CONCHO VALLEY COUNCIL OF GOVERNMENTS
REGIONAL SOLID WASTE MANAGEMENT PLAN 2002-2022

Adopted by:
Concho Valley Council of Governments
December 10, 2003

This plan was funded through a solid waste management grant provided by the Texas Commission on Environmental Quality through the Concho Valley Council of Governments. This funding does not necessarily indicate endorsement of support of the plan findings and recommendations.

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CONCHO VALLEY COUNCIL OF GOVERNMENTS
RESOLUTION 03-19

A RESOLUTION AUTHORIZING THE SUBMITTAL OF THE REGIONAL SOLID WASTE MANAGEMENT PLAN TO COMPLY WITH THE REQUIREMENTS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

WHEREAS, the Concho Valley Council of Governments (CVCOG), is the designated regional planning organization for solid waste planning as established by the Texas Legislature, and

WHEREAS, the Texas Commission on Environmental Quality (TCEQ) has directed the CVCOG to revise and compile the Regional Solid Waste Management Plan for the 13 county Concho Valley region, and

WHEREAS, the CVCOG Solid Waste Advisory Committee aided in the completion of the Regional Solid Waste Management Plan in meetings that were open to the public, and

WHEREAS, the CVCOG staff has incorporated all corrections and clarifications requested by the TCEQ,

NOW THEREFORE BE IT RESOLVED, that the Executive Committee of the Concho Valley Council of Governments hereby approves and authorizes submission of the Regional Solid Waste Management Plan to the Texas Commission on Environmental Quality.

Duly adopted at a meeting of the Executive Committee of the Concho Valley Council of Governments this 10th day of December, 2003.

_____	_____
Delbert Roberts, Chairman	Randy Young, Secretary/Treasurer

ACKNOWLEDGMENTS

The CVCOG Regional Solid Waste Management Plan Amendment is the result of many individuals across the region. The following is a list of some of the contributors to the plan:

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EXECUTIVE SUMMARY

The Concho Valley Council of Governments (CVCOG) has worked toward fulfilling the requirements of •363.062(a) of the Texas Health and Safety Code. In this, the CVCOG is required to develop a regional solid waste management plan that must conform to the state solid waste management plan. As provided under •363.062(e), Texas Health and Safety Code, and •330.566(e), Subchapter O, Texas Commission on Environmental Quality (TCEQ) Regulations, if the TCEQ determines that a regional plan is no longer in compliance with the state solid waste management plan, the TCEQ may request that a COG revise its regional plan. A new state solid waste management plan was published in December 2000. In light of the new plan, the TCEQ has determined that all regional solid waste management plans need to be amended to comply with the revised state plan. Therefore, as a condition of receiving state solid waste grant funds under the FY 2002/2003 Regional Solid Waste Grants Program, each COG was to amend its regional solid waste management plan. The TCEQ has also supplied the standards for the content of the regional solid waste management plans.

The CVCOG has completed the Regional Solid Waste Management Plan Amendment. The process began with and was guided throughout by the Solid Waste Advisory Committee (SWAC) of the Concho Valley. In meetings open to the public and with input from the various entities the SWAC began to adapt the plan. Once the Committee•s draft was completed it was discussed in public hearings and formally adopted by the Executive Committee of the Concho Valley Council of Governments. There were no additional comments or changes from the original draft. This was a testament to the comprehensive makeup of the Committee as well as their efforts in revising the plan.

Population growth in the region was expected to be slightly greater. However, even though the growth was not as big as once expected, it still showed good, steady positive growth. It should be noted that this growth was not uniform across the region and some counties experienced a decline in population. The 2022 population is projected to be approximately 166,497.

The geography of the district includes the dry and arid expanse in the west and the central Texas Hill Country in the east. The average rainfall in the west is 18 inches per year and in the east it averages just less than 25 inches per year. The growing season is exceptionally long due to the warm climate. The climate for the CVCOG region is classified as subtropical sub-humid with temperatures averaging between 34 and 96 degrees. The average gross lake surface evaporation rate for the area ranges from 68 inches in eastern Kimble County to 81 inches in Sterling County. The district has had a roller-coaster history of economic development from the mid 1800s to current times. The land was settled by rugged pioneers who developed the area into agricultural production. Row crops have been grown in the northern portion of the district and farm animals have been the main cash crops in the central and southern portions. Cattle, goats, and sheep are the main products. The Concho Valley is a leading center for goats, sheep, wool and other related products. Row farming is primarily cotton and grain crops. Economic activity in the region has experienced a wide variety of impacts. On the downside, recent closings of manufacturing plants have dislocated over 600 workers. However, there have also been some positive economic strides. One manufacturing plant closure resulted in the corporation giving their old building to the City of San Angelo. With aid from various organizations, this building will be transformed into a state of the art training center. This training center will have positive impacts throughout the entire region. The City of San Angelo•s telemarketing industry is thriving. Other area businesses such as a goat meat processing plant, an oil field equipment shop, a candle factory, a truffle farm, and a grape orchard are having positive impacts on the regional economy. Additionally, many of the counties are seeing a continued increase in retirement interests as communities provide housing and other services.

Tourism is growing in many areas as the assets of the area are publicized.

Waste disposal in the Concho Valley has been greatly altered with the implementation of new federal and state requirements. For example, with the implantation of new Subtitle D legislation, several of the regions landfills closed. Currently there are only eleven (11) active landfills in the region. Waste disposal rates in the region exploded in 1995 as a result of a major storm in early summer of that year. The construction and roofing debris going into the San Angelo landfill doubled the amount of waste expected. However, rates have since returned to the normal range. During the year of 2000, approximately 9,422 tons of waste were exported to other areas of Texas from communities in the region who have closed their landfills. Also, approximately 3,640 tons of waste were imported into the San Angelo landfill from communities outside the region. The waste tonnage projections for the region are expected to remain at the same level as currently being produced. The reason for this is that, while the population of the region is growing at a rate of approximately 5% per every five years, the recycling and waste reduction programs are also increasing. Therefore, any increases in the number of waste producers will be offset by advances made in waste reduction and recycling efforts. Landfill space is estimated to provide capacity for approximately 53.2 years.

Additionally, advancements have been made as waste management and waste reduction programs and services are being provided throughout the region. Most of these programs have begun since the Regional Solid Waste Management Plan was started in 1990. The City of San Angelo is served with a drop-off collection center managed by the San Angelo Friends of the Environment. The recycling center is the result of a cooperative effort between many local businesses, the City of San Angelo, and TCEQ pass-through grants from the Concho Valley Council of Governments. The cities of Brady, Eldorado, Mason, Robert Lee, and Sonora have drop-off collection centers. Additionally, mobile collection equipment is maintained by the cities of Big Lake, Eldorado, and Menard as well as Sterling County, San Angelo I.S.D. and Menard I.S.D. Additionally, Crockett County is collecting recyclables with mobile collection equipment. Most of these projects were either provided or enhanced with the use of TCEQ pass-through grants from the Concho Valley Council of Governments. Used oil collection centers are located in each county of the region. Most of these centers also accept used oil filters.

The completed Closed Landfill Inventory is also included in the plan as Appendix C. The region contained thirty-six (36) permitted units and twenty-four (24) unpermitted units. These numbers are revisions form the numbers initially provided by the TCEQ. Under the permitted sites category, TCEQ reported that there were 37 sites within the region, however, upon further investigation, it was discovered that one of the sites TCEQ claimed as close was in fact still open and active. Additionally, under the unpermitted sites, TCEQ originally report the region had 28 sites. However, three of those sites were duplicates of other unpermitted sites within the region. Also, another site was mislabeled as a landfill. That site was actually an illegal dump site that had been previously cleaned up.

The goals developed in the Regional Solid Waste Plan have been accurate for the needs of the region. Implementation progress has been achieved in each goal area. The only additional concern of local governments, not specifically addressed in the previous plan, is the question of used tires. The proper handling and disposal of used tires is the only addition to the projects currently listed. The termination of the TCEQ•s Waste Tire Program has left many cities with questions of how to establish a stable and equitable collection and disposal system.

The plan will demonstrate continued growth and development in the area of municipal solid waste management and recycling. Although great strives have been made, it is important to note that there is still room for continued growth and improvement. The CVCOG looks forward to the challenges that lay ahead and is confident that its partnership with the TCEQ, local governments and all interested and affected parties will result in continued advancements in the area of municipal

solid waste management and recycling.

REGIONAL ANALYSIS

A. Population and Growth Patterns

The Concho Valley Council of Governments region comprises thirteen counties spread over approximately 16,287 square miles of West-Central Texas. It is predominantly a sparsely populated rural area with San Angelo being the only city with a population of more than 6,000 (Figure 1). The historic population of the counties and county subdivisions is shown in Figure 1. This chart indicates a steady growth for the district over the past four decades, but, all of the counties except Tom Green have shown periods of decline, with Menard County being the only one to have declines for three of the past four decades. Crockett, Reagan, and Tom Green were the only counties showing growth during the 1960s. The rate varied from 8.34 to 22.57 percent during that decade. In the same period decreases to a high of 20.02 percent were recorded in the remaining counties. Though the percentage of decrease in population was lower during the 1970s, Tom Green is the only county that has sustained growth. The district posted substantial growth during the 70s, but slowed in the 80s. The 90s continued to show slow but steady growth in the region. However, this growth was not uniformly distributed. Some counties lost population while others grew substantially. It is interesting to note that the greatest growth occurred in the counties that diversified their economies. Both Coke and Concho counties were successful in placing detention centers in their respective county, it is believed that this had a direct relationship with the growth that both counties experienced.

Population projections show growth of the region through the year 2022 (Figure 2). Tom Green projections show a 13 percent increase over the two decades. These figures were derived from information provided by the Texas State Data Center, Department of Rural Sociology, Texas A & M University, using the most recent migration scenario which depicts the growth over the past decade; this is expected to be the most likely prospect for population growth for most counties.

Population density in the district is sparse, except in Tom Green and McCulloch Counties. Tom Green County has the highest density with 68.3 persons per square mile. McCulloch County follows with 7.7 persons per square mile. The remaining counties have from 1.5 to 4.3 persons per square mile (Figure 3). Low densities present significant challenges to the region. However, this also depicts a scenario in which waste production and disposal will be relatively limited and landfill capacity, and potential capacity, will be more than adequate.

Population is heavily distributed toward Tom Green County, with 69.2 percent of the 1990 population, and 70.1 percent of the 2000 population residing in Tom Green County (Figures 1 and 3). This compares with population projections of 71.3 percent in the year 2032 as forecast in Figure 2. Crockett, Irion and Sterling Counties each represent just about one and a half percent of the district population. McCulloch County contains approximately 7.7 percent of the district population and is the next most populated county after Tom Green.

FIGURE 1
POPULATION HISTORY

COUNTY/City	1960	1970	%Growth/Decline from previous count	1980	%Growth/Decline from previous count	1990	%Growth/Decline from previous count	2002	Overall Growth Rate
COKE	3,589	3,087	-13.99%	3,196	3.53%	3,424	7.13%	3,864	12.85%
Bronte				983		962	-2.14%	1,076	11.85%
Robert Lee				1,202		1,276	6.16%	1,171	-8.23%
CONCHO	3,672	2,937	-20.02%	2,915	-0.75%	3,044	4.43%	3,966	30.29%
Eden				1,294		1,567	21.10%	2,561	63.43%
Paint Rock				256		227	-11.33%	320	40.97%
CROCKETT	3,885	4,209	8.34%	4,608	9.48%	4,078	-11.50%	4,099	0.51%
IRION	1,183	1,070	-9.55%	1,386	29.53%	1,629	17.53%	1,771	8.72%
Mertzon				687		778	13.25%	839	7.84%
KIMBLE	3,943	3,904	-0.99%	4,063	4.07%	4,122	1.45%	4,468	8.39%
Junction				2,593		2,654	2.35%	2,618	-1.36%
MASON	3,780	3,356	-11.22%	3,083	-8.13%	3,423	11.03%	3,738	9.20%
Mason				2,153		2,041	-5.20%	2,134	4.56%
McCULLOCH	8,815	8,571	-2.77%	8,735	1.91%	8,778	0.49%	8,205	-6.53%
Brady				5,969		5,946	-0.39%	5,523	-7.11%
Melvin				202		184	-8.91%	155	-15.76%
MENARD	2,964	2,646	-10.73%	2,346	-11.34%	2,252	-4.01%	2,360	4.80%
Menard				1,697		1,606	-5.36%	1,653	2.93%
REAGAN	3,782	3,239	-14.36%	4,135	27.66%	4,514	9.17%	3,326	-26.32%
Big Lake				3,404		3,672	7.87%	2,885	-21.43%
SCHLEICHER	2,277	2,791	22.57%	2,820	1.04%	2,990	6.03%	2,935	-1.84%
Eldorado				2,061		2,019	-2.04%	1,951	-3.37%
STERLING	1,177	1,056	-10.28%	1,206	14.20%	1,438	19.24%	1,393	-3.13%
Sterling City				915		1,096	19.78%	1,081	-1.37%
SUTTON	3,738	3,175	-15.06%	5,130	61.57%	4,135	-19.40%	4,077	-1.40%
Sonora				3,856		2,751	-28.66%	2,924	6.29%
TOM GREEN	64,630	71,047	9.93%	84,784	19.34%	98,458	16.13%	104,010	5.64%
San Angelo				73,240		84,462	15.32%	88,439	4.71%
TOTAL POPULATION	107,435	111,088		128,407		142,285	10.81%	148,212	4.17%

Source: Census Bureau & Texas State Data Center

FIGURE 2

POPULATION PROJECTIONS FOR CONCHO VALLEY

CENSUS AREA	2002	2005	2010	2022
COKE	3,864	3,796	3,792	3,793
CONCHO	3,966	4,072	4,166	4,202
CROCKETT	4,099	4,285	4,495	4,709
IRION	1,771	1,829	1,888	1,938
KIMBLE	4,468	4,458	4,440	4,782
MASON	3,738	3,685	3,652	3,553
McCULLOCH	8,205	8,179	8,235	8,377
MENARD	2,360	2,353	2,382	2,413
REAGAN	3,326	3,544	3,791	4,182
SCHLEICHER	2,935	3,026	3,156	3,311
STERLING	1,393	1,449	1,520	1,649
SUTTON	4,077	4,295	4,479	4,737
TOM GREEN	104,010	108,079	112,138	118,851
TOTAL POPULATION	**148,212**	**153,050**	**158,134**	**166,497**

Source: Texas State Data Center

POPULATION DISTRIBUTION AND DENSITY
Figure 3

COUNTY	% of Regional Population 1980	% of Regional Population 1990	% of Regional Population 2000	PERSONS PER SQUARE MILE	PERCENT RURAL	PERCENT URBAN
COKE	2.5	2.4	2.6	4.3	100.00	0.00
CONCHO	2.3	2.1	2.7	4.0	100.00	0.00
CROCKETT	3.6	2.9	2.8	1.5	100.00	0.00
IRION	1.1	1.1	1.2	1.7	100.00	0.00
KIMBLE	3.1	2.9	3.0	3.6	100.00	0.00
McCULLOCH	6.8	6.2	2.5	7.7	32.69	67.31
MASON	2.9	2.4	5.5	4.0	100.00	0.00
MENARD	1.8	1.6	1.6	2.6	100.00	0.00
REAGAN	3.2	3.2	2.2	2.8	100.00	0.00
SCHLEICHER	2.2	2.1	2.0	2.2	100.00	0.00
STERLING	0.9	1.0	0.9	1.5	100.00	0.00
SUTTON	4.0	2.9	2.8	2.8	100.00	0.00
TOM GREEN	65.7	69.2	70.2	68.3	14.98	85.02
AVERAGE	7.3	7.7	7.7	9.1	36.61	63.39

Source: Census Bureau

Urban is defined as containing a city of 5,000 and larger. The population continues to move toward urban areas. Between the 1980 and 1990 census counts the population became more urbanized and again between the 1990 and 2000 census counts. The Concho Valley region contains 16,287 square miles with low density. This provides a great potential for growth.

A. Economic Activity

The Concho Valley region has had a roller-coaster history of economic development from the mid 1800s to current times. The land was settled by rugged pioneers who developed the area into agricultural production. Row crops have been grown in the northern portion of the region and farm animals have been the main cash producers in the central and southern portions. Row farming is primarily cotton and grain crops. Cattle, goats, and sheep are the main farm animal products.

The Concho Valley is a leading center for goats, sheep, wool and other related products. The area•s fifteen cities contain infrastructure systems which have been in existence for a number of years. Streets, water systems, wastewater systems, public buildings, and fire protection equipment need updating and enhancing to meet regulations and the demands of growth. Most of the local governments have applied for the Texas Community Development Program for funding for infrastructure from year to year. These funds have provided assistance on a number of programs, but needs exceed the funding available. The U. S. Department of Agriculture through its Rural Development program has assisted in these needs for some of the rural areas. Serious shortcomings continue to exist with assistance critical for economic growth.

There has been limited growth in the area, the lack of a diversified economy and the region•s dependence on the petroleum and agribusiness sectors have left the counties and cities in the area in a ■sustaining• mode in an effort to endure hard economic difficulties. Figure 4 demonstrates the heavy concentration of the workforce in a few job sectors. Additionally, the graph contained in Figure 5 further demonstrates this lopsided concentration in industries.

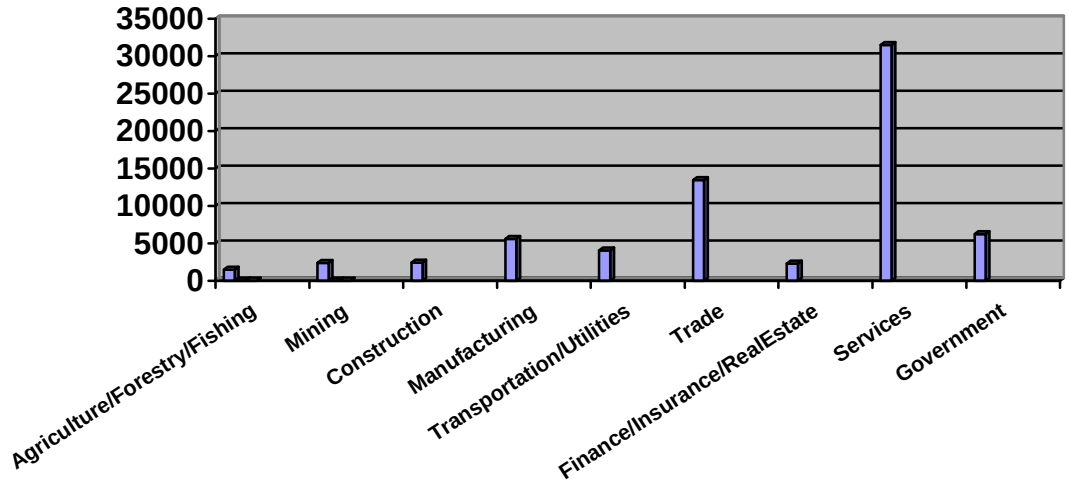
The area does not have alternative jobs available for these citizens who are trained for specific occupations. The northern and western portions of the district have had to deal with changes in governmental crop programs and continued droughts. The southern and eastern portions of the region have been dealing with the drought and the drop in prices for wool and mohair. However, there have been some advances in the economic condition of the area. For example the City of San Angelo has replaced some of the jobs lost from the closing of two local manufacturing firms with the placement of two service operations. Economic diversification has occurred in cities like Bronte and Eden who have located detention centers in their respective areas. Additionally, McCulloch County and the City of Brady are marketing products from special sand found in the county. Finally, the economic pressure in the area has resulted in a resilient regional community that has begun to understand that their individual well-being is dependent on the collective well-being of the region. This, along with items such as the new West Texas Training Center, will better equip the region to face the economic development concerns that it faces in the 21st century.

The region has some rural cities which have a portion of the sales tax designated for economic development. The cities are utilizing the economic development sales tax in a variety of ways to augment and expand their economic development strategies. The cities have made good use of the sales tax to attract new industry and to save jobs at others. The main problem is the small amount of funds available in these areas.

Figure 4
Employment Composition 2002– Concho Valley Council of Governments

Industries	Annual Average Employment	Percent of Total
Agriculture/Forestry/Fishing	1,500	2.2%
Mining	2,400	3.4%
Construction	2,450	3.6%
Manufacturing	5,600	8.1%
Transportation & Public Utilities	4,050	5.8%
Trade	13,450	19.3%
Finance/Insurance/Real Estate	2,300	3.3%
Services	31,500	45.3%
Government	6,250	9.0%
TOTAL	**69,500**	**100%**

Figure 5
Employment Composition Chart 2002– Concho Valley Council of Governments



B. Waste Generation and Characterization

Waste Generation: Disposal rates in the Concho Valley have declined throughout the region due to the following factors. First, there has been an increase in recycling activities which has removed items from the landfills. Second, more of the landfills and local governments are mulching or composting wood and construction debris. Third, an accurate measurement of the waste entering the landfill gives an exact count of waste being disposed. Previous methods relied on estimates. Therefore, recycling and more accurate measurement of waste have provided reductions. Figure 6 below demonstrates the waste generation by county and the totals for the region.

Figure 6: Current Regional Waste Disposal Rates (2002)

County	Tons Received	Tons Exported Within Region	Tons Exported Out of Region
Coke	119	962	840
Concho	0	179	1451
Crockett	0	0	4027
Irion	210	0	0
Kimble	555	0	1656
Mason	2118	0	0
Menard	34	0	1448
McCulloch	7922	0	0
Reagan	3090	0	0
Schleicher	3412	0	0
Sterling	53	0	0
Sutton	0	252	0
Tom Green	125,473	0	0
TOTALS	**142,986**	**1,393**	**9,422**

Source: TCEQ 2002 MSW in Texas, A Year in Review

Solid waste generation projections have changed from those in the original Solid Waste Management Plan. The change was due to an increase in population coupled with revised recycling and waste reduction figures. Therefore, waste generation growth was calculated by maintaining the current per capita disposal rate and matching it with the projected population growth for the region. Figure 7 demonstrates this projected growth utilizing the current disposal rate of 5.69 lbs/person/day.

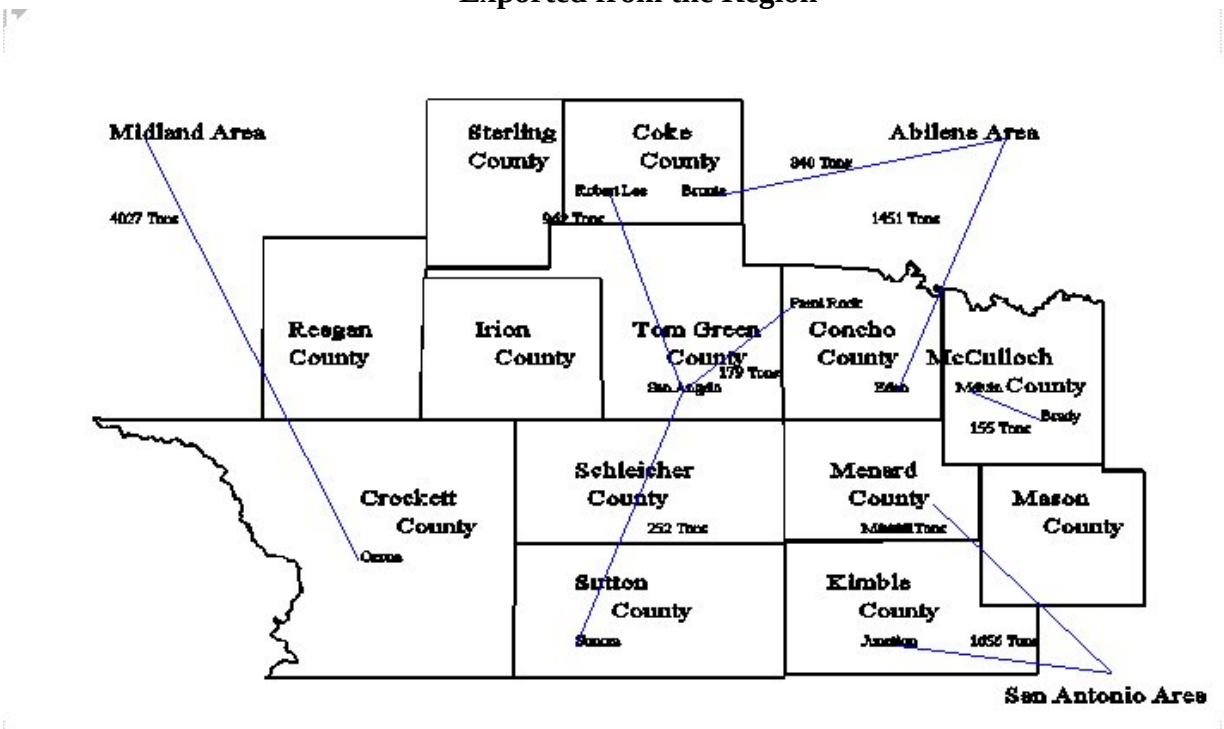
Figure 7: Regional Waste Projections (tons per year)

YEAR	POPULATION	PER CAPITA RATE (lbs./person/daily)	DISPOSAL (Tons)
2002	148,212	5.69 lbs.	153,907
2005	153,050	5.69 lbs.	158,931
2010	158,134	5.69 lbs.	164,210
2015	162,401	5.69 lbs.	168,641
2020	165,497	5.69 lbs.	171,856
2022	166,497	5.69 lbs.	172,985

Source: Texas State Data Center, 0.5 Growth Scenario

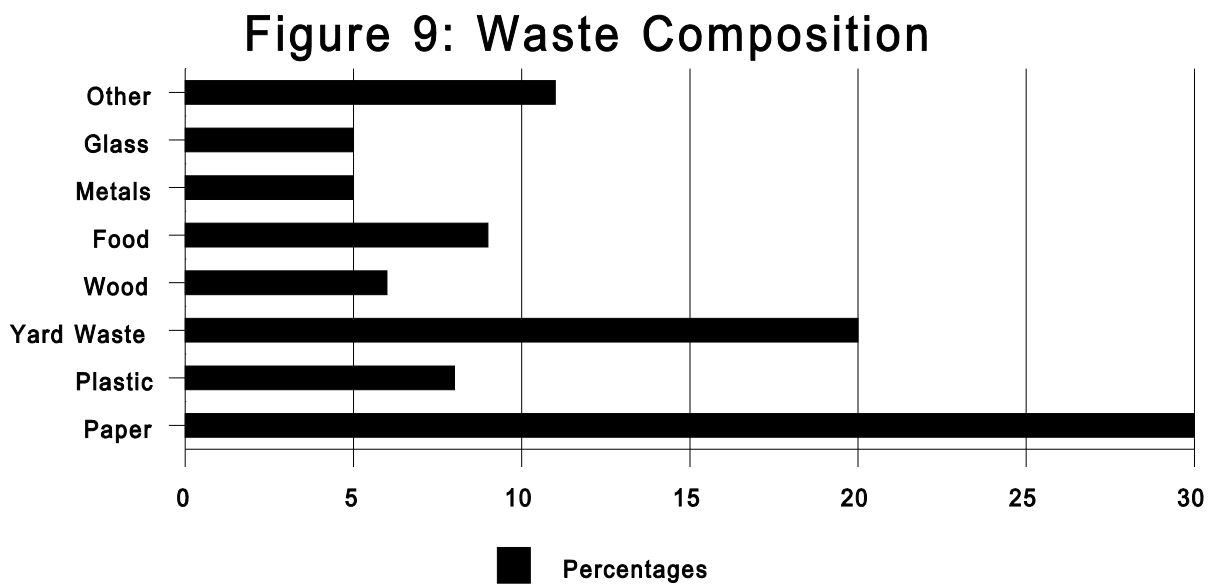
The Cities of Bronte and Eden have contracted to have their waste collected and hauled to the Abilene area. The Cities of Junction and Menard have contracted to have waste collected and transported to San Antonio for disposal. Crockett County has contracted to have their waste taken to the Midland area. The Cities of Paint Rock, Robert Lee, and Sonora have their waste collected and hauled to the City of San Angelo's landfill. The City of Melvin closed their landfill and provides a Citizens' Collection Station for residents. The City then provides transportation to the landfill owned by the City of Brady.

Figure 8: Waste Flow Map: Transportation Within and Exported from the Region



Waste Characterization: An accurate assessment of the waste composition in the Concho Valley could not be accurately ascertained. The various landfills and disposal facilities maintained records to varying degrees and in using various definitions. It is believed that a more accurate assessment of the waste composition of the region could be realized using state averages rather than trying to define and

categorize it regionally. The waste composition is as follows:



C. Waste Management System

1. Roles, Responsibilities, and Institutional Arrangements: The Municipal Solid Waste Management Systems in the region are owned and operated by the local cities and counties themselves. There are no private MSW landfills in the region. The reason for the lack of any private interest involved in owning a MSW landfill is that there is a very small profit margin in owning a MSW landfill in a relatively isolated and rural area. The cities and counties that own a MSW landfill are only doing so as a service to their constituents or because the cost of transporting the waste is more expensive. Each individual city or county manages their respective waste through ordinances and guidelines that the individual entities pass. The systems that are currently in place consist of a variety of collection and disposal methods. Some systems begin with the collection of waste while others begin with a Citizen•s Collection Station. Some of the cities and counties operate their own collection system while others have contracted with private firms to do the collection for them. The size of the landfills range in size from City of Menard that collects only 34 tons per year all the way to the City of San Angelo•s landfill which collects over 125,473 tons per year. There are no solid waste disposal districts, authorities or organizations that are involved in solid waste management within the Concho Valley region.

The general mode of operation is for the city or county to own the landfill, but they will contract with a private company to operate the collection and daily landfill operations. The governmental entities and private companies work on multi-year contracts for waste collection on an agreed frequency.

Although there are no recent regulations that have impacted the operation of MSW Systems, regional Solid Waste Management practices have changed dramatically since the beginning of environmental regulations in the 1960's.

All of the landfills in the thirteen (13) county Concho Valley service area are Arid Exempt, except the landfill in San Angelo which does not qualify due to daily tonnage. Federal Subtitle D

requirements which require daily cover, leachate control, water control, and gas monitoring have the potential of placing overpowering financial burdens on small landfills where staff, finances and equipment are limited.

Materials, which were once taken into the landfill but are no longer allowed, require more training of personnel to monitor materials at landfill entrances. Determining proper disposal techniques has become much more technical as the regulations have grown. This requires frequent training up-dates of personnel.

Federal Subtitle D regulations put in place in the last several years have caused eight landfills in the region to close to municipal waste. The cost of operation was too great for efficient operation. This affects local communities where waste must be transported over 100 miles for disposal.

The regulation dealing with closure, post-closure, and financial assurance caused the eighth landfill to stop accepting municipal waste. The possible impacts of the EPA requiring all landfills to provide an estimate of landfill gas emissions using a standard model remains to be seen. For example, if the estimate is beyond a certain threshold, various control measures may be required. These control measures may be very expensive and the cost will either have to borne by the local operators or may require increased tipping fees. This possibility, as well as that of future regulations, remains a concern to local governments as the costs to be borne by local residents potentially will grow more burdensome. Many of the local governments are considering the financial wisdom of continuing operations.

The termination of the State•s used tire program has greatly increased the occurrence of illegal dumping of scrap tires. Many reputable tire dealers continue to charge the ■environmental fee• and dispose of the tires properly. However, some businesses and many ■do-it-yourself• individuals find it easier to dump the old tires in an isolated portion of the region.

2. Waste Disposal and Capacity: The region is divided into two sub-regions. Sub-region one consists solely of Tom Green County. Sub-region two consists of the other twelve (12) counties in the Concho Valley region. The reason for this subdivision is the vast differences between the only urban county in the region, Tom Green County, and the remaining largely rural and sparsely populated counties. Waste generation and disposal are a reflection of the vast difference in population and therefore, for planning purposes, it was thought better to subdivide the two from each other. However, it is noted that one common link between the two sub-regions is that both areas have more than adequate systems to manage waste in the future.

SUB-REGION 1 (Figure 10) has one landfill in operation. This landfill is owned by the City of San Angelo. A drastic change in disposal rate occurred in May 1995 when a major storm hit the area. After the storm, the rate of disposal approximately doubled the rate experienced before. This increase continued into 1996 and resulted in a 25% increase in the traditional amounts of waste disposed. The major portion of material being disposed is roofing and building debris. The capacity of the landfill has changed since the original plan was adopted. This is due to a more accurate estimate of usable space and the inclusion of undeveloped landfill area which was not considered. Therefore, as figure 10 demonstrates, sub-region 1 has a waste management system that is more than adequate for the foreseeable future.

SUB-REGION 2 (Figure 11) has six fewer landfills in operation for disposal of municipal solid waste than in 1990. There are seven Type I AE landfills in the region and three Type IV AE landfills in the region. This has reduced the capacity in the sub-region as a whole, but the capacity has increased when compared to the actual waste being disposed of in the sub-region. The only landfill with less than 10 years active life is located in Schliecher County and is owned by the City of Eldorado. However, this should not cause any problems as the City of Eldorado recently opened a

new landfill. This landfill has a capacity of 750,000 tons. This would be enough space to provide for the City of Eldorado's landfill needs for the next 106 years. Figure 11 shows the average waste disposal capacity for sub-region 2 to be over 100 years. Therefore, the disposal capacity for the entire area seems to be more than adequate for the foreseeable future.

FIGURE 10: Sub-region 1:

Sub-regional Facilities	Permit #	Type	2002 Disposal Amounts	Capacity Available	
				Tons	Years
City of San Angelo	79	1	125,473	3,951,468	31.5
TOTAL			125,473	3,951,468	31.5

FIGURE 11: Sub-region 2:

Sub-regional Facilities	Permit #	Type	2002 Disposal Amounts	Capacity Available	
				Tons	Years
City of Robert Lee	614	4AE	119	8,826	74.2
Irion County	1270	1AE	210	25,271	120.3
City of Junction	26	4AE	555	132,307	238.4
City of Mason	195	1AE	2,118	23,385	11.0
City of Brady	1732	1AE	7,922	1,227,269	154.9
City of Menard	1404	4AE	34	36,179	1064.0
City of Big Lake	86	1AE	3,090	298,863	96.7
City of Eldorado	349	1AE	3,412	14,727	4.3
City of Eldorado	2264	1AE	7,294	745,987	102.3
Sterling County	1325	1AE	53	15,231	287.4
TOTAL			24,807	2,528,045	101.9

Source: TCEQ 2002 MSW in Texas, A Year in Review

3. Waste Transfer, Storage, Treatment and Processing: Waste transfer, storage, treatment and processing plants in the region are very limited. In fact, there are only 4 active transporters located within the region and there are no storage, treatment or processing facilities. The primary reason for the lack of facilities is that there is not much waste generated that requires processing. Additionally, the current system is sufficient in transporting and disposing of all waste and there is no need for storage. The current system and its operators are clearly adequate for the regions future waste transfer and processing facility needs. The future amounts of waste which is easily disposable with the regions landfill capacity will leave little need for additional transfer, storage or processing facilities.

Therefore, no additional operators or facilities are planned. Additionally, liquid wastes within the two sub-regions, and in fact throughout the entire area are easily processed and serviced. The current system will prove adequate for any future growth. Therefore, with no inadequacies identified, there are no actions currently planned in the region. The following table (Figure 12) lists the active transporters in the region:

FIGURE 12: Active Transporters in the Concho Valley

ENTITY	ADDRESS	REGISTRATION NUMBER
Wilson Tire and Auto	1426 South Chadbourne San Angelo, TX 76903	25026
Carlton Connaly	P.O. Box 1821 San Angelo, TX 76902	27063
Jesse•s Auto Center	917 South Chadbourne San Angelo, TX 76906	6200023
John•s Tire Shop	2501 North Chadbourne San Angelo, TX 76903	6200029

4. Waste Collection and Transportation Services: Waste Collection and transportation services within the Concho Valley region are more than adequate. This sector of solid waste management is not a concern for any of the entities within the region. The following table (Figure 13) identifies all the solid waste collection/hauling services, citizen•s collection stations, service area, fees charged and amounts of waste handled. The current system will prove adequate for any future growth. Therefore, with no inadequacies identified, there are no actions currently planned in the region.

FIGURE 13: Waste Collection and Transportation Services

ENTITY	SERVICE PROVIDED	SERVICE AREA	FEES CHARGED	AMOUNT OF WASTE (tons)
City of Robert Lee	Landfill	Robert Lee	City res. Free County res. $8/cubic yd.	119
Irion County	Landfill	Irion County	All res. Free	210
City of Junction	Landfill	City of Junction	All res. $17.40/cubic yd.	555
City of Mason	Landfill	City of Mason	All res. $40.00/ton	2,118
City of Brady	Landfill	Brady and Melvin	City res. $9.50/ton County res. $22.50/ton	7,922
City of Menard	Landfill	City of Menard	All res. $15.00/cubic yd.	34
City of Big Lake	Landfill	City of Big Lake	City res. $26.50/ton County res. $28.50/ton	3,090
City of Eldorado	Landfill	City of Eldorado	All res. <500lbs. Free All res. >500lbs. 10./lb.	3,412

City of Eldorado	Landfill	City of Eldorado	All res. <500lbs. Free All res. >500lbs. 10./lb.	7,294
Sterling County	Landfill	Sterling County	All res. $20.00/ton	53
City of San Angelo	Landfill	San Angelo, Robert Lee, Paint Rock, and Sonora	City res. $21.58/ton County res. $23.58/ton	125,473
City of Melvin	Citizen•s Collection Station	City of Melvin	City res. Free	155
Crockett County	Citizen•s Collection Station	Crockett County	All res. Free	4,027
Wilson Tire and Auto	Transporter	Tom Green County	Varies according to load	unknown
Carlton Connaly	Transporter	Tom Green County	Varies according to load	unknown
Jesse•s Auto Center	Transporter	Tom Green County	Varies according to load	unknown
John•s Tire Shop	Transporter	Tom Green County	Varies according to load	unknown

5. Recycling Services: Recycling markets in the Concho Valley, have experienced ups and downs, due to the fluctuations in the global recycling economy. Recyclables, more so than many other materials, are very vulnerable to the shifts in demand for such materials. Materials and markets that are present one day at a fairly economically advantageous rate are down and gone the next. Such is the case for the recyclables market in the Concho Valley. This instability has lead to much distrust and hesitancy in committing to a comprehensive recycling program in the region as proposed players are leery of being left with a vast amount of materials that they may not be able to forward. A stable market would do much to advance the recyclables business.

Never-the-less, six major outlets for recyclables exist in the Concho Valley. Four of these businesses export recyclables outside of the region. The exports are to other regions of the state, other states and even other countries. Exports within the region are predominantly by the businesses themselves. Interstate and international flows are organized through brokers. The predominant factor in determining where and when exports are shipped is economics. Items such as iron, copper, aluminum, and paper stays predominantly within the continental United States. The primary states these materials are shipped to include Alabama, Arkansas, Oklahoma and Texas depending on where the price is better. Items such as insulated copper wire, electric motors, and automobile motors are shipped to countries such as Korea and Mexico. Here again, the primary reason for this is economics. Recycling items of this nature is much more labor intensive and therefore, it is more inexpensive to send the materials off to be stripped and readied for recycling. In total, the Concho Valley Region exports approximately 7,100 tons of recycled material each year.

Two of the recycling businesses in the Concho Valley import materials from outside the region. The material being imported for recycling is plastic, predominantly HDPE. This plastic is imported from throughout the United States. There is approximately 10,080 tons of plastic imported into the region every year.

The local governments are also committed to promoting the separation and collection of recycled materials within their own facilities. Even though •361.425 of the Texas Health and Safety Code require this, the local governments have committed more than the required. In fact, the local governments have demonstrated a zeal for recycling that inspires their respective citizens and businesses to follow along. Although it varies from government to government, all the local entities

strive to minimize waste, separate recyclables, promote recycling education, provide recycling outlets to their employees and even promote the purchase of materials made from recycled products.

Recycling facilities and services in the Concho Valley are adequate for the region's current and projected needs. However, source reduction and recycling, along with any other environmentally friendly and protective programs can never be truly "adequate". Although, as stated earlier, it is enough for the current and future demand, recycling facilities and services need to promote and provide for additional advances in sound environmental practices. For example, although great strides have been made, there are several types of recycling that can still be increased. First, there is only one large scale composting operation in the region. An expansion of this operation along with additional operations would go far in increasing the reuse of such a valuable resources. Another area that shows great potential for additional growth would be wood and brush chipping. Although this type of recycling has made great advances, the makeup of the Concho Valley region and its accompanying abundance of wood and wood byproducts, leaves room for even more improvements. These two areas show the greatest potential for growth because the other types of recycling and their potential benefits are too reliant on the factors beyond the region's control. As stated previously, the recycling market is so volatile, it is difficult to have any one entity to commit more than they have already done.

The greatest recycling need in the region is an outlet for recycled automotive products. Liquids such as used oil and antifreeze are extremely expensive to store and transport. However, the greatest shortcoming in automotive product recycling is scrap tires. Since the termination of the State's Waste Tire Program, the region has been inundated with the illegal dumping of scrap tires. Additionally, once collected, these scrap tires are extremely difficult and expensive to transport and process. Therefore, the greatest recycling need in the region is in the area of collecting and marketing automotive wastes.

The local governments will continue to head the region in promoting recycling for the foreseeable future. The governments have made great strides to complying with •361.425 of the Texas Health and Safety Code. The only limitation is a hesitation to collect items that they will then not be able to forward. The answer to this is beyond the local government's control. However, it should be noted that the region has done much to accomplish its previous recycling goals.

FIGURE 14: Recycling Services

County	Entity	Material	Service Area	Fees
Coke	City of Bronte	Wood	Bronte	None
	City of Robert Lee	Paper, Plastic	Robert Lee	None
	Coke County	Wood, Oil	Coke County	None
Concho	City of Eden	Wood	Eden	None
	Concho County	Wood, Oil	Concho County	None
Crockett	Crockett County WCID	Paper, Wood, Oil	Crockett County	None
Irion	Irion County	Metals, Wood, Oil	Irion County	None
Kimble	Kimble County	Wood, Oil	Kimble County	None
	A.E.R.T	Plastic	Interstate	None
	Cedar Fiber Co.	Paper, Plastic	Interstate	None

Mason	City of Mason	Paper, Plastic, Metal	Mason	None
	Mason County	Oil	Mason County	None
McCulloch	McCulloch County	Paper, Plastic, Oil	McCulloch County	None
Menard	Menard County	Oil	Menard County	None
Schliecher	City of Elodorado	Paper, Metal, Oil	Eldorado	None
Sterling	Sterling County	Oil	Sterling County	None
Sutton	City of Sonora	Glass, Paper, Oil	Sutton County	None
Tom Green	Acme Iron and Metal	Iron, Steel, Glass	Concho Valley	None
	Butts Recycling	Paper, Carpet padding	Concho Valley	None
	Angelo Recycling Svc.	Various	Ethicon Co.	None
	S. A. F. E.	Plastic, Paper, Glass, Oil	Concho Valley	None
	Cash for Cans	Aluminum	Concho Valley	None
	Ric Abbott Co.	Metal	Concho Valley	None
	City of San Angelo	Composting	San Angelo	None
	City of San Angelo	Oil	San Angelo	None
	S.A.I.S.D.	Paper, Metal	San Angelo	None
	Tom Green County	Wood	Tom Green County	None

6. Household Hazardous Waste (HHW) Services: Currently there are no ongoing programs for the collection and disposal of Household Hazardous Waste. The San Angelo Friends of the Environment and some of the other cities in the region have conducted special collection events, in cooperation with the TCEQ. These special events have provided the citizens with an opportunity to bring old chemicals and paints for proper disposal. The amount and response to this type of event leaves much to be desired. It seems the only logical and cost effective method to try and implement this sort of program would have to be on a region wide basis. The numbers are just not there for an individual entity to operate such an ongoing project. Therefore, taking a historical account of the situation, the region's current services of providing periodic collection events is adequate for the collection and disposal of household hazardous waste both for now and the foreseeable future.

7. Other Solid Waste Services: Currently, there are no other solid waste services in the Concho Valley region. When approaching the different entities and individuals involved with solid waste management in the region, all of them mentioned the need for a program to deal with the growing problem of used tires. Without exception, every city and county in the region noted a problem with the disposal of used tires. The problem ranges from the illegal dumping of used tires along the highways, in rest areas, or in the various gullies and draws located throughout the region. An additional problem arises when the tires are left in the larger waste bins and are picked up. It either takes the loader time to get out and remove the tires, but then the tires are left as a vector breading ground. If it slips past the transporter, it then becomes a problem at the landfill. The used tires will

then need to be removed from the landfill, or they may be buried along with the other trash. This is an ongoing problem throughout the region, and even though there are very reputable businesses that dispose of them properly, that is not the case 100% of the time. This is one area that definitely needs additional options in order to safely and properly dispose of these used tires.

8. Litter and Illegal Dumping: The Concho Valley Council of Governments has emphasized enforcement of illegal dumping laws. There have been various projects and programs throughout the region aimed at identifying and implementing strategies and programs to combat the illegal dumping that exists in the region. The CVCOG was funded a COG Managed Solid Waste Project which provided training to local law enforcement personnel in an effort to increase their knowledge of illegal dumping laws and possible penalties. Additionally, three counties have implemented limited illegal dumping enforcement programs in an effort to curtail this growing problem. However, all counties are equally inundated with the problem. The Concho Valley region, and both its sub-regions, is very rural. Therefore there are many areas that lend themselves to illegal dumping. As noted earlier, the Concho Valley region encompasses an area of over 16,000 square miles. Compounding this problem is that, as a rural area, local code and law enforcement officials are low in number and inundated with other problems that need addressing. This is especially true during specific times of the year, such as deer hunting season, when there are many individuals that are not local and have no vested interest in keeping the areas clean of unsightly debris.

This is a problem that is note being adequately addressed. Although advances have been made, and news is spreading of the dangers of illegal dumping, the problem is still pervasive. Furthermore, the problem is present throughout the region and no one area or sub-region is affected more than any other. As previously stated, the growing problem of the illegal dumping of used tires continues to plague the entire region. In summary, do to the rural nature of the region, coupled with a lack of adequate policing, the best strategy would be for all the entities of the region to work together to try and address this ever growing problem. There are no programs in effect that address the illegal dumping of liquid wastes, but that does not appear to be a problem.

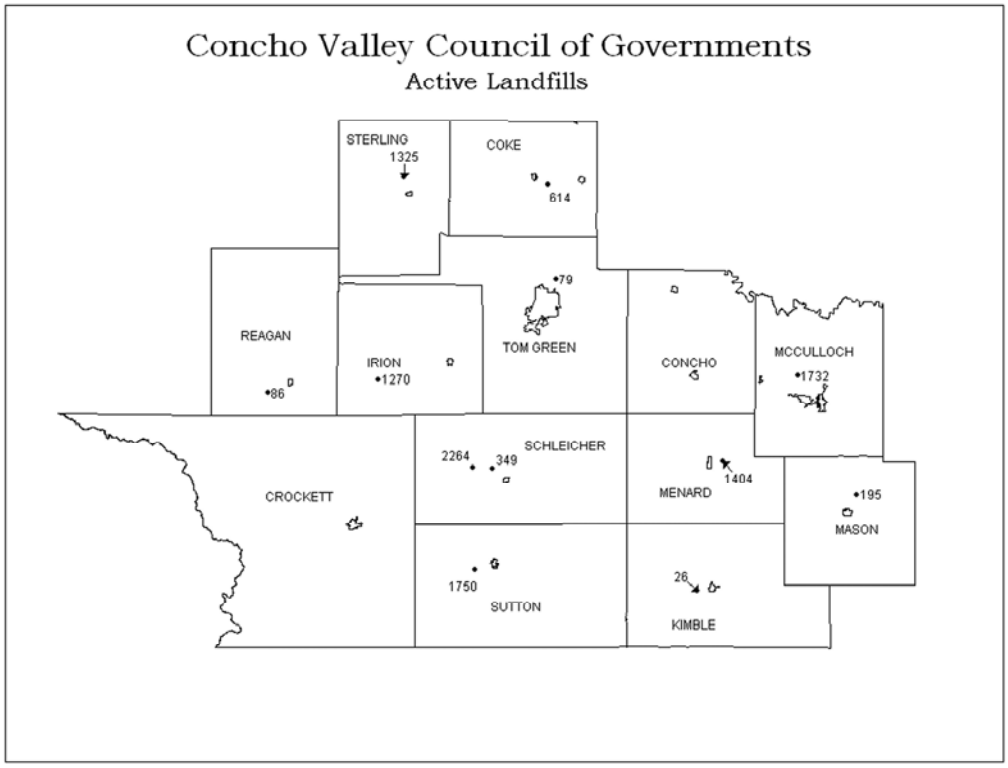
FIGURE 15: Litter and Illegal Dumping Programs

Entity	Program Description
Coke County	Investigation, recording and clean-up or prosecution of illegal dumping activities committed throughout the county•s chronic dump sites.
Menard County	Investigation, recording and clean-up or prosecution of illegal dumping activities committed throughout the county•s chronic dump sites.
Tom Green County	Investigation, recording and clean-up or prosecution of illegal dumping activities committed throughout the county•s chronic dump sites.

9. Facility Siting: The following table demonstrates all the active permitted sites located within the Concho Valley region. There are no applications pending application at this time. The Concho Valley Council of Governments will review any future solid waste facility permit applications for their conformance with this regional solid waste management plan. The CVCOG, through its Solid Waste Advisory Committee will review the permit application after Parts 1 and 2 of the application have been completed and sent to the COG by the TCEQ. The application will be reviewed as to its

compliance with all relevant goals and objectives of the solid waste management plan. The SWAC findings as to conformance or not will be forwarded to the Executive Committee of the CVCOG. The Executive Committee's findings of conformance, or lack thereof, will be forwarded to the TCEQ.

FIGURE 16: Active Landfills



10. Closed MSW Landfill Inventory: The inventory is included as Appendix C to this plan. Copies of the plan are also available to anyone interested in electronic format for free and at minimal cost if in printed format. As was presented earlier and noted again throughout the plan, the Concho Valley region is very rural and sparsely populated. The waste produced is very limited. Additionally, there is a super abundance of land available for the proper disposal of what waste is generated. Therefore, there were no instances of any danger or risk to either the citizens or the environment. The completion of the inventory resulted in a comprehensive listing of the closed landfills in the region and the only action required now, is to keep a accurate count of any active landfills that will close in the future. The only slight problem encountered was that very often there was not an accurate account and measurement of the boundaries of the landfill. The norm for the region was that when a landfill was located in an area, the notes and the deed records listed the entire area and did not give specific meets and bounds. However, this will not be a problem because as stated earlier, the land is sparsely populated and there are no individuals in the vicinity of any of the closed landfills. There is no development near the sites and the areas are predominantly used as farm and grazing land.

The following is the Executive Summary from the Closed Landfill Inventory that was submitted to the TCEQ.

Propose: The Concho Valley Council of Governments (CVCOG) has worked toward fulfilling the

requirements of the Texas Commission on Environmental Quality (TCEQ) with regards toward fulfilling the requirements of •363.064(a)(10) of the Texas Health and Safety Code, as amended by Senate Bill 1447 of the 76th Legislature. In this effort, the CVCOG has produced a regional inventory of closed municipal solid waste landfills in the Concho Valley. This inventory must include the location of such units, the landowners on which the former landfill units were located, and the current use of the land. Additionally, the inventory is to include the exact boundaries of each former landfill unit, or the best approximation of each unit•s boundaries. The closed landfill units are to be inventoried, mapped and, where exact boundaries are known, deed recorded. The CVCOG is also to inform the landowner of its former use. The completed and approved inventory is to be made available to the public.

Objective: The region contained thirty-six (36) permitted units and twenty-four (24) unpermitted units. These numbers are revisions form the numbers initially provided by the TCEQ. Under the permitted sites category, TCEQ reported that there were 37 sites within the region, however, upon further investigation, it was discovered that one of the sites TCEQ claimed as close was in fact still open and active. Additionally, under the unpermitted sites, TCEQ originally report the region had 28 sites. However, three of those sites were duplicates of other unpermitted sites within the region. Also, another site was mislabeled as a landfill. That site was actually an illegal dump site that had been previously cleaned up.

Tasks: Per contract requirements with the TCEQ (Form 7B), the CVCOG was to follow the following tasks in completing the CLI requirement.

1. Reporting: The CVCOG kept Texas Commission on Environmental Quality apprized of the progress in completing the inventory. This task was completed in the form of semi-annual reports according to the schedule required in the contract with the TCEQ.

2. Organize and Review of Previous Data: The CVCOG•s second task was to organize and review all the data provided to them by the TCEQ, SWT, and the local units of government. The data available for completion of this project was vast and varied. Some of the information was clear on concise while others were more ambiguous. An additional endeavor was to sort through the information to and to decipher any duplication and to organize the information into a workable format. The CVCOG organized the information by counties, additionally, the CVCOG then organized each county•s information into permitted and unauthorized sites.

3. Permitted Sites Review: The CVCOG collected additional data that was necessary to complete the inventory. A major of component of this activity included the review of public documents via the TCEQ•s Central Records department. The TCEQ has done an excellent job of maintaining a vast amount of information. The TCEQ is so good in maintaining information, that it became a challenge to sift through the vast amount of information. Additional information was gathered by visits to the various counties. This step provided much information from a variety of sources. County and city records were an excellent source of information, however, it quickly became apparent that there was a gap in the information. Therefore, another valuable resource in the counties was the availability of staff or former staff, and private citizens that had a first hand knowledge of the site.

4. Unauthorized Sites Review: The CVCOG was originally going to complete this task after all the permitted sites review. However it soon became apparent that it was better to try and complete the two together. The resources and individuals were essentially the same.

5. Approximation Boundary Maps: The CVCOG then proceeded to mapping all the sites in the thirteen (13) county region. The maps, although not required of all sites, were felt necessary to show

the location of the sites. This is especially true in the sparsely populated areas of West Texas. Additionally, the sites were also mapped on aerial photos. Originally, the thought was to photograph the individual sites, however, it became very apparent that, on the ground level, one site looked just like the next; one mesquite shrub looked like the next, and one cactus looked just liked the next. Therefore, it was discerned that an aerial photo would render the information seeker more relevant information.

6. Draft Review: The CVCOG prepared a draft of what the inventory was going to look like and what information it was to contain. The draft county was submitted to the TCEQ for review. The TCEQ reviewed the document and prepared a critique of it. The final document has integrated all the changes and additions requested by the TCEQ.

7. Adoption: The CVCOG prepared the final inventory. It was presented to the Solid Waste Advisory Committee in a meeting that was open to the public. Once approved by the Solid Waste Advisory Committee, it was then scheduled for public hearing and adoption before the Concho Valley Council of Government•s Executive Committee. The hearing was scheduled to coincide with the Concho Valley Council of Government•s Annual General Assembly. This was done so that there would be a larger, more captive audience, than was thought to appear at a specially called public hearing. The public hearing was published in a regional newspaper as required. However, there were no public comments at the hearing. The Closed Landfill Inventory was approved unanimously.

8. Submission to TCEQ (TCEQ): The CVCOG has submitted the final inventory the Texas Commission on Environmental Quality (TCEQ) the new name for the TCEQ.

9. Include in Plan: The CVCOG has formally approved the new Regional Solid Waste Management Plan. The major change to the plan was the inclusion of the Closed Landfill Inventory. The plan was also approved at the Concho Valley Council of Government•s Annual General Assembly.

Once the TCEQ has approved the inventory as written, the CVCOG will proceed with the notification requirements. Additionally, the CVCOG will continue to monitor and update the inventory as required.

11. Local Solid Waste Management Plans: There are no current approved local solid waste management plans in the Concho Valley region. This is due to the fact that solid waste planning is relatively new in the Concho Valley. Additionally, those entities that have expressed an interest in implementing a local solid waste management plan have thought it better to wait for this regional plan to be completed and approved to ensure that their individual plan will be in conformance with the approved regional plan.

Sub-region One, encompassing Tom Green County and the City of San Angelo, would be the area that would most benefit from the development of a Local Solid Waste Management Plan. Sub-region One is where three-quarters of the population lives. Therefore, more active planning is required in the area where a concentration of the people live and work.

REGIONAL GOALS, OBJECTIVES, AND ACTION PLAN

D. Summary of Needs and Problems

The Regional Plan has been instrumental in providing the needed guidance and vision of a

comprehensive approach to municipal solid waste management in the region. The Plan along with the grants program from the TCEQ has established recycling as a viable answer to the municipal solid waste disposal concerns of the cities and counties of the Concho Valley region. The grants program has provided for many services that would not have been economically feasible without its help. Most of the region has either started recycling projects or are in the process of planning them. Recycling projects have begun in almost all of the counties in the region. Approximately 750 tons of recyclable materials were collected by local governments in the region. This does not include commercial efforts. Most of the grocery stores in the area recycle cardboard and other businesses are recycling aluminum cans and other recyclables.

As meetings were held and as individual interviews occurred, the main problem, and the only one consistent need throughout the entire region, was the proper collection and disposal of used tires. All the local governments discussed the changing problems with used tires. It was requested that we address this problem as it will reach crisis proportions in our region. This issue will be a priority for the region and this plan will strive to address those needs.

E. Goals and Objectives

The Concho Valley Council of Governments and its member cities, counties and other districts established the following regional goals to be the overall strategies for the region. These are listed below:

Short Term Goals (1 to 5 years)

Goal #1: Develop and manage a Household Hazardous Waste (HHW) collection and diversion program.

Objectives:

1. Encourage public/private partnerships to share cost burden and provide services.
2. Develop a sub-regional (Sub-Region One) collection program that encourages a permanent re-use facility.
3. Promote more cost efficient collection programs such as annual one-day events.

Goal #2: Provide public education on integrated solid waste management.

Objectives:

1. Establish educational programs specific to other goals (HHW, illegal dumping, recycling).
2. Encourage educational programs through school curricula, advertising and environmental projects.
3. Maintain and promote the environmental resource center for the public use.

Goal #3: Provide community clean up events to provide citizens with an alternative to illegal dumping.

Objectives:

1. Encourage public/private partnerships to share cost burden and promote sponsorship.
2. Educate communities on the availability of funds to provide the service and coordinate events.

3. Coordinate services to communities that do not have bulky item pick-up, curbside municipal solid waste services or have illegal dumping issues.

Goal #4: Continue and enhance current enforcement programs of illegal dumping.

Objectives:

1. Support all programs that aim to curtail illegal dumping.
2. Provide environmental enforcement training to the entire region (enforcement, prosecution, judicial and public).
3. Encourage and develop efficient collection, transportation and processing programs for used tires.

Goal #5: Determine effective and efficient management and operation of recycling services.

Objectives:

1. Promote and encourage public/private partnerships.
2. Promote the development of markets for recycled materials and maintain local control as necessary to assure quality of services.
3. Seek support for and encourage continued operation of small businesses and non-profit recycling entities.
4. Encourage and develop efficient collection, transportation and processing programs for used tires.

Goal #6: Explore alternatives to dealing with the disposal of special wastes.

Objectives:

1. Reduce the amount of construction and demolition (C&D) waste and encourage recycling.
2. Determine effective and efficient management of used tires and oil.
3. Provide public education on electronics recycling and work with other entities on maintaining a database of reliable electronic recycling industries.
4. Encourage MSW facilities to have a used tire program.

Goal #7: Ensure the proper management and disposal of municipal solid waste.

Objectives:

1. Encourage best industry practices for all MSW facilities.
2. Encourage MSW facilities to be involved with surrounding communities.
3. Encourage and ensure proper training of MSW personnel.

Goal #8: Reduce the disposal amount of yard waste and encourage recycling it.

Objectives:

1. Encourage programs for the diversion of yard trimmings and brush, and their use of the compost or mulch.
2. Promote the “Don’t Bag It” program for yard waste and backyard composting.
3. Provide educational materials on the beneficial use of green waste.
4. Encourage MSW facilities to divert yard waste and brush from disposal.

Intermediate Goals (6 to 10 years)

Goal #9: Determine whether access to and availability of legal disposal options in the region are adequate.

Objectives:

1. Determine if new or expanded facilities are needed within the region.
2. Promote the development of transfer and citizen collection stations in areas of need.
3. Encourage open and free markets within the region for solid waste collection, disposal and recycling.

Goal #10: Promote administrative structures to ensure some measure of local control in the siting and expansion of MSW facilities.

Objectives:

1. Encourage counties to pass municipal solid waste siting ordinances.
2. Provide pre-application assistance to interested parties.
3. Utilize a checklist to provide guidance and determine plan conformance for MSW permit and registration applications.
4. Promote development of regional or local programs to enforce MSW regulations and permit requirements.

Goal #11: Coordinate and seek to provide incentives for recycling activities and increased recycling participation rates across the region.

Objectives:

1. Work to seek funding for CVCOG to coordinate, monitor and report on progress achieved toward meeting regional recycling goals.
2. Encourage studies and analysis of the current waste steam to stimulate economic development in the recycling industry.

Goal #12: Reduce the amount of municipal solid waste generated and disposed of within the region.

Objectives:

1. Encourage the separation and collection of recyclables from governmental facilities.
2. Emphasize market-based incentives and market development.
3. Target waste reduction activities to the specific waste steams.

Long Term Goals (11 to 20 years)

Goal #13: Increase the CVCOG region recycling rate to 40%.

Goal #14: Provide permanent waste collection facilities throughout the region for special wastes.

Goals and Objectives for Conformance Review of Facility Applications

Goal #15: Use the Process of Review of MSW Facility Applications and the provisions of •363.066, Health and Safety Code, to address land use compatibility and other issues in order

to avoid and/or mitigate adverse impacts from MSW facilities on human health and the environment.

Objectives:

1. Ensure that the use of a site for a MSW facility does not adversely impact human health or the environment by evaluating compatibility of land use, zoning in the vicinity, community growth patterns, and other factors associated with the public interest.
2. Ensure that MSW facilities comply with local zoning requirements, siting ordinances, and other local government land use regulations.
3. Ensure that MSW facilities' impacts on roads, drainage ways, and other infrastructure are addressed and that any potential problems created by the facility are fully and adequately taken into account and addressed.
4. Encourage programs that provide incentives for using landfills instead of illegal dumping including but not limited to conducting and increasing awareness of community cleanup events, effects to curtail illegal dumping, litter abatement and waste reduction programs, public education programs, lower rates for waste collection events, etc…
5. Avoid and/or minimize concerns about visual and aesthetic impacts from MSW facilities on adjacent land uses by incorporating "context sensitive" design, appropriate buffers and setbacks into facility design.
6. Address local land use concerns about the long term and cumulative effects of MSW facilities and protect the public interest in a natural landscape.
7. Avoid and/or minimize nuisance conditions associated with MSW facilities that generate community concerns be ensuring that applicants implement reasonable and appropriate measures and best management practices to prevent and control litter, stormwater runoff, vectors, odor, excessive noise, light pollution and other nuisance conditions.

C. Action Plan

1. Process of Review of MSW Facility Applications:

The Texas Commission on Environmental Quality (TCEQ) requires that all municipal solid waste (MSW) facilities proposed for siting in the CVCOG region must conform to the Regional Solid Waste Management Plan, as stipulated in the Texas Health and Safety Code §363.066 and the TCEQ rules (30 TAC §330.566).

The Solid Waste Advisory Committee (SWAC) will review permit and registration applications filed with the TCEQ to assess their conformance to the plan. The committee's findings will be submitted to the TCEQ for consideration when the Commission decides whether to grant the permit or registration request.

Voluntary Pre-Application Review

A potential permit or registration applicant may request a meeting with the Concho Valley Council of Governments (CVCOG) staff to discuss an impending application, its conformance with the regional plan and steps that may be taken to meet the region's solid waste planning goals. Staff will provide a copy of the Regional Solid Waste Management Plan, review plans for proposed facilities and explain

the review process. This pre-application meeting is recommended but not required.

Submitting a Review Request
Subchapter E of the TCEQ's permitting procedures (§330.51 (10)) states that it is the **responsibility of the applicant to demonstrate conformance** with the regional solid waste plan. Applicants may request a conformance review of their registration or permit application by submitting the following information to the Concho Valley Council of Governments (CVCOG):

1. A copy of the Application to the TCEQ for Permit or Registration, Parts 1 and 2
2. Solid Waste Plan Conformance Checklist
3. The applicant will complete the form to the best of his or her ability to indicate how the proposed facility will help in promoting the goals and objectives of the regional plan. The chief administrative officer of the applicant organization must sign the form to attest to the accuracy and truthfulness of the information presented.
4. A map showing the physical location of proposed or existing facility.
5. Any additional information the applicant wishes to provide to facilitate the SWAC review process.

Requests for permit or registration review shall be submitted to:

Concho Valley Council of Governments
Attn: Solid Waste Program Coordinator
2801 West Loop 306, Suite A
San Angelo, TX 76904

The SWAC review and comment period will not begin until all required information has been submitted in its completed form. Once it has been determined that the information has been properly filed, the Solid Waste Coordinator will confirm its receipt in writing to the applicant and schedule a meeting of the SWAC to review the application at the earliest possible date. Applicants will be notified in writing of the application review date and are strongly encouraged to attend the SWAC review meeting in order to present their application to the committee.

Review Considerations
The SWAC will consider the following factors when reviewing permits and registration applications:

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

   The SWAC will review and comment on the appropriateness of the proposed facility in relation to surrounding land use. In considering the facility's compatibility with existing and proposed land use, the SWAC will examine the following factors:
   - Compliance with zoning or siting ordinances in the vicinity
   - Affect on community growth patterns
   - Impact of proposed facility on traffic patterns
   - Proposed fill height and its impact on the appearance of the surrounding area
   - The measures that will be taken, if necessary, to blend the appearance and operation of the proposed facility in with its surroundings
   - Other factors associated with the public interest.

The SWAC reserves the right to solicit comments from individuals, organizations, and local governments located within the proposed facility's impact area when considering the general land use compatibility factor.

Plan Conformance and Recommendations
The SWAC will determine whether the proposed facility conforms to the Regional Solid Waste Management Plan and recommend a course of action to the TCEQ. The committee does not approve or deny applications. Rather, it provides a means for the TCEQ to obtain qualified opinions from local governments in the affected region.

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.

Report on SWAC Review Findings
The CVCOG Solid Waste Program Coordinator will be responsible for communicating the SWAC's findings in writing to all affected parties. Within 10 days of the review meeting, the coordinator will send a letter signed by the SWAC chairperson or its designee to the TCEQ, relating the SWAC's finding, recommendation and concerns. Copies of the letter will be sent to the applicant.

Appeals Process
The SWAC is an advisory committee to the Concho Valley Council of Governments' Executive Committee. As the Executive Committee has vested the responsibility for MSW facility application review with the SWAC, its recommendations will generally be final.

An applicant may appeal the SWAC recommendations if the application review is not processed and treated in accordance with the procedures set forth in this section. Appeals must be submitted to the CVCOG Executive Director in writing, including the specific alleged procedural violation(s). The Executive Director will investigate the allegation, forward it to the Executive Committee and place the appeal on the agenda of the Executive Committee.

SWAC members will receive copies of the appeal and select a representative to attend the Executive Committee meeting. The protesting applicant will be notified of the time and date for consideration of the appeal. At this time, the applicant may present its case directly to the Executive Committee, which will render a decision on the matter.

An appeal can be filed at any time during the 10-day period following the SWAC's review meeting and decision. Any appeals received after that date will not be considered and the SWAC

recommendation letter will be immediately forwarded to the TCEQ.

2. Grants Funding Plan:

a. Regional Solid Waste Management Plan Priorities: The CVCOG•s Solid Waste Advisory Committee did not want to impose any pre-application limits on any application. The projects must be in compliance with all applicable rules and regulations. Furthermore, the proposed projects must aid in implementing the goals and objectives of the plan. However, as long as those two criteria are met, the SWAC prefers to score each applicant based on the merits of its project. The SWAC is further reluctant to limit applicants because of the small amount of funds available. However, it is understood and will be enforced that; in compliance with •361.014(b), Texas Health and Safety Code, and 30 TAC •330.569(d), a project or service funded under the Regional Solid Waste Grants 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.

b. Specific Projects: Once again, the CVCOG•s Solid Waste Advisory Committee did not want to impose any pre-application limits on any application. With the exception of promoting projects that address the ever increasing problem with used tires, the SWAC prefers to score each applicant based on the merits of its project. All of the goals and objectives are seen as important and any project addressing any of these needs will be considered. As long as the project is in compliance with the above listed goals and objectives, specific projects should be a response to a need of the individual entity. There are no current COG managed projects, nor are any expected, within the CVCOG region.

c. Project Categories: As stated earlier, the CVCOG•s Solid Waste Advisory Committee did not want to impose any pre-application limits on any application. The SWAC prefers to score each applicant based on the merits of its project. Therefore, all TCEQ allowable project categories are allowed. The current list as well as the specific goal(s) it meets is as follows:

- **Local Enforcement**
  Goal #4: Continue and enhance current enforcement programs of illegal dumping.
  Goal #7: Ensure the proper management and disposal of municipal solid waste.

- **Litter and Illegal Dumping Cleanup**
  Goal #3: Provide community clean up events to provide citizens with an alternative to illegal dumping.

- **Source Reduction and Recycling**
  Goal #5: Determine effective and efficient management and operation of recycling services.
  Goal #8: Reduce the disposal amount of yard waste and encourage recycling it.

- **Local Solid Waste Management Plans**

Goal #7: Ensure the proper management and disposal of municipal solid waste.
Goal #10: Promote administrative structures to ensure some measure of local control in the siting and expansion of MSW facilities.

- **Citizens' Collection Stations, Small Registered Transfer Stations, and Community Collection Events**
  Goal #3: Provide community clean up events to provide citizens with an alternative to illegal dumping.

- **Household Hazardous Waste**
  Goal #1: Develop and manage a Household Hazardous Waste (HHW) collection and diversion program.

- **Technical Studies**
  Goal #7: Ensure the proper management and disposal of municipal solid waste.
  Goal #10: Promote administrative structures to ensure some measure of local control in the siting and expansion of MSW facilities.

- **Educational and Training Projects**
  Goal #2: Provide public education on integrated solid waste management.

- **Other Types of Projects**
  Goal #6: Explore alternatives to dealing with the disposal of special wastes.

- **Additionally, the CVCOG would also place the Proper Handling and Disposal of Used Tires as an additional category.**
  Goal #4: Continue and enhance current enforcement programs of illegal dumping.
  Goal #5: Determine effective and efficient management and operation of recycling services.
  Goal #6: Explore alternatives to dealing with the disposal of special wastes.

d. Allocation and Priorities: As stated earlier, the CVCOG's Solid Waste Advisory Committee did not want to impose any pre-application limits on any application. The SWAC prefers to score each applicant based on the merits of its project. This being said, the SWAC is also looking for projects to address the ever increasing problem with used tires. The only allocation limits enforced will be those instigated by the TCEQ; such as the limit in funding for Local Solid Waste Management Plans. The allocation process follows the general trend of notification of availability of funds in the early fall, scoring the applications in the late fall, implementing successful contracts by the beginning of the new year and having all projects completed by the end of the fiscal year. This timeframe is especially important in the second year of the biennium because all projects and their respective funds must be completed during the fiscal year.

e. Project Selection Process: The selection process is divided as follows:

Solicitation: The CVCOG staff will notify all eligible entities in the Concho Valley region of the availability of funds and the application process. The CVCOG staff will also print an advertisement in the regional newspaper notifying the eligible entities, private sector interests and the general citizenry of the availability of funds. The CVCOG will also direct mail all private and non-profit organizations dealing with MSW and recycling of the availability of funds and notify them of the restrictions regarding competitive advantages. The CVCOG will host application workshops and aid in any manner regarding the application process.

Screening: The CVCOG staff will conduct an initial screening of all applicants to ensure that (1) the application is complete and has met all required criteria, (2) it is from an eligible entity and conforms to an eligible category, (3) the project is feasible and have reasonable goals towards achieving the project's objectives, (4) the applicant agrees to document the results and provide reports as required, and (5) the project is consistent with the goals and objectives of the regional solid waste management plan.

Ranking and Scoring: Scoring for the projects are under the suggested guidelines from the TCEQ. Each applicant will be given the opportunity to make a five (5) minute presentation and answer any questions the committee members may have. Each applicant can receive a maximum of 100 points. The 100 points are divided into 5 groups of 20 each. These categories are: Project Merits, Work Program, Project Cost Evaluation, Project Impact, and Local Effort/Match. Each member of the SWAC is prohibited from voting on an application that comes from the county in which they reside. The remaining scores are averaged together and the committee ranks applications according to final scores. The projects are submitted for funding until all the funds are expended.

3. Local Solid Waste Management Plans: There are no current approved local solid waste management plans in the Concho Valley region. This is due to the fact that solid waste planning is relatively new in the Concho Valley. Additionally, those entities that have expressed an interest in implementing a local solid waste management plan have thought it better to wait for this regional plan to be completed and approved to ensure that their individual plan will be in conformance with the approved regional plan. The CVCOG will have central responsibility for overseeing local solid waste management planning efforts in the region. Additionally, the CVCOG will guide the development of any and all local solid waste management plans.

As stated earlier the SWAC does not want to impose any pre-application limitations. However, from previous meetings with eligible applicants, Sub-region One (the City of San Angelo and Tom Green County) is looking to complete a local solid waste management plan. Since sub-region one contains 75% of the population, the completion of a local solid waste management plan in this region would be the priority for the Concho Valley region. Other local entities would then be able to submit for such a plan there after.

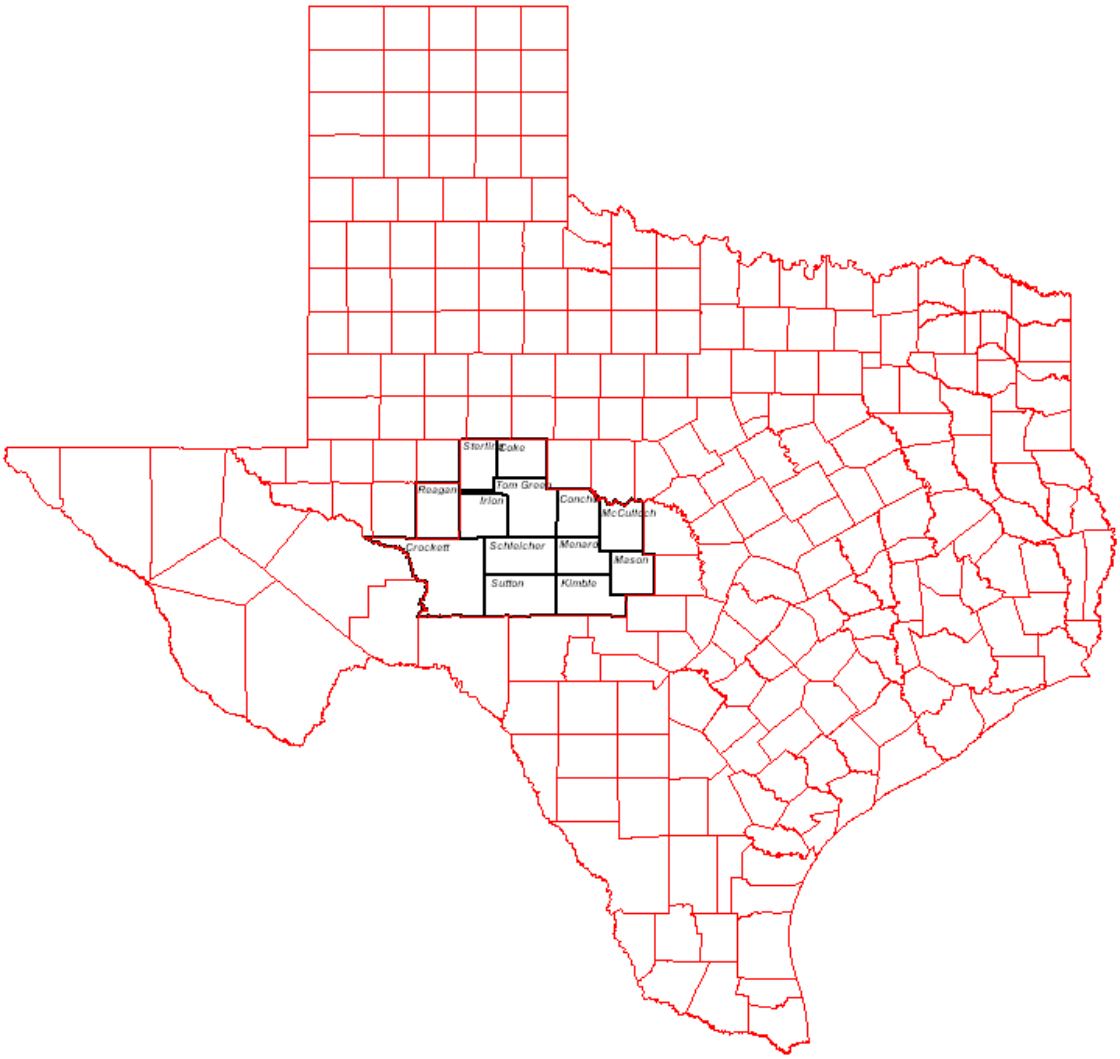
4. Regional Coordination and Planning: The CVCOG will continue its role in the regional coordination and planning of solid waste activities throughout the region. While it remains true that there is no priority between the various eligible categories, the CVCOG will strive to coordinate any effort. Special emphasis will be placed on the educational promotional aspect of any recycling activity. It is believed that this is where the CVCOG can best serve its communities. Championing the cause of recycling in general is how the CVCOG can be most effective. The individual project will depend on the need of the individual entity. The CVCOG can best serve this by maintaining an

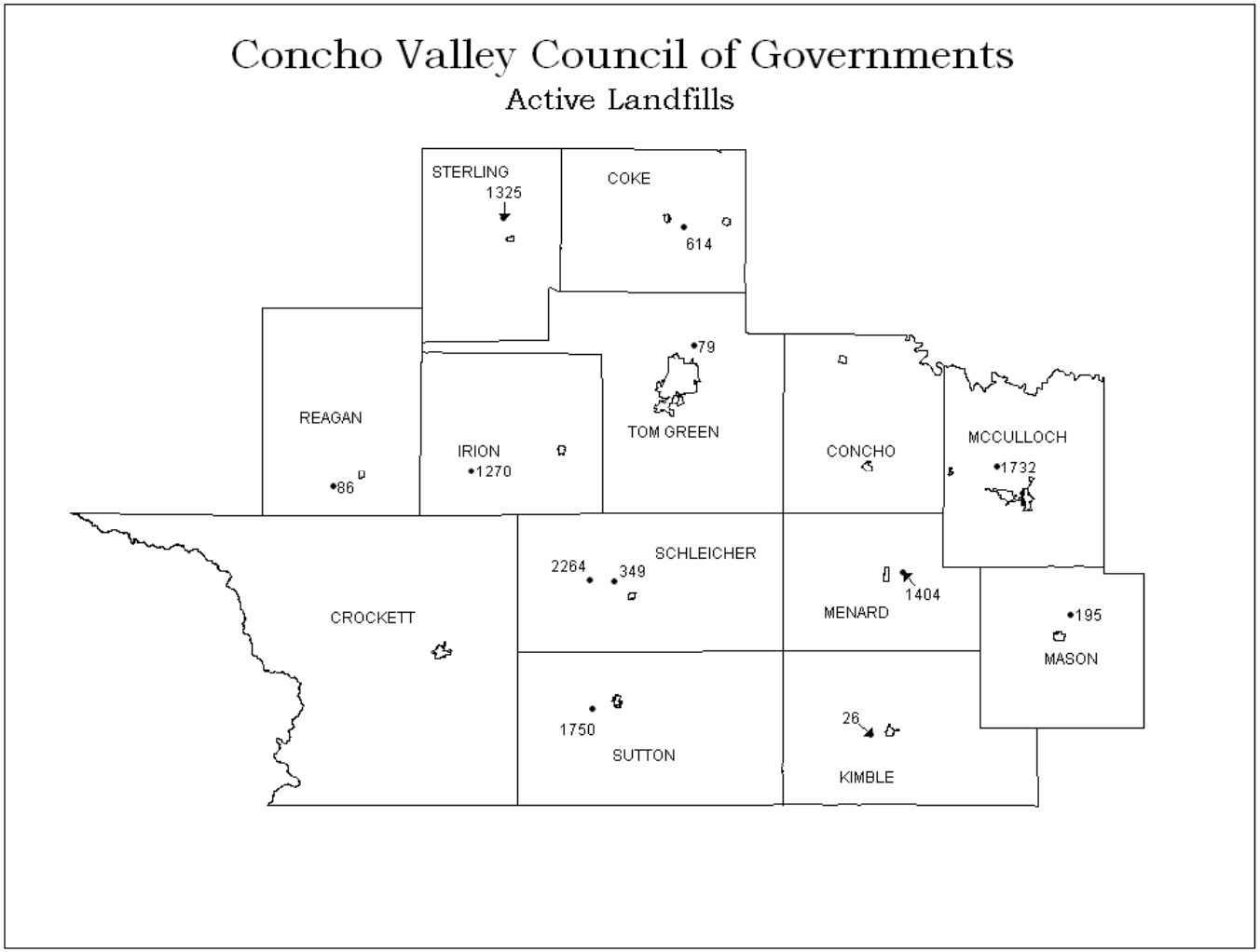
up-to-date and accurate library of resources such as Public Service Announcements and by preventing the duplication of any educational efforts such as fliers and bulletins. The CVCOG will also work to establish cooperative arrangements among local entities in the implementation of regional goals and objectives. Additionally, the CVCOG will continue to work on the closed landfill inventory to ensure that it is accurate and up to date. Finally, the CVCOG is committed to completing any other planning and data assessment work that might be required in the future.

5. Local and Sub-regional Recommendations: As of now, there are no specific local or sub-regional recommendations. All problems and therefore all project categories are equally important in all the different counties. The CVCOG will maintain an active dialogue with each of the entities to ensure that no local or sub-regional needs goes unanswered. Additionally, at all Solid Waste Advisory Committees the members are invited and encouraged to share any needs, problems, or success stories so that the entire committee can help or participate. This is especially effective and important in a region like the Concho Valley with its relative isolation and sparse population.

6. Recommendations for State-level Action: The Concho Valley Council of Governments has only two recommendations for state-level action. The first, and most urgent, is the issue of the proper handling and disposal of illegally dumped used tires. Although individual cities, counties and COGs may try to address these individually, or in partnerships, the final answer to this growing problem will have to come from the state as a whole. Second, it would be most beneficial to the regions if the State would try and stimulate the recycling market. How this would be done is not clear, however, in order to better promote recycling, there has to be a viable market and outlet for the materials collected.

APPENDIX A


Sterling
Coke
Reagan
Irion
Tom Green
Concho
McCulloch
Crockett
Schleicher
Menard
Mason
Sutton
Kimble


Concho Valley Council of Governments
Active Landfills
STERLING
1325
COKE
614
REAGAN
86
IRION
1270
79
TOM GREEN
CONCHO
MCCULLOCH
1732
CROCKETT
2264
349
SCHLEICHER
1404
MENARD
195
MASON
1750
SUTTON
26
KIMBLE

APPENDIX B

APPENDIX C

Concho Valley Council of Governments
Closed Landfill Inventory

County	Permitted Sites	Unpermitted Sites	Total
Coke	11	0	11
Concho	4	0	4
Crockett	1	1	2
Irion	2	0	2
Kimble	1	0	1
Mason	0	2	2
McCulloch	3	7	10
Menard	1	1	2
Reagan	0	2	2
Schleicher	1	1	2
Sterling	1	1	2
Sutton	1	1	2
Tom Green	10	8	18
TOTALS	**36**	**24**	**60**

The Closed Landfill Inventory has not been included with this copy of the Regional Solid Waste Management Plan. Copies of the Closed Landfill Inventory are available to anyone interested in electronic format for free and at minimal cost if in printed format. For more information, please contact the Regional Services Staff at:

Regional Services Department
Concho Valley Council of Governments
2801 West Loop 306, Suite A
San Angelo, Texas 76904

Phone: (325) 944-9666
Fax: (325) 944-9925