 - 32 ○ Publicize the actual, full cost of operating a landfill or transporting waste to a regional
 - 33 facility, in order to show residents the importance of source reduction, reuse and
 - 34 recycling
 - 35 ○ Promote and educate on alternatives to hazardous household materials

36 **Objective: Update SWB website.**

- 37 • Action steps for SWB:

- 1 ○ Add information on permits and facilities to website

2 **Objective: Educate about illegal dumping.**

- 3 • Action steps for local entities:
 - 4 ○ Provide training for code enforcement officers and judges on illegal dumping
 - 5 ○ Publicize the harm to human health and the environment caused by illegal dumping

6

7 **Long-term Goals**

8 **Objective: Educate on the real, unsubsidized cost of managing solid waste.**

- 9 • Action steps for local entities:
 - 10 ○ Educate staff on full-cost accounting methods to calculate all direct and indirect costs
 - 11 involved in each step of the solid waste management process
 - 12 ○ Publicize this cost, including how much is subsidized through taxes or fees other than
 - 13 local solid waste fees

14 **Objective: Develop a statewide message campaign to advance environmentally sound solid**
15 **waste management, household hazardous waste management and diversion for New Mexico.**

- 16 • Action steps for partners (NMED, local entities, NGOs, and others):
 - 17 ○ Create a statewide public message campaign
 - 18 ○ Identify and train on what can be recycled
 - 19 ○ Develop and implement an outreach and technical assistance program to assist local
 - 20 governments and communities with strategies to limit illegal dumping

1 **Funding**

2

3 Most communities in New Mexico face difficulty covering the cost of solid waste management. The
4 necessary closure of old, unlined landfills and the move toward more expensive, permitted landfills has
5 taken a toll on local government finances, especially in rural areas where transportation to the landfill is
6 also a factor. While state government has long offered grants to help communities develop solid waste
7 and recycling programs, the funding sources for these grants are not large enough to pay for everything
8 that is needed. As a result, an ongoing search for revenue streams is part of every municipal, county,
9 and state agency's operation.

10 Each community has unique needs, so the following recommendations include a variety of approaches
11 to funding a solid waste and recycling program, with the aim that local entities can choose what works
12 for them. A recent survey of neighboring states showed that, unlike New Mexico, most states now have
13 a small surcharge on solid waste disposal, known as a disposal fee or tipping fee, with the funds
14 earmarked for statewide grant funds, state agency budget, or other solid waste management efforts.
15 (See Appendix for more information.)

16 In the short term, goals include mechanisms to cover current costs. Longer term goals target
17 infrastructure development, to ensure each community's waste management needs are met as it grows
18 and changes.

19 **Short-term Goals**

20 **Objective: Encourage local entities to adopt funding mechanisms that fully cover solid waste** 21 **management costs.**

- 22 • Action steps for local entities:
 - 23 ○ Perform cost-of-service analysis to determine full, unsubsidized cost of solid waste
 - 24 management
 - 25 ○ Adjust rates so that the program is self-sustaining
 - 26 ○ Consider unit-based pricing, such as pay-as-you-throw, to distribute costs equitably

27 **Objective: Prioritize funding for rural communities.**

- 28 • Action steps for SWB:
 - 29 ○ Prioritize rural communities for SWFG funding awards
- 30 • Action steps for RAID Alliance:
 - 31 ○ Prioritize rural communities for funding awards

32

33 **Long-term Goals**

34 **Objective: Find new funding sources for statewide programs.**

- 35 • Action steps for SWB:

- 1 ○ Consider one or more of the following mechanisms to request funding from the New
2 Mexico Legislature:
 - 3 ■ Increasing the \$0.50 per vehicle registration fee for the RAID grant fund.
 - 4 ■ Enacting a surcharge such as a per-ton fee on waste sent to landfills or on some
5 identified item, such as on plastic retail bags or tires, and dedicating the
6 resulting revenues to a solid waste management / diversion fund.
 - 7 ■ Adding an additional percentage to the environmental services gross receipts
8 tax to fund solid waste management program priorities.
 - 9 ■ Establishing a HHW and CESQG Fund to help government units and generators
10 implement management, collection, and recycling programs for hazardous
11 items.
- 12 ○ Explore mechanisms commonly used in other states for funding state and local solid
13 waste programs, including:
 - 14 ■ Landfill tip fee
 - 15 ■ Pay as you throw (PAYT) / Unit pricing
 - 16 ■ Product stewardship programs / Extended producer responsibility
 - 17 ■ Landfill diversion credits or rebates
 - 18 ■ Increase recycling grant fund
 - 19 ■ Environmental gross receipts tax
 - 20 ■ Enforcement dedicated to recycling
 - 21 ■ Recycling market development assistance
- 22 ○ Find untapped federal funding sources by linking diversion to water security, energy
23 generation or savings, or sustainability topics

24 **Objective: Adopt product stewardship for certain products.**

- 25 ● Action steps for NMED:
 - 26 ○ Enact product stewardship laws to shift financial burden for waste disposal upstream,
27 toward manufacturers, away from local governments

28 **Objective: Pursue economic development incentives to bring recycling businesses to New**
29 **Mexico.**

- 30 ● Action steps for local entities:
 - 31 ○ Consider mechanisms including:
 - 32 ■ Manufacturer's investment tax credit
 - 33 ■ Recycled content price preference
 - 34 ■ Industrial revenue bonds
 - 35 ■ Rural job tax credit
 - 36 ■ Local economic development act

1 Environmental Justice

2

3 The goal of this Plan is to implement a program that allows all persons in New Mexico an equal share of
4 the benefits of environmental amenities, equal protection from burdens of environmental hazards,
5 opportunities for meaningful involvement in decisions that affect health and the local environment, and
6 equal access to information regarding risks and benefits to gain knowledge to equally participate in
7 rulemaking or permitting processes.

8 NMED is committed to promoting the protection of human health and the environment (where we live,
9 work and play) via consistent management of the program and public involvement. Some methods
10 employed are: implementation of the Solid Waste Management Plan; use of stringent public notice
11 requirements, and community informational meetings; equal and consistent application Solid Waste
12 Rules; and timely enforcement to maintain and, as necessary, obtain compliance of environmental laws
13 by issuing violations and compliance orders; and providing Recycling and Illegal Dumping grants to
14 increase equal access of all New Mexico residents to diversion, recycling and beneficial use programs
15 within 30 miles of their place of residence or business; and clean-up of illegal dumping sites.

16 Objective: Provide information and assistance fairly to all New Mexicans

- 17 • Action steps for SWB:
 - 18 ○ Use a combination of outreach and administrative actions to ensure equal dissemination
 - 19 of information and easy access to the Solid Waste Bureau’s website and staff
 - 20 ○ Deliver high quality technical assistance and information to the public and training of
 - 21 operators related to environmental protection and solid waste management regardless
 - 22 of ethnicity, socioeconomic status, or location
 - 23 ○ Provide assistance to improve program implementation, compliance, and understanding
 - 24 of best management practices
 - 25 ○ Encourage meaningful citizen participation in solid waste programs, permitting and
 - 26 rulemaking processes
 - 27 ○ Encourage reporting of dumping or other violations of environmental laws and rules by
 - 28 all New Mexicans
- 29 • Action steps for citizens:
 - 30 ○ Report illegal dumping and other violations to SWB

31 Objective: Apply principles of process justice.

- 32 • Action steps for SWB:
 - 33 ○ Provide opportunities for meaningful citizen involvement in decisions that affect
 - 34 environmental health and quality of life
 - 35 ○ Rigorously apply the requirements of the Solid Waste Act for public notice and
 - 36 participation at hearings including: Notice of Application §74-9-22; Hearing Provisions
 - 37 for Nonadjudicatory Actions §74-9-27; and Hearing Provisions for Adjudicatory Actions
 - 38 §74-9-29 NMSA

- 1 ○ Disseminate public notices of permit actions in English and Spanish and other languages
- 2 as necessary, via the web, radio, newspapers, mailings, bill inserts and local postings
- 3 ○ Provide notice of public hearing in non-traditional media, such as radio and television
- 4 ○ Include distribution to agencies of local and tribal governments, distribution to
- 5 community, interest group, and trade publications, distribution to public facilities (such
- 6 as community centers and libraries) for posting in each county in which the subject of
- 7 the announcement will have impacts, and distribution to radio and television outlets for
- 8 use in public service announcements, particularly in communities in which the language
- 9 or languages used by a significant percentage of the population are not written.
- 10 ○ Provide notice in appropriate languages, including those that are primarily oral
- 11 ○ Respond to inquiries or questions, and provision of Inspection of Public Records Act
- 12 requests in a timely manner
- 13 ● Action steps for citizens:
- 14 ○ Participate in public meetings and hearings

15 **Objective: Increase procedural justice in order to attain equal protection from**

16 **environmental hazards**

- 17 ● Action steps for SWB:
- 18 ○ Complete thorough review of permit and registration applications
- 19 ○ Allow permitting of facilities as specified in the Solid Waste Rules (Rules) 20.9.2 – 10
- 20 NMAC
- 21 ○ Undertake timely and comprehensive facility inspections, issuance of violations,
- 22 compliance orders with penalties
- 23 ○ Complete facility inspections to address operational issues
- 24 ○ Investigate illegal dumping complaints, resulting in corrective measures or clean-ups to
- 25 limit environmental hazards
- 26 ○ Ensure applicants complete correctly prepared Vulnerable Area assessments for
- 27 required solid waste facilities by strictly adhering to 20.9.3.8(D) NMAC. This process
- 28 allows consideration of distributional justice relative to spatial fairness of the physical
- 29 distribution of environmental benefits and burdens by: preventing unequal siting of
- 30 landfills and other regulated sites or facilities or known contaminated sites located
- 31 within a 4-mile radius of the proposed permitted solid waste facility; and if the facility is
- 32 found to be located in a Vulnerable Area, a community meeting will be held and public
- 33 comments will be taken for 60 days. If the Secretary determines there is significant
- 34 community opposition, the Secretary shall require that applicant prepare a Community
- 35 Impact Assessment for review and dissemination to the public, followed by at least a
- 36 scoping meeting which will be noticed as specified in supplemental requirements for
- 37 Public Notices for meetings in 20.9.8. (G) and (H) NMAC.

1 **Appendices**

2 *Appendices will include supporting information such as:*

- 3 • *Glossary*
- 4 • *List of Acronyms*
- 5 • *Summary of Survey Results*
- 6 • *Detailed Survey Results*
- 7 • *List of Permitted and Registered Facilities in NM*
- 8 • *Recycled Materials Report*
- 9 • *NMRC Jobs Report*
- 10 • *EPA Plan EJ 2014*
- 11 • *Funding Mechanisms in Other States*
- 12 • *Rate Study*
- 13 • *Resources*