

WILSON COUNTY

NEEDS ASSESSMENT

2009

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SECTION 1: Demographic Information

Wilson County has experienced substantial growth over the last ten years, Table 1.1 shows the population grow for each of the three municipalities, the unincorporated area as well as the County as a whole. Table 1.1 also includes population growth estimates for each entity to 2013. An analysis of Table 1.1 produces the data found in Table 1.2 which shows that the County grew 21.6% from 1998-2007, an average of 2.1% per year. The fastest growth was in the Cities of Lebanon (25.9%; 2.6%) and Mt. Juliet (104%; 10.4%). The City of Watertown grew 4.6% during the ten year period while the unincorporated area grew 5.4%.

TABLE 1.1 Historic and Projected Populations (1998-2013)

Year	Wilson County	Lebanon	Mt. Juliet	Watertown	Unincorporated
1998	87,422	19,133	9,466	1,334	57,489
1999	88,111	19,684	10,866	1,345	56,216
2000	88,809	20,235	12,366	1,358	54,850
2001	91,696	20,746	14,812	1,375	54,121
2002	93,042	21,052	15,532	1,386	55,072
2003	94,842	21,408	16,404	1,388	55,642
2004	97,891	22,394	17,141	1,381	56,103
2005	100,508	23,001	17,970	1,382	57,418
2006	104,035	23,625	19,217	1,391	58,973
2007	106,356	24,103	20,248	1,405	60,600
2008	109,803	24,655	21,374	1,412	62,362
2009	110,125	25,207	22,500	1,419	63,132
2010	110,448	25,759	23,626	1,426	64,247
2011	112,761	26,311	24,572	1,433	60,445
2012	115,074	26,863	25,878	1,440	60,893
2013	117,387	27,415	27,004	1,447	61,521

Source: U.S. Census; Dickson County Special Census 2007; GNRC

Note: A special census was taken by Mt. Juliet and Lebanon in 2008 and the new population base is 25,234 and 24,812 respectively.

Table 1.2 shows that the fastest growth rates were in Lebanon at 2.6% per year and Mt. Juliet at 10.4% per year. Shown on Table 1.1 is the fact that in 1998 Mt. Juliet had less than half the population of Lebanon but will be approximately the same size by 2013. Table 1.2 indicates that Mt. Juliet will continue to grow at a rapid rate (4.4% per year) through 2013 while Lebanon will grow slightly less than 2% annually.

TABLE 1.2 Percent Growth

Period	Wilson County	Lebanon	Mt. Juliet	Watertown	Unincorporated
1998-2007 Annual Average	21.6% 2.1	25.9% 2.6	104.0% 10.4	4.6% .46	5.4% .54
2008-2013 Annual Average	6.9 1.1	11.2 1.8	26.3 4.4	2.5 .4	1.3 .2

Source: GNRC

TABLE 1.3 Percentage of Population

	County	Cities	%	Unincorporated	%
1998	87,422	29,933	34.2%	57,489	65.7%
2007	106,356	45,756	42.0%	60,600	57.0%
2013	117,387	55,866	47.6%	61,521	52.4%

Source: GNRC

Table 1.3 shows a definite trend toward urbanization in Wilson County. In 1998 the unincorporated portion of the County contained almost two-thirds of the population (65.7%) while by 2013 it will have dropped to about half (52.4%). This could actually come much sooner as the population estimates in Table 1.1 were not adjusted to include a special census taken in 2008 by the Cities of Lebanon and Mt. Juliet. The higher population counts will definitely affect the future estimates especially for Mt. Juliet whose 2008 population went from 21,374 to 24,813, an over 16% increase.

Although the growth in the unincorporated portion will be much less than in the cities, there will still be a need for a well planned system of collecting both municipal waste and recyclables. There are two factors presently in play that could impact both; the “green movement” taking place in the United States could dramatically increase recycling in unincorporated areas as well as cities. Perhaps offsetting this movement is the deep recession that has gripped the entire nation causing people to buy less – which mean manufacturers will produce less. Also, the market for recycled materials is very low at this time.

The Cities of Lebanon and, especially, Mt. Juliet will be faced with a growing population and the resulting commercial and business development it will cause. The cities should also plan to expand their recycling and education efforts.

SECTION 2: Economic Profile

Wilson County has a strong and diversified economic base (see table 2.7) that has taken advantage of its proximity to Nashville and its international airport and I-65 and SR-840. The leadership provided by the Wilson County Joint Economic and Community Development Board (JECDB), in addition to the Cities of Lebanon and Mt. Juliet, has been very successful in attracting industrial, commercial and residential growth to the area.

The strong growth in retail sales is shown in Table 2.1. Even with a slight decline (0.5%) in 2008, retail sales grew almost 72% between 2002 and 2008. The opening of a major shopping, entertainment and residential development in Mt. Juliet, Providence Place, in 2005-2006 had a huge impact on retail sales and local sales tax collections. Table 2.2 shows the relative importance of the increase in retail activity in Mt. Juliet.

Table 2.3 shows the growth of per capita income of Wilson County, between 1998 and 2006, it increased by just over 36%. Table 2.4 shows that the County has enjoyed a higher per capita income than the State as a whole, holding at around 111% of the State figure. In 2006 Wilson County had the fourth highest per capita income in the State.

TABLE 2.1 Retail Sales, Wilson County

Year	Sales	% Change	Percent Change 2002-2008
2002	\$770,759,232		71.7%
2003	885,979,575	14.8%	
2004	918,513,297	3.7%	
2005	1,014,542,636	10.5%	
2006	1,215,618,258	19.8%	
2007	1,330,525,042	9.4%	
2008	1,323,786,540	-0.5%	

Source: Wilson County Joint Economic and Community Development Board

TABLE 2.2 Local Sales Tax Collections (January Comparison)

County/City	January 2008	January 2009	Percent Change
Wilson County	\$ 350,461	\$ 239,502	-31.7%
Lebanon	1,683,988	1,594,413	-5.3%
Mt. Juliet	1,114,098	1,310,896	17.7%
Watertown	8,916	13,962	17.7%

Source: Tennessee Department of Revenue

TABLE 2.3 Per Capital Income

Year	Income	% Change	Percent Change 1998-2006
1998	\$ 26,184		36.1%
1999	27,535	5.2%	
2000	29,942	8.7%	
2001	30,133	6.4%	
2002	30,610	1.6%	
2003	31,621	4.9%	
2004	32,960	4.2%	
2005	34,240	3.9%	
2006	35,644	4.1%	

Source: Bureau of Economic Analysis

TABLE 2.4 Per Capital Income, Comparing Wilson County to Tennessee

Year	Tennessee	Wilson County	Rank	Percent of State
2006	\$ 32,172	\$35,644	4 th	110.8%
2005	30,827	34,240		111.7%
2004	29,539	32,960		111.8%

Source: Bureau of Economic Analysis

TABLE 2.5 Employment

Year	Total	Wage and Salary	Proprietors	
			Non-Farm	Farm
1998	38,455	27,249	9,147	2,059
1999	40,422	28,944	9,431	2,047
2000	42,564	30,749	9,785	2,030
2001	42,884	30,817	10,091	1,976
2002	43,723	31,486	10,346	1,996
2003	44,755	32,138	10,679	1,938
2004	47,744	34,199	11,659	1,886
2005	49,552	35,211	12,478	1,863
2006	51,322	36,253	13,236	1,833

Source: Bureau of Economic Analysis

TABLE 2.6 Employment by Sector (over 1,000 employees)

Sector	2005	2006	2007	% Change 2005-2007
Construction	2,606	2,815	2,768	6.2%
Manufacturing	6,628	6,257	5,575	-15.9%
Wholesale Trade	1558	1,489	1,523	-2.2%
Retail Trade	4,123	4,907	5,790	40.4%
Transportation & Warehousing	1344	1,302	147	-89.1%
Administrative & Waste Services	1542	2,058	2,129	38.0%
Educational Services	2,442	2,543	2,640	8.1%
Social Assistance	3,467	3,176	3,253	-6.2%
Accommodation & Food Services	2,462	2,458	3,338	35.6%
Public Administration	1,082	1,444	1,204	11.3%

Source: Tennessee Department of Workforce Development

TABLE 2.7 Major Employers (over 400 employees)

Employer	Product/Service	Employees
Wilson County School System	Education	1,500
Dell, Inc.	Computers	1,100
Cracker Barrel	Corporate Headquarters	893
University Medical Center	Healthcare Facility	800
Performance Food Group	Food Distribution	760
Jones Bros.	Industrial Construction	600
TRW Automotive	Hydraulic Steering Gears	505
Lebanon School District	Education	480
Nashville Auto Auction	Auto Auction Facility	475
LoJac	Highway and Airport Construction	410
Lockinvar	Water Heaters, Boilers	400

Source: Wilson County Joint Economic and Community Development Board

Table 2.6 compares employment by selected sectors between 2005 and 2007. The largest gains were in the sectors of retail trade (40.4%), administrative and waste services (38.0%) and accommodation and food services (35.6%). These are likely as a result of the opening of Providence Place. The largest losses were in manufacturing (-15.9%) and transportation and warehousing (-89.1%). These drops were caused primarily by a major employer (Toshiba) going through a major reorganization and downsizing.

TABLE 2.8 County Budget (2004-2008)**REVENUE (In Thousands)**

Source	2004		2005		2006		2007		2008	
Local Taxes*	\$46,360	(37%)	\$51,866	(37%)	\$62,594	(42%)	\$62,079	(38%)	\$66,323	(39%)
Sales Tax	9,246	(8%)	10,522	(8%)	12,631	(9%)	13,939	(9%)	14,131	(8%)
Wheel Tax	2,000	(2%)	2,000	(2%)	2,000	(1%)	2,000	(1%)	2,000	(1%)
Gas Tax	2,142	(2%)	2,381	(2%)	2,381	(2%)	2,381	(1%)	2,621	(2%)
State Shared Revenue	41,997	(34%)	43,661	(34%)	48,672	(33%)	54,335	(34%)	58,155	(34%)
Federal Government	5,948	(5%)	7,695	(5%)	6,482	(4%)	6,841	(4%)	7,182	(4%)
Other Local Sources	15,023	(12%)	18,090	(12%)	13,062	(9%)	21,021	(13%)	20,685	(12%)
Total	\$121,716		\$136,318		\$147,824		\$162,615		\$171,397	

EXPENSES (In Thousands)

	2004		2005		2006		2007		2008	
Schools	\$84,646	(66%)	\$92,591	(66%)	\$101,491	(66%)	\$114,822	(66%)	\$123,512	(67%)
Roads	9,537	(7.45%)	9,650	(7%)	9,620	(6%)	9,835	(7%)	10,271	(7%)
Sheriff	8,301	(6.48%)	9,552	(7%)	10,833	(7%)	13,715	(8%)	14,441	(8%)
Emergency Mgmt	5,587	(4.36%)	6,919	(4%)	7,150	(5%)	7,138	(4%)	7,716	(4%)
Solid Waste	2,311	(1.8%)	2,523	(2%)	2,572	(2%)	3,324	(2%)	3,908	(2%)
General Government	17,712	(13.8%)	19,911	(14%)	20,880	(14%)	24,360	(14%)	34,773	(13%)
Total	\$128,094		\$141,148		\$152,548		\$178,197		\$184,623	

Source: Wilson County Finance Department

* Includes Property Tax and all other Local Taxes

The County budgets for years 2004-2008 are shown in Table 2.8. While revenues have grown 40.8% over the five year period, expenditures have increased by 44%. The primary local sources of revenue are local taxes (including property) and local option sales taxes. The provided increases in revenue of 43% for local taxes and 53% for sales taxes are shown. The establishment of a major shopping and entertainment center has had a very positive impact on revenue for the County. As the County continues to experience at least moderate growth (Table 1.2), revenue from property and sales taxes will grow also.

The County solid waste budget (including animal control) has increased some 69% in the last five years and it remains about 2% of the total budget. While solid waste will require increasing funding to accommodate a growing population, the same is true for schools, roads, law enforcement and other County responsibilities.

SECTION 3: Solid Waste Stream**TABLE 3.1 Waste Stream Comparison 2000-2008**

Year	Disposed (tons)	Diverted (tons)	Total Generated (tons)	Real Time Diversion (%)
2000	98,711	70,100	168,811	42%
2001	68,130	73,892	138,228	58%
2002	81,150	74,082	155,232	48%
2003	110,015	77,676	187,693	41%
2004	141,205	49,689	190,894	26%
2005	142,532	49,884	192,416	26%
2006	149,524	86,791	236,316	37%
2007	147,016	47,016	197,810	24%
2008	136,737	65,708	202,445	32%

Source: 2008 Annual Progress Report; Wilson County Solid Waste

TABLE 3.2 Tons Generated Per Capita, 2000-2008

Year	Population	Generated (tons)	Tons Generated Per Capita
2000	88,809	168,811	1.90 tons
2001	91,696	138,228	1.51 tons
2002	93,042	155,232	1.67 tons
2003	94,842	187,693	1.98 tons
2004	97,891	190,894	1.95 tons
2005	100,508	192,416	1.91 tons
2006	104,035	236,316	2.27 tons
2007	106,356	197,810	1.86 tons
2008	109,803	202,445	1.84 tons

Source: Wilson County Solid Waste; 2008 APR

The Wilson County waste stream has grown by approximately 20% between 2000 and 2008 (Table 3.1) while the population has increased about 26%. Table 3.1 also shows that total tons generated have ranged from 138,228 in 2001 to 236,316 in 2006. The only year that the County was below the 25% reduction target was in 2007 when the percentage was 24%. All the diversion rates shown in Table 3.1 are real time and waste disposed of in Class 3 and Class 4 landfills is not counted as diversion.

Table 3.2 shows the tons generated on a per capita basis. The average for the nine year period is around 1.9 tons per person and excluding the abnormal year of 2006, the rate has dropped every year 2003-2008.

Problem waste such as auto fluids and gasoline tanks are not collected by the County but are accepted at a number of private sector businesses; the County advises residents about these services. Paint is only collected at the annual State Household Hazardous Waste (HHW) collection event. However, the County

is evaluating the feasibility of creating a permanent HHW facility that will take paint and other materials on a regular basis. E-waste was only collected at the annual HHW day but the County initiated an e-waste program in 2009 with a drop-off point established at the Wilson County Landfill. The system discussed here will likely be improved and continued over the next five years.

Commercial and industrial waste are primarily handled either in-house or through the use of private haulers. There is no waste entering the County and the only landfill located here is the Wilson County Demolition Landfill used by residents only. Most municipal waste is disposed of out of County at the Middlepoint, West Camden and Smith County Class 1 landfills. Very small amounts of waste go to Cedar Ridge Landfill and a landfill in Kentucky.

The healthy economic and residential growth projected for the region will likely result in more solid waste being generated, especially in Mt. Juliet and Lebanon. The expansion of the recycling programs will help affect some of the additional waste. Education of the citizens about the benefits of reduction and recycling are having an impact as indicated by the declining of per capita waste generation shown in Table 3.2. The need to expand the County collection system is discussed in Section 4.

SECTION 4: Waste Collection System

The unincorporated portion of Wilson County is served by eight convenience/recycling centers. Wilson County opened its first convenience center long before any other county in Middle Tennessee and perhaps the entire state. As discussed earlier, growth is creating the need for an expansion of the County collection program. The 2008 Annual Progress Report shows a need for three additional convenience centers and the expansion of three others.

TABLE 4.1 Municipal Solid Waste Collection Systems

Jurisdiction	Type	Percent Publically Operated	Percent Publically Contracted	Percent Private Contracted
County	Convenience Centers	100%		
Mt. Juliet *	Curb Side / Convenience Centers	Unknown		Unknown
Lebanon	Curb Side	100%		
Watertown	Convenience Centers	100%		

* Mt. Juliet residents use either convenience centers or private contracts.

Source: Wilson County Solid Waste

As discussed in Section 3 most waste from the County goes to Middle Point, West Camden or Smith County Class 1 landfills. The recyclable materials collected by the County are marketed by the County based on price. Materials are taken to North Central Recycling, Southeastern, Smurfitt, Lebanon Scrap Metal, Goalsly or others who offer the best price.

SECTION 5: Solid Waste Reduction Goal

TABLE 5.1 Reduction Rate by Different Methodologies

BASE YEAR METHOD

	1995	2008	% Change
Waste Disposed	49,639	136,737	+175%
Population	79,242	109,803	+39%
Tons Per Capita	.66	1.24	+187%

Note: As has been reported in earlier APR's, the 1995 figure for waste disposed was severely under reported causing the tons per capita to be an unrealistic .66 per person. During the late 1990's, efforts were made to improve the data collection process by both Wilson County and the Division of Solid Waste Assistance. This resulted in more realistic and consistent tons per capita rates as shown in Table 3.2

REAL TIME METHOD 2007

$$\begin{array}{rcl}
 \text{Waste Disposed} & 136,737 & \text{Waste Diverted} = \underline{65,708} \\
 \text{Waste Diverted} & \underline{65,708} & \text{Total Waste} \quad 202,445 \quad = \quad 32\% \text{ reduction} \\
 & 202,445 &
 \end{array}$$

Table 3.1 gives a historical picture of the real time diversion rate from 2000-2008.

SECTION 6: Collection and Disposal Capacity

TABLE 6.1 Landfill Capacity

Landfill (1)	Current Capacity (tons/day)	Maximum Capacity (tons/day)	Projected Life of Facility (years)
Middle Point	4,000	5,500	15
West Camden	2,500	3,500	24
Smith County	115	300	19
Cedar Ridge	429	1,000	3 (10+ with expansion)
Landfill (3 / 4)			
Wilson County	1 tons/day	5 tons/day	20+
Smith County	41 tons/day	50 tons/day	10+

TABLE 6.2 Collection Service

Service Provider	Service Area	Population Served	Service Frequency	Tonnage Capacity	Service Type
Wilson County	Unincorporated	61,531	5 days/wk	107,158	Conv. Centers
Lebanon	City Limits	27,415	1 wk	8,400	Curbside
Mt. Juliet *	City Limits	27,004	1 wk	*	Curbside
Watertown **	City Limits	1,447	5 days/wk	**	Conv. Centers

* City served through contracts between citizens and private haulers; a large number of citizens use County Convenience Centers (included in Wilson County)

** Served by County Convenience Centers; tonnage included in Wilson County

SECTION 7: Solid Waste Management Budget

Table 7.1 County Solid Waste Budget

Wilson County has a somewhat unusual budget in that Animal Control is included with Solid Waste Management. Also the Solid Waste budget is divided into three sections: Solid Waste Disposal Fund, Sanitation Fund and Sanitation Projects. Line items such as Sale of Recycled Materials (\$150,000), State Tire Grant (\$51,000) and Convenience Centers (\$2,133,794) are included in the Sanitation Fund while Landfill Operation and Maintenance (\$512,853) is in Solid Waste Disposal Fund.

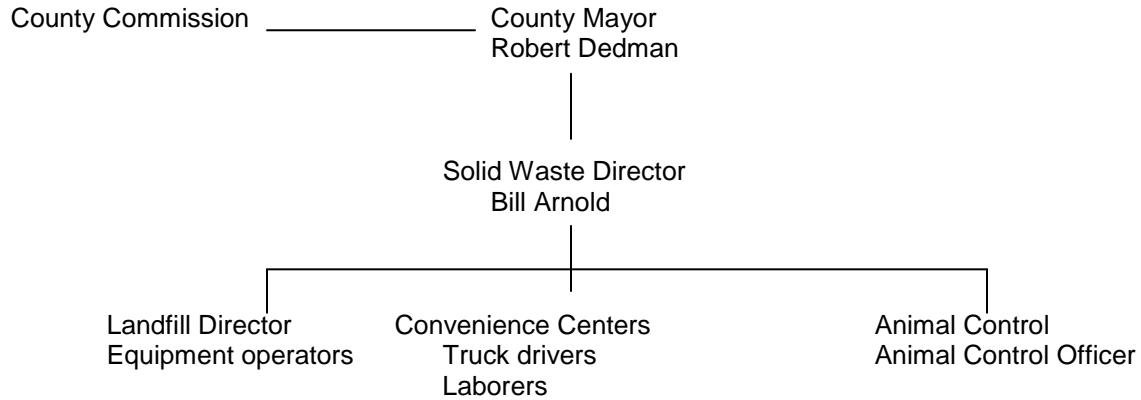
Description	Present Need \$/year	Unmet Needs \$/year	Total Needs (Present + Unmet) \$/year
Salary	\$877,580	\$26,000	\$903,000
Transportation / hauling			
Collection and Disposal	62,000	23,000	85,000
Systems			
Equipment	45,000	30,000	75,000
Sites			
Convenience Center	2,133,794	272,000	3,500,000
Transfer Station			
MRF			
Landfills	512,853	100,000	612,000
Site			
Operation			
Closure			
Post Closure Care			
Administration (supplies, communication costs, etc.)			
Education			
Public			
Continuing Education			
Capital Projects			

REVENUE

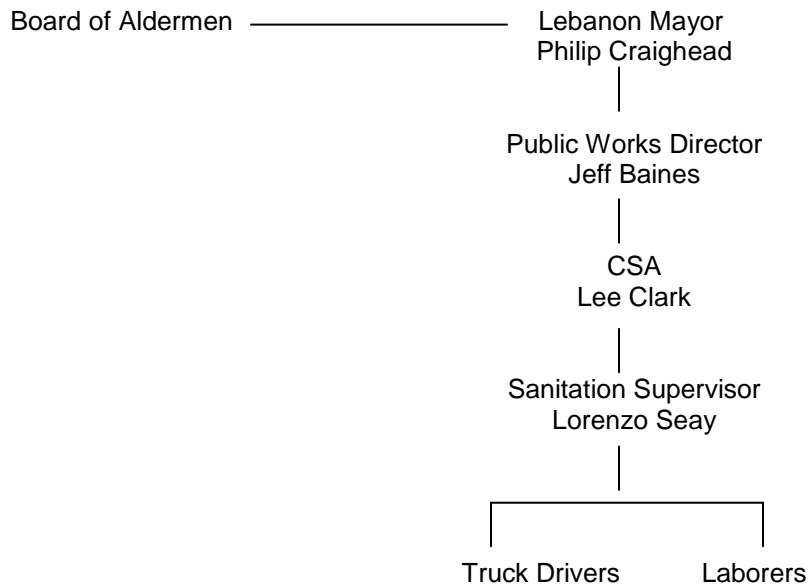
Host agreement fee			
Tipping fees	\$350,000	\$50,000	\$400,000
Property taxes	958,708	300,000	1,258,000
Sales tax			
Surcharges			
Disposal fees			
Collection charges			
Industrial or commercial charges			
Residential charges			
Transfer station charges			
Sale of Methane Gas			
Other sources: (Grants, bonds, interest, sales, etc.)	835,000	100,000	935,000

SECTION 8: Management and Organizational Structure

Wilson County serves some 63,000 residents in the unincorporated areas, 1,500 in Watertown and an unknown number of Mt. Juliet citizens. The organization structure of the Solid Waste Department is as follows:



The **City of Lebanon** provides weekly curbside service for approximately 25,000 residents. Their organization structure is as follows:



The Cities of **Mt. Juliet** and **Watertown** do not provide solid waste service and have no organizational structure for it.

SECTION 9: Revenue Sources

The **City of Mt. Juliet** does not operate a solid waste management program and therefore does not need a source of revenue. Mt. Juliet has had, and will likely continue, rapid growth and has reached a size that would normally provide solid waste services to its citizens. However, it is uncertain at this time if, and when, the City will initiate this service. Mt. Juliet has no property tax and would have to create a revenue stream to fund solid waste services.

The **City of Watertown** does not provide solid waste services, its citizens use the County Convenience Centers. This should continue to provide adequate service over the next five years as the population will increase only slightly over that time period.

Wilson County funds its solid waste program through tipping fees at the Class III/IV Landfill (\$350,000), local property taxes (\$420,108), sale of recycled material (\$150,000), general fund transfer (\$177,693) and various other sources (\$507,274). Due to the recession, revenue from tipping fees and sale of recyclables will likely be substantially below budget and will need to be subsidized by the general fund.

The **City of Lebanon** funds its entire solid waste program through the General Fund of the city budget.

SECTION 10: Education/Citizens Participation

Wilson County has a broad based education program that reaches all ages of residents in the County. The 2008 APR identifies a number of marketing and educational initiatives that notify residents about new programs and facilities and the associated opportunities for recycling or diverting waste from Class I landfills. All media types are utilized including television, radio, hard copy, internet and other media to reach the entire County.

The County also has an extensive education program for all schools including County, Lebanon Special School District and private institutions. There are a number of programs directed at the adult/general public and business/industry sectors.

The overall attitude towards recycling and solid waste management is positive with a growing interest due to the comprehensive education program. The economic slowdown has both city and county governments focusing on other programs but resources have not been diverted and it is believed the educational efforts will continue. The education program that is in place should continue to have a positive impact on the attitudes of the residents into the future.

SECTION 11: Five Year Plan

While the initial plan to focus on recycling and diversion is still in place, the County needs to continue to upgrade and expand its collection system to accommodate growth. Three new convenience centers are needed for the far eastern and western portions of the County to relieve demands on existing sites. Also, three existing centers need expansion to handle persistent demands upon the system. The County is also pursuing the feasibility of establishing a permanent household hazardous collection facility in conjunction with construction of a new recyclables drop-off center. Another addition to the five-year plan is the establishment of an e-waste management system to serve the entire County.

The City of Lebanon is exploring a number of alternative systems to convert municipal solid waste into a usable and marketable product. Contacts have been made and research is being done on the viability and financial feasibility of the various systems.