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ACKNOWLEDGEMENTS

The Middle Rio Grande Development Council (MRGDC) would like to express its appreciation to the many people throughout the Middle Rio Grande Region who contributed to the development of this Regional Solid Waste Management Plan. In order to conduct this study, the project team conducted interviews with the majority of city and county officials, solid waste staff, and private solid waste companies. The MRGDC appreciates the time and effort taken by these individuals to provide valuable information. Local officials from each of the entities listed below were interviewed either in person or by telephone.

Cities/Towns	Counties	Other
Asherton	Dimmit County	Alamo Processors
Batesville	Edwards County	Central Texas Recycling Association
Big Wells	Kinney County	Fort Clark Springs Association
Brackettville	La Salle County	Kickapoo Tribe
Camp Wood	Maverick County	Laughlin Air Force Base
Carrizo Springs	Real County	Master Fibers
Catarina	Uvalde County	Moore Services, Inc.
Cotulla	Val Verde County	Newell Recycling
Crystal City	Zavala County	Nueces River Authority
Del Rio		Safe Tire Disposal Corporation
Eagle Pass		Texas Department of Health
Encinal		Waste Environmental Control, Inc.
Fowlerton		Waste Management
La Pryor		Mr. Paul Edwards
Leakey		
Rocksprings		
Sabinal		
Spofford		
Uvalde		

Reed, Stowe & Yanke, LLC, which developed this plan on behalf of the MRGDC, would also like to express its appreciation to officials and staff at the MRGDC as well as to the numerous local governments and private company officials and staff that provided input, data and coordination efforts for the project.

SECTION B. EXECUTIVE SUMMARY

1. Introduction and Planning Process

The Texas Commission on Environmental Quality (TCEQ) (formerly the Texas Natural Resource Conservation Commission), through the Texas Health and Safety Code, is responsible for developing a state strategic solid waste management plan every four years. *Solid Waste Management in Texas – Strategic Plan 2001-2005* provides information related to the status of solid waste management in Texas. As a part of this state plan, the TCEQ has required the State's 24 Councils of Governments to update their regional solid waste management plans. As the entity designated by the Governor to be regional planning agency for solid waste management, the MRGDC is responsible for regional solid waste management planning in the Middle Rio Grande Region (MRG Region). This plan amendment is an update to the original regional solid waste management plan that was adopted by the MRGDC in 1993.

To develop this plan amendment, the MRGDC, through its Solid Waste Advisory Committee (SWAC) retained the services of Reed, Stowe and Yanke, LLC (RS&Y). This plan amendment has been developed so that it is consistent with the *Solid Waste Management in Texas – Strategic Plan 2001-2005* and State regulations regarding the development of regional solid waste management plans, as defined in the Texas Health and Safety Code and in Subchapter O of the TCEQ's regulations. In the future, the Councils of Governments will be required to update their regional plans every four years.

This plan amendment has been completed through a series of steps. These steps included detailed analyses of solid waste data and systems throughout the MRG Region. To complete this review, RS&Y conducted in-depth interviews and reviewed data from local and state sources. In addition, a series of public meetings were conducted to solicit feedback regarding important solid waste management issues in the region. A public hearing was held on August 5, 2002.

2. Regional Solid Waste Management Goals

Based on the evaluations, interviews with local government officials, staff, and solid waste industry personnel, and through meetings with members of the SWAC, the following six regional solid waste goals were developed:

> **Goal No. 1:** Encourage programs that reduce the amount and toxicity of municipal solid waste and municipal sludge, and encourage programs that recycle as much as possible of the waste that is produced.
>
> **Goal No. 2:** Encourage the development of adequate solid waste management disposal and transfer facilities in the region.
>
> **Goal No. 3**: Maximize local and potential resources for effective and efficient regional solid waste management.

Goal No. 4: Ensure that all residents within the region have convenient and affordable solid waste collection services.

Goal No. 5: Increase local government input into the permitting process for waste facilities in the MRG Region.

Goal No. 6: Work with local governments to determine their level of interest in developing zoning or siting ordinances to address siting of solid waste facilities.

3. Planning Areas

Counties in the MRG Region were divided into subregional planning areas for the original Solid Waste Management Plan adopted in 1993. In order to remain consistent with the 1993 Plan, the Regional Plan Amendment uses the same subregional planning areas. The following planning areas were identified:

Planning Area I	Dimmit, La Salle, and Zavala Counties
Planning Area II	Maverick County
Planning Area III	Val Verde County
Planning Area IV	Edwards, Kinney, Real and Uvalde Counties

4. Plan Amendment Contents

This plan amendment has been developed so that its content and ordering is consistent with the TCEQ's "Regional Solid Waste Management Plans: Plan Amendment Guidelines." A summary of the content of the plan amendment follows.

Section A is the cover page and front matter. In addition, this section includes the MRGDC's adoption resolution, table of contents and acknowledgements. Section B is the executive summary. Section C is the regional analysis. This analysis includes summaries of population and growth patterns, economic activity and waste generation and characterization. This section also includes a review of the region's waste management system. Specific subject categories addressed as a part of this review include:

- Roles, Responsibilities and Institutional Arrangements
- Waste Disposal and Capacity
- Waste Transfer, Storage, Treatment, and Processing
- Waste Collection and Transportation Services
- Recycling Services
- Household Hazardous Waste (HHW) Services
- Other Solid Waste Services
- Litter and Illegal Dumping
- Facility Siting
- Closed MSW Landfill Inventory
- Local Solid Waste Management Plans

Section D includes the regional goals, objectives, and action plan. This section begins with a discussion of the needs and problems in the MRG Region. In addition, this section includes a detailed discussion of options that can be implemented to address the various needs and problems in the MRG Region. The MRGDC and local governments can use this information as a resource to guide their future decisions.

As a part of the discussion of regional solid waste management goals, a list of objectives have been identified for each goal. The action plan includes the following sections:

- Plan Conformance/Permit Review
- Grants Funding Plan
- Local Solid Waste Management Plans
- Regional Coordination and Planning
- Local and Subregional Recommendations
- Recommendations for State-Level Action

SECTION C. REGIONAL ANALYSIS

1. Population and Growth Patterns

Population growth patterns are important factors to consider when projecting future solid waste generation rates in the Middle Rio Grande Region (MRG Region). From 1990 to 2000, the population in the MRG Region increased by a 15 percent growth rate, which is approximately eight percent less than the State average growth rate of 23 percent.[1] Two counties located in the MRG Region, Maverick and Real, outpaced the State growth rate with 30 percent and 26 percent growth rates, respectively, during the 10-year period.

Obtaining accurate population projections is an important step in the development of a regional solid waste management plan. Population projections are used to determine how the local solid waste systems will be affected by growth and in what ways the solid waste providers will need to prepare to accommodate future growth. A One-Half Migration Scenario was used to estimate future population. This scenario assumes that the rate of in-migration is one-half of the growth rate experienced from 1980 through 1990. For instance, based on the population projections in Table C.1, the growth will occur primarily in Maverick and Val Verde Counties.

Table C.1: Population Projections

Planning Area	County	1990 Population	2000 Population	Percentage Change 1990-2000	Projected Population 2010[2]	Projected Population 2020[2]
I	Dimmit	10,443	10,248	-1.87%	10,996	11,733
	La Salle	5,254	5,866	11.65%	6,599	7,278
	Zavala	12,162	11,600	-4.62%	12,695	13,775
II	Maverick	36,378	47,297	30.02%	55,892	64,984
III	Val Verde	38,721	44,856	15.84%	51,312	57,500
IV	Edwards	2,266	2,162	-4.59%	2,322	2,421
	Kinney	3,119	3,379	8.34%	3,403	3,462
	Real	2,412	3,047	26.33%	3,063	3,111
	Uvalde	23,340	25,926	11.08%	28,616	31,443
	MRG Region	**134,095**	**154,381**	**15.13%**	**174,898**	**195,707**

Source: U.S. Census Bureau, 1990 data and Texas State Data Center, 2000 data

2. Economic Activity

The steady increase in the region's population has led to economic growth in several sectors including: agribusiness, construction, manufacturing, transportation, public utilities, government, service, as well as trade and tourism. The Texas Workforce Commission maintains employment

[1] The MRG Region population increased from 134,095 in 1990 to 154,381 in 2000 based on the U. S. Census and the Texas State Data Center.
[2] Source: Texas State Data Center one-half migration scenario.

and unemployment statistics for all regions of the State of Texas. According to the data obtained from the Texas Workforce Commission in Table C.2, the MRG Region has experienced steady growth, which is illustrated by a decline in the unemployment rate during the late 1990s.

Table C.2: Unemployment Rates for MRG Region

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Unemployment Rate	17.9%	18.8%	21.0%	18.4%	17.6%	17.7%	17.6%	17.2%	15.4%	13.1%	12.2%
Change from Previous Year	N/A	5%	12%	- 12%	- 4%	1%	-1%	-2%	-11%	-15%	-7%

Source: Texas Workforce Commission, Unemployment Rates

Additionally, each economic industry sector in Table C.3 has experienced some growth during the 10-year employment projection period, with the exception of Mining. The region's developing economy and steady increases in population are expected to fuel continued growth in construction, manufacturing, transportation and service sectors. Increases in waste generation within these sectors will have the greatest impact on solid waste management in the MRG Region. Even though these sectors represent the largest increase in waste generation for the region, the overall effect these industries will have on solid waste in the region will be minimal in terms of affecting disposal capacity for a waste management system. However, increases in waste generation for these industries could create more demand for corresponding collection services.

Table C.3: Employment Projections

Industry Title	Annual Average Employment			
	1998	2008	Change	Growth Rate
Agriculture/Forestry/Fishing	2,150	2,250	100	4.7%
Mining	600	500	-100	-16.7%
Construction	950	1,250	300	31.6%
Manufacturing	2,950	3,300	350	11.9%
Transportation & Public Utilities	2,950	3,300	350	11.9%
Trade	8,900	10,100	1,200	13.5%
Finance, Insurance, & Real Estate	1,150	1,250	100	8.7%
Services	22,150	26,950	4,800	21.7%
Government	5,850	7,050	1,200	20.5%
TOTAL ALL INDUSTRIES	**47,650**	**55,950**	**8,300**	**17.4%**

Source: Texas Workforce Commission: Employment Projections Available at:
http://www.twc.state.tx.us/lmi/lfs/area/wda/middleriograndehome.html

3. Waste Generation and Characterization

This section quantifies the current and projected future amounts of solid waste for the region and discusses the sources as well as the types of waste, which will need to be managed within the MRG Region.

3.a. Waste Generation

A basic approach for determining waste generation is to add the amount of disposal, net (imports)/exports, and diversion from the waste stream for recycling, as explained in the following formula:

Waste Generation = Disposal + Net (Imports)/Exports + Recycling

In developing the waste generation rates for the MRG Region presented in Table C.4, the project team obtained data related to waste disposal, transfer, and recycling activities. Waste generation data was available for most of the communities within the MRG Region. The project team was able to account for 94 percent of the total population in the MRG region with respect to waste generation data. However, data was not available for some areas within La Salle, Edwards, Kinney, and Real Counties. Areas that lacked data on waste generation are labeled "Unaccounted" in Table C.4. To calculate the generation rates in these counties, the per capita generation rate was determined for the other communities in the MRG Region. The areas with waste generation data were determined to have a waste generation rate of 0.84 tons per capita per year.

The project team then multiplied this per capita waste generation rate by the population in the areas lacking waste generation data. As a result, the total amount of waste generated in the MRG Region was calculated to be 130,093 tons per year. Table C.4 summarizes this information. For a detailed list of accounted annual tonnage by individual counties and cities, please refer to Appendix A, Table 1.

Table C.4: Waste Generation Rates in the MRG Region

	Accounted	**Unaccounted**	**Total**
Annual Disposal	76,369	4,707	81,076
Annual Net (Import)/Export	29,645	1,827	31,472
Annual Recycling	16,526	1,019	17,545
Total Annual Generation (tons)	**122,540**	**7,553**	**130,093**
Population	145,418	8,963	154,381
Annual Per Capita (tons)	**0.84**	**0.84**	**0.84**

In order to determine the per capita disposal, net (import)/export, and recycling rates in the MRG Region on a daily basis, the project team utilized the 0.84 annual tons per capita and the MRG

Region's population. This resulted in a per capita disposal rate of 2.9 lbs. per day, a net per capita (import)/export rate of 1.1 lbs. per day, and a per capita recycling rate of 0.6 lbs. per day. Based on this analysis, the total per capita waste generation rate for the MRG Region is 4.6 pounds per capita per day.

Solid waste may be "diverted" from a landfill for the purpose of recycling and/or reuse. The MRG Region has a diversion rate of 13 percent. Given this diversion rate, the annual disposal need within the region is 112,548 tons per year. This amount reflects all solid waste in the MRG Region that needs to be landfilled, regardless of where it is being landfilled. This disposal need is equal to 3.99 pounds per capita daily, or 0.73 tons annually per person.

Table C.5: Estimated Waste Generation Rate for the MRG Region

Material Disposed	Net (Imports)/Exports	Material Recycled	Material Generated
81,076	31,472	17,545	130,093 tons
62.3%	24.2%	13.5%	100%

Table C.6: MRG Region Solid Waste Generation Projections (2000-2020)

Year	Projected MRG Region Population	Solid Waste Projections			
		Disposal	Net (Imports)/Exports	Recycling	Generation
2000	154,381	81,076	31,472	17,545	130,093
2001	156,319	82,094	31,867	17,765	131,726
2002	158,282	83,125	32,268	17,988	133,381
2003	160,270	84,169	32,673	18,214	135,056
2004	162,282	85,225	33,083	18,442	136,750
2005	164,320	86,296	33,498	18,674	138,468
2006	166,383	87,379	33,919	18,908	140,206
2007	168,472	88,476	34,345	19,146	141,967
2008	170,587	89,587	34,776	19,386	143,749
2009	172,729	90,712	35,213	19,630	145,555
2010	174,898	91,851	35,655	19,876	147,382
2011	176,875	92,889	36,058	20,101	149,048
2012	178,875	93,939	36,466	20,328	150,733
2013	180,897	95,001	36,878	20,558	152,437
2014	182,942	96,075	37,295	20,790	154,160
2015	185,010	97,162	37,716	21,025	155,903
2016	187,102	98,260	38,143	21,263	157,666
2017	189,217	99,371	38,574	21,503	159,448
2018	191,356	100,494	39,010	21,746	161,250
2019	193,519	101,630	39,451	21,992	163,073
2020	195,707	102,779	39,897	22,241	164,917

3.b. Waste Characterization

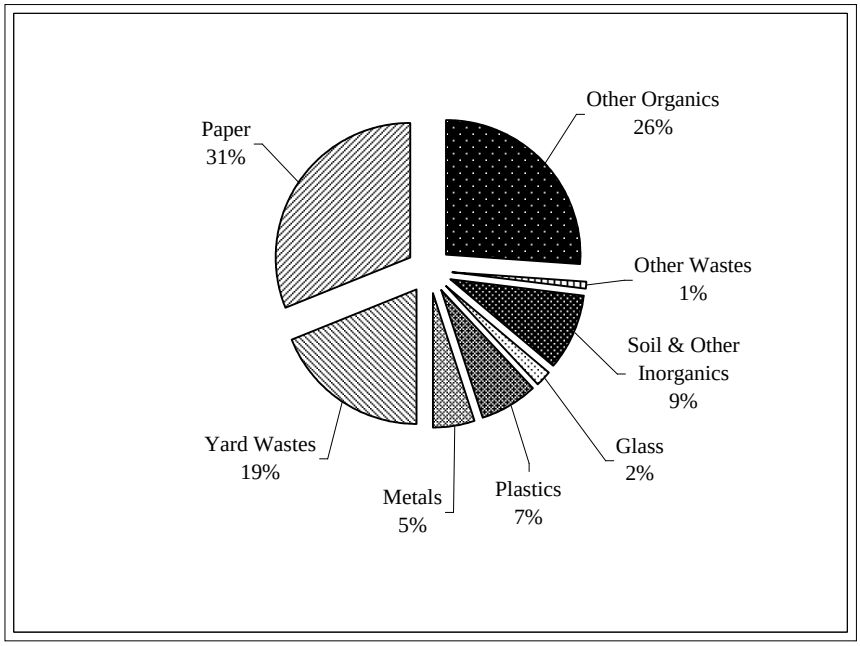
This section provides summary information on the sources and categories of waste managed within the MRG Region. Since the development of the 1993 MRGDC Regional Solid Waste Management Plan, no detailed waste characterization studies have been completed in the MRG Region or in any region surrounding the MRG Region. In the absence of an updated study, waste characterization information presented in this plan amendment is derived from the 1993 plan. Table C.7 summarizes the types of solid waste generated in the MRG Region. The majority of the waste generated in the region is residential waste, which accounts for 71 percent of the entire waste stream. This is followed by commercial waste at 14 percent.

Table C.7: Types of Solid Waste Generated in MRG Region

Type of Waste	Percent of Total Waste Generation
Residential	71%
Commercial	14%
Institutional	4%
Industrial	4%
Special Wastes	2%
Recreational	2%
Military	1%
Municipal Sludge	1%
Agricultural	1%

Chart C.1 summarizes the waste stream components in the MRG Region. Paper and other organics comprise the majority of the waste stream at 31 percent and 26 percent, respectively. Other large components of the waste stream include yard waste with 19 percent and soils/other inorganics with nine percent.

Chart C.1: Waste Stream Components in MRG Region



The project team was able to determine the extent to which solid waste is imported from Mexico. Based on interviews with local government officials and a review of various reports submitted to the Texas Commission on Environmental Quality (TCEQ) (formerly the Texas Natural Resource Conservation Commission), it appears that the only significant amount of solid waste being imported into the region is occurring in Del Rio, Texas. Solid waste is being disposed of in the Del Rio Landfill from maquilas that are operating in Cuidad Acuna, which is located across the Rio Grande River from Del Rio. In 2000, the City of Del Rio reported receiving 3,722 tons of solid waste from these maquilas, which accounted for approximately 10 percent of the solid waste, disposed of in the landfill.

4. Waste Management Systems

Counties in the MRG Region were divided into subregional planning areas for the original Solid Waste Management Plan adopted in 1993. In order to remain consistent with the 1993 Plan, the Regional Plan Amendment uses the same subregional planning areas. Map 1 in Appendix B delineates these planning areas. The following planning areas were identified:

Planning Area I	Dimmit, La Salle, and Zavala Counties
Planning Area II	Maverick County
Planning Area III	Val Verde County
Planning Area IV	Edwards, Kinney, Real and Uvalde Counties

This section describes the systems and facilities available to manage the wastes generated within the MRG Region. A discussion of the adequacy of those facilities to meet the waste disposal

needs is included as well as information on the roles and responsibilities of various governmental authorities.

4.a. Roles, Responsibilities and Institutional Arrangements

Multiple local, state and federal agencies have responsibility for managing solid waste in the MRG Region. In addition, several private companies and organizations play a key role in the management of solid waste in the region. The specific solid waste management activities being conducted by these public and private sector entities are identified later in this section.

Federal Regulations

The Resource Conservation and Recovery Act (RCRA), which was first enacted in 1976, is the primary federal legislation regarding the management of municipal solid waste in the United States. There are also several other federal regulations that affect the management of municipal solid waste, including: Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Water Pollution Control Act (Clean Water Act), the Safe Drinking Water Act and the Clean Air Act.

State Regulations

The Texas Solid Waste Disposal Act, which was first adopted in 1969, is the primary state law regarding municipal solid waste. Through this act, the TCEQ was given the responsibility for regulating waste collection, handling, storage and disposal. The TCEQ, through Chapter 363 of the Texas Health and Safety Code, directed each of the 24 Councils of Governments to be primarily responsible for regional solid waste planning in Texas. This regulation also provides direction regarding the development of regional and local solid waste management plans.

During the most recent session of the Texas Legislature in 2001, several pieces of legislation were passed that have an impact on various solid waste management issues. A summary of this legislation follows:

- House Bill 2912: The TNRCC Sunset Bill re-authorized the TNRCC to continue its mandate to implement state and federal environmental laws. This legislation included the following changes regarding municipal solid waste issues:
  - Public notices for new solid waste facilities
  - Regulation of solid waste facilities
  - Reopening of closed or inactive landfills
  - Contracting preference for solid waste disposal
  - Permitting a Type IV landfill
  - Release of hazardous waste by a solid waste facility
  - Land application of Class B sludge

- Senate Bill 352: This legislation provides more options for counties to require residents to receive solid waste collection services. Prior to 2001, Texas law provided counties the

authority to offer and require solid waste services, and permitted them to collect fees for the service, but did not provide an effective enforcement mechanism to compel payment. Senate Bill 352 now allows a county to contract with a private or public entity, including a public utility, to collect solid waste fees.

- House Bill 631: This legislation increases the penalties for violations of the State's laws regarding illegal dumping.

4.b. Waste Disposal and Capacity

This section provides an overview of the disposal services provided in each planning area of the MRG Region. Table C.8 lists and describes the six active landfills in the MRG Region currently accepting waste. These landfills are delineated in Map 2 of Appendix B. Landfill information was provided by the TNRCC 2001 annual report for permitted MSW facilities. Each facility has been defined by type, tonnage, per ton tipping fees, and remaining life.

Table C.8: Landfill Information by Planning Area

Planning Area	County	Permit Number	Permit Holder	Facility Type	Tons Accepted in 2001	Tipping Fees (Per ton)	Remaining Life (Years)
I	Dimmit	2225[3]	City of Carrizo Springs	I-AE	5,322	$35.00	77
			City of Carrizo Springs	IV-AE	547	$35.00	35
	Zavala	1308	City of Crystal City	I-AE	3,209	N/A	1
II	Maverick	1918	City of Eagle Pass	IV-AE	6,698	$12.75	80
III	Val Verde	207A	City of Del Rio	I	38,852	$24.83	18
IV	Uvalde	630	City of Sabinal	IV	16	$40.00	40
	Uvalde	1725	City of Uvalde	I	22,272	$30.00	22

Source: Annual Report for Permitted MSW Facilities, 2000 – TNRCC

Planning Area I

The Cities of Carrizo Springs and Crystal City operate the only landfills located in this planning area. The Carrizo Springs Type I-AE landfill in Dimmit County provides disposal services to the Cities of Carrizo Springs, Asherton, Big Wells and Catarina. Additionally, Zavala County and the unincorporated towns of Batesville and La Pryor use the landfill for disposal. According to its 2001 annual report, the landfill has a remaining site life of 77 years. In 2001, the landfill accepted approximately 5,300 tons of solid waste. As an arid exempt landfill, it could accept another 2,000 tons annually. In addition to the Type I-AE landfill, the City of Carrizo Springs operates a Type IV-AE landfill, which is located next to the Type I-AE landfill.

[3] The City of Carrizo Springs operates two different types of cells located at the landfill under the same permit number.

The City of Crystal City operates the only other landfill located in Planning Area I. Based on its 2001 annual landfill report, the remaining life of the Type I-AE landfill located in Crystal City is approximately one year. Currently, Crystal City is the only entity utilizing the landfill for disposal. In 2001, the landfill accepted approximately 3,200 tons of solid waste.

In order to accommodate future disposal operations, the City of Crystal City is in the process of submitting an application for an amendment to the existing Type I-AE landfill. Obtaining the permit will expand the landfill an additional 40 acres and will extend the life of the landfill for another 20 years. As an arid exempt landfill, it could accept another 4,100 tons annually once the permit has been approved to reach a total of 7,300 tons per year.

Zavala County is in the preliminary planning stages of developing a 40-acre, Type I-AE landfill in the La Pryor area. Zavala County received a USDA grant to assist in the preliminary excavating and permitting process. The facility is projected to have a 40-year disposal capacity and will serve approximately 800 area residents.

> **Assessment**: Once the City of Crystal City receives an amendment to expand its landfill, this planning area will have two permitted Type I, arid exempt landfills with many years of disposal capacity. With these two landfills, these counties would have the capacity to accept approximately 14,600 tons per year.[4] However, with a current population of approximately 27,700, there is a need to dispose of approximately 20,221 tons of solid waste annually. This indicates that even with the landfill expansions, the disposal capacity will be insufficient to meet local disposal needs.

Planning Area II

Currently, the only operating landfill within Planning Area II is the Type IV-AE landfill located in the City of Eagle Pass. This landfill provides disposal service for construction and demolition material and brush to Maverick County and Eagle Pass. Additionally, limited disposal services are provided to Quemado, El Indio and Normandy. In 2001, the landfill accepted approximately 6,700 tons of material.

All Type I solid waste that is generated in this planning area is transferred by Waste Management to the Covel Gardens Landfill in San Antonio. Waste Management transfers solid waste for Maverick County, Eagle Pass and, on a limited basis, Quemado, El Indio and Normandy. The per ton cost for transferring and disposing this solid waste is approximately $39 per ton.[5]

Maverick County is in the preliminary planning stages of developing a landfill. At this time, a permit application has not been submitted to the TNRCC. If this landfill is developed it could

[4] This was calculated according to the maximum allowable disposal as an arid-exempt landfill of 20 tons per day. The two landfills can accept 7,300 tons per year each, resulting in a total capacity of 14,600 tons per year total. This calculation assumes the landfills operate seven days per week.

[5] Source: "Study of Alternatives for Solid Waste Management: Crystal City - MRGDC" Report prepared for the Border Environment Cooperation Commission by SCS Engineers and Reed-Stowe and Company, Inc. October 25, 1999. This cost consists of a per ton fee of $24 for transfer and $15.40 for disposal.

serve as a subregional facility for all communities within Maverick County and, potentially, surrounding communities outside of Maverick County.

> **Assessment**: Entities within this planning area currently incur a relatively high disposal cost due to the distance that solid waste is transferred from Eagle Pass to San Antonio. If Maverick County would successfully develop a Type I landfill, it could provide a less expensive, long-term disposal option for local governments in Planning Area II.

Planning Area III

The City of Del Rio owns the only Type I landfill in this planning area. This landfill serves Val Verde County, the City of Del Rio, Laughlin Air Force Base, and on a limited basis the towns of Langtry and Comstock. The City of Del Rio has contracted with Moore Services, Inc. to operate the landfill. In 2001, the landfill accepted approximately 38,800 tons of solid waste. According to its 2001 annual report, the landfill has a remaining site life of 18 years.

Del Rio is in the preliminary planning process of seeking a permit amendment to expand the Type I landfill in the next several years. Del Rio would like to purchase additional property but funding for the development will need to be approved by the City Council. The proposed expansion would provide long-term disposal capacity for this service area.

> **Assessment**: The City of Del Rio's landfill provides a viable, long-term disposal option for all of the local governments within Planning Area III to dispose of their solid waste. By obtaining a permit amendment for the landfill, the City of Del Rio would further improve the disposal capacity in the planning area.

Planning Area IV

The Cities of Uvalde and Sabinal operate the only landfills located in Planning Area IV. The City of Uvalde has a Type I landfill that provides disposal service to Uvalde County and the City of Uvalde. This landfill has a remaining site life of 22 years. According to its 2001 annual report, the City's landfill has accepted approximately 22,300 tons of waste in 2001. The City of Sabinal provides disposal of Type IV material for its citizens and in 2001 accepted approximately 16 tons of waste. According to its 2001 annual report, the landfill has a remaining site life of 40 years. All other communities must rely on landfills that are located outside of the region for their disposal needs. All of the other communities in Planning Area IV are transferring their solid waste to Waste Management's Covel Gardens Landfill in San Antonio.

The only planned expansion regarding disposal service occurring in Planning Area IV is located at the landfill in the City of Uvalde. Currently, the City is in the process of developing a 35-acre cell to provide the City an added 12 years of site life. When this next cell begins to reach its capacity the City has an additional 35-acre site it can develop to provide an additional 12 years of landfill life.

> **Assessment**: The City of Uvalde's landfill should provide a long-term disposal option for the City and County of Uvalde. However, other communities within this planning area are incurring significant costs on a per ton basis to transfer their solid

waste to landfills outside of the MRG Region. These communities could be better served if they could negotiate a disposal contract with a Type I landfill that is located closer to their communities. These communities would need to recognize, however, that there would still be a material cost associated with this disposal option.

4.c. Waste Transfer, Storage, Treatment, and Processing

This section provides information and an assessment of waste transfer facilities and other facilities that process or treat waste for disposal (baling, shredding, liquid waste processing, etc.) in the region and also provides a discussion on transfer stations and processing facilities.

Transfer Stations

Transfer stations are used to reduce hauling costs in cases where the collected solid waste must be transported a significant distance to a landfill. Transfer stations can provide for the cost-effective transfer of solid waste to other parts of the region as well as outside of the MRG Region. Transfer stations can offer an economically viable alternative to operating a landfill, depending on various factors including hauling and disposal costs. However, there may be scenarios in which communities pay higher disposal costs for the use of a transfer station due to the high costs of transporting the solid waste to a landfill. The MRG Region currently has five transfer stations in operation. These facilities are summarized in Table C.9, and listed in Map 3 of Appendix B.

Table C.9: Transfer Stations in the MRG Region

Planning Area	County	Location Name	Registration Number
I	La Salle	City of Encinal Transfer Station	N/A
II	Maverick	City of Eagle Pass Transfer Station Facility	40042
IV	Edwards	City of Rocksprings Transfer Station	40057
	Kinney	Fort Clark Springs Transfer Station Facility	40178
	Uvalde	City of Sabinal Transfer Station	40034

Planning Area I

Located in La Salle County, the City of Encinal operates the only transfer station in Planning Area I. Solid waste from the transfer station is hauled by Waste Management to the Covel Gardens Landfill in San Antonio. While not a registered transfer station, municipal solid waste collected at the City of Cotulla's citizens' collection station is transferred by Waste Environmental Control, Inc. to the BFI landfill located in San Antonio.[6]

Assessment: Transfer stations are a critical component of the waste management system in La Salle County. Due to La Salle County's rural nature, it is unlikely that

[6] It is estimated the Cities of Cotulla and Encinal pay a per ton cost ranging between $30.00 to $55.00 for transfer and disposal of municipal solid waste. This estimate is based on billing information provided by each city. More specific cost information cannot be provided due to the manner in which billing data is provided to these cities.

it would be feasible to develop a Type I-AE landfill there in the future. Due to the distances to existing landfills in Carrizo Springs and Crystal City, the counties of Dimmitt and Zavala could be well served by developing transfer stations in communities that are currently hauling to these landfills. Dimmitt and Zavala Counties could conduct a cost-benefit analysis to determine whether it would be more beneficial to develop a landfill or a transfer station. Existing transfer stations in the planning area are incurring relatively high disposal costs. Therefore, the Cities operating these transfer stations could evaluate whether there are any other more cost-effective disposal options.

Planning Area II

The only transfer station in Planning Area II is in the City of Eagle Pass. This facility is operated by Waste Management for the transport of collected waste to the Covel Gardens Landfill in San Antonio. With this transfer station, Waste Management is able to meet the disposal needs of this planning area. However, as discussed in the "Waste Disposal and Capacity" Section, there is a relatively high cost associated with the use of this transfer station due to the transportation costs.

Assessment: The transfer station in Eagle Pass provides a valuable waste management service to the planning area. However, local governments within Planning Area II incur a relatively high cost due to the distance solid waste must be transferred to San Antonio.

Planning Area III

Presently, there are no transfer stations in operation in Planning Area III. None have been developed since local communities can use the City of Del Rio Landfill.

Assessment: With the ample solid waste disposal capacity of the Del Rio Landfill, there does not appear to be a need for a transfer station in this planning area.

Planning Area IV

There are several transfer stations in use in Planning Area IV. All of the transfer stations currently in use in this planning area transfer solid waste to the Covel Gardens Landfill in San Antonio, which is owned by Waste Management. Currently, the only planned transfer facility is in Planning Area IV in Kinney County. The City of Brackettville is in the preliminary planning stages of satisfying the requirements established by the TNRCC to convert the existing citizens' collection station to a transfer station.

Assessment: Transfer stations provide a needed service within this planning area. While there will be a long-term need for these communities to operate these transfer stations, there will also be a need to consider costs being incurred for the transfer of solid waste. These communities would benefit from identifying disposal locations that are located closer to their transfer stations in an effort to potentially reduce disposal costs through lower hauling costs.

Processing and Treatment Facilities

The project team reviewed the adequacy of facilities used to process and treat solid waste prior to disposal. These can include baling, shredding and liquid waste processing facilities. Currently, there are none of these types of facilities in the MRG Region.

> **Assessment**: It does not appear that there is a significant need for baling and shredding facilities within the region due to the fact that these facilities are not necessarily a high priority for the region and may not be a cost-effective operation. Regarding liquid waste processing, there does not appear to be any interest to develop these facilities within the region in the future. Private companies, located outside of the MRG Region, provide for the collection of liquid waste. Based on interviews with local government officials and private collection companies, liquid waste collection services appear to be sufficient. While the MRG Region will continue to depend on private collection services located outside of the region, it appears that there are a sufficient number of companies providing this service.

4.d. Waste Collection and Transportation Services

This section provides an overview regarding waste collection and transportation services provided in the MRG Region. For a complete list of service providers, frequency of collection, and associated fees, please refer to Appendix A, Table 2. Additionally, a list of solid waste contacts with phone and fax numbers has been provided in Appendix A, Table 3 for selected counties and cities within the MRG Region. The contact list provides the opportunity for solid waste representatives throughout the region to improve communication regarding municipal solid waste operations and activities. Table C.10 lists each of the citizens' collection stations located in the MRG Region. Map 4 in Appendix B identifies the locations of these collection stations.

Planning Area I

The majority of waste collection and hauling services in Planning Area I are provided by each city and/or county government. Many cities, towns and counties have made significant efforts to provide their residential and commercial customers with collection services. These services are provided through a combination of curbside collection and citizens' collection stations. Several communities did report concerns regarding the cost of providing collection service. They reported experiencing high costs for curbside collection due to high vehicle and personnel costs. In addition, several communities experienced high costs for transferring the collected waste to a landfill.

There are several areas within this region that do not have adequate levels of collection services. These areas primarily include unincorporated communities (Big Wells and Catarina) and several colonias (Carrizo Hills, Espantosa, Brundage and Tocquinte). Local governments also expressed a concern regarding problems with collection services for hunters that need to dispose of garbage and dead animal carcasses (Crystal City and Fowlerton).

> **Assessment**: Waste collection and hauling services for Planning Area I are generally adequate within the three county area. There is a need however, to

provide some areas with basic collection services and to evaluate opportunities to reduce costs for areas that are currently receiving collection services. The use of citizens' collection stations may serve as a viable option to address these problems. There is also a need to provide solid waste collection options for hunters.

Planning Area II

Collection services within Planning Area II are relatively adequate. The City of Eagle Pass has contracted with Waste Management to provide residential and commercial waste collection and hauling services. Maverick County operates a series of citizens' collection stations in the unincorporated areas of Quemado, El Indio, Normandy, and Chula Vista. A mobile collection station (truck and trailer) visits each town once a week and solid waste is hauled to the transfer station in Eagle Pass.

Assessment: Waste collection services are provided to most residents within Planning Area II through a combination of curbside collection in incorporated areas and citizens' collection stations in unincorporated areas. There may still, however, be some rural areas that lack adequate collection services.

Planning Area III

Collection services in Planning Area III are similar to services in Planning Area II. The City of Del Rio has contracted with Moore Services, Inc. to provide residential and commercial waste collection and hauling services. Val Verde County operates citizens' collection stations in Langtry and Comstock.

A dumpster, which is located in Comstock and is used to collect solid waste, has proved to be inadequate to handle the amount of solid waste produced in the area based on information provided by local officials.

Assessment: While collection services appear to be adequate in most of the planning area, there is a need to improve collection services in Comstock. This could be potentially accomplished by providing a larger citizens' collection station.

Planning Area IV

Collection services within Planning Area IV consist of a combination of curbside collection and citizens' collection stations. In some areas, such as Uvalde, Leakey, Camp Wood and Sabinal, curbside collection services are provided. In more rural areas, collection services are provided through the use of citizens' collection stations. These include both permanent as well as mobile facilities.

The mobile citizens' collection stations in Uvalde County are some of the most comprehensive solid waste collection services available in the MRG Region. Uvalde County operates a series of mobile collection stations (truck and trailer) that visits approximately 14 separate locations at least once a week. Collected solid waste is hauled to the landfill located in the City of Uvalde. In providing this service, Uvalde County is able to serve rural residents as well as recreational visitors.

Assessment: The citizens' collection stations in Uvalde County can serve as a model for other counties within the MRG Region that have an interest in developing their own system of citizens' collection stations.

Table C.10: Citizens' Collection Stations in the MRG Region

Planning Area	County	Location Name
I	La Salle	City of Cotulla Citizens' Collection Center
II	Maverick	Maverick County Citizens' Collection Stations (Serving four different locations.)
III	Val Verde	Val Verde County Citizens' Collection Stations (Serving two different locations.)
IV	Kinney	Brackettville Citizens' Collection Center
	Real	Real County Collection Center (Camp Wood)
	Uvalde	Uvalde County Citizens' Collection Stations (Serving 14 different locations.)

4.e. Recycling Services

This section provides an overview regarding recycling services provided in the MRG Region. For a complete list of recycling services provided, refer to Table C.11. Map 5 of Appendix B identifies the existing drop-off recycling centers in the region. Additionally, Table C.12 is a list of active recycling service providers in the MRG Region, including contacts with phone and fax numbers. This list provides the opportunity for solid waste representatives throughout the MRG Region to obtain information regarding who can purchase or take collected recycling material. Table C.13 details yard waste diversion activities that are on-going in the MRG Region.

Across the region, it has been a challenge for many communities to develop successful recycling programs. Recycling opportunities are somewhat limited due to distances from markets and weak prices for recycling commodities. At the same time, however, several communities have well-developed recycling processing facilities. For many communities in the region, the choice to recycle essentially becomes a policy decision, where evaluations need to be made regarding the extent to which recycling services will be provided.

Planning Area I

All counties within Planning Area I provide some type of recycling collection services. At a minimum, all counties in the area provide used oil and used oil filter collection services. The City of Carrizo Springs provides one of the more comprehensive recycling programs in the region. Materials such as cardboard, office paper and newspaper are recycled at the Carrizo Springs' drop-off facility. Efforts have also been made to reduce disposal costs by ensuring that white goods and scrap metal are recycled.

Several cities in Planning Area I have developed successful programs to reduce disposal amounts by diverting brush by chipping the material, and providing it to residents as mulch. No local governments in this planning area reported conducting any programs for the separation and collection of recyclables from governmental facilities.

Assessment: Providing a wide range of recycling services is a challenge in this planning area. The opportunity exists, however, to evaluate whether it would be feasible for the recycling facility in Carrizo Springs to serve as a subregional facility. The diversion of brush from landfills has been a successful waste diversion activity for several communities in the planning area. The continued diversion of brush from landfills represents the greatest opportunity to provide waste diversion services in a relatively cost-effective manner.

Planning Area II

Eagle Pass provides curbside recycling collection services to some of its residents. In addition, Eagle Pass operates a drop-off center for other residents and businesses that do not have curbside collection services. Through its processing facility, residents and businesses in this planning area have an opportunity to recycle a wide range of materials. In addition, services are available to divert brush from the disposal stream through Eagle Pass' mulching and composting program.

Eagle Pass and Maverick County reported conducting programs for the separation and collection of recyclables from governmental facilities. Both of these entities recycle paper.

Assessment: The City of Eagle Pass provides the most extensive recycling program in the MRG Region. It is the only city in the MRG Region to provide curbside recycling collection services to some residents. In addition, other residents and businesses have the opportunity to recycle at the Eagle Pass drop-off center. Further diversion opportunities are provided through the chipping and composting of brush.

Planning Area III

The City of Del Rio is the primary provider of recycling services within Planning Area III. Del Rio accepts materials such as white goods, scrap metal, tires and brush for waste diversion purposes at its landfill. Del Rio is planning to expand the types of materials it can accept in the future by amending its permit from the TCEQ. Del Rio plans to accept used motor oil, filters, car batteries, anti-freeze and cooking oil.

While Val Verde County does not provide any recycling services itself, county residents can bring material to the Del Rio landfill to be recycled. Neither Del Rio not Val Verde County are conducting programs for the separation and collection of recyclables from governmental facilities. Laughlin Air Force Base reported that employees at the base can recycle aluminum and paper.

Assessment: Del Rio is making the effort to continue increasing the number of materials that can be recycled in the planning area. Coordinating with Val Verde County could provide further opportunities to increase the amount of material being diverted in the planning area. The diversion of brush from the disposal stream represents the best opportunity to increase diversion in a cost-effective manner. Representatives from Del Rio and Val Verde County could benefit from coordinating with Laughlin Air Force Base regarding future waste minimization efforts.

Table C.11: Recycling Services in the MRG Region

Planning Area	County	Location Name	Description	Materials Collected
I	Dimmit	City of Asherton Oil Recycling Station	Drop-off	Used motor oil, filters and tires.
		City of Big Wells Oil Recycling Station	Drop-off	Used motor oil and filters.
		City of Carrizo Springs Recycling Center	Drop-off	Corrugated cardboard, office paper and newspaper.
	La Salle	City of Cotulla Citizens' Collection Station	Drop-off	Tires, white goods and scrap metal.
	Zavala	Zavala County Oil Recycling Centers[7]	Drop-off	Used motor oil.
		City of Crystal City	Drop-off	Scrap metal, aluminum and used motor oil.
II	Maverick	City of Eagle Pass Recycling Center	Drop-off and some curbside collection	Corrugated cardboard, white paper, newspaper, mixed paper, magazines, plastics, glass, tin, used motor oil, filters, batteries and tires.
III	Val Verde	City of Del Rio	Drop-off	White goods and tires.
		Laughin Air Force Base	Drop-off	Cardboard, paper, plastic, glass and aluminum.
IV	Edwards	City of Rocksprings Recycling Center	Drop-off	Used motor oil, filters, scrap metal, light bulbs and white goods.
	Kinney	City of Brackettville Citizens' Collection Station	Drop-off	Used motor oil, scrap metal, batteries.
	Real	City of Camp Wood Recycling Station[8]	Drop-off	Scrap metal and white goods.
		City of Camp Wood Oil Recycling Station	Drop-off	Used motor oil.
	Uvalde	City of Uvalde Recycling Center	Drop-off	Scrap metal, aluminum, tin, used motor oil, paper, plastic, glass, and corrugated cardboard.

Planning Area IV

There is wide range of services that are available in Planning Area IV. The City of Uvalde operates a relatively comprehensive recycling drop-off center. In addition, some types of recycling services are offered in each of the other counties in the region.

Several cities in Planning Area IV have developed successful programs to reduce disposal amounts by diverting brush by chipping the material, and providing it to residents as mulch. No local governments in this planning area reported conducting any programs for the separation and collection of recyclables from governmental facilities.

> **Assessment**: Providing a wide range of recycling services is a challenge in this planning area. The opportunity exists, however, to evaluate whether it would be

[7] Zavala County has oil-recycling centers located in Batesville, La Pryor, and Crystal City.
[8] Closed landfill located in Camp Wood serves as a drop-off recycling station for Edwards and Real County.

feasible for the recycling facility in Uvalde to serve as a subregional facility. The diversion of brush from landfills has been a successful waste diversion activity for several communities in the planning area. The continued diversion of brush from landfills represents the greatest opportunity to provide waste diversion services in a relatively cost-effective manner.

Table C.12: Recycling Service Providers in the MRG Region

Company	Location/Contact Information	Materials Processed
Alamo Processors	3731 Winer San Antonio, Texas 78225 (210) 923-1071 (210) 923-0310	Protein based oils.
Central Texas Recycling Association	P.O. Box 220 Austin, Texas 78767 (800) 845-0071 Fax (512) 473-3390	Computer printout paper, white ledger, sorted office paper, newspaper, corrugated cardboard.
Crown Recycling	Del Rio, Texas (830) 298-3887 or (830) 259-5887 Fax (830) 298-3955	White goods.
Master Fibers	103 North I Road Pharr, Texas 78577 (956) 783-0774 Fax (956) 783-9291	Plastics, corrugated cardboard, newspaper and magazines.
Newell Recycling	1515 South Street Eagle Pass, Texas 78852 (830) 773-9579	Scrap metals, tin, and aluminum.
Safe Tire Disposal Corporation[9]	Route 5, Box 3405, 11150A San Antonio, Texas 78221 (800) 848-6202	Tires.
Valley Proteins	2441 Catlin Street Odessa, Texas (888) 487-2627	Grease and grit.
Vista Fibers	3003 Aniol San Antonio, Texas 78219 (210) 226-6371 Fax (210) 226-3597	Paper, corrugated cardboard, glass, plastic, aluminum cans and steels cans.

[9] Scrap tires are collected or deposited and shredded to facilitate the future extraction of useful materials for recycling, reuse, or energy recovery. Safe Tire processes scrap tires by separating them into rubber chips and wire pieces, which Safe Tire stores at its facilities for future distribution.

Table C.13: Yard Waste Diversion Programs in the MRG Region

Planning Area	County	Location	Diversion Programs	Use of Diverted Materials
I	La Salle	City of Cotulla	Chipping, composting	Free to County residents.
		City of Encinal	Chipping, composting	Free to County residents.
	Zavala	City of Crystal City	On-site chipping	Free to City residents.
II	Maverick	City of Eagle Pass	Chipping, composting, mulching	Free to City residents.
III	Val Verde	City of Del Rio	Chipping, mulching	Chipping is mixed with treated municipal sludge and placed on landfill. Mulch is provided to City residents for use.
		Laughlin Air Force Base	Composting	Used for Laughlin area improvements. Also, on-occasion free to Laughlin residents.
IV	Real	City of Camp Wood	Chipping, composting	Free to City residents.
	Uvalde	City of Uvalde	Chipping, composting, mulching	Free to City residents.

4.f. Household Hazardous Waste (HHW) Services

Providing household hazardous waste (HHW) services within the MRG Region has been a significant challenge. Local governments within the region have traditionally not provided any type of HHW collection services, such as permanent collection facilities or periodic collection events. Based on interviews conducted with local government officials in the region, the primary reasons for the lack of collection services include costs and lack of demand by residents.

The collection and processing of HHW is typically very expensive for all communities in the State of Texas. Providing this service in the MRG Region may be even more expensive when compared to other parts of the state since there are no processing facilities in the region.

HHW collection services have been provided in the MRG Region by the TCEQ, which sponsors several annual collection events in the State for HHW materials such as paints, pesticides, waste oils, cleaners, solvents, batteries, and polishes. Past events in the MRG Region included collection in the Counties of Maverick and Val Verde in October 2001. HHW events are typically coordinated with local extension agents and are advertised in surrounding counties.

> **Assessment**: Due to the expensive nature of HHW collection and disposal, it is likely that local communities will continue to find it difficult to provide cost-effective HHW collection services. While there is a need for HHW services, they will need to be provided in an affordable manner.

4.g. Other Solid Waste Services

All public and private solid waste services that are currently available or planned in the region have been described in other sections of this document.

4.h. Litter and Illegal Dumping

Illegal dumping is a frequent problem in many areas of the State of Texas. The TCEQ's *Solid Waste Management in Texas Strategic Plan 2001-2005* identified "increased distances to disposal facilities and increased transportation costs, as well as a lack of affordable collection services in some areas" as reasons why illegal dumping is a chronic problem in the State. The plan also stated that illegal dumping is a frequent problem in rural and underserved areas of Texas.

Planning Area I

Each of the communities in Planning Area I reported having significant illegal dumping problems. The primary types of materials being illegally disposed of included household garbage, tires and dead animal carcasses from hunting. None of the local governments reported having a specific illegal dumping abatement program in place. However, efforts have been made to reduce illegal dumping by providing some collection and disposal services in the area.

> **Assessment**: Even though there are on-going efforts to provide collection and disposal services, there is still an on-going illegal dumping problem. There is a need to develop specific programs to eliminate illegal dumping in the area. These programs would need to focus on public awareness of available collection services and enforcement.

Planning Area II

Illegal dumping in Planning Area II is primarily a problem in the unincorporated areas of Maverick County. The types of material being dumped in these areas typically include household garbage and tires. Illegal dumping does not appear to be a significant problem within Eagle Pass, which is a result of the comprehensive level of services available, as well as efforts to develop public awareness campaigns that encourage the proper disposal of solid waste. These public awareness campaigns have also focused on providing information to Maverick County residents.

> **Assessment**: The occurrence of future illegal dumping in Maverick County will likely depend on the success of (1) efforts to provide rural residents with collection services using citizens' collection stations and (2) public awareness campaigns to reduce illegal dumping.

Planning Area III

Similar to Planning Area II, illegal dumping in Planning Area III primarily occurs in the unincorporated areas of Val Verde County. The types of material being dumped in these areas typically include household garbage and tires. Illegal dumping does not appear to be a significant problem within Del Rio, which is a result of the comprehensive level of services

available. In addition, Laughlin Air Force Base provides public awareness information to new Air Force Base residents.

> **Assessment**: The occurrence of future illegal dumping in Val Verde County will likely depend on the success of (1) efforts to provide rural residents with collection services using citizens' collection stations and (2) public awareness campaigns to reduce illegal dumping.

Planning Area IV

Similar to other areas of the region, illegal dumping is primarily a problem in rural areas of Planning Area IV. However, illegal dumping is not a problem in all unincorporated areas of Planning Area IV. For example, while Uvalde County has some illegal dumping, its mobile citizens' collection station program provides a convenient and affordable waste collection option for many residents. Other areas of the planning area are experiencing extensive illegal dumping problems. The primary types of material reported by local officials included tires, household garbage, and construction and demolition debris. The source of some illegally disposed household garbage was from recreational sources, primarily visitors to the area's many camping areas.

The Nueces River Authority (NRA) has an active program in place to help reduce illegal dumping in the Upper Nueces River Basin. As a part of its Clean Rivers Program, the NRA has developed and implemented a public awareness and outreach campaign that focuses on preventing water pollution, which can be from sources such as illegal dumping.

> **Assessment**: Extensive efforts are being made in parts of Planning Area IV to reduce illegal dumping. These efforts are occurring through rural citizens' collection programs and public outreach by the NRA. However, these efforts have not eliminated all illegal dumping from occurring in this area. Additional efforts will be needed to further reduce illegal dumping in Planning Area IV.

4.i. Facility Siting

The siting of proposed landfills has been an important and controversial issue within the MRG Region. Historically, concerns have been raised regarding the appropriateness of siting a landfill at certain locations within the region. While the TCEQ has the statutory authority to evaluate whether a proposed facility will meet required environmental standards, other factors such as land use compatibility, traffic, noise and economic impacts are primarily beyond the TCEQ's authority.

During the past several years, the TCEQ reevaluated its policies regarding these "other factors," such as landfill land use policies. The agency specifically focused on evaluating whether to make any policy changes regarding land use compatibility for new landfills located at undeveloped sites. The TNRCC Commissioners did not take any formal action regarding this issue. During the course of the 77th Texas Legislative Session in 2001, several bills were introduced regarding this subject. None of these proposed bills, however, were passed into law.

The role of the Councils of Governments in the siting process has been to make recommendations or to provide comments regarding the conformance of the proposed facility with the regional plan. However, local governments have the statutory authority to adopt local regulations that can place restrictions on landfill siting within their jurisdiction.

> **Assessment**: Local governments will need to be the entities responsible for developing regulations with regard to facility siting. The MRGDC should support local regulations that address the issue of facility siting.

4.j. Closed MSW Landfill Inventory

State law requires that each Council of Governments complete an inventory of closed municipal landfill units located within each planning region. This inventory must include the following:

- the location of such units
- the current owners of the land on which the former landfill units are located
- the current use of the land

In June 2000, the MRGDC entered into a contract with Southwest Texas State University to complete the MRGDC's closed landfill inventory. In the nine county region, a total of 26 permitted and 28 unpermitted units were identified. Table C.14 summarizes the number of units by county.

Table C.14: Closed MSW Landfills in the MRG Region

Planning Area	County	Closed Landfill Units	
		Permitted	Unpermitted
I	Dimmit	5	4
	La Salle	3	3
	Zavala	3	1
II	Maverick	2	3
III	Val Verde	3	7
IV	Edwards	1	0
	Kinney	2	2
	Real	2	3
	Uvalde	5	5
Total		**26**	**28**

After review and adoption of the inventory, each Council of Governments is also charged with several other related actions. Each Council of Governments is required to notify landowners and county clerks regarding the former use of the land in cases where the exact boundaries of the former landfill units are known. County clerks will deed record the boundaries of the former

landfill unit, the former use of the land and the restrictions on the development or lease of the property.

> **Assessment**: There is a need for the MRGDC to continue the efforts prescribed by the TCEQ to notify landowners and county clerks regarding the former use of closed landfills. Based on potential risks to human health and the environment, there may be a need to further evaluate whether there is a need to further assess the risks posed by closed landfill sites in the region.

4.k. Local Solid Waste Management Plans

No local solid waste management plans have been adopted by local governments in the region and approved by the TCEQ. In addition, none of the local governments within the region indicated that they would be developing a local solid waste management plan in the future. While several local governments indicated an interest in developing a plan, they cited the lack of financial resources as the primary reason why they would not expect to develop a plan in the near future.

> **Assessment**: Many of the local governments within the MRG Region would benefit from the development and adoption of a local solid waste management plan. These plans could provide direction regarding important solid waste issues such as disposal/transfer, collection and recycling.

SECTION D. REGIONAL GOALS, OBJECTIVES AND ACTION PLAN

1. Summary of Needs and Problems

Based on the regional analyses completed in Section C, a number of needs and problems have been identified. These are problems that can be addressed at the regional level by the MRGDC (MRGDC) and at the local level by the various city and county governments in the region. In this section, specific needs and problems have been listed. In addition, this section details potential options that could be implemented as solutions to address these problems. The ordering of this list of problems corresponds to the ordering of subject categories in Section C.4 Waste Management System.

1.a. Roles, Responsibilities and Institutional Arrangements

Enhanced coordination and cooperation between various local, state, and federal governmental agencies and private solid waste management companies represents a key area for improvement within the MRG Region. With enhanced coordination, opportunities may exist for various entities, especially local governments, to identify and develop solid waste programs or facilities that can serve multiple areas of jurisdiction. In a region where it is a challenge for many communities to provide solid waste management services due to relatively low population densities and distance to facilities outside of the MRG Region, there is an incentive for communities to determine the feasibility of developing a more coordinated approach. The following represents options to foster enhanced coordination:

Develop Planning Area Workgroups

Local governments within the MRG Region could develop planning area workgroups to discuss important solid waste management issues on an on-going basis. Such workgroups could be coordinated through the MRGDC. Through these workgroups, local governments within each planning area could discuss their key solid waste issues and examine whether opportunities exist to further coordinate and link operations.

Consider Public-Private Partnerships

Private companies can have a key role in the management of solid waste. Within the MRG Region, there are several private companies that are very active in providing a wide range of solid waste services. Local governments and private companies could benefit from evaluating options to develop public-private partnerships in the future. These projects could involve various aspects of a solid waste system, such as collection services, landfills, transfer stations, and recycling facilities.

For example, it is common practice for local governments to establish partnerships with private companies regarding the development of landfills. It is typical in these cases for the local government to own the facility, while the private company is responsible for operating it. This arrangement can have advantages in situations where local governments lack sufficient levels of solid waste to make a landfill feasible. As a part of the contract with a private company, they are responsible for ensuring that sufficient levels of solid waste are disposed of in the facility to

make it economically viable. This example could also apply to other solid waste facilities such as transfer stations and material recovery facilities.

Seek Financial Assistance

There are several agencies that can provide financial assistance for the planning and development of facilities for solid waste management systems. A listing of these potential funding sources and contacts is presented below:

- U.S. Dept. of Agriculture Rural Utilities Programs:
  The Water and Environmental Programs (WEP) provide loans, grants and loan guarantees for drinking water, sanitary sewer, solid waste and storm drainage facilities in rural areas and cities and towns of 10,000 or less. Public bodies, non-profit organizations and recognized Indian tribes may qualify for assistance. To obtain further information, contact Rural Development's national office at (202) 720-4323 or access their web site: http://www.usda.gov/rus/water/index.htm

- North American Development Bank:
  The North American Development Bank (NADB) helps public solid waste utilities in border communities with the planning and design of municipal solid waste (MSW) projects that will be submitted to the BECC for certification and to the NADB for financing. The NADB can provide financial assistance to strengthen municipalities' ability to provide solid waste collection, transportation, transfer, and disposal services in a sustainable and fiscally responsible manner by supporting the financing and construction of municipal solid waste infrastructure projects in the border region. For further information, contact the NADB at (210) 231-8000 or access their web site: http://www.nadb.org.

1.b. Waste Disposal and Capacity

The need for sufficient waste disposal capacity is a key issue for several of the planning areas in the MRG Region. Specific needs identified in this plan related to waste disposal and capacity follow:

- Current landfills in Planning Area I are insufficient to meet the future disposal needs of this area.
- Entities within Planning Area II have not identified any viable landfills within the MRG Region and therefore incur relatively high disposal costs due to the transfer of solid waste to the landfill in San Antonio.
- Communities in Kinney, Edwards, and Real Counties within Planning Area IV have not identified any viable landfills within the MRG Region and therefore incur relatively high disposal costs due to costs associated with transferring solid waste outside of the MRG Region for disposal.

There are several options for local governments to consider when addressing these needs. These options include the development of subregional landfills, development of arid-exempt landfills, or the use of other landfills within the MRG Region.

Develop Subregional Landfills

By developing subregional landfills that have the capacity to accept large amounts of solid waste on a daily basis, the opportunity exists to provide disposal options for multiple communities within the MRG Region. For example, a 1999 report, "Study of Alternatives for Solid Waste Management: Crystal City – MRGDC,"[10] concluded that subregional landfills represented the most cost effective disposal option for many local governments in the region, provided that enough solid waste could be disposed of in the landfill for the long-term. Note, this document can serve as a valuable resource as it provides further detail regarding projected disposal and transfer costs for various landfill scenarios in the MRG Region.

If subregional landfills would be developed, it is likely that transfer stations would need to be constructed to provide for the necessary transfer of solid waste to the landfills. Using transfer stations for hauling collected solid waste would be more efficient than hauling solid waste using collection vehicles. It is important to emphasize that developing subregional landfills would require the participation and cooperation of multiple local governments in the MRG Region. While this level of coordination may require extensive effort, the benefits of potential reduced disposal costs could make this option worthwhile.

Develop Arid Exempt Landfills

In scenarios where there is insufficient interest in developing a subregional landfill, communities that dispose of less than 20 tons per day of solid waste could consider developing arid exempt facilities. Based on Federal Regulations, an arid exempt landfill is exempt from all requirements pertaining to groundwater protection design and operation and groundwater monitoring and corrective action. As a result, these landfills are typically less expensive to operate compared to landfills that must meet these regulatory requirements. In developing an arid exempt landfill, local communities should determine whether their current and future waste disposal needs will exceed the limit of 20 tons per day. Prior to developing an arid exempt landfill, a local government would need to conduct a financial feasibility analysis to determine whether it would be more cost-effective to transfer solid waste to another landfill or to develop an arid exempt landfill.

Use Other Landfills in the Region

Several communities within the MRG Region have landfills that are expected to have the capacity to continue operating for a number of years into the future. The local governments operating these landfills have invested significant financial resources into these facilities to ensure sufficient disposal capacity into the future. At the same time, there are several other local governments in the MRG Region that currently incur high costs for the transfer and disposal of their solid waste. If these local governments could enter into contracts with other local governments in the MRG Region that have long-term disposal capacity, the opportunity could exist to provide more communities in the region with lower cost disposal options. If local governments would consider this option in the future, it will be essential for all parties to recognize and account for all costs related to the operation of a landfill as a part of any disposal contract.

[10] Source: Report prepared for the Border Environment Cooperation Commission by SCS Engineers and Reed-Stowe and Company, Inc. October 25, 1999.

1.c. Waste Transfer, Storage, Treatment and Processing

Specific needs identified in this plan related to waste transfer, storage, treatment, and processing services follow:

- Many unincorporated areas of Dimmitt and Zavala Counties in Planning Area I do not currently have transfer stations or near-by landfills, which increases expenses related to the transportation and disposal of solid waste.
- Local governments within Planning Area II are incurring a relatively high cost for solid waste disposal due to transportation costs associated with solid waste disposal in San Antonio.
- Local governments in Planning Area IV would benefit from identifying disposal locations that are located closer to the existing transfer stations in order to potentially reduce disposal costs through decreased transportation costs.

In most cases, the costs associated with the transfer of solid waste can be decreased if transfer stations or landfills are located within close proximity to the area that generates the waste. The development of transfer stations may be an effective option for communities within the MRG Region however, a complete analysis of the costs and benefits of developing a transfer station versus a landfill would be a critical component of a comprehensive solid waste planning effort.

A number of communities in the MRG Region already rely on transfer stations to serve their waste disposal needs. In many cases these transfer stations have been designed and built to operate in an efficient manner. From a preliminary perspective, however, it appears that these communities are incurring significant expenses for their transfer stations with regard to the transportation costs from the transfer station to a landfill. These communities are likely incurring these expenses due to the distance that solid waste is being transferred. When this occurs, local governments should consider whether there are any disposal options that are located closer than the current landfill.

In cases where communities need to continue to rely on a transfer station, it would be important for these entities to ensure that they negotiate contracts that are in their best interest from a financial perspective. Communities may enhance their negotiating ability by having an understanding of how much other communities in the region are paying for their transfer and disposal services. Local governments should use the contact information listed in Appendix A, Table 3 as to discuss this information with other communities in the region.

1.d. Waste Collection and Transportation

The need for adequate waste collection and transportation services is a key issue for several of the planning areas in the MRG Region. Specific needs identified in this plan related waste collection and transportation services follow:

- Certain areas in Planning Area I are lacking adequate collection and transportation services.

- Planning Area II has some remote rural areas that currently lack adequate collection services.
- In Planning Area III, Comstock may need to develop a larger citizens' collection station to accommodate disposal needs.
- Several communities throughout the region have a need to provide collection options for visitors to the MRG Region that participate in recreational and hunting activities. In many cases, these visitors either lack viable collection options or are not aware of collection options.

There are several issues that local governments need to consider when evaluating how to provide collection services. A discussion of various collection methods, service provider options, funding options and the development of public awareness programs follow:

Typical Collection Methods

Various methods can be employed to provide residents with effective and efficient solid waste collection services. This section provides a general discussion of the characteristics of these collections methods, including their typical advantages and disadvantages.

Curbside Collection

With curbside collection programs, residents will set garbage out for collection on a regular basis, which is typically once or twice per week. Crews operating collection trucks will collect the garbage. This type of collection method is the most standard collection method in cities across the United States. This method is convenient; it can be cost-effective in cases where large number of households can be served per day and collection vehicles can travel over well-built and maintained roads. Curbside collection is typically not as effective in rural communities where there are either significant distances between houses or roads are substandard. Compared to citizens' collection stations, curbside collection programs are typically more expensive, as they involve greater resources in terms of personnel and capital equipment (vehicles).

Citizens' Collection Stations

At their most basic level, citizens' collection stations are simply conveniently located places where residents can drop-off their trash at certain times of the day on certain days of the week. These stations typically feature one or more moveable trailers, dumpsters or roll-off bins to temporarily store and then transport waste to a landfill.

Citizens' collection stations can serve as an effective collection method for rural communities where it is difficult to provide curbside collection service. In fact, many rural communities in Texas and in other parts of the United States employ citizens' collection stations as their primary means of providing convenient and affordable garbage collection services to their residents. Citizens' collection stations are typically much less expensive to operate than curbside programs; however, they are not as convenient. Several communities within the MRG Region currently utilize citizens' collection stations to provide convenient and affordable collection services to their residents.

Citizens' collection stations could serve as a collection method to serve visitors that come to the MRG Region to participate in recreational and hunting activities. These collection stations would need to be placed in locations that are convenient and easy to access for people who may not be very familiar with the area. Depending on the need, some of these services may only need to be provided on a seasonal basis, which could ideally be provided with mobile collection stations that could be placed in high-visibility locations.

Service Provider Options

Local governments typically have two primary options of how to provide solid waste collection services. A number of local governments will provide this service in-house, while many other local governments will contract this service to a private company to provide collection services to a franchised area. This section discusses the advantages and disadvantages of each option.

Local Government Provides Service

Many local governments effectively provide residential solid waste collection services for their community. In fact, local governments can have some advantages over the private sector in providing this service since local governments do not pay income taxes and are not required to generate a profit. Additional benefits associated with government operated collection services include increased local control over the operations and increased accountability for the quality of the services provided.

Providing residential solid waste collection services, however, requires significant levels of personnel and financial resources due to the complexities of the business. Local governments should only provide this service in cases where they are certain that they have the expertise, as well as the political will required to provide the service. The provision of this type of service requires a long-term commitment due to the high capital costs involved and the increased managerial and administrative responsibilities.

Local Government Contracts for Service

A franchised service area is an option that combines features of both public and private sector collection activities. Under this option, local governments will generally conduct a formal bid process and select a private company to provide solid waste collection services to residents. The bidding process encourages competitive pricing from private companies. There is an incentive to submit the best bid because the company that is awarded the contract with the government would be the sole provider of the service for the entire franchised area.

This approach can also be applied in cases where a local government only needs limited service levels from a private hauler. For example, there are several counties in Texas that operate citizens' collection stations, but also contract with a private hauler to transfer and dispose of solid waste collected at their citizens' collection stations. Contracting for solid waste services generally serves a community well in cases where the local government is relatively small and/or does not have the resources to operate its own solid waste collection service.

A franchised service contract allows for private sector efficiency with the oversight and accountability of the public sector. Contracting for services can result in quality service to

residents. However, local governments should be certain to examine specific services that would be provided and the terms and conditions associated with the services. The local government should make sure that any franchise agreement would have performance standards in place to ensure a satisfactory level of service.

Funding Options

Regardless of the type of residential garbage collection service provided, local governments need to determine how to pay for the services. This section provides a discussion of the options to consider.

Monthly Waste Utility Charges

In Texas, assessing a monthly utility fee for the provision of solid waste services is the most popular funding approach. This funding method provides the opportunity to secure a stable funding source that charges the direct users of the service. When solid waste fees are included as a part of a monthly utility bill along with charges for water and/or electricity, customers are much more likely to pay for the services than in cases where only solid waste fees are charged. This is the case because service can be discontinued if customers do not pay for all services provided.

Charging solid waste services through utility bills can be an effective way for an entity such as a city or county to recover fees that it may otherwise have a difficult time collecting. For example, if a county can have a water utility (i.e. water supply corporation or utility district) bill for solid waste services provided by the county, the county should expect that it will recover a high percentage of fees. It is important to point out that while another utility would likely charge a fee to the county for billing services, this fee would likely be less expensive that it would be for the county to develop and administer its own billing system for solid waste services.

Senate Bill 352, which was recently passed into law by the 77th Legislature in 2001, provides more options for counties to require residents to receive collection services. Prior to 2001, Texas law provided counties the authority to offer and require solid waste services, and permitted them to collect fees for the service, but did not provide an effective enforcement mechanism to compel payment. Senate Bill 352 now allows a county to contract with a private or public entity, including a public utility, to collect solid waste fees.

Direct User Fees

Charging customers based on the level of service provided can be an equitable way to fund solid waste programs. Through this approach, customers will generally pay the service provider directly. Depending on how services are provided, this can occur in a number of ways. For a curbside collection program, customers may pay the service provider directly. For citizens' collection stations, customers may purchase individual garbage bags that they can use for disposal, which is the method used by Uvalde County. While this approach can be effective, it can also result in a limited number of customers using available services because participation is voluntary. Voluntary services can lead to some residents not using the services provided, possibly resulting in increases in illegal dumping. This approach can be effective for generating revenue from visitors.

General Taxes

While not a very popular option in Texas, many other communities in the country fund their solid waste services through ad valorem, or property taxes. Recent trends have focused on funding solid waste management through direct funding methods, such as user fees or utility charges. Primary reasons for moving away from funding solid waste programs through taxes are that residents may never understand the true cost of solid waste services and may not have incentives to reduce the amount of waste generated.

For communities that rely on recreational activities for a significant part of their local economy, it may make sense to use revenue generated from general taxes fund collection options for visitors. In these cases, this may be the only viable method to fund collection services for non-residents.

Develop Public Awareness Programs

Regardless of how local governments decide to provide collection services, it is critical to ensure that community residents are aware of the services that are available. This is especially critical when providing collection services using citizens' collection stations. In these cases, communities need to make efforts to ensure that residents are not only aware of services provided, but also understand how the program operates.

For communities that have a significant number of visitors that have a need to use collection services, it is critical to ensure that these people are aware of these facilities. This information can be provided through various printed material that could be distributed at local stores and lodging (i.e. hotels, motels, camp grounds, etc.).

1.e. Recycling Services

The need for waste minimization and recycling activities is an issue in need of further analysis for several of the planning areas in the MRG Region. Specific needs identified in this plan related to recycling services follows:

- Due to the relatively isolated location of the region, recycling options are limited for many local governments due to the transportation costs and a relatively weak recycling market.
- Due to the weak recycling market, there are few recycling facilities in the MRG Region.

The overall recycling activities within the MRG Region are relatively limited. The diversion of brush may provide the greatest opportunity for increasing the regional waste diversion rate in a cost-effective manner for communities located throughout the region. Increased coordination among the local governments throughout the MRG Region may provide some economies of scale for the purpose of increasing recycling in the region in a cost-effective manner. Additionally, potential sites that could serve as subregional recycling facilities are located in Carrizo Springs (Planning Area I), Eagle Pass (Planning Area II) and Uvalde (Planning Area IV). Additional options for communities to consider as a part of efforts to improve recycling services within the MRG Region are discussed below.

Operate Recycling Drop-off Centers

Recycling drop-off centers, as compared to curbside collection programs, represent the more economical collection option for many of the communities in the MRG Region. By operating drop-off centers, communities should be able to keep their costs relatively low. In operating drop-off centers, communities should also continually monitor the end markets for the types of materials accepted for recycling.

Develop Subregional Recycling Facilities

Several communities within the MRG Region already have well-established recycling collection and processing facilities. These facilities, which are located in Carrizo Springs, Eagle Pass, and Uvalde, already have equipment and storage capacity in place to serve as processing centers. As practicable, other communities in the region could determine the feasibility of sending recycling material collected in their community to one of these other facilities in the region. By sending materials to these existing facilities, the host community and participating community could share in the cost of operating a recycling facility. For example, cities that already have a facility could allow other communities to process material at the facility. These communities would market their materials together and share proportionally in the revenue. The participating communities would also need to either help pay for costs incurred by the host city to operate the facility and/or the participating city could use its own personnel when processing material at the recycling center.

Emphasize Diverting Brush from the Disposal Stream

Many communities within the MRG Region have successfully diverted brush, as well as leaves and grass in some cases, from the disposal stream. Many of these communities have accomplished this by operating either a composting or mulching operation. As previously discussed, the diversion of brush may provide the greatest opportunity for increasing the regional waste diversion rate in a cost-effective manner for communities located throughout the region. Communities that are conducting a brush diversion campaign should continue their program. Other communities should evaluate the feasibility of starting their own program. Communities that are interested in developing a program could look to these existing programs to provide direction on how to establish and operate a successful program.

In addition, community programs designed to encourage residents to divert brush, leaves and grass from the disposal stream can be effective. Programs such as back yard composting and leaving grass clipping on the lawn can have a significant impact on the waste stream. Approximately 20 percent of the typical municipal solid waste stream consists of yard waste. Effective efforts to eliminate these materials from the disposal stream can reduce the annual amount of waste diverted from landfills.

Develop Public Awareness Campaigns

Informing residents about the availability of various recycling and diversion programs is critical to ensure the success of any waste minimization operation. In many cases residents may have an interest in recycling, but may not be aware of available options. In other cases, residents may also not be aware of reasons why recycling is important. By developing this information in recycling campaigns, communities should improve participation in the various waste diversion programs offered.

1.f. Household Hazardous Waste (HHW) Services

The need for adequate HHW collection services is an important issue for the MRG Region. Specific needs identified in this plan related to household hazardous waste collection services are discussed below:

- Currently, there are no established HHW collection activities in the MRG Region. Due to the expensive nature of HHW collection and disposal, it is likely that the MRG Region will continue to find it difficult to provide cost effective HHW collection services.

Determining the type of program a community needs can be a challenge since it is often difficult to estimate the demand for such services. Options for the management of HHW include the following:

Sponsor a Household Hazardous Waste Collection Event

To provide residents with options for the disposal of HHW, communities will frequently sponsor events where residents can bring their materials for disposal. In 1997, the average cost per participant in Texas for a HHW collection event was $87.81. If any community within the MRG Region would decide to sponsor an event, the TCEQ can provide technical assistance to help local governments organize a HHW collection event.[11]

Coordinate with the TCEQ to Sponsor a Collection Event

The TCEQ holds free, annual, one-day collections at 30-40 locations across the State for citizens in rural and agricultural communities to bring materials for recycling or disposal. These "Texas Country Cleanups" offer residents recycling opportunities usually found only in cities and are necessary because rural and agricultural residents generate specific types of materials. The TCEQ also sponsors several annual collection events in the State for other types of HHW materials, such as paints, pesticides, waste oils, cleaners, solvents, batteries, and polishes. Local governments in the MRG Region could contact the TCEQ to coordinate efforts to sponsor such an event in the region.[12] These events are typically coordinated with the local county extension agent.

Develop a Public Awareness Program

Regardless of which options local governments decide to employ for the management of HHW, there is still a need to encourage residents to use these products in a responsible manner. Public outreach and education can serve as important tools in managing special wastes. Local governments could encourage more responsible behavior by developing public education and outreach campaigns that emphasize the following points:

- Costs for processing and disposing of household chemicals can be expensive.

[11] For further assistance from the TCEQ visit their web site to review: Organizing a Hazardous Household Waste Collection Program (http://www.tceq.state.tx.us/exec/oppr/hhw/org_how_to.html)

[12] Contact the Small Business and Environmental Assistance Office of the TCEQ at (512) 239-3100. Ask for a staff person with the Household Hazardous Waste Team.

- Residents should only purchase amounts of chemicals they expect to use over a short period of time.

- Residents should explore non-toxic alternative products that can be used in place of typical household chemicals.

1.g. Litter and Illegal Dumping

The illegal disposal of solid waste is a serious problem throughout the MRG Region. A vast majority of communities within the region expressed serious concerns regarding the extent of illegal dumping in the MRG Region. The following highlights the key illegal dumping problems in the region:

- Thousands of tires have been illegally disposed of in the MRG Region. For example, as detailed in Table D.1, local governments estimated that they collected approximately 28,000 illegally disposed tires in 2001. Many of these governments lack necessary funds to provide legal disposal of these tires. These communities reported that they expect the number of illegally dumped tires to continue increasing.

- The illegal disposal of household garbage is a key problem in several rural areas of the MRG Region. In many cases, residents in these areas either lack or are not aware of convenient and affordable collection options.

- Visitors to the region that participate in various recreational activities, such as camping and hunting, are illegally disposing of solid waste. The types of material ranges from household garbage to dead animal carcasses.

Table D.1: Estimated Number of Illegally Dumped Tires Collected in 2001[13]

Planning Area	Number of Tires
I	10,200
II	825
III	4,732
IV	12,400
Total	**28,157**

There are multiple steps that local governments within the MRG Region could take to further reduce illegal dumping in their communities. Throughout the country, and in Texas, many local governments have developed comprehensive programs to eliminate illegal dumping in their communities. While each community's program is unique, successful program typically use a combination of the following strategies:

[13] This data was gathered through interviews with local government officials in the MRG Region.

Provide Convenient and Affordable Collection Options

As discussed in Section 1.d of this section, there is a need for the local governments in the MRG Region to provide residents with convenient and affordable solid waste collection services. In providing these solid waste services, local governments should be able to take significant steps toward reducing illegal dumping in the region. These options should also include methods for providing collection services to recreational visitors.

Further Enforce Illegal Dumping Laws

Enforcing existing state laws against illegal dumping is an essential part of efforts to reduce illegal dumping. After local governments have provided residents with convenient and affordable solid waste collection services, enforcement can serve as a further deterrent to illegal dumping. In this section, the project team has identified several ways in which local governments could take a more active role in enforcing illegal dumping laws.

Enforce State Laws Regarding Illegal Dumping Crimes. There are several state laws that enforcement personnel can use to handle environmental crimes in Texas. A detailed analysis of these laws is available in *Local Control of Illegal Dumping*, which is a user-friendly book written to help local law enforcement personnel properly enforce the various environmental laws in the State of Texas.[14]

Encourage Law Enforcement Personnel to Enforce Laws for Illegal Dumping Crimes. In communities where there is not an environmental enforcement peace officer or code enforcement officer, it is critical for all other peace officers to enforce these laws. When conducting patrols, officers should be on the lookout for illegal dumping activity, and be prepared to act.

Provide Training for Law Enforcement Personnel. The TCEQ conducts training sessions for peace officers. The TCEQ periodically offers a three-day training course for Texas peace officers who are currently involved in the investigation of environmental crimes or for officers who represent a department that is interested in developing an environmental crimes program. Seminars include explanations of environmental laws and investigation techniques, plus re-enactments of significant Texas environmental crimes and an emergency response demonstration. For information on future training dates, contact the Special Investigations Unit of the TCEQ at (512) 239-3416.

Seek Assistance from Residents to Catch Illegal Dumpers. Arriving at a site after a person has already committed an illegal dumping crime can be a frustrating experience for law enforcement personnel. By receiving assistance from nearby residents and/or businesses, law enforcement personnel can receive significant assistance in their efforts to catch illegal dumpers. In residential areas, law enforcement personnel can help residents establish a neighborhood watch program. Law enforcement personnel can provide residents and business owners with a list (such as violator and vehicle description and license plate number) of the information they would need in order to catch an illegal

[14] *Local Control of Illegal Dumping* is available from Little Mineral Press, which can be contacted via e-mail at jocke1@texoma.net or on the web at www.dumpbook.com.

dumper. In addition, residents and businesses could receive disposable cameras that they could use to photograph violators. These types of programs will work best in urban areas or locations where residents are near sites where dumping regularly occurs.

Prevent the Illegal Dumping of Tires. There is a significant problem with the illegal dumping of tires in the MRG Region. These tires are likely being dumped by individuals as well as by independent tire shops. In cases where there is concern that illegal tire dumping is being done by tire shops, peace officers and other local government personnel can question tire store personnel to find out how and where they are disposing of their tires. Tire store personnel should be able to specifically state how they are disposing of their tires, as well as provide written documentation (i.e. receipts or manifests) that prove how they are managing their tires. While these steps may not directly reduce the illegal dumping of tires, they may encourage tire store personnel to reconsider their practices if they are illegally dumping used tires.

Develop Public Awareness Campaigns

By increasing public awareness on the health and safety hazards of illegal dumping and the availability of legal garbage disposal options, local governments could further reduce illegal dumping activities in the MRG Region. Several options for the development of a public awareness campaign follow:

Develop a Regional Public Awareness Campaign. Several other Councils of Governments in the State of Texas have developed and implemented regional public awareness campaigns to stop illegal dumping. To the degree practicable, public awareness campaigns to stop illegal dumping should be conducted at the regional level as a single initiative. This provides the opportunity to leverage resources and to send a coordinated message. It is important to note that in order for a regional campaign to be effective, it will be necessary to have some efforts implemented at the local level. At the regional level, the MRGDC and its member governments should develop and implement a public awareness campaign that includes the following:

A focused message through the use of slogans and emblems. The MRGDC could develop a slogan and emblem that would be well-recognized in the future.

Conduct a media campaign. By conducting a media campaign at the regional level, the MRGDC will be able to communicate its focused message to stop illegal dumping to many residents of the region. Such a campaign could include radio, newspaper and movie theater screening ads and billboards. This type of campaign should be more cost effective than individual local governments having to create and implement their own campaigns.

Send press releases out on a regular basis to all media in the region. These press releases could feature current or recent efforts to stop illegal dumping through enforcement, providing collection and disposal services, conducting clean ups and implementing public awareness campaigns. For example, when a local government obtains an important conviction in an illegal dumping case, the

MRGDC should write a press release, which will assist in discouraging future dumping by others.

Provide media kits to local governments. The MRGDC should develop information to provide to local governments that are working to stop illegal dumping. These kits should be consistent with information developed for the regional public awareness campaign and should include items such as model press releases and camera-ready artwork.

Coordinate Activities with the Nueces River Authority (NRA). As a part of its Clean Rivers Program, the NRA has an active program to reduce illegal dumping in the Upper Nueces River Basin. By coordinating with the NRA, the MRGDC could further on-going public outreach efforts within the region to reduce illegal dumping.

Inform New Residents about Collection and Disposal Services. When residents move into an area, they may not be familiar with how all solid waste services are provided. By providing this information, local governments can better ensure that customers will not resort to illegal dumping for their disposal needs

In cities, local governments should be able to identify new residents based on billing changes for water/wastewater and/or electric services. Solid waste utilities should send these new customers packets on all services provided. For residents who move into apartments, cities could provide apartment complexes with information for them to distribute to their tenants on how to dispose of material like bulky items.

In rural areas, counties can request that electric utilities provide lists of new residents to them on a weekly basis.[15] Upon receiving lists of new customers, counties can provide necessary information. One source of information that can be provided is a brochure, *Let's Work Together to Stop Illegal Dumping that* was developed by the TCEQ. This is a public education brochure on illegal dumping that any local community can use to provide information specific to their community. Communities can request up to 1,000 copies of the document and then print their own information about where to take items for disposal and recycling and how to report illegal dumping. This document is available in Spanish and English. To obtain the document, telephone TCEQ's publication office at (512) 239-0028 and request publication GI-243. Counties could also send lists of the private haulers that operate in the area.

[15] Chapter 366.005 of the Health and Safety Code includes the following language: "An electric utility shall compile a list weekly for each county in this state of the addresses located in an unincorporated area of the county at which the electric utility has made new electric service connections during the preceding week. The electric utility shall submit the list to the county judge of the county, or to a county officer or employee designated by the county judge, who shall forward the list to each authorized agent having jurisdiction over an area in which an address on the list is included." Note, this language specifically addresses new on-site septic systems, but can be used to notify residents about solid waste management options.

Local Governments Should Conduct On-going Public Awareness Campaigns. In coordination with regional efforts, local governments could develop their own public awareness campaigns. There are several ways to provide on-going public awareness campaigns.

- Include notices in monthly utility bills.
- Write articles in city/county newsletters or for the local newspaper.
- Develop videos that discuss important illegal dumping issues. These videos can be shown at presentations and on local access cable television.
- Publish information about dumpsites in local newspapers or on the community's website. For example, run a photo each month on the "ugliest" property.
- Promote cases where people are convicted of illegal dumping crimes in the local press.
- Conduct presentations to the public and at school, as communicating messages regarding illegal dumping problems can be an effective method of changing behavior.

Clean-up Existing Illegal Dump Sites

Cleaning up existing illegal dumpsites can serve two primary purposes: (1) to avoid attracting other dumpers and (2) to improve the community's awareness of the problem. The following provides methods on how local governments can clean up illegal dumping in their community:

Conduct Community Based Clean Up Activities. There are a number of community or volunteer based clean up efforts that can help to not only make a community cleaner, but to also emphasize the importance of preventing illegal dumping from recurring in the future. For each of these types of clean ups described in this section, local governments typically provide for disposal costs and ensure that the event includes a public awareness message about illegal dumping.

One helpful reference guide for planning community clean ups is the TCEQ's *Texas Environmental Event Planning Guide*. This publication will help communities organize events that generate public interest in recycling, waste reduction, conservation, litter cleanup, and pollution prevention. To obtain the document, please telephone TCEQ's publication office at (512) 239-0028 and request publication GI-157. Various types of community based clean up activities are described below:

- Neighborhood Clean Ups. In specific areas where residents have an interest in cleaning up their neighborhood, communities can conduct neighborhood clean ups. These clean ups are primarily intended for urban areas.

- Annual or Semi-annual Clean Ups. Communities frequently sponsor clean ups on an annual or semi-annual basis for specific areas, such as around a lake or river. These events can also coincide with the State's annual clean up, "Don't Mess with Texas Trash-Off."
- Free Dump Days at the Landfill. These events are conducted as days when residents can bring material to the local landfill without having to pay the tipping fee. However, local governments should try to ensure that residents do not depend on these events as their primary means of disposal.
- Clean Ups as Community Service Efforts. Various types of organizations, such as the Boy Scouts, will frequently conduct community service events. Local governments can provide opportunities for these organizations to conduct clean ups as their community service event. To make this program effective, the local government should maintain a list of areas that need to be cleaned.

Require Clean Up Activities for Violators. For persons convicted of various types of crimes, there are opportunities for local governments to use these people to clean up illegal dump sites. Several local governments in the State of Texas use prisoners to help conduct clean ups while they are incarcerated. Several judges have required people convicted of illegal dumping or other crimes to conduct clean ups as a part of the community service hours associated with their sentence.

Keep Areas Near Landfills Clean. In cases where there are significant amounts of illegal dumping near or around a landfill, there is a greater likelihood that additional people will dump items at these illegal sites. These individuals will typically believe that if other people are avoiding the tipping fee at the landfill by dumping, they will do the same. By ensuring that these types of locations are kept free of illegal dumping, less illegal dumping should occur in these areas.

Use County/City Departments to Conduct Clean Ups. Several local governments use various departments such as public works, road and bridge and health to conduct on going clean ups. These clean ups are typically limited to public property or rights-of-way. These clean ups can be critical to keep roadsides safe for motorists and water bodies clean for wildlife and drinking water. In cases where local governments provide this type of service, it is important to maintain detailed records of clean up activities, including locations of dump sites and volumes of material collected. This information can be useful for law enforcement personnel to investigate cases. In addition, this information can help to convince public officials and managers about the need for proactive programs to prevent illegal dumping from occurring.

Prevent Dumping from Recurring. There are several actions local governments and property owners can take to prevent dumping from recurring at locations where illegal dumping has been a chronic problem. Local governments can act by denying road access to potential dumpsites. For example, on dead end roads that do not need to be open to the public, several local governments have placed large barriers to prevent vehicles from passing onto locations where illegal dumping has occurred. Several local governments

have been creative in the types of barriers used by using items like large planters. These barriers are limited in the locations where they can be used, as they prevent access by all motorists. Property owners can prevent dumping from recurring by fencing their property and placing signs.

1.h. Facility Siting

The issue of facility siting is a key policy issue for many local governments in the MRG Region. In the past, there have been controversies regarding whether certain proposed landfills should receive permit approval from the TCEQ based on siting issues.

To address this issue, policies need to be developed within the MRG Region to determine how decisions will be made in the future. Based on discussions with local governments in the MRG Region, the following represents a consensus about how future siting decisions should be considered.

- If a local government has an interest identifying areas that are either appropriate or not appropriate for locating landfills in its area of jurisdiction, that local government must adopt local regulations with regard to facility siting.

- In making recommendations to the TCEQ regarding proposed landfills, the MRGDC should ensure that its recommendation is consistent with any local siting regulation within the area of jurisdiction of the proposed landfill.

1.i. Closed MSW Landfill Inventory

The MRGDC, through its contract with Southwest Texas State University, has identified a total of 26 permitted and 28 unpermitted landfills in the MRG Region. In the future the MRGDC will need to notify landowners and county clerks regarding the locations of these former landfills.

In the future the MRGDC will need to determine how it will complete these tasks and provide necessary information to notify landowners and county clerks. In addition, the MRGDC will need to develop and implement a process to meet State regulations in cases where additional closed landfills are identified.

1.j. Local Solid Waste Management Plans

No local solid waste management plans have been developed in the MRG Region. While several local governments would express that they would like to develop their own plans, they lack the financial and personnel resources to develop one. Without assistance from external sources, it is doubtful than any local governments in the MRG Region would have the resources in the future to develop a local solid waste management plan on their own.

To address this problem, local governments in the MRG Region could seek assistance from other funding agencies, such as the MRGDC, USDA or the NADB. Refer to Section 1.a of this section for further information regarding potential assistance that is available from these entities.

2. Goals and Objectives

Based on the evaluations, interviews with local government officials, staff and solid waste industry personnel, and through meetings with members of the SWAC, several regional solid waste goals and objectives were developed. The planning period in which these objectives would occur has been identified in this section, based on the following planning periods:

- The short-range planning period is one to five years.
- The intermediate-range planning period is six to 10 years.
- The long-range planning period is 11 to 20 years.

Goal No. 1: Encourage programs that reduce the amount and toxicity of municipal solid waste and municipal sludge, and encourage programs that recycle as much as possible of the waste that is produced.

Objectives:

A. Encourage educational programs to achieve source reduction goals of three percent by the year 2000 and five percent by the year 2010. (short-term, intermediate-term)

B. Promote public participation in waste reduction and recycling. (short-term, intermediate-term, long-term)

C. Develop model incentive programs that further waste reduction, re-use and recycling and promote their adoption. (short-term)

D. Encourage educational programs that will reduce the toxicity of the municipal solid waste stream. (short-term)

Goal No. 2: Encourage the development of adequate solid waste management disposal and transfer facilities in the region.

Objectives:

A. Encourage the development of facilities that collect recyclable materials including used oil collection centers, tire facilities and public composting facilities. (short-term, intermediate-term)

B. Encourage the development of larger regional facilities related to materials or resource recovery and disposal. (short-term, intermediate-term, long-term)

C. Whenever possible, encourage the expansion of existing facilities that are environmentally safe rather than siting new facilities. (short-term, intermediate-term, long-term)

D. Encourage optimal location of regional facilities and transfer station to minimize transportation costs. (short-term, intermediate-term, long-term)

E. Make recommendations for developing HHW management programs, i.e. waste exchange program, etc. (short-term)

F. Encourage public participation and review early in siting process. (short-term, intermediate-term, long-term)

G. Make recommendations for controlling illegal dumping. (short-term)

Goal No. 3: Maximize local and potential resources for effective and efficient regional solid waste management.

Objectives:

A. Promote interjurisdictional cooperation among local government and sub-regions for implementation regional solutions for resource recovery and disposal facilities. (short-term, intermediate-term, long-term)

B. Encourage jurisdictions to accept waste from other jurisdictions, (i.e. those communities that do not have any technically feasible facilities or sites for managing their wastes.) (short-term, intermediate-term, long-term)

C. Consider cooperation between the public and private sectors that provide financing of regional or sub-regional facilities and allows public sector to maintain control over disposal facilities. (short-term, intermediate-term, long-term)

D. Consider the cost and benefits of importing municipal solid waste from outside the region as a revenue producer for local communities to offset the cost of managing local wastes. (short-term, intermediate-term, long-term)

E. Identify potential financing for both short and long-term needs of local governments. (short-term, intermediate-term, long-term)

Goal No. 4: Ensure that all residents within the region have convenient and affordable solid waste collection services.

Objectives:

A. Encourage the development of citizens' collection stations in rural areas that currently lack adequate collection services. (short-term)

B. Foster the provision of collection services for recreational visitors within the MRG Region. (short-term)

C. Encourage educational programs that provide information regarding collection options. (short-term, intermediate-term, long-term)

Goal No. 5: Increase local government input into the permitting process for waste facilities in the MRG Region.

Objectives:

A. Increase local public awareness of private waste facilities. (short-term)

B. Increase local voices in the conditions under which permits are issued. (short-term, intermediate-term, long-term)

C. Provide increased assurance to local communities regarding the operational and management processes of privately permitted facilities. (short-term, intermediate-term, long-term)

Goal No. 6: Work with local governments to determine their level of interest in developing zoning or siting ordinances to address siting of solid waste facilities.

Objectives:

A. Emphasize to local communities the importance of establishing zoning or local ordinances regarding the siting of municipal solid waste facilities as a mechanism to restrict development of facilities in specific areas. (short-term)

B. For those communities interested in establishing zoning or local ordinances regarding the siting of municipal solid waste facilities, facilitate the exchange of information regarding zoning or ordinances that have been established in other communities. (short-term)

3. Action Plan

This section identifies and describes the specific action items, responsibilities and timeframes to be undertaken to implement the plan. This action plan is intended to help the MRGDC and local governments accomplish the goals described in the plan. As directed by the TCEQ, this action plan mainly concentrates on actions to be undertaken during the short-range planning period

3.a. Plan Conformance/Permit Review

State regulatory activities must conform to an adopted regional solid waste management plan. Under current TCEQ policy, the Councils of Governments are asked to provide a recommendation to TCEQ regarding the conformance of a MSW permit or registration application with the regional plan.

The Solid Waste Advisory Committee (SWAC) will review permit and registration applications filed with the TCEQ to assess their conformance to the plan. The SWAC's findings will be presented to the TCEQ for consideration in the permitting process. This section outlines the procedures the SWAC will follow when asked to review a permit or registration application for conformance with the regional plan.

Step 1: Voluntary Pre-Application Review

All applicants are encouraged to request a pre-application review. The purpose of this review will be to provide the applicant an opportunity to discuss the impending application with a MRGDC Solid Waste Program Coordinator. Through this pre-application review, the applicant will be able to obtain a thorough understanding of the region's solid waste planning goals and the steps that will need to be taken to conform with these goals.

Step 2: Submit a Request for Conformance Review

After completing Part 1 and Part 2 of the permit application form, an applicant may submit a request to the SWAC for a review of conformance with the regional solid waste plan. Per Subchapter E of the TCEQ's permitting procedures (§330.51 (10)), the applicant is responsible for demonstrating conformance with the regional solid waste plan. To facilitate this demonstration, the MRGDC has developed a Solid Waste Plan Conformance Checklist (Appendix C). An original signed copy of this checklist should be submitted to the MRGDC for review along with the following items:

1. A cover letter requesting a conformance review and the names, phone numbers, mailing addresses, and e-mail addresses (if available) for the following:
   a. Chief contact person for the application
   b. Applicant's engineer
   c. The TCEQ staff person to whom all review-related correspondence should be mailed.
2. A copy of Parts 1 and 2 of the application to the TCEQ for permit or registration
3. A map showing the physical location of the proposed or existing facility
4. Any additional information the applicant wishes to provide to facilitate the SWAC review process.

Requests for conformance review shall be submitted to:

Middle Rio Grande Development Council
Attn: Solid Waste Program Coordinator
P.O. Box 1199, 307 W. Nopal
Carrizo Springs, TX 78834

After receiving a complete review package, the Solid Waste Program Coordinator will notify the applicant in writing to confirm receipt of the request for review. At this time, the Solid Waste Program Coordinator will also schedule a meeting of the SWAC to review the application. The applicant will be notified of the meeting date in writing and is strongly encouraged to attend in order to present the application and address any questions that may arise.

Step 3:Conformance Review

The SWAC will review information submitted by the applicant to determine whether the proposed facility conforms to the Regional Solid Waste Management Plan. In conducting this review, the SWAC will consider the following factors:

1. Conformance to the goals and objectives of the Regional Solid Waste Management Plan
2. The general compatibility of the proposed facility to existing surrounding land use

The types of information that will be considered with regard to general land use compatibility will include but may not be limited to:

a. Compliance with zoning or local ordinances regarding the siting of solid waste facilities that are in full effect at the time the permit or registration application is submitted to the TCEQ
b. Affect on community growth patterns
c. Impact of proposed facility on traffic patterns
d. Proposed fill height and its impact on the appearance of the surrounding area
e. The measures that will be taken, if necessary, to blend the appearance and operation of the proposed facility in with its surroundings
f. The character of surrounding land use

If zoning or local ordinances regarding the siting of solid waste facilities are not in full effect prior to an applicant submitting a permit or registration application to the TCEQ, the zoning/ordinance requirements will not be considered as a factor in the evaluation of land use compatibility. The SWAC reserves the right to solicit comments from individuals, organizations, and local governments within the proposed facility's impact area when considering the general land use compatibility factor.

Step 4: Conformance Findings

The conformance review is not an application approval or disapproval process. Rather, it is a means for the TCEQ to obtain qualified opinions from local governments in the affected region. Based on the conformance review, the SWAC will make one of the following three findings:

1. The permit or registration conforms to the plan

    a. The committee recommends approval of the permit or registration
    b. The committee recommends approval with specific conditions attached
    c. The committee requires additional information before making a final recommendation

2. The permit or registration does not conform to the plan

    a. The committee recommends denial of the permit or registration
    b. The committee recommends withholding approval until specified deficiencies are corrected
    c. The committee recommends additional action by the TCEQ before making a determination on the permit or registration

3. The committee lacks sufficient information to make a qualified conformance determination.

Step 5: Report on Conformance Review Findings

The MRGDC's Solid Waste Program Coordinator will be responsible for communicating the results of the SWAC's review findings to all affected parties. Within 10 days of the SWAC review meeting during which a conformance recommendation is made, the Solid Waste Program Coordinator will submit an original signed letter from the SWAC chairperson or designee to the TCEQ contact person identified by the applicant relating the SWAC's findings, recommendations, and concerns. Copies of the letter will also be mailed to the applicant.

Step 6: Appeals Process

In general, the recommendations of the SWAC will be final. However, an applicant may appeal the SWAC's recommendation if the application review was not processed according to the procedures outlined in this section. To submit an appeal, the applicant must submit a request to the MRGDC's Executive Director in writing specifying any alleged procedural violations. The request must be submitted within ten calendar days following the date of the SWAC's recommendation.

Upon receiving the appeal request, the Executive Director will investigate the allegation to determine if the appeal is valid. If the appeal is not valid, the Executive Director will submit written notification of this determination to the applicant. In this case, the decision of the Executive Director is final.

If there is some validity to the appeal, the Executive Director will forward the appeal to the Executive Committee for consideration and place the appeal on the agenda of the bimonthly Executive Committee meetings. SWAC members will receive copies of the appeal and select a representative to attend the Executive Committee meeting. The protesting applicant will also be notified in writing of the time and date for consideration of the appeal. The applicant may present its case directly to the Executive Committee, which will render a decision on the matter. All decisions made by the Executive Committee will be final.

3.b. Grants Funding Plan

In this section of the plan, the MRGDC has established the priorities for the use of regional solid waste grant funding. This section of the regional plan will guide the MRGDC's use of grant funds. This section identifies the goals and objectives applicable to the use of grant funds, and the priorities for the use of the funds within the region.

3.b.1 Regional Solid Waste Management Plan Priorities and Project Categories

Table D.2 represents the regional solid waste management priorities for the MRGDC:

Table D.2: MRGDC Solid Waste Management Priorities

MRGDC Solid Waste Management Priorities		Corresponding Goal and Objective
1.	Local Enforcement	1A, 1F, and 2G
2.	Litter and Illegal Dumping Cleanup	2G, 3A, 3B, and 3D
3.	Source Reduction and Recycling	1A, 1D, 1E, and 2A
4.	Citizens' Collection Stations and "Small" Registered Transfer Stations	1, 2, 3, 4, and 5
5.	Household Hazardous Materials	2E
6.	Technical Studies and Local Solid Waste Management Plans	2E, 3, and 4
7.	Educational and Training Projects	1A and 1F

3.b.2. Specific Projects

The MRGDC has not identified any specific projects.

3.b.3 Project Selection Process

The SWAC will review, score, and rank all applications based on the following criteria:

- Project Description – 25pts.
- Work Program – 25pts.
- Project Cost Evaluation – 25pts.
- Level of Commitment of the Applicant – 25pts.

In accordance with §361.014(b) the Texas Health and Safety Code and (30 TAC §330.566) of the State Municipal Solid Waste Regulations. A project or service funded under this program must promote cooperation between public and private entities and may not be otherwise readily available or create a competitive advantage over a private industry that provides recycling or solid waste services.

To ensure that private entities providing recycling and solid waste services in the region are aware of the funding process, the MRGDC shall take action as set forth in this Section.

1. Prepare and maintain an up-to-date mailing list of all known providers of recycling and solid waste services within the region.

2. Seek information from the private sector regarding current recycling and solid waste services in the region, and organize that information by city, county, school district, and/or special district for presentation to the SWAC.

3. Take steps to increase awareness among private service providers in this region about grants program, to include adding private service providers to mailing lists to receive information concerning agendas, grant application summaries, and other notices about upcoming SWAC meetings.

4. Provide and promote the mailing list of private providers to potential grant applicants for their use in seeking partnerships and/or verifying that a project proposal does not violate the statutory requirements regarding private industry.

5. Notify and encourage private service providers in the region to attend any public meetings held to discuss the plans of the MRGDC for conducting any pass through grant program, and include discussion of the process for dealing with private industry concerns as part of the public meetings.

6. Either as part of the public meetings or through separate meetings with the private service providers, the MRGDC is strongly encouraged to discuss with, and obtain input from, the private service providers on the types of projects located within the region that may be of the most concern to them.

7. Mail any notices of the availability of funding to the private service providers within the region, and include in those notices information to explain the process for working with local governments and the MRGDC to discuss and resolve any private industry issues.

To ensure that private entities providing recycling and solid waste services in the region have an opportunity to review potential projects, work with potential applicants, and provide input on the effect of those projects. The MRGDC shall implement the provisions set forth in this Section, to include incorporating applicable requirements in the pass-through grant application standards, instructions, and forms.

1. Require applicants for funding to contact in person or in writing the known private providers of similar services that, at the time of the application development, are providing services within the geographic service area that the project intends to serve, prior to making an application.

2. Require applicants for funding to inform the private service providers of the basic details of the proposed project and to consider any input and concerns from the private service providers about the project when completing the project proposal.

3. Encourage applicants for funding to meet directly with private service providers that may have a concern about the proposed project to attempt to resolve any concerns before an application is submitted.

4. Require applicants for funding to provide with the application information regarding recycling or solid waste services within the proposed geographic service area of the project being applied for. Including the names and telephone numbers of any known private entities providing similar or related services within that service area; a certification that the private

service providers were notified of the details of the application; copies and/or summaries of any input and concerns raised by the private service providers; a summary of any meetings or discussions held between the applicant and the private service providers; an explanation of any changes made to the proposed project to address private service provider concerns; and an explanation of any remaining concerns that were not addressed and why the applicant determined that the concerns were not valid under the statutory requirements.

5. Notify, either as part of the original notice of the availability of funding or through a separate notification, the private service providers in the region of the availability of the project applications for review, and the time period during which those applications may be reviewed.

6. As appropriate, contact any known private service provider for supplementary information.

The MRGDC shall, in the process of selecting projects for funding, make a decision as to the eligibility of the project under the provisions of §361.014(b) of the Texas Health & Safety Code and (30 TAC §330.566) of the State Municipal Solid Waste Regulations. The process for making such eligibility decisions shall be established by the MRGDC before the project selection process begins. In making a decision concerning the private industry requirements, the MRGDC shall, at a minimum, follow the procedures set forth in this section.

1. Accept written comments from private service providers regarding the project applications, and include those comments with the applications for review and consideration by the SWAC and the governing body of the MRGDC.

2. To the extent time allows and as deemed appropriate by the MRGDC, seek to resolve issues of project eligibility, to include encouraging the applicant to work with the private service provider to resolve the issues, before the project is considered by the SWAC.

3. If necessary, the MRGDC may contact the TCEQ to discuss eligibility matters before consideration of the application by the SWAC.

4. Present all private industry concerns related to an application to the SWAC.

5. Allow for oral comments at the meeting of the SWAC where the projects will be considered, from a private service provider representative on a proposed project. The MRGDC may, but is not required to, restrict oral comments concerning that project to entities from whom written comments had previously been received by the MRGDC.

6. The SWAC shall make a determination concerning the private industry concerns before issuing its recommendations concerning the selection of the applications to be funded. In making a decision concerning the eligibility of a project, the SWAC shall address the issues raised by a private service provider and shall provide in the record of the proceeding its specific reasons for either accepting or rejecting the private industry concerns.

7. The governing body may direct that a determination by the SWAC that a project does not comply with the private industry requirements precludes further consideration of that project application. Alternatively, the governing body may reserve for itself the authority to make a final decision regarding a private industry concern. In either case, the MRGDC shall establish clear responsibilities for making such decisions prior to beginning the project selection process.

8. Allow for oral comments at the meeting of the governing body where the projects will be considered from a private service provider representative. The MRGDC may, but is not required to, restrict oral comments concerning that project to entities from whom written comments had previously been received by the MRGDC.

9. In making a decision concerning funding a project, the governing body shall provide in the record of the proceeding its specific reasons for either accepting or rejecting the private industry concerns.

10. Inform in writing any private service provider that submits comments opposing a project that the service provider may appeal in writing to the Authorized Representative of the TCEQ. A decision of the governing body approving the selection of a project for funding, within ten (10) working days following receipt of the written notice, on the grounds that the project does not promote cooperation between public and private entities, or is readily available in the proposed project service area, or creates a competitive advantage over that private service provider in the provision of recycling or solid waste services.

The MRGDC shall undertake any additional activities determined necessary by the SWAC and authorized by the MRGDC Board of Directors, ensuring that a funded project complies with §361.014(b) of the Texas Health and Safety Code and (TAC §330.566) of the State Municipal Solid Waste Regulations.

In order to allow for the consideration of and action upon an appeal that may be submitted to the TCEQ by a private service provider, the TCEQ and the MRGDC agree to adhere to the appeals review process set forth in this Section.

1. The TCEQ will consider any written appeal received from a private service provider during the ten (10) working days that the TCEQ has to review the project selection list submitted by the MRGDC.

2. If the TCEQ determines that there are grounds for further consideration of the appeal, the TCEQ shall notify the MRGDC in writing and by other appropriate means.

3. If so notified of the further consideration of an appeal by the TCEQ, the MRGDC shall cooperate with the TCEQ and the appellate private service provider to resolve any problem issues.

4. The MRGDC shall not proceed with any project that the TCEQ has notified the MRGDC of a question or concern about that project until the TCEQ provides the MRGDC written authorization to proceed with awarding funding to the project.

5. If the private industry issues are not resolved by the MRGDC and the private service provider to the satisfaction of the TCEQ, the TCEQ will make a final decision concerning the eligibility of the project for funding. This decision will be communicated to the MRGDC and the private service provider in writing.

Except as may be required by the TCEQ, in writing, to address special circumstances, the MRGDC is exempt from the requirements to adhere to the procedures mentioned above when considering proposed activities and projects that fit within the categories set forth in this Section.

1. Public education activity projects, excluding demonstration projects.

2. Local solid waste enforcement activity projects.

3. Household hazardous waste management activity projects.

4. Local solid waste management plans.

5. Technical studies.

6. Community Cleanups, Lake and River Cleanup events, and Texas County Cleanups.

3.c. Local Solid Waste Management Plans

The MRGDC has the central responsibility for overseeing local solid waste management planning efforts in the region. The development of local solid waste management plans must be guided by the MRGDC and by the priorities established in the plan.

At this time, however, the MRGDC does not anticipate that it will have funding through the solid waste grants program for the development of a local solid waste management plan. The MRGDC would encourage local governments in the MRG Region to either develop plans in-house or to apply for technical assistance from another agency for funding.

3.d. Regional Coordination and Planning

This section outlines the major regional activities and initiatives that may be conducted by the MRGDC during the short-term planning period. The major regional activities and initiatives to be conducted by the MRGDC have been developed based on the goals set forth in this plan. The ordering of this section is consistent with the ordering of subject categories in Section C.4 Waste Management System.

Roles, Responsibilities and Institutional Arrangements

1. Foster the development of planning area workgroups to allow local communities to better coordinate future solid waste management activities.

2. Obtain and distribute information to local governments in the MRG Region regarding potential additional funding sources for solid waste management projects.

Waste Disposal and Capacity

1. Provide updated information to local governments regarding the disposal capacity of landfills and planning areas in the MRG Region.

Waste Transfer, Storage, Treatment and Processing

No recommendations have been provided for the regional level regarding waste transfer, storage, treatment and processing.

Waste Collection and Transportation

1. Assist in the preparation and/or distribution of brochures regarding the availability of collection services. For example, the MRGDC could facilitate efforts to ensure that local governments are aware of and receive copies of TCEQ's "Let's Work Together to Stop Illegal Dumping" brochure.

Recycling Services

1. Encourage the development of subregional recycling centers that allow for the sharing of processing equipment.

2. Encourage local communities to develop or enhance programs that reduce the amount of brush, leaves, and grass being landfilled.

Household Hazardous Waste (HHW) Services

1. Encourage the TCEQ to sponsor more HHW collection events in the MRG Region.

2. Coordinate with local governments and county extension agents to foster the distribution of information for the public regarding future HHW collection events.

Litter and Illegal Dumping

1. Develop a regional public awareness campaign to reduce illegal dumping in the MRG Region. This campaign should be coordinated with local governments and other entities, such as the Nueces River Authority, that have an interest in eliminating illegal dumping in the region.

Facility Siting

1. In making recommendations to the TCEQ regarding proposed landfills, the MRGDC should ensure that its recommendation is consistent with any local siting regulations within the area of jurisdiction of the proposed landfill.

Closed MSW Landfill Inventory

1. Notify landowners and county clerks regarding the locations of closed landfills.

2. Develop and implement a process to meet State regulations in cases where additional closed landfills are identified.

Local Solid Waste Management Plans

1. Encourage local governments in the MRG Region to either develop plans in-house or to apply for technical assistance from another agency for funding to develop local solid waste management plans.

3.e. Local and Subregional Recommendations

This section outlines the major local activities and initiatives that may be conducted by the local governments during the short-term planning period. These are activities that could be conducted by one or more local governments in the MRG Region. The major local government activities and initiatives have been developed based on the goals set forth in this plan. The ordering of this section is consistent with the ordering of subject categories in Section C.4 Waste Management System.

Roles, Responsibilities and Institutional Arrangements

1. Develop planning area workgroups to provide a forum to better coordinate on future solid waste management activities within specific planning areas of the MRG Region.

2. Seek financial assistance from external funding sources to provide funding necessary to address future solid waste management needs.

Waste Disposal and Capacity

1. Local governments in Planning Areas I and IV should conduct feasibility analyses to determine their best option for solid waste disposal. These local governments should evaluate all reasonable options, including participation in subregional landfills, development of arid exempt landfills, and the transfer of solid waste to another landfill.

2. The City of Eagle Pass and Maverick County should continue efforts to coordinate the development of a Type I landfill in Planning Area II. In addition, efforts should be made

to determine whether other local governments in the region would have an interest in sending their solid waste to this facility.

Waste Transfer, Storage, Treatment and Processing

1. As local governments evaluate their disposal options in the future, they should also determine whether transfer stations should be used to transport solid waste to a distant landfill.

2. Local governments that are using transfer stations should share information with other cities and counties in the MRG Region to obtain a current understanding of the costs associated with transfer services.

Waste Collection and Transportation

1. All local governments should develop and distribute information regarding the solid waste collection services that are available in their area of jurisdiction.

2. In areas where collection services are not available, which are primarily in unincorporated areas, local governments should develop citizens' collection stations.

3. Local governments, especially counties, should evaluate whether they would have an interest in requiring mandatory collection services for all residents. Under SB 252, which was passed by the Texas Legislature in 2001, counties can mandate collection services and payment of related fees.

4. In areas that receive a significant number of recreational visitors (i.e. for camping and hunting), local governments should ensure that collection services are provided. In addition, local governments should develop information to inform these visitors about available collection services.

Recycling Services

1. Enhance the capabilities of existing recycling processing centers to allow for the processing of material from multiple local governments.

2. Develop or enhance programs that reduce the amount of brush, leaves, and grass being landfilled.

3. Develop public education campaigns regarding the availability of recycling services to local residents and businesses.

Household Hazardous Waste (HHW) Services

1. Coordinate with the TCEQ and county extension agents to foster the distribution of information for the public regarding future HHW collection events.

2. Develop and implement public awareness campaigns that encourage residents to use materials in a responsible manner.

Litter and Illegal Dumping

1. All local governments should develop and implement a comprehensive program to eliminate illegal dumping in their area of jurisdiction. These programs will need to include implementation of the following strategies:
   - Promote public awareness campaigns
   - Provide basic collection and disposal services
   - Enforce illegal dumping laws
   - Clean up existing illegal dump sites

Facility Siting

1. Local governments that have an interest in providing input into the permit application decision for solid waste facilities should adopt local regulations that define locations where solid waste facilities will and will not be allowed in the community.

Closed MSW Landfill Inventory

No recommendations have been provided for the local level regarding the closed MSW landfill inventory.

Local Solid Waste Management Plans

1. As needed, local governments should develop local solid waste management plans to address key solid waste management issues.

3.f. Recommendations for State-Level Action

The problem of illegal dumping is a concern for local governments throughout the MRG Region. The illegal dumping of used tires is a particularly challenging phenomenon in the MRG Region as well as throughout the State of Texas. Numerous local government officials within the MRG Region have noted that since the termination of the State's waste tire recycling program, there has been a significant increase in the illegal dumping of tires.

Therefore, the MRG Region would be assisted in this important issue through the re-institution of a state waste tire recycling program. The State of Texas operated a waste tire recycling program from 1992 through 1997. When the tire program was eliminated, the associated revenues generated through the $2.00 recycling fee were no longer available for the clean up of illegal sites or the ongoing collection of used tires. Currently, tire dealers are allowed to set their own fee for the disposal of scrap tires, although individuals may choose not to pay the fee and

may take their scrap tires away with them. This current system is flawed and provides many opportunities for the illegal dumping of tires.

This issue cannot be resolved on the local or regional level. If one county or region develops a comprehensive scrap tire management and enforcement program, the illegal dumpers would be able to simply dump in a nearby area that does not have such a program in place. Therefore, the MRG Region, and the State of Texas as a whole, would benefit from a statewide program that is designed to comprehensively address the issue of scrap tire disposal.