

2015

PREPARED BY  
THE OFFICE OF SOLID WASTE &  
RESOURCE MANAGEMENT

# Schuylkill County Municipal Solid Waste Management Plan



**Nestor Resources, Inc.**

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INSIDE COVER

# Schuylkill County Municipal Solid Waste Management Plan Update and Revision 2015



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# INTRODUCTION

## History and Purpose

### Former Planning Efforts

Schuylkill County is not a stranger to planning for municipal solid waste management. The first record of a municipal solid waste plan dates back to 1971. A Solid Waste Authority was established in 1985 for the sole purpose of updating that Plan. Although the County was involved, these plans were actually established on behalf of the municipalities, which at that time were required by law to plan for waste management. With the enactment of the Municipal Waste Planning, Recycling, and Waste Reduction Act (Act 101 of 1988) the full authority for solid waste planning finally shifted from municipalities directly to counties. In response to Act 101, the Schuylkill County Board of Commissioners assumed this responsibility. In 1989, the Commissioners appointed a Solid Waste Advisory Committee charged with assessing local waste management practices and securing sufficient disposal capacity to meet the County needs. Additionally, the Committee was to determine how the County would meet the recycling goals of the Act. The Plan was approved in 1992 and revised in 2004.

Act 101 established a twofold purpose for counties in municipal waste planning. The first was to assure adequate disposal capacity for waste generated within the county, and the second was to provide for waste reduction through recycling 25% of the municipal waste stream, or to justify why it could not meet the State recycling goal. (Currently set at 35% by PADEP, but not by law). During the developmental stage, the achievements of the County and municipalities, in relationship to the goals and objectives established in the current Plan and compliance with Act 101, were evaluated. These benchmarks served as the foundation for recommendations and justifications for future Plan revisions.

The efforts of Schuylkill County to implement the Plan and its subsequent revisions have produced tangible and substantial benefits over the last 25 years. By securing

disposal capacity in a number of state of the art disposal facilities, the County avoided future potential environmental liabilities. In addition, the use of multiple facilities encouraged competition in the marketplace, thus offering its citizens fair and equitable disposal costs. The previous revision to the Plan also resulted in the implementation of a countywide recycling drop-off collection program to conserve valuable natural resources.

The dynamic nature of plans creates the need for periodic evaluation and modification. Legislators included in Act 101 a requirement for counties to review, update, and submit plan revisions to the Department of Environmental Protection every ten years. The Schuylkill County Office of Solid Waste & Resource Management is responsible for development of the Plan updates and any necessary revisions. It is recommended that counties begin the review and planning process approximately three years in advance of the expiration of any disposal capacity agreements. The pending expiration date for Schuylkill County's capacity agreements prompted the commencement of this project.

The demographics, the characteristics of the waste stream, the recycling initiatives, and the resources of Schuylkill County have all varied throughout time. As one might expect, while some initiatives have affected change, others still require greater focus and support. Remediation of existing dumpsites has improved public health and safety. Nevertheless, the lack of universal access to and utilization of waste and recycling services is still prevalent. Therefore, illegal dumping in the County continues. New technologies, collection, and processing mechanisms, along with contemporary expectations are different now than in 2004. Old methods of collecting recyclables could be hampering Schuylkill County's participation and recycling rates. New opportunities may be available to reduce the cost of waste and recycling collection for Schuylkill County residents. It is reasonable to expect that this Plan update will make revisions and alterations to certain components and programs to complement current goals. Descriptions of these improvements and a schedule by which the revised Plan will be implemented are vital parts of the document.

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## BASIC ELEMENTS OF THE PLAN

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To evaluate the current solid waste management practices and behaviors in Schuylkill County and to establish future feasible improvements, certain waste management issues and components were considered.

### WASTE STREAM ANALYSIS

The Waste Stream Analysis inventories waste stream generators, and provides an analysis of waste based on national and regional studies and trends. The composition of the local waste stream is used to calculate future disposal and recovery rates. Finally, projected population trends are used to derive future solid waste management capacity needs.

## WASTE HANDLING AND DISPOSAL

The Waste Handling and Disposal component explores the County's municipal solid waste collection programs for residential, commercial, institutional, and government entities. An assessment of the adequacy of collection programs for the County's current and future population is included. This component also contains a detailed inventory and description of current disposal programs. Each disposal facility is recorded along with its ownership, location, and capacity. Assurances of available capacity for the ten-year planning period are required within the Waste Handling and Disposal element.

## RECYCLING AND WASTE MINIMIZATION

The Recycling and Waste Minimization component catalogs the waste recycling programs available within Schuylkill County. The Recycling and Waste Minimization component contains an assessment of the County's actual overall attainment of the statewide goal of a 35% recycling rate and constraints that might exist. Finally, this component highlights future potential enhancements to County and/or municipal programs.

## PUBLIC AWARENESS AND PARTICIPATION

The Public Awareness and Participation component includes direct involvement from a diverse group of stakeholders throughout Schuylkill County. Municipal officials, the public, business owners, and private sector representatives from the waste and recycling industry offer perspectives and opinions on the adequacy of current services and a vision for the future.

## IMPLEMENTATION STRATEGY

The final component of the plan is the Implementation Strategy, which brings together the findings and recommendations of the planning process into an action plan. The Implementation Strategy describes the resources, tools, and timeframe to achieve the goals of the Municipal Solid Waste Management Plan.

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## PLAN ORGANIZATION

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The Schuylkill County Municipal Solid Waste Management Plan is comprised of twelve chapters and nine appendices. Following is a brief description of their contents.

Chapter 1 discusses Schuylkill County's current waste stream characteristics, sources of municipal waste and the types of materials unique to those generators. Also included are trends in waste generation, disposal and recovery at the local and national level. Finally, the chapter examines general demographic data such as population and housing densities, urban and rural elements, economic conditions, and county characteristics including geography and traffic conditions that may influence waste collection, waste disposal, and type of materials disposed over the next 10 years.

Chapter 2 documents the current collection and disposal practices throughout the County, and identifies transporters of different types of municipal waste. It also provides data on the ultimate disposition of various Schuylkill County municipal waste components. Lastly, it discusses the degree to which Schuylkill County competes for disposal capacity with other entities.

Chapter 3 projects the future waste generation and disposal capacity, which will be required by Schuylkill County for the next decade. It details legal issues related to flow control and capacity assurances.

Chapter 4 presents the overall performance of recycling programs currently operating throughout Schuylkill County, and compares the County's efforts to similar programs implemented in other areas of the United States. It illustrates strengths and weaknesses, and makes recommendations for future recovery.

Chapter 5 offers the analysis and reasoning behind selections made during the planning process for a comprehensive waste management system in Schuylkill County. It also considers alternative waste management technologies, and compares economic and environmental benefits of the various options. It also offers a description of anticipated gaps in waste management as well as potential business opportunities.

Chapter 6 presents the results of Schuylkill County's request for disposal capacity. It subsequently identifies the names, locations and types of facilities opting to reserve capacity and be designated to receive Schuylkill County's municipal solid waste over the next 10 years.

Chapter 7 identifies the powers and responsibilities of the Office of Solid Waste & Resource management. It discusses the duties of the Recycling Coordinator and the actions necessary to assure that the final recommendations of the plan are carried out according to the implementation strategy.

Chapter 8 discusses the facilities, equipment and programs currently owned and operated by public sector organizations in Schuylkill County for the purpose of conducting waste management and recycling activities. In addition, it speculates on the extent to which future public facilities might be developed, and addresses how private investment could support some of these functions in the future.

Chapter 9 explains the legal documents necessary to implement and enforce specific elements of the approved Schuylkill County Municipal Solid Waste Management Plan. These include contracts, ordinances, resolutions, and others.

Chapter 10 outlines how the elements of the Plan will allow for a smooth transition from any current and potentially conflicting programs to those

newly recommended. It discusses the roles of the County, the municipalities, and the private sector.

Chapter 11 describes the relationship between the Schuylkill County Municipal Solid Waste Management Plan and private sector owned and operated facilities located both within and outside the County. It offers assurances that the County will not interfere with their normal operations and business practices, and furthermore provides for a fair and open marketplace.

Chapter 12 describes the stakeholder representation and involvement in development of the Plan. It discusses those issues that the Solid Waste Advisory Committee felt had the most importance. It also reinforces the future vision of waste management in Schuylkill County, which the Committee supports.

Appendix A contains basic words and acronyms used throughout the document and their meanings as they relate to solid waste management.

Appendix B presents a list of background publications referenced and other tools used to justify assumptions plus other recommendations made in the development of the Plan.

Appendix C contains the published solicitation requesting disposal capacity.

Appendix D details the criteria for the disposal capacity proposals and the contract provisions required of all facilities that agreed to reserve disposal capacity for Schuylkill County during this planning period.

Appendix E offers a simplified format and the necessary documents to add a facility and additional secured capacity during this planning period.

Appendix F includes any and all County ordinances necessary to implement the provisions of the Schuylkill County Municipal Solid Waste Management Plan.

Appendix G provides the official resolution of the Schuylkill County Board of Commissioners to approve and implement the recommendations contained in the Plan.

Appendix H documents the degree of public participation utilized in development of this Plan. It includes a combination of presentations, handouts, and meeting minutes.

Appendix I reserves a space for the executed disposal capacity agreements.





# CHAPTER ONE

## Municipal Waste Types and Sources in Schuylkill County

### Planning for Local Needs and Circumstances

Municipal solid waste management plans are developed using some standard structures and guidelines. However, incorporating the unique characteristics and prevailing conditions of the local jurisdiction is essential for the plan to be valid. Local programs proposed in the planning process must address the specific lifestyles of people who live and work in the local area. The social history and heritage of a community can significantly influence its views and expectations on any number of public issues. Local economic conditions play a large role in an individual's ability and/or willingness to pay for services, including waste management.

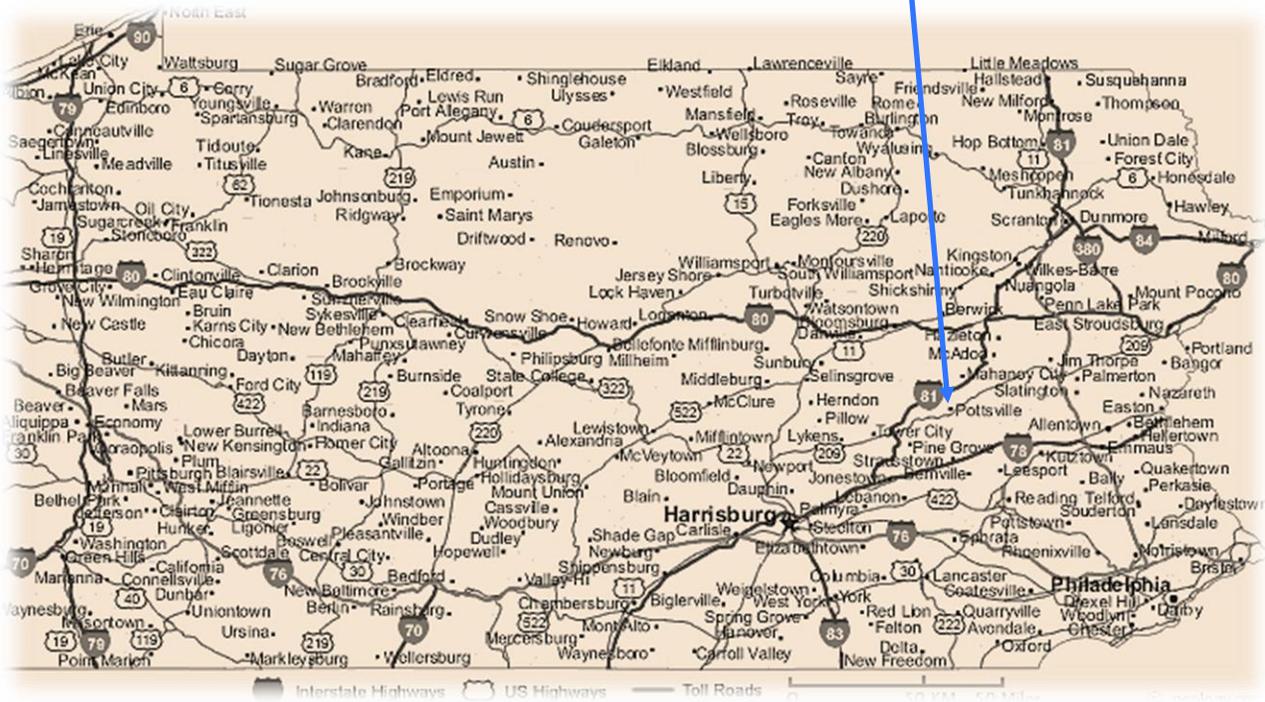
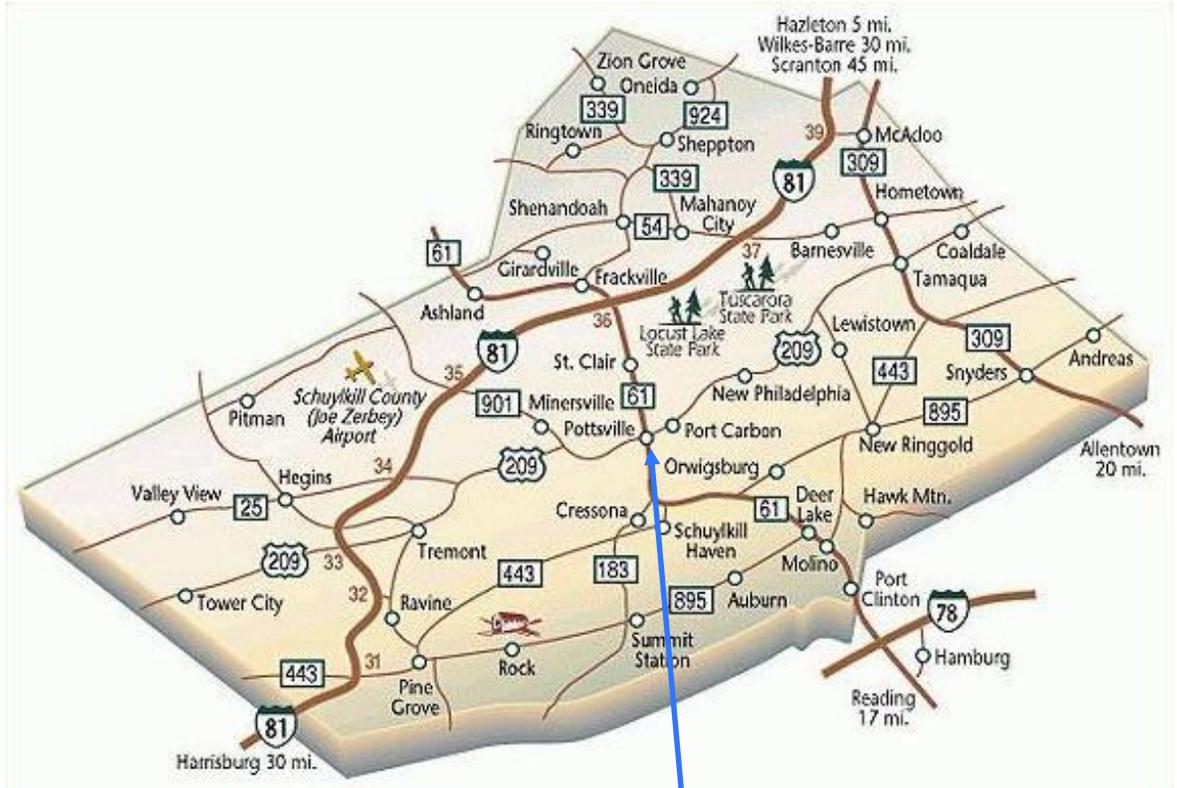
This first chapter presents an overview of Schuylkill County. Because the region's history has a lingering influence on current behaviors and expectations for public services, this section offers more than the basic physical and demographic characteristics of the County. It also documents the sources, types, and amounts of various categories of municipal solid waste generated within Schuylkill County.

### General Characteristics

Schuylkill County is located in Northeast Pennsylvania approximately 150 miles from both the New Jersey border to the east and the New York border to the north. Surrounding counties include Berks and Lebanon, which border Schuylkill County to the south. On the western border are Northumberland and Dauphin counties. Columbia and Luzerne counties form the northern borders, and Carbon and Lehigh counties lay to the east.

Figure 1-1 shows the location of Schuylkill County in relationship to the State of Pennsylvania. The maps illustrate the network of roadways that facilitate both residential and economic development within the County.

Figure 1-1 Location of Schuylkill County



## Population

According to the results of the decennial census taken in 2010 by the US Census Bureau, the County had a population of 148,289 dispersed throughout 67 municipalities. The estimated population in 2012, the baseline year for analysis in the Plan, was 147,372. Nearly ninety-three percent of the 67 municipalities have populations less than 5,000 people. Only the City of Pottsville, which is also the county seat, has a population that exceeds 10,000 people.

Approximately twenty-five percent of the population in the United States, including Pennsylvania, resides in rural areas. The Center for Rural Pennsylvania considers a county as rural when the population density within the county is less than Pennsylvania's statewide density of 284 persons per square mile. The same is true for a municipality. Municipalities may also be designated as rural if the total population is less than 2,500, unless more than fifty percent of the population lives in an urbanized



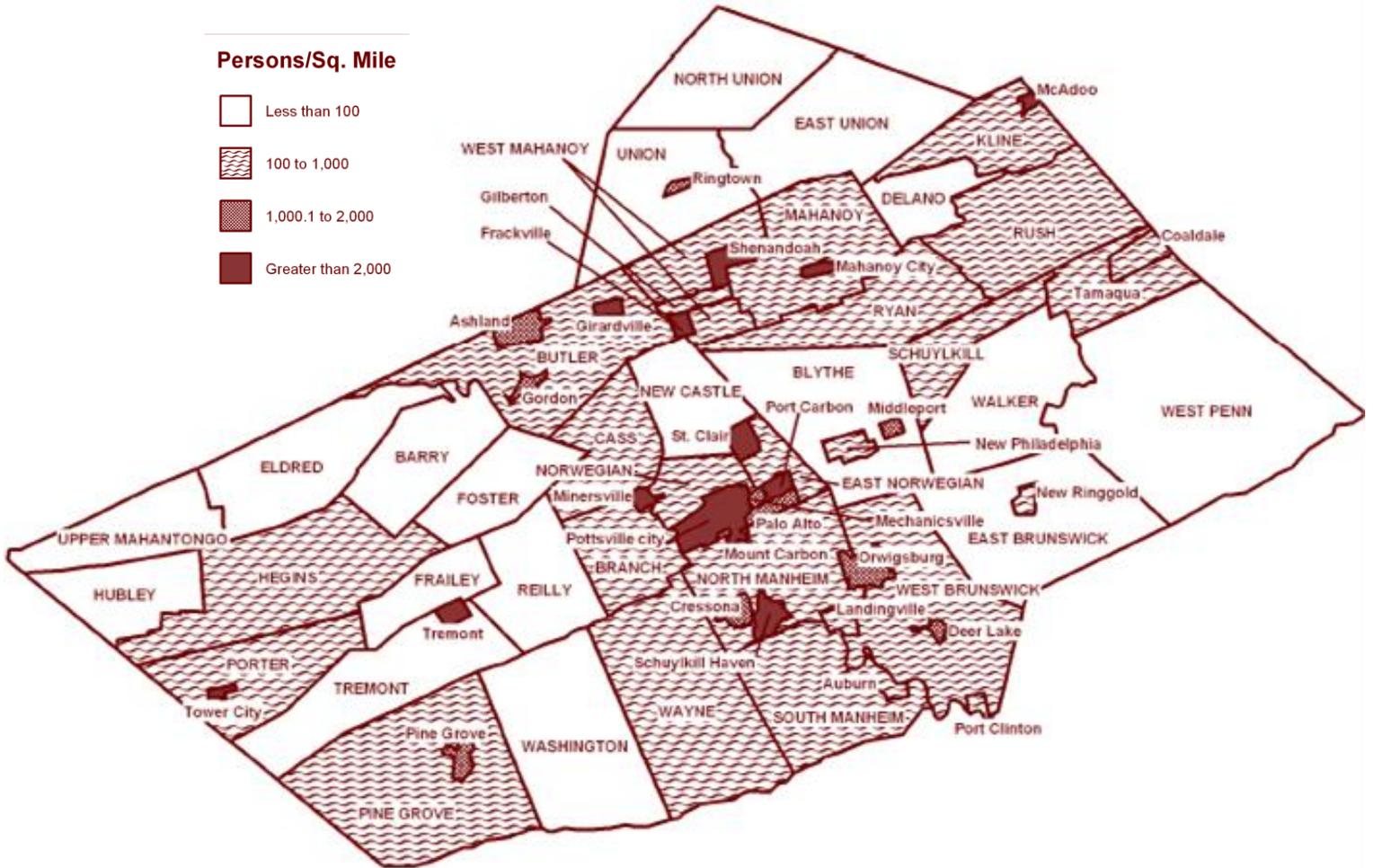
**The greatest concentration of population in a contiguous geographic area is found within the City of Pottsville and eleven surrounding boroughs and townships.**

area as defined by the U.S. Census Bureau. All other municipalities are considered urban.

Based on overall land mass and population density, Schuylkill County is one of Pennsylvania's forty-eight rural counties. Within Schuylkill County, fifty-four of the sixty-seven municipalities are considered rural. When considered as a whole, the greatest concentration of the County's population in a contiguous geographic area is found within the eleven municipalities that include the City of Pottsville and surrounding townships of East Norwegian, North Manheim, and Norwegian, as well as the boroughs of Cressona, Mechanicsville, Minersville, Orwigsburg, Palo Alto, Port Carbon, St. Clair, and Schuylkill Haven. This is also the main area of commerce.

Figure 1-2 shows the political boundaries of Schuylkill County's municipalities along with the population density. Table 1-1 lists the municipalities along with the land mass total population and population density for each. It also indicates whether the municipality is rural or urban.

Figure 1-2 Schuylkill County Population Density per Municipality 2012



Source: Penn State Data Center

**TABLE 1-1 SCHUYLKILL COUNTY ESTIMATED MUNICIPAL POPULATION AND POPULATION DENSITY, 2012**

Area	Square Miles Land*	Persons Per Square Mile	Urban/Rural	Estimated Total Population
<b>Schuylkill County</b>	778.4	189.3	Rural	147,372
<b>Ashland Borough</b>	1.7	1,641.2	Urban	2,790
<b>Auburn Borough</b>	1.7	429.4	Urban	730
<b>Barry Township</b>	16.7	55.2	Rural	922
<b>Blythe Township</b>	27.5	33.3	Rural	916
<b>Branch Township</b>	11.7	155.8	Rural	1,823
<b>Butler Township</b>	26.1	203.3	Rural	5,305
<b>Cass Township</b>	14	138.5	Rural	1,939
<b>Coaldale Borough</b>	2.2	1,024.5	Urban	2,254
<b>Cressona Borough</b>	1	1,642.0	Urban	1,642
<b>Deer Lake Borough</b>	0.4	1,735.0	Urban	694
<b>Delano Township</b>	8.2	53.8	Rural	441
<b>East Brunswick Township</b>	30.5	58.4	Rural	1,781
<b>East Norwegian Township</b>	4.1	208.5	Rural	855
<b>East Union Township</b>	26	62.0	Rural	1,612
<b>Eldred Township</b>	22.2	33.9	Rural	753
<b>Foster Township</b>	13.2	18.9	Rural	250
<b>Frackville Borough</b>	0.6	6,288.3	Urban	3,773
<b>Frailey Township</b>	9.1	46.7	Rural	425
<b>Gilberton Borough</b>	1.4	542.9	Urban I	760
<b>Girardville Borough</b>	0.5	3,008.0	Urban	1,504
<b>Gordon Borough</b>	0.6	1,263.3	Urban	758
<b>Hegins Township</b>	32	109.7	Rural	3,510
<b>Hubley Township</b>	13.1	64.6	Rural	846
<b>Kline Township</b>	12.2	117.0	Rural	1,428
<b>Landingville Borough</b>	0.8	197.5	Rural	158
<b>McAdoo Borough</b>	0.3	7,563.3	Urban	2,269
<b>Mahanoy Township</b>	20.9	153.5	Rural	3,209
<b>Mahanoy City Borough</b>	0.5	8,244.0	Urban	4,122
<b>Mechanicsville Borough</b>	0.3	1,510.0	Urban	453
<b>Middleport Borough</b>	0.4	1,005.0	Urban	402
<b>Minersville Borough</b>	0.7	6,201.4	Urban	4,341
<b>Mount Carbon Borough</b>	0.1	910.0	Urban	91

TABLE 1-1 continued

Area	Square Miles Land*	Persons Per Square Mile		Estimated Total Population
<b>New Castle Township</b>	12.2	33.4	Rural	408
<b>New Philadelphia Borough</b>	1.5	716.7	Urban	1,075
<b>New Ringgold Borough</b>	0.9	305.6	Urban	275
<b>North Manheim Township</b>	20.5	182.9	Rural	3,750
<b>North Union Township</b>	20	73.2	Rural	1,464
<b>Norwegian Township</b>	5.8	396.2	Urban	2,298
<b>Orwigsburg Borough</b>	2.2	1,396.4	Urban	3,072
<b>Palo Alto Borough</b>	1.1	928.2	Urban	1,021
<b>Pine Grove Borough</b>	1.1	1,969.1	Urban	2,166
<b>Pine Grove Township</b>	38.2	108.2	Rural	4,133
<b>Port Carbon Borough</b>	0.8	2,330.0	Urban	1,864
<b>Port Clinton Borough</b>	0.5	650.0	Urban	325
<b>Porter Township</b>	18.1	119.1	Rural	2,155
<b>Pottsville City</b>	4.2	3,370.2	Urban	14,155
<b>Reilly Township</b>	16.2	44.4	Rural	719
<b>Ringtown Borough</b>	0.4	2,017.5	Urban	807
<b>Rush Township</b>	22.9	148.3	Rural	3,396
<b>Ryan Township</b>	17.9	141.2	Rural	2,528
<b>St. Clair Borough</b>	1.2	2,474.2	Urban I	2,969
<b>Schuylkill Township</b>	9.8	114.1	Rural	1,118
<b>Schuylkill Haven Borough</b>	1.4	3,833.6	Urban	5,367
<b>Shenandoah Borough</b>	1.5	3,337.3	Urban	5,006
<b>South Manheim Township</b>	20.6	122.4	Rural	2,521
<b>Tamaqua Borough</b>	9.8	715.5	Urban	7,012
<b>Tower City Borough</b>	0.3	4,446.7	Urban	1,334
<b>Tremont Borough</b>	0.8	2,173.8	Urban	1,739
<b>Tremont Township</b>	23.3	11.9	Rural	277
<b>Union Township</b>	22.1	57.1	Rural	1,261
<b>Upper Mahantongo Township</b>	14.8	43.9	Rural	650
<b>Walker Township</b>	22.8	45.8	Rural	1,045
<b>Washington Township</b>	31	97.0	Rural	3,008
<b>Wayne Township</b>	35	145.7	Rural	5,100
<b>West Brunswick Township</b>	30.3	109.8	Rural	3,328
<b>West Mahanoy Township</b>	10.4	273.8	Rural	2,847
<b>West Penn Township</b>	58	76.3	Rural	4,423

## HISTORICAL INFLUENCES AND CURRENT TRENDS

Situated in the heart of the Coal Region of Pennsylvania, Schuylkill County has a long-standing industrial heritage. In spite of the decline of the industry throughout the 20<sup>th</sup> century, the legacy of anthracite coal mining is still visible on the landscape. It is perhaps more ingrained in the identity of the families that continue to reside there. Still prevalent are clustered neighborhoods of ethnic and religious groups reflective of the immigrants drawn there by employment.



Still prevalent are clusters of neighborhoods reminiscent of the County's industrial heritage and whose residents have strong ties to their cultural origins.

Such continuums of lifestyles present unique circumstances that must be considered when introducing new and possibly futuristic concepts.

Between the 2000 and 2010 census, Schuylkill County experienced a slight decrease (1.4 percent) in population, while the overall State of Pennsylvania grew by 3.4 percent. Still, with direct

access to the Interstate 81 corridor the demographics of the County are slowly changing. One modern, noted difference is the relationship between workforce, job opportunities, and end markets are no longer limited to small closely grouped clusters of population. Improvements to major State roadways and the expansion of the Interstate highway system, which provide easy access throughout the region, continue to blur the established political boundary lines and make them less relevant.

## DECREASES IN OVERALL POPULATION

Schuylkill County's population is projected to continue on a slow downward trend, with the overall loss per year similar to the decline seen between 2000 and 2010. Some municipalities had a more dramatic loss than others did. Most notably West Mahony Township lost more than half of its population, while Mahony Township more than doubled in size. Likewise, Foster Township shrunk by seventy-seven percent, and Ryan Township grew by nearly seventy percent. Table 1-2 lists the 2010 population for Schuylkill County by municipality and compares it to the population in 2000.

**Table 1-2 Changes in Schuylkill County Population 2000-2010 per Municipality**

Geographic Area	Population 2010	Population 2000	Numeric Change	% Change
<b>Schuylkill County</b>	148,289	150336	-2047	<b>-1.40%</b>
<b>Ashland Borough</b>	2,817	3283	-466	<b>-14.20%</b>
<b>Auburn Borough</b>	741	839	-98	<b>-11.70%</b>
<b>Barry Township</b>	932	967	-35	<b>-3.60%</b>
<b>Blythe Township</b>	924	905	19	<b>2.10%</b>
<b>Branch Township</b>	1,840	1871	-31	<b>-1.70%</b>
<b>Butler Township</b>	5,224	3588	1636	<b>45.60%</b>
<b>Cass Township</b>	1,958	2383	-425	<b>-17.80%</b>
<b>Coaldale Borough</b>	2,281	2295	-14	<b>-0.60%</b>
<b>Cressona Borough</b>	1,651	1635	16	<b>1.00%</b>
<b>Deer Lake Borough</b>	687	528	159	<b>30.10%</b>
<b>Delano Township</b>	445	487	-42	<b>-8.60%</b>
<b>East Brunswick Township</b>	1,793	1601	192	<b>12.00%</b>
<b>East Norwegian Township</b>	863	864	-1	<b>-0.10%</b>
<b>East Union Township</b>	1,605	1419	186	<b>13.10%</b>
<b>Eldred Township</b>	758	719	39	<b>5.40%</b>
<b>Foster Township</b>	251	1124	-873	<b>-77.70%</b>
<b>Frackville Borough</b>	3,805	4361	-556	<b>-12.70%</b>
<b>Frailey Township</b>	429	416	13	<b>3.10%</b>
<b>Gilberton Borough</b>	769	867	-98	<b>-11.30%</b>
<b>Girardville Borough</b>	1,519	1742	-223	<b>-12.80%</b>
<b>Gordon Borough</b>	763	781	-18	<b>-2.30%</b>
<b>Hegins Township</b>	3,516	3519	-3	<b>-0.10%</b>
<b>Hubley Township</b>	854	889	-35	<b>-3.90%</b>
<b>Kline Township</b>	1,438	1591	-153	<b>-9.60%</b>
<b>Landingville Borough</b>	159	175	-16	<b>-9.10%</b>
<b>McAdoo Borough</b>	2,300	2274	26	<b>1.10%</b>
<b>Mahanoy Township</b>	3,152	1112	2040	<b>183.50%</b>
<b>Mahanoy City Borough</b>	4,162	4647	-485	<b>-10.40%</b>
<b>Mechanicsville Borough</b>	457	515	-58	<b>-11.30%</b>
<b>Middleport Borough</b>	405	458	-53	<b>-11.60%</b>
<b>Minersville Borough</b>	4,397	4552	-155	<b>-3.40%</b>
<b>Mount Carbon Borough</b>	91	87	4	<b>4.60%</b>
<b>New Castle Township</b>	414	395	19	<b>4.80%</b>

**Table 1-2 continued**

<b>New Philadelphia Borough</b>	1,085	1149	-64	<b>-5.60%</b>
<b>New Ringgold Borough</b>	276	291	-15	<b>-5.20%</b>
<b>North Manheim Township</b>	3,770	3287	483	<b>14.70%</b>
<b>North Union Township</b>	1,476	1225	251	<b>20.50%</b>
<b>Norwegian Township</b>	2,310	2172	138	<b>6.40%</b>
<b>Orwigsburg Borough</b>	3,099	3106	-7	<b>-0.20%</b>
<b>Palo Alto Borough</b>	1,032	1052	-20	<b>-1.90%</b>
<b>Pine Grove Borough</b>	2,186	2154	32	<b>1.50%</b>
<b>Pine Grove Township</b>	4,123	3930	193	<b>4.90%</b>
<b>Port Carbon Borough</b>	1,889	2019	-130	<b>-6.40%</b>
<b>Port Clinton Borough</b>	326	288	38	<b>13.20%</b>
<b>Porter Township</b>	2,176	2032	144	<b>7.10%</b>
<b>Pottsville City</b>	14,324	15549	-1225	<b>-7.90%</b>
<b>Reilly Township</b>	726	802	-76	<b>-9.50%</b>
<b>Ringtown Borough</b>	818	826	-8	<b>-1.00%</b>
<b>Rush Township</b>	3,412	3957	-545	<b>-13.80%</b>
<b>Ryan Township</b>	2,459	1451	1008	<b>69.50%</b>
<b>St. Clair Borough</b>	3,004	3254	-250	<b>-7.70%</b>
<b>Schuylkill Township</b>	1,129	1123	6	<b>0.50%</b>
<b>Schuylkill Haven Borough</b>	5,437	5548	-111	<b>-2.00%</b>
<b>Shenandoah Borough</b>	5,071	5624	-553	<b>-9.80%</b>
<b>South Manheim Township</b>	2,507	2191	316	<b>14.40%</b>
<b>Tamaqua Borough</b>	7,107	7174	-67	<b>-0.90%</b>
<b>Tower City Borough</b>	1,346	1396	-50	<b>-3.60%</b>
<b>Tremont Borough</b>	1,752	1784	-32	<b>-1.80%</b>
<b>Tremont Township</b>	280	250	30	<b>12.00%</b>
<b>Union Township</b>	1,273	1308	-35	<b>-2.70%</b>
<b>Upper Mahantongo Township</b>	655	652	3	<b>0.50%</b>
<b>Walker Township</b>	1,054	936	118	<b>12.60%</b>
<b>Washington Township</b>	3,033	2750	283	<b>10.30%</b>
<b>Wayne Township</b>	5,113	4721	392	<b>8.30%</b>
<b>West Brunswick Township</b>	3,327	3428	-101	<b>-2.90%</b>
<b>West Mahanoy Township</b>	2,872	6166	-3294	<b>-53.40%</b>
<b>West Penn Township</b>	4,442	3852	590	<b>15.30%</b>

## EFFECTS OF POPULATION MIGRATION

How can Schuylkill County's population decrease by less than two percent, when many of the municipalities saw much more major losses? It appears that domestic migration has played a role in slowing Schuylkill County's declining population rate.

During 2012, the baseline year used in the planning process, of the 69,333 residential housing units available in Schuylkill County, nearly eight-seven percent were owner occupied. The remaining twenty-four percent of the housing units available were rentals. The combined vacancy rate was thirteen percent.

It is important to note that overall Schuylkill County residents maintain long tenures in their homes. In 2012, over eighty-nine percent of Schuylkill County's residents remained in the home in which they lived in the previous year. Of those who had moved within the year, about seven percent simply relocated within Schuylkill County. Nearly three percent of the residents who had moved into Schuylkill County were from another Pennsylvania county, about one percent were from another state, and less than one percent were from another country.



Younger residents bring with them greater expectations for public services than have been traditionally offered .

For the most part, housing units in Schuylkill County are older. Approximately half were built prior to 1939. Interestingly, the number of homes built post 2000 account for only five percent of all of the residential housing units available. Yet, nearly forty percent of current homeowners reported moving into their homes during the years from 2000 to 2009.

Table 1-3 shows a recent snapshot of geographic mobility of the local population.

## IMPACT ON SOLID WASTE MANAGEMENT

Domestic migration can be a strong indicator of many conditions that impact municipal solid waste management. While the row houses and landscape of the old "mining towns" may still physically exist, the overall makeup of the County is slowly changing. Younger native residents willing to commute longer distances remain in Schuylkill County, but not necessarily in their childhood neighborhoods. Clusters of people are relocating into what were once smaller boroughs to take advantage of affordable real estate. In smaller numbers, those from more urban areas are settling into the newly emerging townships. These rural landscapes, previously with little to no zoning, are evolving into planned residential communities with a comparatively more

diverse population. Therefore, attitudes and expectations, the degree of willingness to pay for services, and the value placed on environmental protection varies among Schuylkill County communities. All of these factors provide a challenging scenario in which to develop equitable policies and opportunities for the County's residents.

Although people move to rural areas to escape crime, congestion and taxes, they often bring with them expectations for conveniences and public services that in a rural setting can be challenging and more costly to provide. It is just as common for the new residents to have little understanding of the challenges. Distance and travel time have a huge impact on the overall cost of providing waste and recycling collection services. Therefore, understanding these variables is important in developing the sustainable and affordable programs to which these transplanted residents have become accustomed.

Local governments can be ill prepared to deal with these service demands, because the infrastructure for waste and recycling services may not be fully developed. Changes in methods for collection from drop-off to curbside often make sense where convenience and customer satisfaction are concerned. Regionalization and/or coordination of contracted services is a viable solution in many of these scenarios. The planning process examined how these types of conditions may be addressed in Schuylkill County.



Changing from a drop-off to a curbside collection system makes sense where customer satisfaction and convenience are concerned.

Table 1-3 Impact of Domestic Migration on Schuylkill County Municipalities

Area	Number of Residents		Percent			
	Number of Residents Who Lived In Same Area 1 Year Ago	Non-Movers County	Intra County Movers	Inter-County Movers	Inter- State Movers	Moved from abroad
Schuylkill County	146,359	89.30%	6.53%	2.66%	1.12%	0.39%
Ashland Borough	2,808	87.00%	6.87%	5.73%	0.00%	0.39%
Auburn Borough	645	86.20%	12.09%	0.62%	1.09%	0.00%
Barry Township	967	96.69%	0.72%	2.38%	0.00%	0.21%
Blythe Township	943	96.08%	3.92%	0.00%	0.00%	0.00%
Branch Township	1,784	87.95%	4.54%	6.39%	0.73%	0.39%
Butler Township	5,135	87.24%	5.39%	3.17%	3.04%	1.15%
Cass Township	1,860	98.33%	1.02%	0.65%	0.00%	0.00%
Coaldale Borough	2,387	84.83%	6.79%	7.16%	1.21%	0.00%
Cressona Borough	1,827	89.11%	8.21%	1.26%	1.20%	0.22%
Deer Lake Borough	644	97.20%	0.93%	1.40%	0.00%	0.47%
Delano Township	443	96.39%	3.61%	0.00%	0.00%	0.00%
East Brunswick Township	1,646	93.62%	3.10%	3.28%	0.00%	0.00%
East Norwegian Township	981	93.48%	4.49%	1.02%	1.02%	0.00%
East Union Township	1,367	93.34%	3.80%	2.05%	0.80%	0.00%
Eldred Township	633	93.52%	4.27%	1.90%	0.32%	0.00%
Foster Township	216	97.69%	0.00%	2.31%	0.00%	0.00%
Frackville Borough	3,744	94.44%	5.42%	0.13%	0.00%	0.00%
Frailey Township	438	95.89%	2.51%	1.14%	0.46%	0.00%
Gilberton Borough	830	82.05%	13.49%	0.84%	3.37%	0.24%

Table 1-3 continued

Area	Number of Residents					Percent
	Number of Residents Who Lived In Same Area 1 Year Ago	Non-Movers County	Intra County Movers	Inter-County Movers	Inter-State Movers	Moved from abroad
Girardville Borough	1,494	87.68%	8.17%	1.74%	2.01%	0.40%
Gordon Borough	833	85.47%	12.48%	2.04%	0.00%	0.00%
Hegins Township	3,423	92.23%	7.57%	0.20%	0.00%	0.00%
Hubley Township	815	90.67%	7.73%	0.98%	0.61%	0.00%
Kline Township	1,600	93.00%	3.25%	2.38%	0.94%	0.44%
Landingville Borough	129	100.00%	0.00%	0.00%	0.00%	0.00%
McAdoo Borough	2,570	83.27%	5.25%	8.72%	2.76%	0.00%
Mahanoy Township	3,173	72.08%	3.34%	18.09%	2.71%	3.78%
Mahanoy City Borough	4,126	91.47%	5.09%	3.20%	0.24%	0.00%
Mechanicsville Borough	520	85.19%	10.38%	0.00%	4.42%	0.00%
Middleport Borough	371	95.69%	2.96%	0.00%	1.35%	0.00%
Minersville Borough	4,295	84.38%	14.67%	0.54%	0.42%	0.00%
Mount Carbon Borough	110	89.09%	8.18%	0.91%	0.00%	1.82%
New Castle Township	460	90.87%	8.26%	0.43%	0.00%	0.43%
New Philadelphia Borough	1,045	90.43%	6.22%	1.72%	0.96%	0.67%
New Ringgold Borough	322	84.47%	11.80%	3.73%	0.00%	0.00%
North Manheim Township	3,715	88.40%	9.31%	1.08%	0.89%	0.32%
North Union Township	1,363	93.40%	2.71%	1.69%	1.17%	1.03%
Norwegian Township	2,169	95.71%	3.73%	0.00%	0.18%	0.37%
Orwigsburg Borough	3,087	86.85%	7.42%	4.21%	1.52%	0.00%
Palo Alto Borough	1,008	91.96%	3.87%	0.79%	3.37%	0.00%
Pine Grove Borough	2,166	88.37%	7.34%	4.20%	0.09%	0.00%
Pine Grove Township	4,089	96.45%	2.89%	0.66%	0.00%	0.00%
Port Carbon Borough	1,905	93.07%	5.98%	0.00%	0.94%	0.00%
Port Clinton Borough	250	68.00%	14.80%	11.60%	5.60%	0.00%

Table 1-3 continued

Area  County/Municipality	Number of Residents		Percent			
	Number of Residents Who Lived In Same Area 1 Year Ago	Non-Movers County	Intra County Movers	Inter-County Movers	Inter-State Movers	Moved from abroad
Porter Township	1,905	92.86%	4.20%	0.73%	0.37%	1.84%
Pottsville City	14,182	82.32%	11.52%	3.53%	2.23%	0.40%
Reilly Township	636	97.80%	2.20%	0.00%	0.00%	0.00%
Ringtown Borough	694	94.52%	2.31%	1.01%	2.16%	0.00%
Rush Township	3,400	97.24%	2.32%	0.00%	0.00%	0.44%
Ryan Township	2,477	80.78%	2.42%	12.56%	2.22%	2.02%
St. Clair Borough	2,947	87.00%	9.54%	1.15%	0.41%	1.90%
Schuylkill Township	1,070	96.07%	3.93%	0.00%	0.00%	0.00%
Schuylkill Haven Borough	5,348	92.39%	6.86%	0.00%	0.75%	0.00%
Shenandoah Borough	5,073	78.00%	14.82%	1.89%	3.84%	1.44%
South Manheim Township	2,474	94.95%	2.34%	1.98%	0.49%	0.24%
Tamaqua Borough	6,924	90.68%	6.01%	0.58%	2.61%	0.12%
Tower City Borough	1,406	88.76%	6.12%	4.84%	0.00%	0.28%
Tremont Borough	1,681	91.79%	6.60%	1.61%	0.00%	0.00%
Tremont Township	257	96.11%	1.95%	0.39%	1.56%	0.00%
Union Township	1,310	96.18%	2.37%	1.22%	0.00%	0.23%
Upper Mahantongo Township	703	88.76%	6.69%	2.28%	2.28%	0.00%
Walker Township	1,070	90.84%	4.21%	3.46%	1.21%	0.28%
Washington Township	2,952	93.63%	3.96%	2.24%	0.17%	0.00%
Wayne Township	5,032	94.73%	2.44%	2.23%	0.60%	0.00%
West Brunswick Township	3,303	83.59%	15.05%	1.36%	0.00%	0.00%
West Mahanoy Township	2,842	95.14%	1.62%	2.85%	0.39%	0.00%
West Penn Township	4,337	95.13%	1.59%	3.02%	0.25%	0.00%

## Understanding the Components of Solid Waste

An extensive set of laws and regulations exist at the national and state level to ensure proper management of solid waste. The full scope of materials and categories considered solid waste can become rather complex due to inconsistent definitions and regulatory requirements throughout the nation. Equally complicated is the ability to identify and understand the various sources where the waste is generated.

There are a number of categorized sub sets of solid waste. In general, USEPA considers discards from residential, commercial, and institutional establishments to be the “municipal” subset of solid waste. For the most part, municipal waste is recognizable and readily familiar.

Most of us are more familiar with municipal solid waste than we realize. We all generate municipal solid waste. We produce it where we live, where we work, where we shop, in our schools, in our medical facilities, and in a host of other community activities. It is estimated that as a nation in 2012, each person generated an average of 4.38 pounds of municipal solid waste per day.



Municipal solid waste consists of everyday items such as product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspapers, appliances, and batteries. In addition to identifying specific groups of materials, broad categories of products are also used in analyses of municipal solid waste. These include durable goods, non-durable goods, containers and packaging, organic wastes such as food and yard trimmings, and miscellaneous inorganic wastes. Although each of the same materials still exist in the waste stream, categorizing them by product more clearly illustrates the relationship between product design, purchasing habits, and waste

generation. With the emergence and growth of product stewardship legislation and regulations, there is increasing demand for sustainable design that allows for remanufacturing, reuse, and recycling. A description of the USEPA product categories is shown in Table 1-4 on the following page.

## Table 1-4 USEPA Categories of Products and Non-Products in Municipal Solid Waste

### **PAPER AND PAPERBOARD**

Collectively, the many products made of paper and paperboard materials comprise the largest component of MSW. The paper and paperboard materials category includes products such as office papers, newspapers, corrugated boxes, milk cartons, tissue paper, and paper plates and cups.

### **GLASS**

Glass is found in MSW primarily in the form of containers, but also in durable goods like furniture, appliances, and consumer electronics. In the container category, glass is found in beer and soft drink bottles, wine and liquor bottles, and bottles and jars for food, cosmetics, and other products.

### **METALS**

**Ferrous** By weight, ferrous metals (iron and steel) are the largest category of metals in MSW. The largest quantities of ferrous metals in MSW are found in durable goods such as appliances, furniture, and tires. Containers and packaging are the other source of ferrous metals in MSW.

**Aluminum** The largest source of aluminum in MSW is aluminum cans and other packaging. Other sources of aluminum are found in durable and nondurable goods.

**Other Nonferrous** Other nonferrous metals (e.g., lead, copper, zinc) are found in durable products such as appliances, consumer electronics, etc. Lead in lead-acid batteries is the most prevalent nonferrous metal (other than aluminum) in MSW.

### **PLASTICS**

Plastics are a rapidly growing segment of MSW. While plastics are found in all major MSW categories, the containers and packaging category (bags, sacks, and wraps, other packaging, PET bottles, jars and HDPE natural bottles, and other containers) has the most plastic tonnage.

### **RUBBER AND LEATHER**

The predominant source of rubber in MSW is rubber tires from automobiles and trucks. Other sources of rubber and leather include clothing and footwear and other miscellaneous durable and nondurable products. These other sources are quite diverse, including such items as gaskets on appliances, furniture, and hot water bottles, for example.

### **TEXTILES**

Textiles in MSW are found mainly in discarded clothing, although other sources were identified to be furniture, carpets, tires, footwear, and other nondurable goods such as sheets and towels.

### **WOOD**

The sources of wood in MSW include furniture, other durable goods (e.g., cabinets for electronic equipment), wood packaging (crates, pallets), and some other miscellaneous products.

### **OTHER MATERIALS**

Generation of "other materials" waste is mainly associated with disposable diapers. The only other significant sources of materials in this category are the electrolytes and other materials associated with lead-acid batteries that are not classified as plastics or nonferrous metal.

### **OTHER WASTES (NON-PRODUCT):**

#### **Food Scraps**

Food scraps included here consist of uneaten food and food preparation wastes from residences, commercial establishments such as grocery stores and sit-down and fast food restaurants, institutional sources such as school cafeterias, and industrial sources such as factory lunchrooms. Pre-consumer food waste generated during the manufacturing and packaging of food products is considered industrial waste and therefore not included in MSW food scrap estimates.

#### **Yard Trimmings**

Yard trimmings include grass, leaves, and tree and brush trimmings from residential, institutional, and commercial sources. Although limited data are available on the composition of yard trimmings, it is estimated that the average composition by weight is about 50 percent grass, 25 percent brush, and 25 percent leaves. These are "ballpark" numbers that will vary widely according to climate and region of the country.

#### **Misc. Inorganic Wastes**

This relatively small category of MSW is derived from sampling studies. It is not well defined and often shows up in sampling reports as "fines" or "other." It includes soil, bits of concrete, stones, and the like.

There are some other subsets of the solid waste stream with unique characteristics or which require special handling. USEPA along with many states do not factor these particular types of materials into the overall quantities of municipal waste. In Pennsylvania, however, waste from construction and demolition activities, medical waste from health care facilities, biosolids, and sludges from wastewater treatment all fall within the regulatory framework of municipal solid waste. In the planning process, Pennsylvania counties must address how each is managed.

It should be noted that within the Plan's discussions of and projections for residential and commercial/institutional municipal waste generation and recycling, those materials designated as "special handling wastes" are not included. Estimates for these special handling wastes and detailed discussions of how they are managed are provided separately.

### **CHARACTERIZING SCHUYLKILL COUNTY'S MUNICIPAL WASTE**

As one can see from Table 1-4, municipal waste contains a mixture of materials and products. The types of materials in the waste stream remain relatively the same; however, certain changes can occur in the proportionate value each material represents in the total waste stream. A number of circumstances can cause the content to fluctuate. From region to region, income, education, geography, and other demographics influence the types and amounts of items purchased and ultimately disposed. The source of the material can also influence the composition. Waste from strictly residential settings tends to differ slightly in composition from waste generated only by commercial establishments.

Before examining the current conditions in Schuylkill County, it is necessary to have a much broader awareness and understanding of municipal solid waste issues and trends. Knowing what is common or normal in the majority of communities across the nation provides a benchmark for evaluating local data. The following section provides this data. It also offers explanations for changes that challenge previously held assumptions. Finally, it provides insight into prevailing trends and evolving conditions that could affect future solid waste management capacity needs and the development of treatment and processing methodologies.

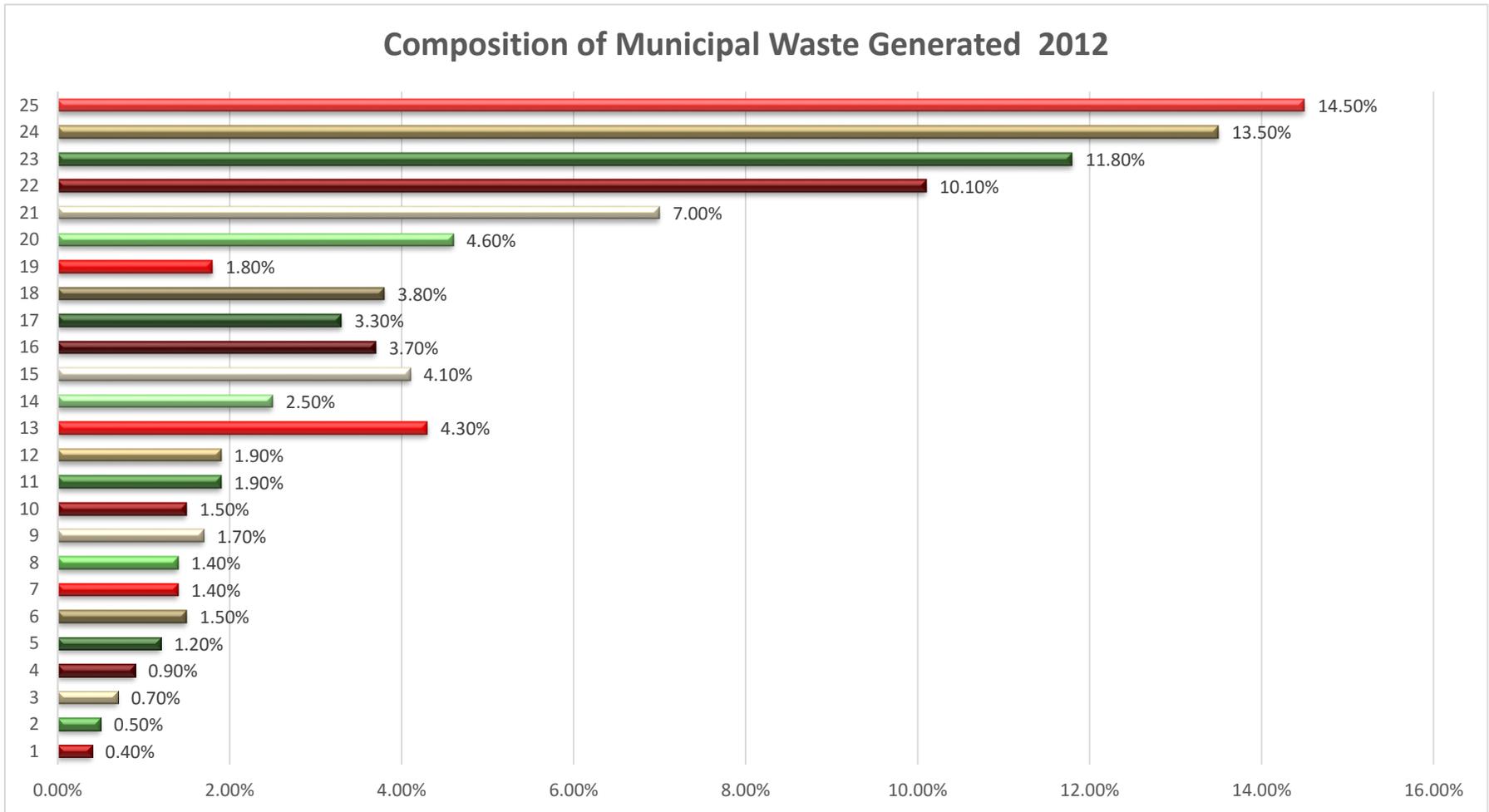
Often a physical sort of the local waste stream is conducted to provide precise data. However, for general planning purposes, the time and cost to initiate that process is rarely justifiable. Additionally, with an ever-changing waste stream, the data gathered from a waste sort tends to have a short life. Instead, reliable information from national sources can be utilized to conduct a reasonable analysis of local conditions.

## Current Trends in Municipal Solid Waste Generation

The United States Environmental Protection Agency (USEPA) has collected and analyzed data on waste generation, disposal, and diversion from 1960 through 2012. Therefore, historic trends and changes, as well as yearly snapshots are available. The Franklin Associates of Kansas were commissioned by the USEPA to conduct this ongoing study and issue a series of publications. It continues to serve as the definitive survey on the characterization and composition of the national waste stream. Until recently, the reports were published as “Characterization of Municipal Solid Waste in the United States.” The most current iteration available throughout the planning process is titled “Generation, Recycling, and Disposal in the United States: Facts and Figures for 2012.” publications are commonly referred to as “The Franklin Study.” The series focuses on municipal solid waste generated by residential and commercial sources. It is a useful tool to make initial assumptions and to reveal significant differences and/or anomalies in local programs based on national behaviors and performance.

Figure 1-3 provides a detailed breakdown of the composition of municipal solid waste in 2012 according to the USEPA’s study. The chart represents the total waste generated prior to recovery of materials for recycling and prior to disposal.

Figure 1-3 Composition of Municipal Solid Waste Generated in the USA 2010



Source: USEPA

## Decades Bring Changes to the Municipal Solid Waste Stream

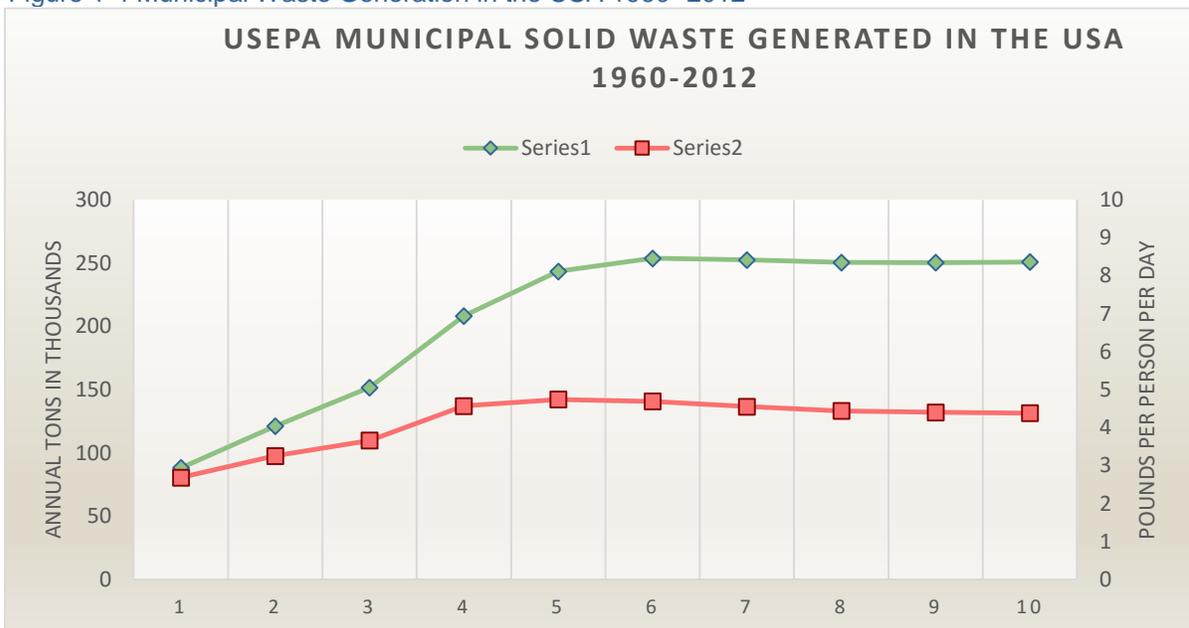
Since Schuylkill County's original Plan was adopted in 1992, many of the basic premises widely held then have changed during the past 20 years. Understanding these changes is important because they will form the foundation for assumptions used throughout the planning process to assess the validity or anomalies of local data and programs. This section provides a brief overview of nationally documented changes in the amounts, types, and components of municipal solid waste generated compared to those which have been discarded, i.e. disposed.

### WASTE GENERATION, COMPOSITION, AND RECOVERY

Figure 1-4 presents the amounts of municipal solid waste generated, recovered, and disposed nationally from 1960 thru 2012. It is shown in the total amount of waste generated as well as the amount of waste generated on a per capita basis.

The USEPA has documented through its studies that over the past 50 years the quantities, composition, and recovery of municipal solid waste have varied considerably. In contrast, over the past 5 years, the quantity of material generated and discarded has been relatively constant. The total amount of municipal solid waste generated in the United States has approximately tripled over this 50-year period. Part of the increase is directly related to the increase in the population during that same period. However, individual consumer patterns were also a contributing factor. From 1960 to 1990 the amount of municipal solid waste generated on a per capita basis exceeded the population rate. That pattern has stabilized, and since 1990, the per capita rate has slowed and in fact appears to be moving on a downward trend.

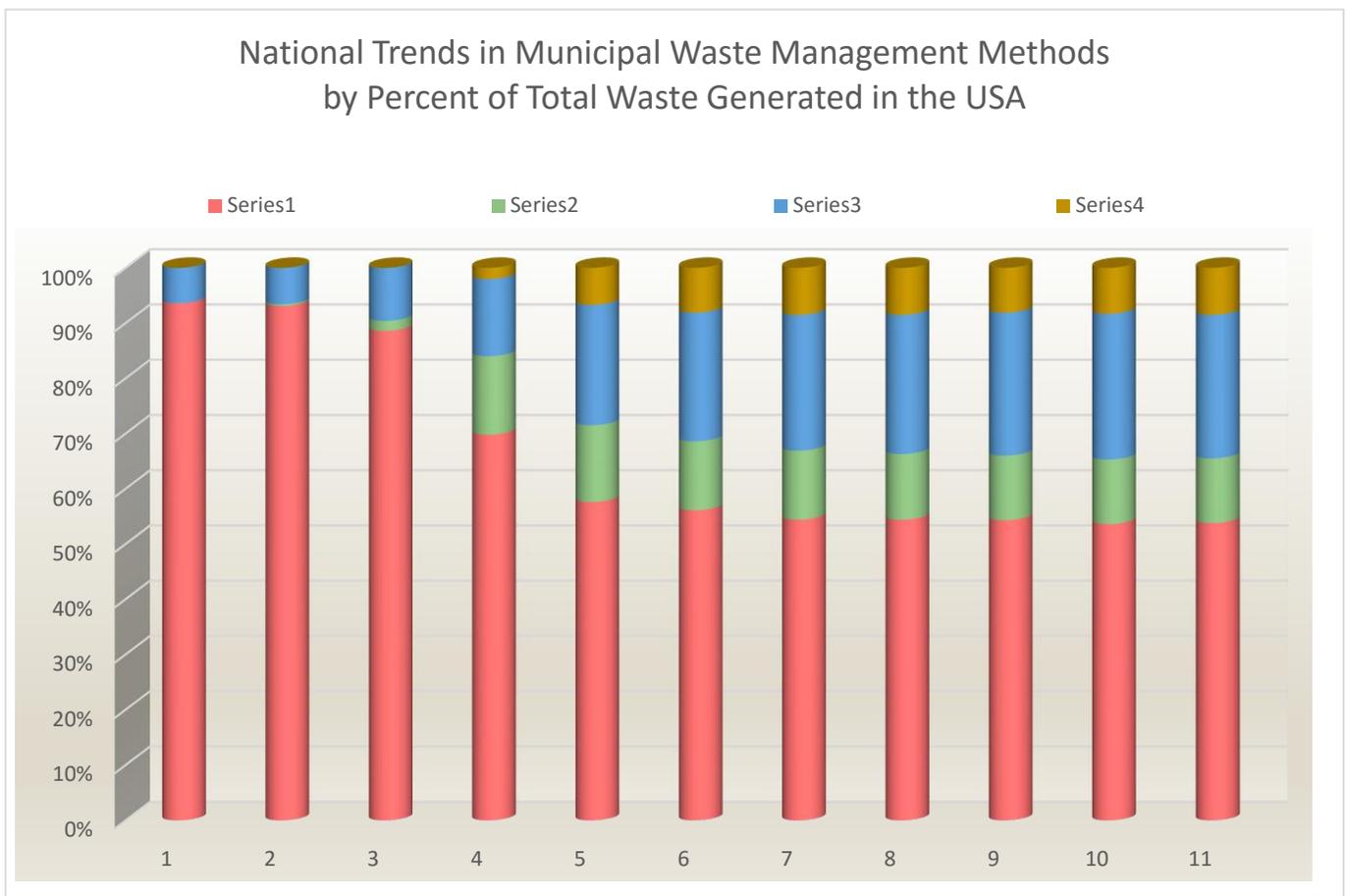
Figure 1-4 Municipal Waste Generation in the USA 1960- 2012



## THE IMPORTANCE OF MATERIAL RECOVERY

Discards include the municipal solid waste remaining after recovery for recycling and compost processing. Of the municipal solid waste generated in the United States, about 34% is recovered through recycling and composting programs. The remaining 66% falls into the category that USEPA labels “discarded,” also commonly referred to as “disposed.” While the total quantity of municipal solid waste generated has nearly tripled over the past 50 years, the quantity disposed has only doubled. This variation is because the proportion recovered through recycling has grown from less than 7% of total MSW in 1960 to about 34% in 2012.

Figure 1-5 Historic Changes in USA Waste Disposal, Energy Recovery, Recycling and Composting



Source: USEPA

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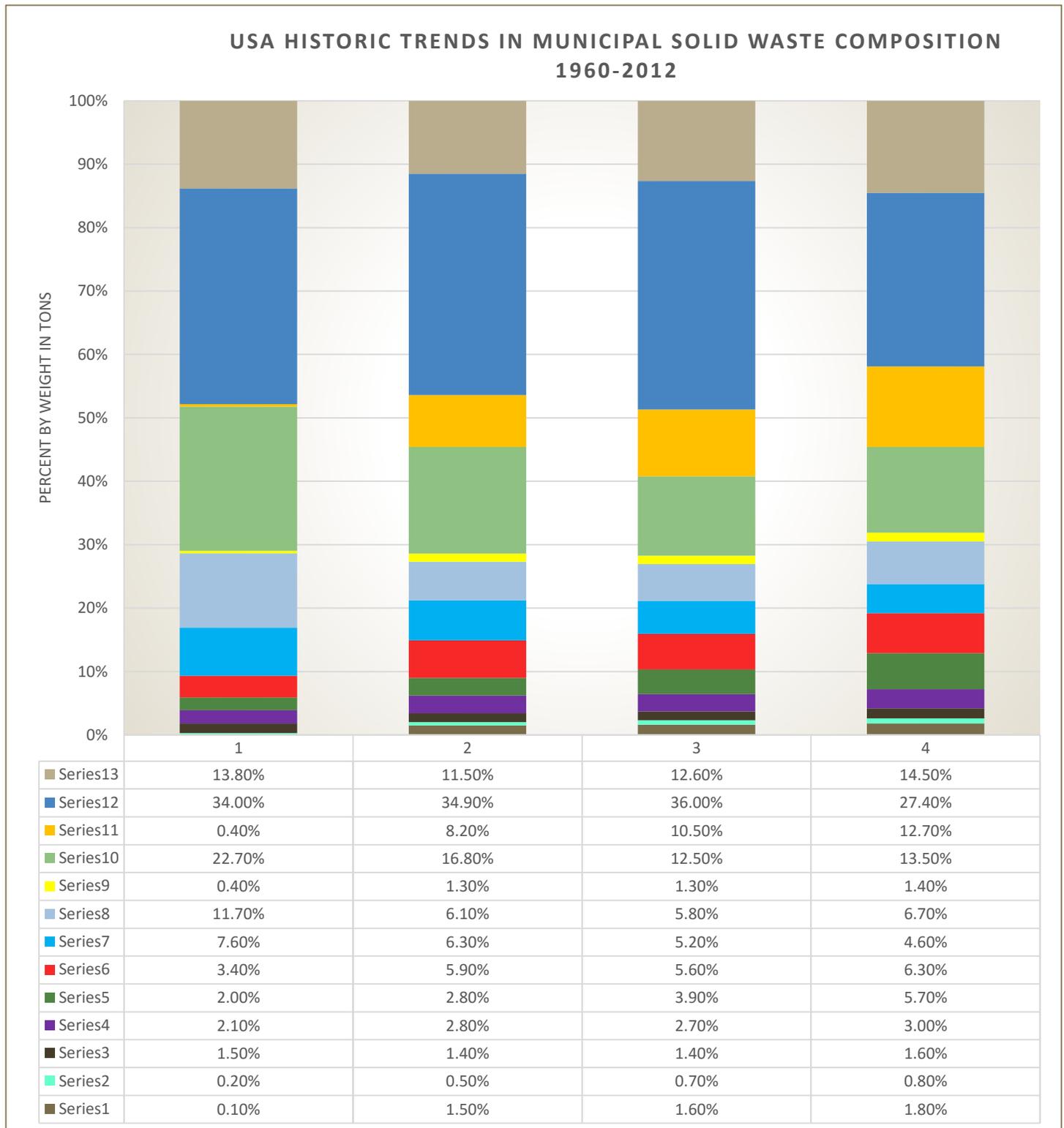
## THE EVOLVING TON

Not only has the quantity of municipal solid waste generated changed since 1960, but also the proportion that each individual component represents in the overall waste stream has changed. For example, in 1960 paper represented about 34% of the municipal solid waste stream. It has declined to about 27.4% in 2012. Plastic, which was less than 1% of the total municipal solid waste stream generated in 1960, has increased to over 12.7% of the total municipal solid waste stream in 2012.

For the last decade, due to changes in material usage, packaging, and economic effects, among other factors, the total quantity of municipal solid waste generated nationally has been relatively constant. With increasing recovery, the quantity of municipal solid waste disposed has actually been constant to slightly declining for the past 20 years. Paper (including paperboard) is the largest category of material in MSW as generated. However, due to recycling, the quantity of paper disposed has been declining since about 1990. Recently, plastic and food scraps have surpassed paper as the principal components in discarded MSW.

Figure 1-6 offers a graphic representation of the historic trends in the composition of municipal waste generated.

Figure 1-5 National Changes in the Composition of Municipal Waste Generated



Source: USEPA

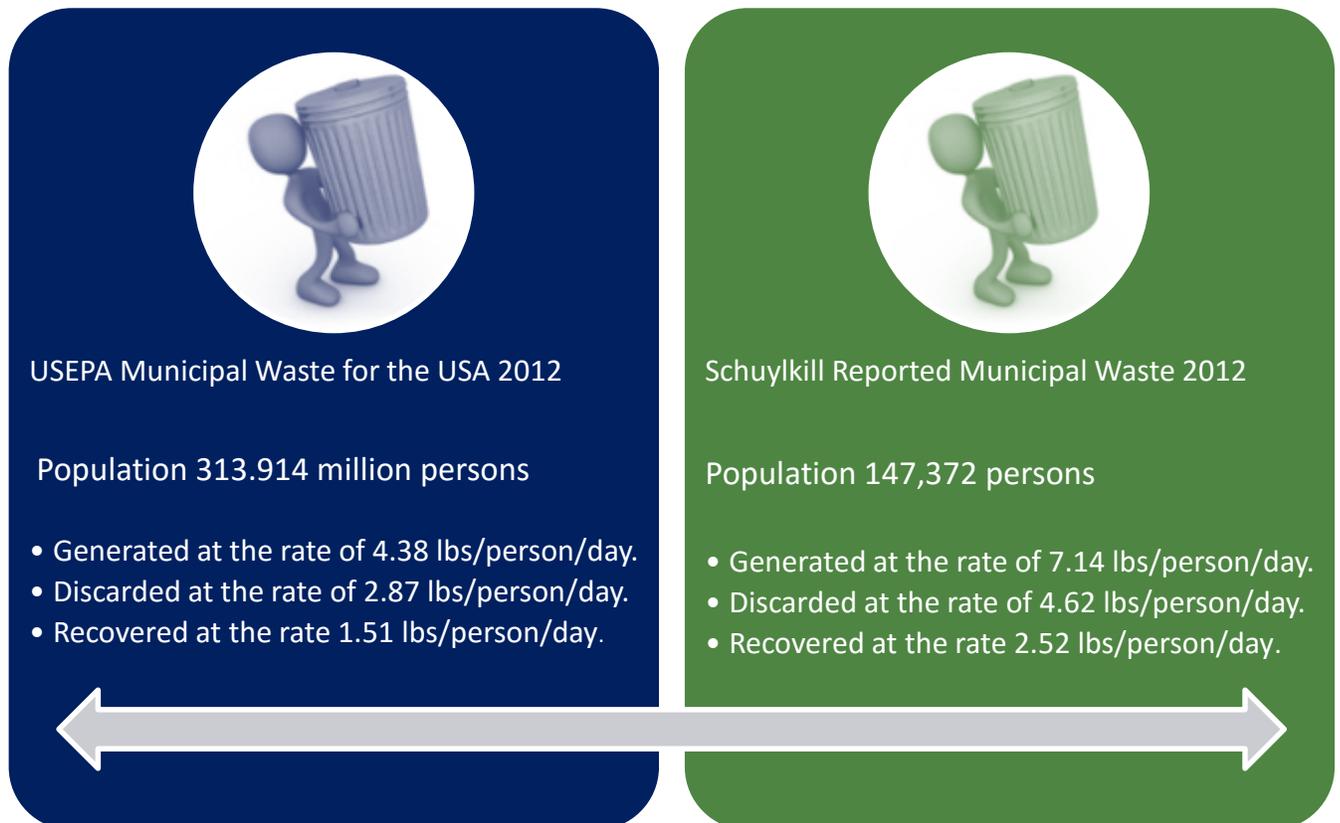
## ESTABLISHING LOCAL GENERATION, RECOVERY, AND DISPOSAL RATES

In 2012, the Franklin Study estimated that the United States generated 250.89 million tons per year of municipal solid waste (MSW) as defined by the USEPA. Of the MSW generated, 164.27 million tons per year were discarded. Recycling and composting recovered an estimated 86.6 million tons, establishing for 2012 a national recovery rate of 34.5%. This approximates Pennsylvania's current recycling goal of 35%. Therefore, the national data is a reasonable standard to use as a measure of Schuylkill County's performance to attain the state's goals.

In 2012, Schuylkill County reported 123,969 tons of municipal waste disposed and 67,869 tons recovered. Thus, the estimated amount of municipal waste generated in Schuylkill County in 2012 was 191,838 tons.

Population is used to calculate the generation, disposal and recovery rates on a per capita basis. It is also used to estimate generation, recovery, and disposal when a per capita rate is assumed. In 2012, the population of the United States was 313.914 million persons. For Schuylkill County the 2012 estimated population was 147,372. Figure 1-8 compares the national municipal waste per capita generation, disposal and recovery rates to those calculated from Schuylkill County's 2010 reported disposal and recovery tonnages.

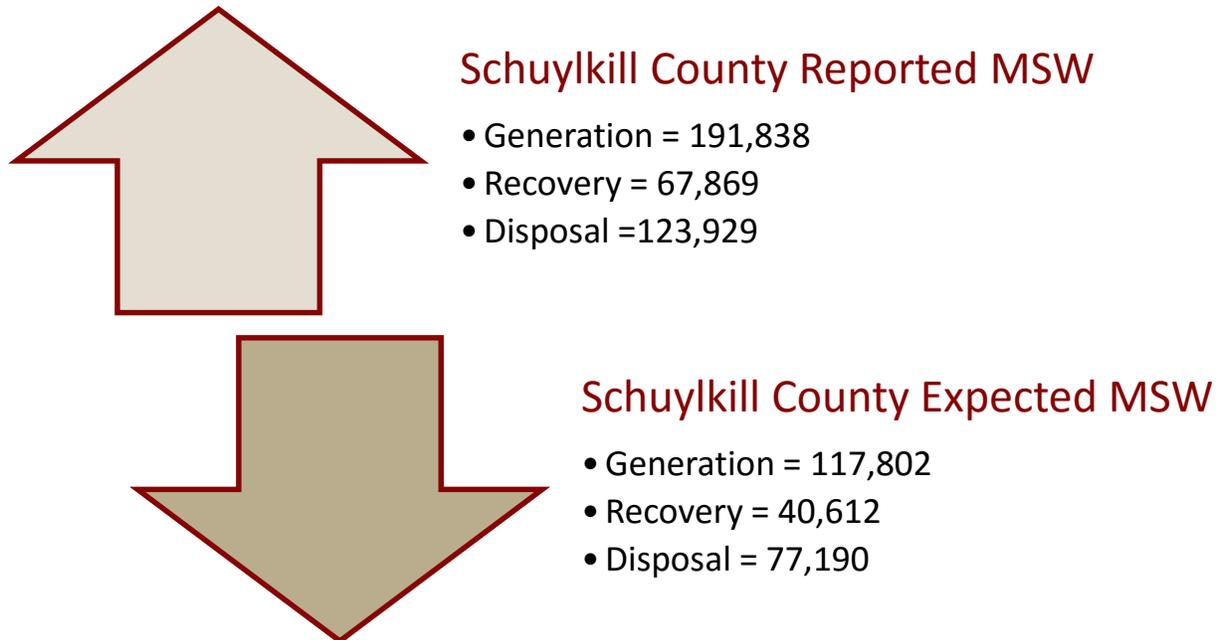
Figure 1-8 National and Schuylkill County MSW Per Capita Rates 2012



## DISSIMILARITIES IN DATA

Figure 1-9 shows the 2012 estimated waste generation, recovery, and disposal for Schuylkill County compared to the reported data for the same year. The estimates were calculated using the national waste generation criteria, the estimated 2012 population of 147,372 persons, and assumes the same national level of performance in recovery programs.

Figure 1-9 Schuylkill County Reported MSW Compared to Expected MSW based on National Statistics



Schuylkill County's reported tonnages and calculated per capita rates for municipal waste generation, recovery, and disposal are all significantly higher than the expected results if Schuylkill County were to perform the same as the national norms. The difference is even more notable since Schuylkill County is primarily rural, where lesser amounts might be expected. In fact, Schuylkill County's data is approximately 40% higher in every category.

This presents a different anomaly than if the County had discrepancies in each category that compensated for one another. For instance, if Schuylkill County had higher than normal disposal tonnages reported, but also had significantly lower rate of recovery, the overall data could result in a logical conclusion. This would be particularly true if the sum of the categories came close to the expected overall total of municipal waste generated based on the national norms. Because all of Schuylkill County's categories show dramatically higher than anticipated results, inconsistencies, errors, or misinformation are suspected in reporting.

In many of the exercises and analyses performed during the planning process, nationally accepted assumptions were used to override the locally reported results. When feasible, the report noted reasons for the discrepancies. At a minimum, this provided a balanced platform for future decision-making. One noted difference is the inclusion of materials that are not commonly found in residential and commercial sources, nor designated by Act 101 as source separated recyclables. Additionally, in some instances it appears pounds may have been entered where the report asks for tons.

## **Categories and Sources of Municipal Solid Waste**

It is common at the federal and state levels to categorize and regulate waste more by where a material is generated and by whom than by its actual characteristics or environmental impact. It is important to understand the regulatory and practical basis for categorizing the sources of municipal waste because, while the overall contents of the waste stream remains the same, the proportion of the materials differs in each category. This becomes a major consideration in developing recycling and other waste management technologies and diversion programs. Chapter 4 provides a very detailed discussion of specific materials in the waste stream and the likely source of each. The purpose of the discussion in Chapter 1 is to clearly describe and identify each source of municipal waste in Schuylkill County.

### **DEFINING THE GENERATORS**

Throughout, the Plan discusses two basic sources or generators of municipal solid waste, residential and commercial. Residential sources include single-family detached homes as well as townhouses, condominiums, apartments, mobile home parks, etc. According to the USEPA and PADEP studies, a community's residents generate at least 54% of municipal waste. In rural communities, the studies show the proportion of residential waste to be even higher.

Commercial sources include all types of businesses, offices, government facilities, and institutions. Community events are typically included in this category as well. The remaining 46% of the general municipal waste stream is the result of commercial activities. Within the commercial classification there are special wastes generated by select operations. These materials, which include sewage sludge, regulated medical waste, and construction & demolition waste, are considered apart from general commercial waste for planning and management purposes. Industrial, mining, and manufacturing activities are also excluded from the definition of municipal solid waste generators.

## RATIO OF RESIDENTIAL AND COMMERCIAL MSW

According to the USEPA, an average of 46% of the municipal waste generated nationally is from commercial sources with 54% from residential generators. Pennsylvania's waste disposal characterization study identified a difference in the proportion of wastes from residential and commercial sources in rural compared to urban areas. Statewide, the ratio was 64% residential to 36% from commercial sources. In rural areas, the ratio was 72% to 28%. In analyzing data from Schuylkill County the Plan uses a ratio of 70% residential to 30% commercial because Schuylkill County falls below the overall national and state distribution of people in urban areas.

Table 1-6 shows Schuylkill County and the municipalities with an estimate of the residential and commercial waste that each would be expected to generate. The estimates are based on local population and the national generation rate of 4.38 pounds per person per day.

A community's residents generate the greatest portion of municipal solid waste. In rural areas, like Schuylkill County, the proportion of residential waste is about 70%.

It should be noted that the proportion of commercial to residential waste would change slightly depending on the actual make-up of each community. Just as the central core of the municipalities has the most densely populated

and urban characteristics, it also has the most visible commercial sector. Therefore, it is likely that more commercial waste would be generated there. Understanding the ratio of commercial to residential sources in Schuylkill County is useful in designing cost efficient and realistic collection programs. It also helps in identifying potential sources of recyclable materials. Some recyclable wastes such as cardboard and office paper come primarily from commercial sources. Others, like newspapers and magazines are primarily generated from residential sources.

Table 1-6 is meant to serve as a preliminary evaluation of where recycling programs could get the largest return. It is not meant to be a definitive and accurate account of the waste generated in each municipality. Chapter 4 provides a detailed discussion of material recovery from residential and commercial sources. It also addresses the overall economics of recycling, and future recommendations for Schuylkill County.

**Table 1-6 Schuylkill County Estimated Residential/Commercial Waste Generation by Municipality**

Municipality	Census 2010 Population April 1, 2010	Estimated Population 2012 July 1, 2012	% Of population	Estimated MSW Generation	Estimated Residential MSW Generation	Estimated Commercial MSW Generation
Schuylkill County	148,289	147,372	100.00%	119,147	83,403	35,744
Ashland Borough	2,817	2,790	1.89%	2,256	1,579	677
Auburn Borough	741	730	0.50%	590	413	177
Barry Township	932	922	0.63%	745	522	224
Blythe Township	924	916	0.62%	741	518	222
Branch Township	1,840	1,823	1.24%	1,474	1,032	442
Butler Township	5,224	5,305	3.60%	4,289	3,002	1,287
Cass Township	1,958	1,939	1.32%	1,568	1,097	470
Coaldale Borough	2,281	2,254	1.53%	1,822	1,276	547
Cressona Borough	1,651	1,642	1.11%	1,328	929	398
Deer Lake Borough	687	694	0.47%	561	393	168
Delano Township	445	441	0.30%	357	250	107
East Brunswick Township	1,793	1,781	1.21%	1,440	1,008	432
East Norwegian Township	863	855	0.58%	691	484	207
East Union Township	1,605	1,612	1.09%	1,303	912	391
Eldred Township	758	753	0.51%	609	426	183
Foster Township	251	250	0.17%	202	141	61
Frackville Borough	3,805	3,773	2.56%	3,050	2,135	915
Frailey Township	429	425	0.29%	344	241	103
Gilberton Borough	769	760	0.52%	614	430	184
Girardville Borough	1,519	1,504	1.02%	1,216	851	365
Gordon Borough	763	758	0.51%	613	429	184
Hegins Township	3,516	3,510	2.38%	2,838	1,986	851
Hubley Township	854	846	0.57%	684	479	205
Kline Township	1,438	1,428	0.97%	1,155	808	346
Landingville Borough	159	158	0.11%	128	89	38
McAdoo Borough	2,300	2,269	1.54%	1,834	1,284	550
Mahanoy Township	3,152	3,209	2.18%	2,594	1,816	778
Mahanoy City Borough	4,162	4,122	2.80%	3,333	2,333	1,000
Mechanicsville Borough	457	453	0.31%	366	256	110
Middleport Borough	405	402	0.27%	325	228	98
Minersville Borough	4,397	4,341	2.95%	3,510	2,457	1,053
Mount Carbon Borough	91	91	0.06%	74	52	22

**Table 1-6 continued**

	<b>Census 2010 Population April 1, 2010</b>	<b>Estimated Population 2012 July 1, 2012</b>	<b>% Of population</b>	<b>Estimated MSW Generation</b>	<b>Estimated Residential MSW Generation</b>	<b>Estimated Commercial MSW Generation</b>
<b>New Castle Township</b>	414	408	0.28%	330	231	99
<b>New Philadelphia Borough</b>	1,085	1,075	0.73%	869	608	261
<b>New Ringgold Borough</b>	276	275	0.19%	222	156	67
<b>North Manheim Township</b>	3,770	3,750	2.54%	3,032	2,122	910
<b>North Union Township</b>	1,476	1,464	0.99%	1,184	829	355
<b>Norwegian Township</b>	2,310	2,298	1.56%	1,858	1,301	557
<b>Orwigsburg Borough</b>	3,099	3,072	2.08%	2,484	1,739	745
<b>Palo Alto Borough</b>	1,032	1,021	0.69%	825	578	248
<b>Pine Grove Borough</b>	2,186	2,166	1.47%	1,751	1,226	525
<b>Pine Grove Township</b>	4,123	4,133	2.80%	3,341	2,339	1,002
<b>Port Carbon Borough</b>	1,889	1,864	1.26%	1,507	1,055	452
<b>Port Clinton Borough</b>	326	325	0.22%	263	184	79
<b>Porter Township</b>	2,176	2,155	1.46%	1,742	1,220	523
<b>Pottsville City</b>	14,324	14,155	9.60%	11,444	8,011	3,433
<b>Reilly Township</b>	726	719	0.49%	581	407	174
<b>Ringtown Borough</b>	818	807	0.55%	652	457	196
<b>Rush Township</b>	3,412	3,396	2.30%	2,746	1,922	824
<b>Ryan Township</b>	2,459	2,528	1.72%	2,044	1,431	613
<b>St. Clair Borough</b>	3,004	2,969	2.01%	2,400	1,680	720
<b>Schuylkill Township</b>	1,129	1,118	0.76%	904	633	271
<b>Schuylkill Haven Borough</b>	5,437	5,367	3.64%	4,339	3,037	1,302
<b>Shenandoah Borough</b>	5,071	5,006	3.40%	4,047	2,833	1,214
<b>South Manheim Township</b>	2,507	2,521	1.71%	2,038	1,427	611
<b>Tamaqua Borough</b>	7,107	7,012	4.76%	5,669	3,968	1,701
<b>Tower City Borough</b>	1,346	1,334	0.91%	1,079	755	324
<b>Tremont Borough</b>	1,752	1,739	1.18%	1,406	984	422
<b>Tremont Township</b>	280	277	0.19%	224	157	67
<b>Union Township</b>	1,273	1,261	0.86%	1,019	714	306
<b>Upper Mahantongo Township</b>	655	650	0.44%	526	368	158
<b>Walker Township</b>	1,054	1,045	0.71%	845	591	253
<b>Washington Township</b>	3,033	3,008	2.04%	2,432	1,702	730
<b>Wayne Township</b>	5,113	5,100	3.46%	4,123	2,886	1,237
<b>West Brunswick Township</b>	3,327	3,328	2.26%	2,691	1,883	807
<b>West Mahanoy Township</b>	2,872	2,847	1.93%	2,302	1,611	691
<b>West Penn Township</b>	4,442	4,423	3.00%	3,576	2,503	1,073

## RESIDENTIAL MUNICIPAL WASTE GENERATORS

As shown in Figure 1-10, almost fifty-seven percent of Schuylkill County's residential generators of municipal waste live in single-family detached housing units. One unit attached (row houses) rank second at approximately twenty-six percent. The other unit types represent negligible amounts. Both of the major types of units can easily be serviced in curbside collection programs.

This is an important fact to consider as solutions to expand waste and recycling collection services within the County are explored. These services are typically provided either by municipal employees or in the majority of scenarios by a private contractor. In some municipalities, the private hauler is selected through a competitive bidding process.



75% of Schuylkill County homes are single family detached dwellings and one unit row houses.



These types of structures are suitable for curbside collection.

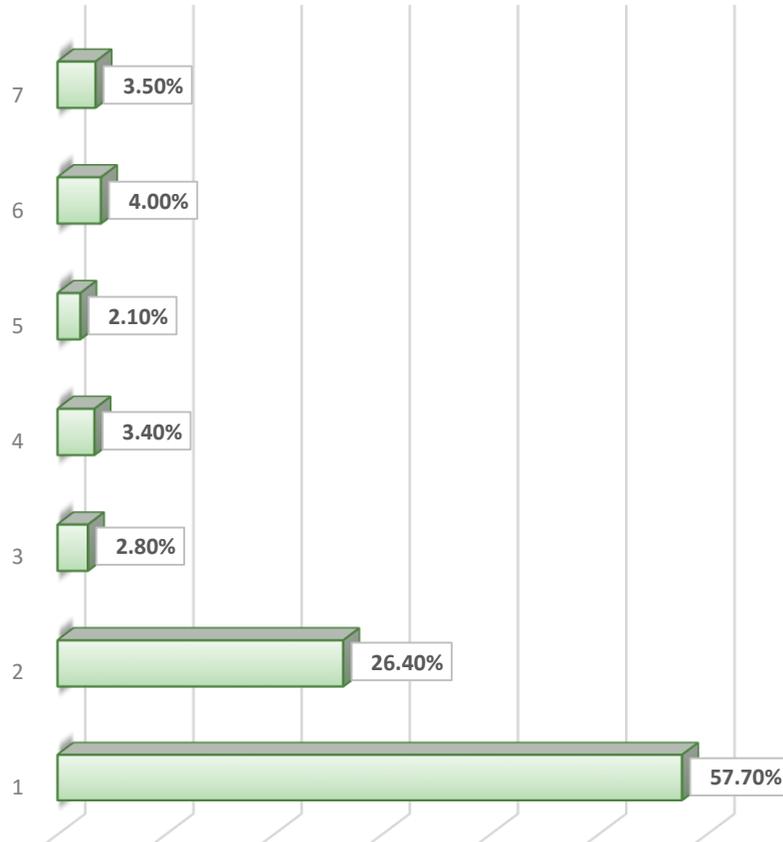
Private subscription, in which residents arrange for services with the hauler of their choice, is still quite prevalent in Schuylkill County. In the municipalities where private subscription is offered local ordinances may or may not require resident participation. Even in those that have mandates, enforcement is negligible.

A vital part of the Schuylkill County Municipal Solid Waste Management Plan is ensuring proper waste management practices are implemented throughout the County. Exploring the effectiveness of local programs was an important element of the planning process. Motivating and/or mandating desired behaviors and encouraging participation in the services and programs made available was a focal point of the Solid Waste Advisory Committee members.

Chapter 4 provides a detailed discussion of material recovery from residential and commercial sources. It also addresses the overall economics of recycling, and future recommendations for Schuylkill County.

Figure 1-10 Schuylkill County Housing Units-Types and Percentages 2012

### Schuylkill County Residential Housing Units 2012



Source: US Department of Commerce, Bureau of Census and Penn State Data Center

### **SCHUYLKILL COUNTY COMMERCIAL MUNICIPAL WASTE GENERATORS**

Identifying the number and nature of commercial establishments is helpful in planning for municipal waste management. Overall, the commercial waste stream is relatively similar to residential municipal waste. However, proportionately the distribution of each material is decidedly different. Additionally, certain types of businesses may produce a bulk of one type of material over another.

In 2012, Schuylkill County had approximately 2032 employers considered to be commercial establishments. Employers in the categories of agriculture, mining,

manufacturing, utilities, construction, and other industrial related operations are not considered commercial waste generators. Therefore, they have been excluded here.

Figure 1-11 shows the types of employers that existed in 2012.

The retail trade represents the largest portion of these establishments. Miscellaneous service providers come in a strong second in Schuylkill County. Listed as “Other” by the Census Bureau, establishments in this sector are primarily engaged in activities such as equipment and machinery repairing, churches,



Approximately 73% of the employers in Schuylkill County are small businesses with less than ten employees each.

charities, dry cleaning and laundry services, personal care services, funeral services, veterinary or pet grooming services, photofinishing services, parking garages, and dating

services. Private households that engage in employing workers on or about the premises in activities primarily concerned with the operation of the household are also included in this sector. Health care, hospitality, food and other service oriented categories follow in the rankings as far as number of establishments.

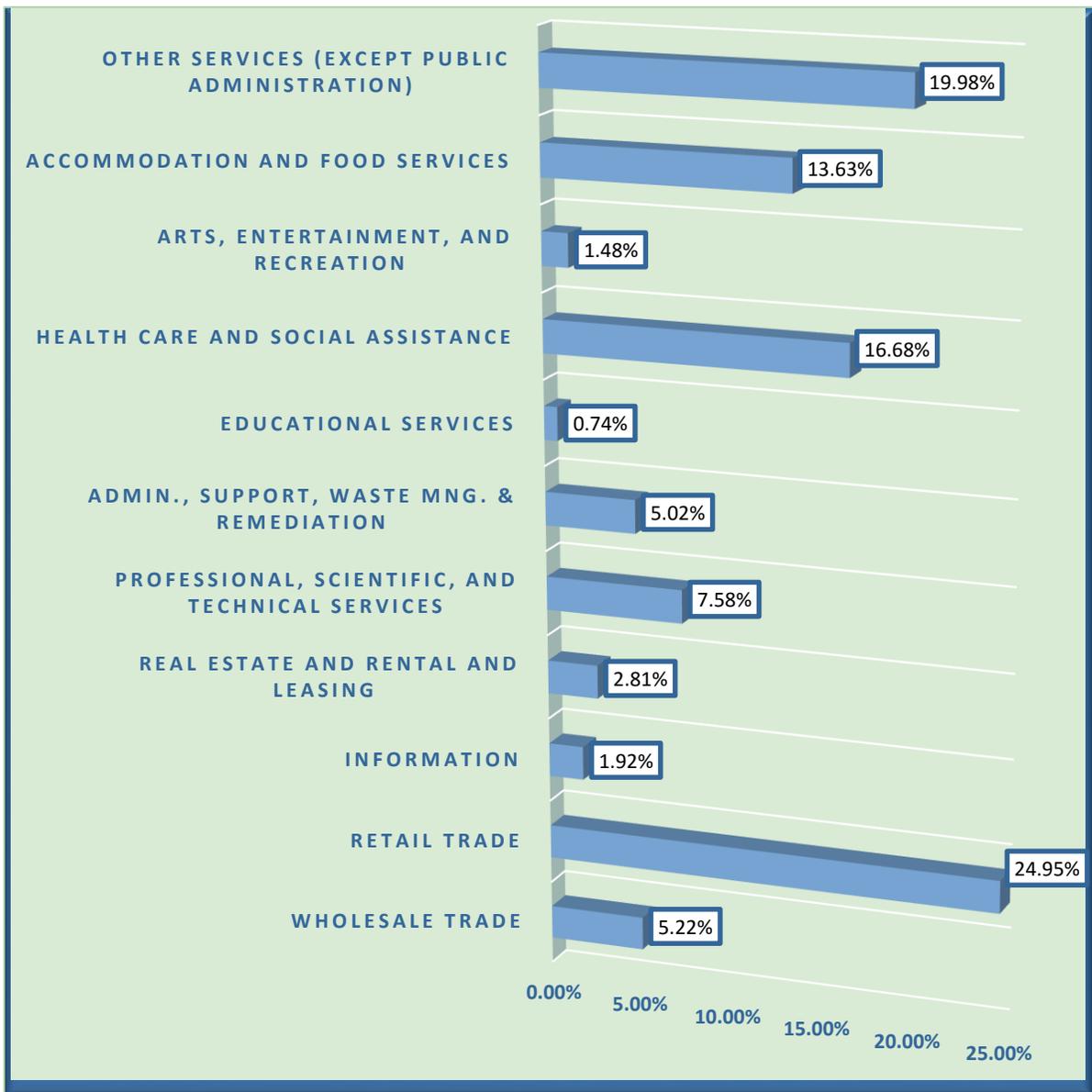
Each of these categories of commercial employers are sources of materials that lend themselves to material recovery and thus where successful commercial recycling programs could be developed. According to the USEPA, ninety percent of these materials are highly recyclable. Identifying the sources of the materials can make a difference between a successful and a mediocre recycling program.

It is important to note that, based on Census Bureau reports, approximately seventy-three percent of the employers in Schuylkill County are small businesses with less than ten employees each. In fact, fifty-two percent of the employers have less than five employees. These establishments, due to their size, will likely generate municipal solid waste in quantities similar to local residents. To ensure commercial waste is managed properly and to encourage greater material recovery, small businesses could easily be incorporated into the collection services provided by municipal contracts or programs. The largest commercial sectors of employment in the County are health care and related social services, along with the retail trade. Together they employ approximately as many people as mining

and manufacturing combined. It would follow that these employers are potentially the largest commercial generators of municipal solid waste, as well.

Chapter 1 identifies the sources of municipal waste. However, Chapter 4 examines the materials generated by commercial sources and the potential to recover them for recycling in more detail.

Figure 1-11 Commercial Establishments in Schuylkill County 2012



Source: US Department of Commerce, Bureau of Census and Penn State Data Center

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## **SELECT CATEGORIES OF COMMERCIAL GENERATORS**

Aside from retailers, office buildings and other service-oriented businesses, Act 101 specifically mentions three additional commercial municipal solid waste generators. Following is a brief description of each.

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### **Government Facilities**

Included in the numbers of commercial establishments are municipal, county, state, and federal government facilities. Based on the types of government functions, these may be offices, parks and recreational venues, garages and maintenance buildings, retail outlets, and service centers. Examples of government agencies that operate facilities in Schuylkill County include: the US Postal Service, the PA Liquor Control Board, the Veteran's Administration Offices, the Social Security Administration, the Department of Public Welfare, the Department of Labor and Industry, the PA State Police, state and federal legislator's, the PADEP, and correctional facilities.

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### **Educational Institutions**

Educational and other institutions are considered commercial waste generators. Schuylkill County is served by twelve major public school districts. Other learning centers include private and charter schools, colleges, technical and vocational schools.

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### **Residential Care Facilities**

Residential care facilities are included in the category of commercial generators of municipal waste. These include skilled nursing, personal care, and assisted living facilities in the County. While these facilities produce municipal waste commonly found in most residences, they also generate materials that require special handling. Due to the nature of their operations, a portion of the municipal waste generated in these facilities falls into a special category of regulated medical waste, previously known as infectious chemotherapeutic waste. These special handling wastes are discussed in the next section.

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## **MUNICIPAL WASTE FROM SCHUYLKILL COUNTY COMMUNITY EVENTS**

Sporting events, fairs, festivals, and other celebrations also generate municipal waste. Attendees and vendors produce food scraps, cups, bottles, cans, flyers, boxes, etc. in varying quantities at these community events. Studies have shown that an average of 3 lbs. of waste per attendee per day can be expected for daylong events. However, no precise generation rate would apply to every event or location. Smaller events and venues may have differing quantities. The types of food served, the manner in which beverages are dispensed and the volume of promotional materials also factor into the equation. Recovering recyclables and organic waste from these activities is becoming more common, and in some communities is

mandated. Some examples of the types of events in Schuylkill County that generate municipal waste and where recycling could occur include the Schuylkill County Fair, the Annual Schuylkill County Volunteers' Firefighters Convention, Shenandoah Kielbasi Festival, and the Hamburg Arts, Crafts Festival and Car Show, as well as other smaller local community events, including sporting events.

## **Solid Waste from Construction and Demolition Activities**

Construction and Demolition (C&D) waste is a perfect example of a waste stream that is defined and regulated as municipal waste in Pennsylvania, but viewed differently by USEPA and in other states. Construction and Demolition projects in residential, commercial, and industrial establishments generate a highly variable composite waste stream. The name itself suggests the different activities that can occur depending on the specific project or job site. Work may include construction, renovation, and/or demolition, and any or all of a number of related activities.

On a load-by-load basis, C&D waste can vary dramatically in its mix of materials and physical characteristics. Demolition projects tend to generate asphalt, concrete, earth, sand, trees, steel, brick, lumber, roofing materials, flooring, plaster, dry wall, and other similar materials. Typically, unless the project requires piece-by-piece deconstruction of a building, demolition loads contain larger quantities of these materials since essentially entire structures are being discarded. Alternatively, new construction projects generally are comprised of trimmings from dry wall, framing, carpet remnants, etc. Efficient builders have very little trimming waste, as they measure and purchase accordingly. Loads bound for disposal resulting from new construction activities might also include packaging materials such as cardboard boxes, Styrofoam, nylon or plastic strapping, pallets, etc.

Numerous variables influence C&D waste generation and disposal rates. Construction and demolition projects are subject to seasonal weather conditions. Swings in the economy can stimulate or deter new development and construction. The amounts of C&D waste from month to month and year to year are less consistent than municipal waste as a whole. When all these variables are taken into account, it is easy to understand the difficulties in projecting C&D quantities for the long term.

Two recent studies of the Northeastern United States, provide a model for characterizing the C&D waste stream and calculating a generation rate. The Northeast Waste Management Officials' Association (NEWMOA) conducted the first study, and The Massachusetts Department of Environmental Protection commissioned the second study.

The studies revealed a wide difference in C&D generation rates from the survey's participating states. These ranged from 0.19 tons per person per year to 0.42 tons per person per year. When variables such as definitions of C&D and materials included were filtered, a generation rate of 0.31 tons per person per year emerged as a reasonable median.

Both studies' generation rate calculations include asphalt, brick, and concrete (ABC) wastes generated from road and bridge projects. These wastes are disproportionately heavier than many of the other C&D components. In addition, much of the material from road and bridge projects is used as clean fill on site. Trees and rocks from land clearing and grubbing were excluded because they also are managed on site .

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## LOCAL TRENDS

Using the median generation rate of 0.31 tons per person per year derived from the two studies, and a population in 2012 of 147,372 Schuylkill County would be expected to generate approximately 45,685.32 tons of C&D waste per year. Another measure to gage the amount of C&D waste generated in Schuylkill County is the ratio of C&D waste compared to the total amount of municipal waste disposed. According to the Pennsylvania Department of Environmental Protection, 17.5% of the material disposed in Pennsylvania landfills can be categorized as C&D waste.

Both methods indicate that Schuylkill County should generate and dispose significantly more C&D waste than the reported in 2012. According to facility reports, Schuylkill County disposed 5,803 tons of C&D waste in Pennsylvania landfills. This represents approximately four percent of all Schuylkill County municipal waste reportedly disposed in Pennsylvania facilities. No data was available for C&D waste that might have been disposed in out-of-state facilities.

There are several explainable reasons for at least a portion of the discrepancy. First, much of the brick and concrete and other masonry materials become clean fill, similar to the manner in which state highway projects manage this material. Contractors also reuse doors, windows, hardware, etc. in other project applications.

The cost of disposal is a major factor. The proximity of Schuylkill County to the Ohio border, where disposal fees for C&D waste are much lower, could serve as an incentive for a transporter to drive a considerably added distance. Additionally, Pennsylvania has C&D landfills within a reasonable driving distance, and these landfills and processors dedicated solely to C&D waste have no reporting requirements, making it much more difficult to track and monitor this waste stream.

Cost also plays a role in the mismanagement of C&D waste. Much of C&D waste is handled by construction/demolition contractors, or homeowners and businesses that generate the waste. Whether due to lack of awareness, weak regulations, and/or enforcement, the material does not always make its way to a proper disposal facility. Some of the material is burned on construction sites and is never accounted. Surveys of illegal dumping sites in the County and Pennsylvania as a whole revealed an alarming amount of C&D waste, most of which originated from commercial sources.

Determining an accurate C&D waste generation rate is difficult, but there are reasons to improve the tracking and monitoring of these materials. Such data would prove useful in the development of a C&D recycling program in Schuylkill County. It could also serve as a deterrent against illegal dumping. Consideration of these potential solutions was part of the revision planning process. Chapter 4 provides further discussion on this issue.

## **Special Handling Municipal Waste Streams and Sources**

Certain municipal waste types have properties or characteristics that require special management or may provide opportunities for enhanced reuse or recycling. The physical nature of the waste may not be appropriate for transport in a conventional collection vehicle. The composition or amounts may present risks to those using traditional collection practices. Therefore, these categories of municipal solid waste are controlled and regulated differently.

### **SEPTAGE AND SEWAGE**

Connecting Schuylkill County homes and businesses to wastewater treatment plants (WWTP) can be costly. Facilities are typically built to service households in more densely populated municipalities to reduce the cost per mile of the extensive network of pipelines. Schuylkill County follows this trend, as its treatment facilities are located within or in close proximity to the municipalities classified as urban. Two wastewater treatment plants (WWTP) service the needs of Schuylkill County communities. Table 1-7 shows each Schuylkill County WWTP and the municipalities within their service area.

**Table 1-7 Schuylkill County Wastewater Treatment Facilities**

<b>Greater Pottsville Area Sewer Authority</b>	<b>Schuylkill County Municipal Authority</b>
<b>Service Area</b>	<b>Service Area</b>
City of Pottsville, Borough of Port Carbon, Borough of Palo Alto, Borough of Mount Carbon, Borough of Mechanicsville,  portions of Norwegian Township North Manheim Township East Norwegian Township.	Auburn Borough Butler Township Branch Township Cass Township Deer Lake Borough Foster Township Frailey Township Gordon Borough Tremont Borough Tremont Township West Brunswick Township

Where the cost of connecting sewage lines is prohibitive, on-lot septic systems must be installed by private homeowners. Septic systems must be periodically pumped by septic system service companies, and the septage is either land applied or transported to a WWTP for treatment. Multi-family dwellings, such as mobile home parks and residential care facilities, as well as industrial operations may operate private pre-treatment systems, with the sewage being transported for final treatment.

Both the raw sewage and septage, which is treated at WWTP's eventually, is dewatered sufficiently to become sewage sludge or biosolids. These materials require a management outlet. In Schuylkill County, sewage sludge is typically disposed in landfills. Overall, according to landfill reports, approximately 2,858 tons of Schuylkill County sewage sludge were disposed in 2012. No reporting of septage or biosolids is required; therefore, the quantities are unknown. However, PADEP regulates and monitors the companies that transport septage and biosolids within Schuylkill County. Thus, it is assumed these materials are managed adequately. Chapter 2 addresses these transporters along with the facilities that manage Schuylkill County sewage sludge.

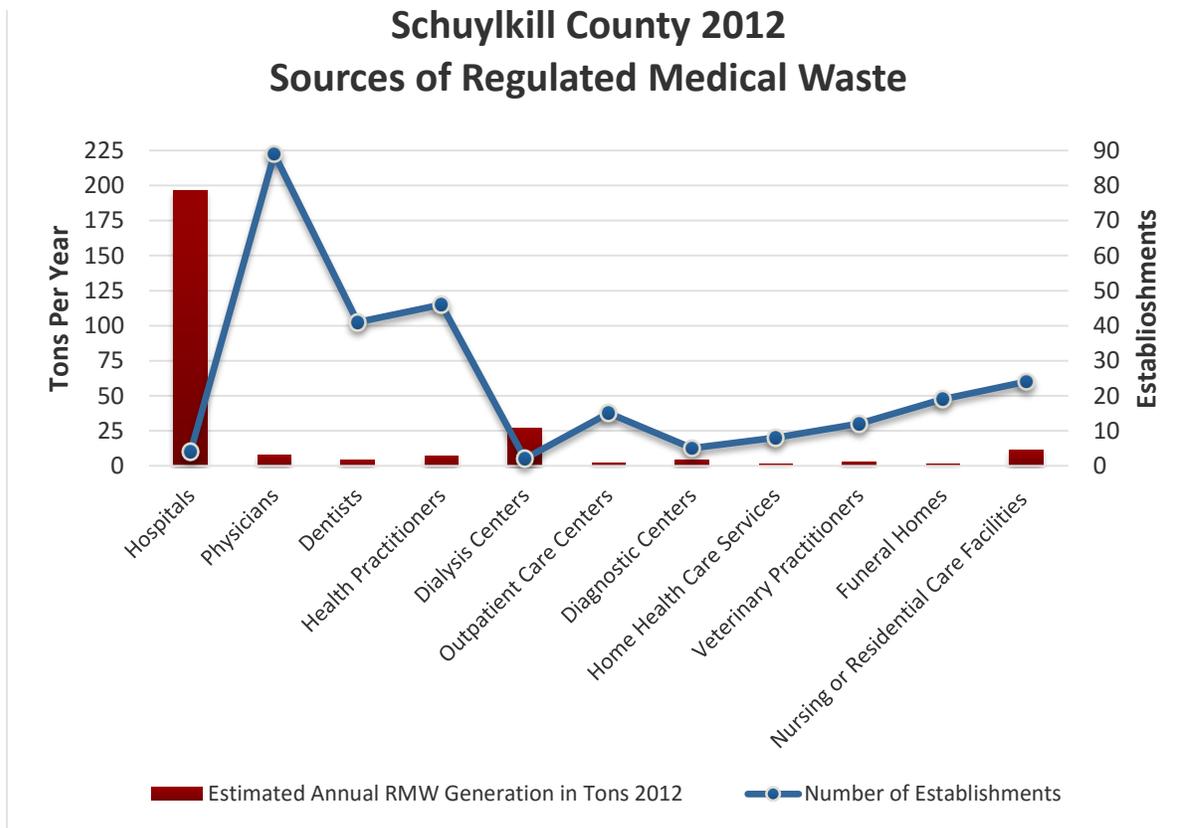
### **REGULATED MEDICAL WASTE**

Similar to other institutional settings, hospitals and resident care facilities generate significant quantities of municipal waste. Much of the material resembles waste found in the hospitality industry, where people are temporarily housed and fed. However, due to the nature of their operations, hospitals and other health care

facilities also produce waste that federal and state regulations require be treated and handled separately from other materials. Pennsylvania identifies waste that is a direct result of medical procedures, treatments and other activities as “regulated medical waste.” Regulated medical waste generated in Schuylkill County is typically transported to commercial treatment facilities. Service providers operating within Schuylkill County are identified in Chapter 2.

Figure 1-12 shows the number of health care facilities by category and the estimated tons of Schuylkill County regulated medical waste each generated in 2010. The amount of waste, which is shown in Figure 1-11, was calculated using the expected rate of generation by type of facility or medical practice, documented in the 1990 *Pennsylvania Infectious and Chemotherapeutic Waste Plan*. The estimates show a total of 265 tons of medical waste. As shown on the chart, hospitals generate the bulk of the regulated medical waste, with dialysis treatment ranking second. Residential care facilities are the third largest source of estimated medical waste generated. However, with an ever-increasing aging population, a growing demand for skilled nursing and resident rehabilitation centers is anticipated, which in turn will increase the amount of waste these facilities generate.

Figure 1-12 Estimated Annual Tons, Schuylkill County Regulated Medical Waste Generation 2012



Source: US Census Bureau and *Pennsylvania Infectious and Chemotherapeutic Waste Plan*

## Summary

During the planning process, the information presented in Chapter 1 served as a foundation and catalyst for discussions and decisions. The Solid Waste Advisory Committee reviewed how municipal waste is generated, who generates it, and the resulting quantities from various sources. Because municipal solid waste is an ordinary and ongoing result of our daily activities, stricter enforcement of proper waste management practices in Schuylkill County should be a priority. The Committee also determined that many components of the waste stream provide opportunities to capture and conserve natural resources. The Committee members were proponents of universal mechanisms to ensure all residents and businesses had access to and utilized waste and recycling collection services. The Committee determined failure to manage municipal waste properly not only harms the environment, but also jeopardizes public health, safety, and the overall quality of life in Schuylkill County. Chapter 5 provides detailed recommendations and solutions resulting from the Committee's discussion and the findings of the planning process.



## CHAPTER TWO

# Regional Municipal Waste Infrastructure

### Integrated Systems

Essential to any municipal solid waste management plan is an evaluation of adequate resources available for the collection, transportation, and disposition of the various waste streams. Subsequently, the plan must provide a course of action to remedy apparent gaps and deficiencies. In addition, a review and assessment of the waste management practices of the residents and businesses that produce the waste is important. To put those various elements in perspective, of equal importance is historic data on the quantities and types of materials being disposed.

Chapter 1 reviews, in detail, the types and sources of waste generated in Schuylkill County. Chapter 2 begins with a review of key indicators that focuses on the broad infrastructure of transporters and disposal/processing facilities that have developed to meet the needs of Schuylkill County. It discusses how and where those services are utilized and points to issues that require added attention and/or improvements.

### Trends in Schuylkill County's Disposal Rate

Table 2-1 shows the reported municipal solid waste disposed from Schuylkill County from 2005 through 2014. During that time, the amount of Schuylkill County's municipal solid waste disposed, decreased. This includes municipal, sewage sludge, ash, regulated medical, and construction and demolition waste. The difference from 2005 to 2014 was approximately 32,000 tons per year. The largest

drop occurred in one subcategory of municipal solid waste. While all of the other categories remained relatively constant, even residual waste from industries, the waste from Schuylkill County's homes and businesses, the "municipal" category, decreased by nearly 21%. This trend is not unique to Schuylkill County.

In general, population is a key predictor of the amount of waste generated and disposed in an area. A common measurement of program performance and an assumption used in projecting future needs is the amount per person of waste generated, recovered, or disposed. Both at the national level and in Schuylkill County, the per capita waste disposal rate is in decline, gradually but continually. What differentiates the two is the population rate.

Nationally, the population is increasing. Even though each person disposes less, that amount is now multiplied by more people. Consequently, the total tons of waste disposed in the United States has not fluctuated much in recent years.



**Schuylkill County residents dispose of 4.63 pounds of waste per person per day. 21% less than in 2005, but more than double the national rate.**

In Schuylkill County, the downward trend is twofold. An unexplainable uptick in 2010 briefly reversed the population loss, so in spite of the pre or post losses, the net number of people living in Schuylkill County today are similar or slightly less than in 2005. The per capita disposal rate, however, decreased from 5.88 pounds per person per day to 4.63 pounds per person per day. As would be expected, this is about a 21% decrease, the same ratio as the drop in total tons of municipal waste disposed. Industry forecasters predict this trend will continue with minor but insignificant shifts up and down in the overall scheme before gradually leveling off.

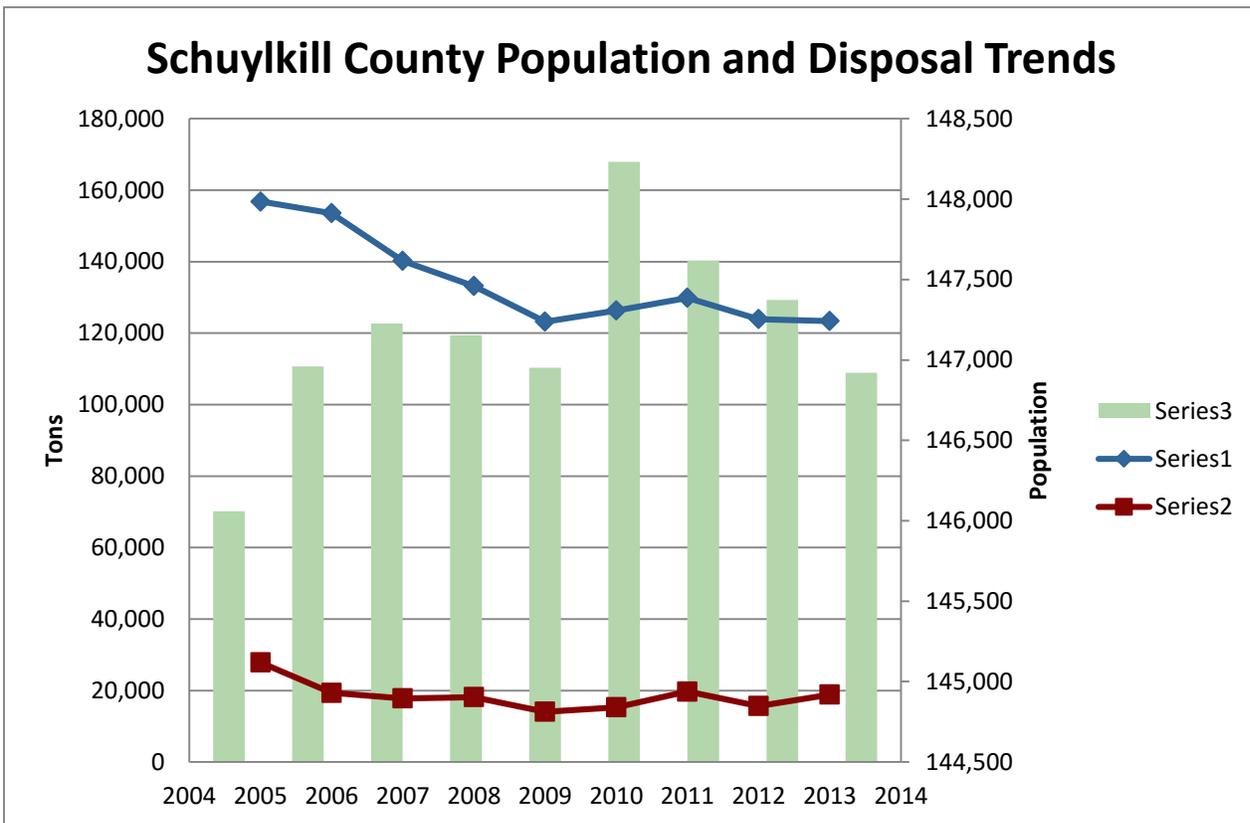
Table 2-1 Schuylkill County Disposal Reported Activity 2005-2014

	Population	SUBSETS OF MUNICIPAL SOLID WASTE					TOTAL MSW	Tons MSW Disposed Per Capita Per Year	Pounds MSW Disposed Per Capita Per Day	TOTAL Residual Waste
		Municipal	Sewage Sludge	Construction Demolition	Regulated Medical Waste	Ash				
2005	146,046	145,506.3	5,035.90	6,004.30	273.30	0	156,819.8	1.07	5.88	27,861.5
2006	146,910	144,318.2	3,034.90	5,921.40	293.00	4.4	153,571.9	1.05	5.73	19,364.9
2007	147,211	130,834.0	2,729.70	6,356.20	283.90	0	140,203.8	0.95	5.22	17,776.0
2008	147,171	120,400.5	4,289.60	8,201.60	264.60	0	133,156.3	0.90	4.96	18,173.0
2009	146,979	111,028.9	5,316.60	6,627.90	224.90	0	123,198.3	0.84	4.59	14,062.9
2010	148,199	109,712.1	5,872.80	10,514.50	214.10	0	126,313.5	0.85	4.67	15,287.4
2011	147,592	119,142.0	2,984.50	7,592.60	179.50	0	129,898.6	0.88	4.82	19,725.2
2012	147,063	115,111.2	2,858.00	5,803.00	157.60	0	123,929.8	0.84	4.62	15,681.0
2013	146,920	107,093.0	5,579.9	10,502.4	163.7	46.2	123,384.8	0.84	4.60	18,853.6
2014	146,777	109,676.3	8,154.9	5,825.9	140.1	1.3	124,015.7	0.84	4.63	24,412.3

1. Apparent errors are due to rounding
2. National Average lbs disposed per capita per day = 2.93
3. Sources:
  - a. PADEP Annual Facility Reports,
  - b. Penn State Data Center Population Estimates, (adjusted annually & may differ from their long-term projections)
  - c. US Census Bureau,
  - d. USEPA- Municipal Solid Waste in the Unites States: Facts & Figures 2012

Figure 2-1 is a graphic representation that illustrates the County’s annual population along with the tons of waste from Schuylkill County reportedly disposed each year since the adoption of the 2004 Schuylkill County Municipal Solid Waste Management Plan.

Figure 2-1 Schuylkill County Population vs. Tons Disposed 2005-2014



**Sources:**

PADEP Annual Facility Reports, Penn State Data Center Population Estimates, US Census Bureau

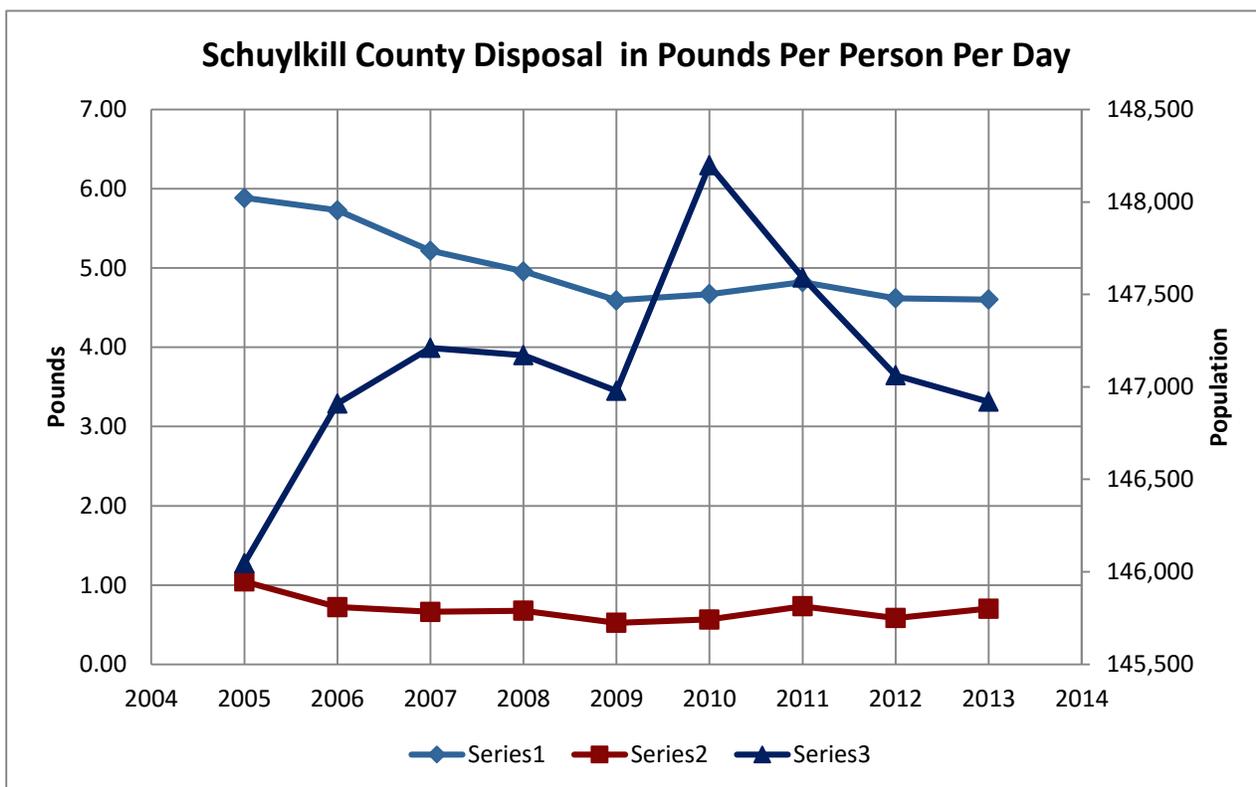
The trend for decreasing waste generation and disposal in Schuylkill County appears to follow the national and state norm. However, a unique local aspect is Schuylkill County’s per capita disposal rate of 4.63 pounds per person per day, which is significantly higher than average. The national rate of disposal is about 2.93 pounds per person per day. That represents a difference between Schuylkill County, and the national average of almost 58%. This anomaly is not isolated to currently reported data. The excessively high rate of disposal dates back through years of recorded disposal activity. This is particularly interesting because the County has had a relatively successful recycling program in place for years.

Figure 2-2 shows on a per capita basis the changes in Schuylkill County municipal solid waste disposed from 2005 to 2014. The measurement is shown in pounds per person per day.

The discrepancy between the national statistics and Schuylkill County’s performance may have a couple of simple explanations.

Misidentification of the origin of the waste disposed is a common occurrence when waste is managed at an interim site and then transported to the ultimate disposal or processing outlet, rather than being directly hauled to the landfill or resource recovery facility. Schuylkill County relies on a number of these transfer stations, which are presented later in this chapter. Transfer stations do record the various origins of inbound loads they receive. However, at the landfill, regardless of where the waste was generated, transfer loads may be reported simply as the location of the transfer station itself. This is a known phenomenon and occurs in every Pennsylvania county where a transfer station is located.

Figure 2-2 Schuylkill County Per Capita Disposal Rate 2005-2014



Sources:

PADEP Annual Facility Reports, Penn State Data Center Population Estimates, US Census Bureau

Schuylkill County's significant variance from the national trends could also be an attempt by waste transporters to avoid extra fees applicable to waste from other counties but not assessed for Schuylkill County waste. For instance, Schuylkill County does assess Commonwealth Environmental Systems a host fee of \$3.00 per ton of waste disposed at the facility, unless that waste originates in Schuylkill County. For a small hauling company, the temptation to save a considerable sum on a cumulative basis could provide the rationalization to knowingly claim entire loads as Schuylkill County waste, when the truck may have collected material from various other sources of origin along its route.

Both scenarios are worthy of added consideration. Not only could the County be losing revenue, but the expectations and performance of its other programs could be skewed as well.

## **Access to and Utilization of Services**

As part of the planning process, the Schuylkill County Office of Solid Waste & Resource Management conducted a survey of local municipalities to determine the types of municipal waste services available within those jurisdictions. In addition, the survey sought to establish who provided the services, and who was ultimately responsible for the costs. Outreach to the municipalities was attempted via mail, email, and direct phone conversations. The survey was conducted over a number of months to give every municipality an equal opportunity to respond.

The actual number of responses was less than 100 percent; however, the survey did provide a snapshot of how local governments view their responsibility to monitor and control the storage, collection, and transportation of municipal waste and recyclables. Because the Solid Waste Advisory Committee was partially compromised of stakeholders from various classes of municipal government, as well as some who could speak for the waste and recycling industry, the survey data was vetted, supplemented, and supported by these additional sources.

The survey confirmed that residents, businesses, institutions, and municipal facilities throughout Schuylkill County have ready access to a variety of service providers for the collection and transport of municipal solid waste.

Although the collection and transportation network is well developed, for the most part residents and businesses retain the choice to utilize the available services or not. A number of communities require local residents to use the contractor, who through a competitive bidding process, was selected and entered into an agreement with the municipality for the exclusive rights to provide residential collection services. The remaining communities allow residents voluntarily to arrange for collection with the

service provider of their choice. The extent to which municipal waste goes uncollected or is disposed illegally is an issue that must be examined and considered in policies resulting from the planning process. Consequently, even in the instances where ordinances that require waste collection exist, enforcement is lax or non-existent.

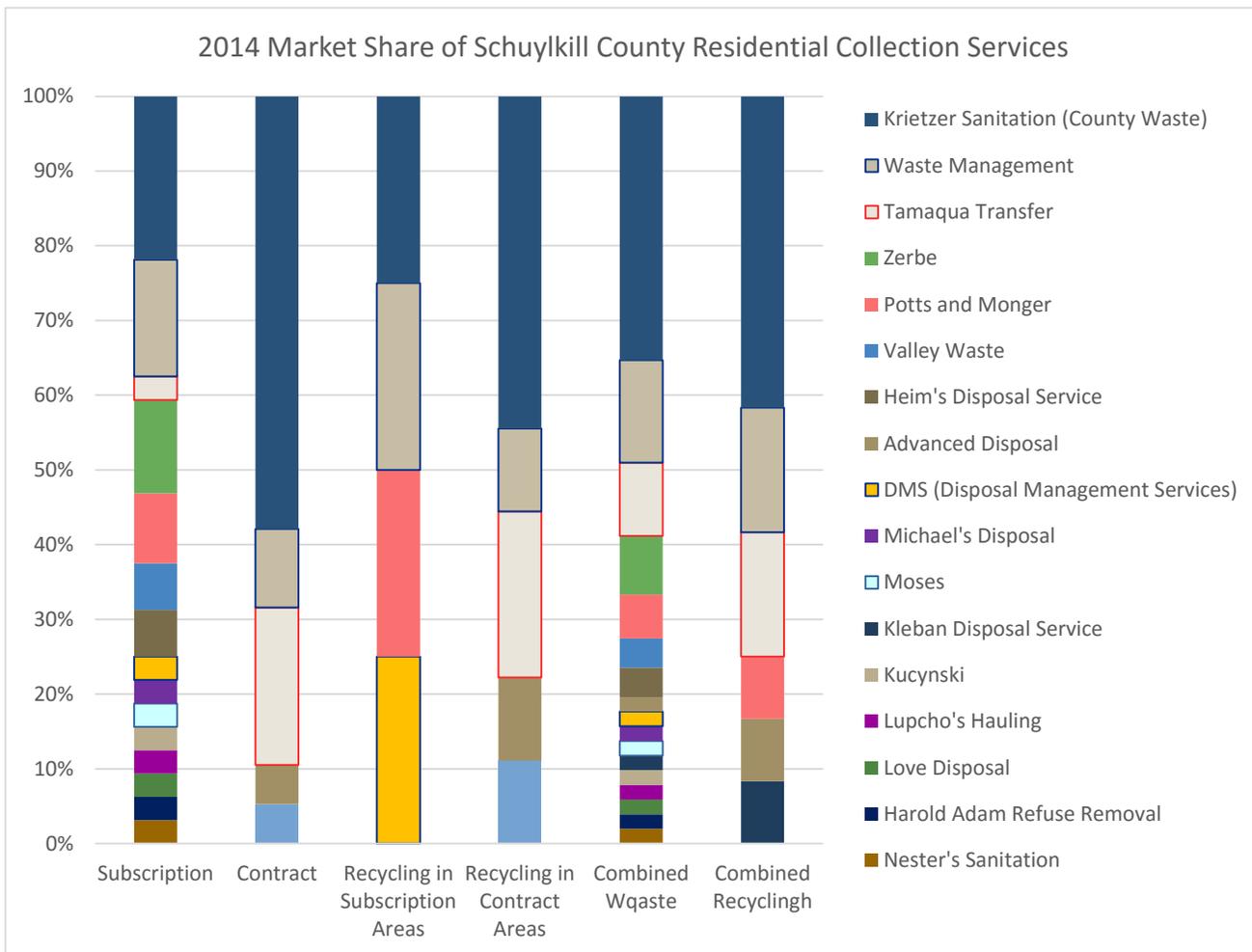


Figure 2-3 shows the companies, according to the survey, which are actively engaged in providing one or more types of residential waste collection services in Schuylkill County.

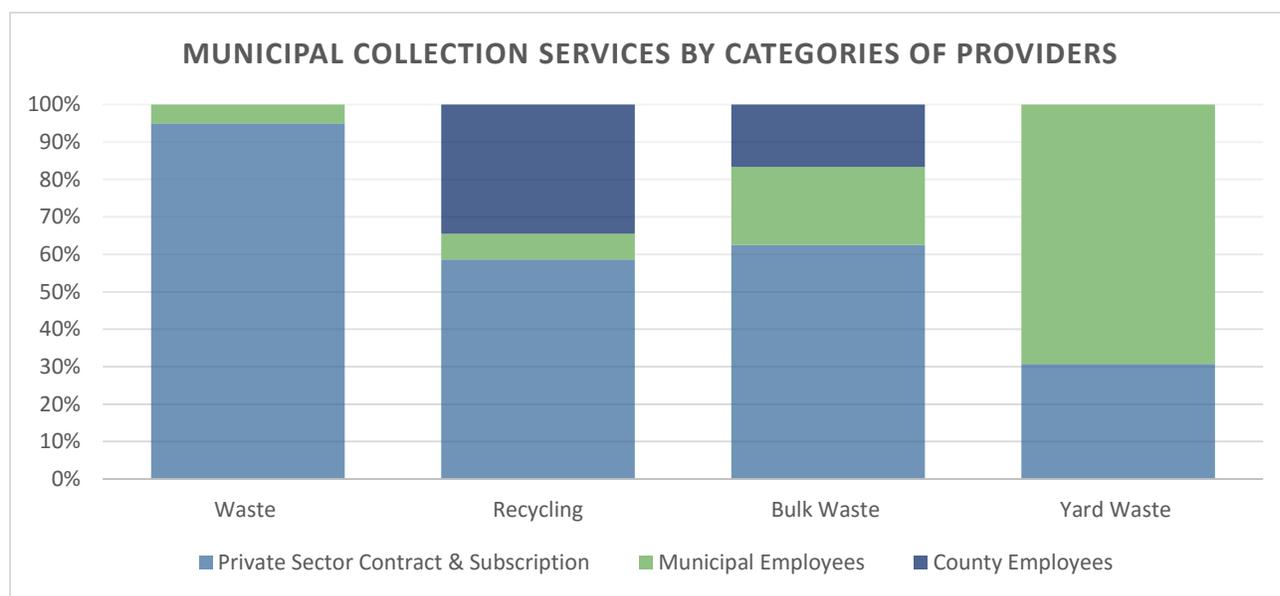
Figure 2-3 Residential Waste and Recycling Private Sector Service Providers

Responses to the survey and feedback from stakeholder participation in the planning process confirm that reliance on private sector waste collection services continues to be dominant over those provided by municipal employees. While historically the public sector has prevailed in the collection of recyclables and yard waste, a noticeable trend is the growing number of municipalities where private sector curbside recycling is now a

reality. This is true not only in municipalities where services are secured through a competitive bidding process and contractual agreements, but also in communities where private subscription service is the norm.

Figure 2-4 shows the types of private sector services typically available to residents in Schuylkill County through either contracts or private subscription. It also shows public services provided by county and municipal employees.

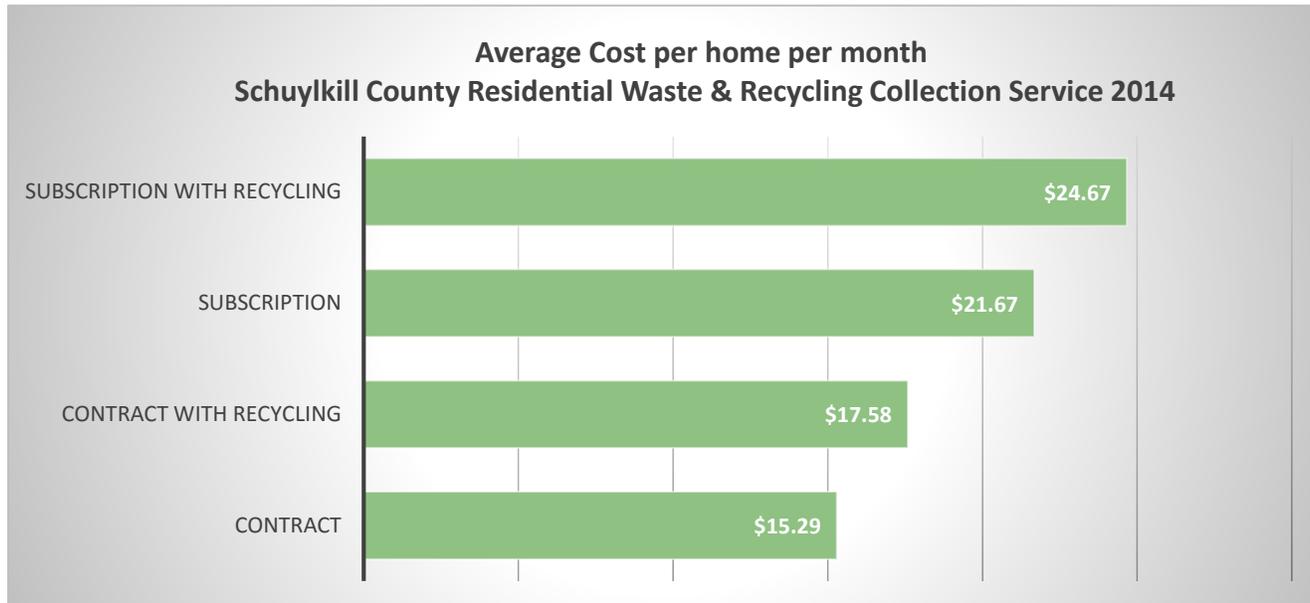
Figure 2-4 Sources of collection services provided in Schuylkill County municipalities



Schuylkill County’s survey did not attempt to determine the number of homes that, through a municipal contract or by their own choice, actually participate in a curbside waste and/or recycling collection program. However, because the willingness to pay is a key indicator of participation in most municipal collection programs, the survey did seek to determine the average cost of these services throughout the County. The results shed light on the value of the competitive bidding process in reducing the cost of waste and recycling collection. The data supports the interest of many municipalities in forming partnerships to jointly bid and contract for these services.

Figure 2-5 shows the average price per home per month paid by Schuylkill County residents for waste and recycling collection. Clearly, there is a great disparity between the municipal contracted and subscription prices. This is a sign that if price is a factor in getting more residents to participate in proper waste management practices, the contracted service approach could be effective.

Figure 2-5 Schuylkill County Subscription versus Contracted Waste Collection Service Costs



A note of caution is warranted regarding the prices shown in Figure 2-5. A number of variables can affect the price of service from town to town. This is particularly true between rural and less densely populated areas and communities with denser clusters of homes. So the actual price in any one town may differ slightly plus or minus by a couple of dollars. Nevertheless, regardless of what the actual prices may be today, the survey results establish the significant savings municipal officials could obtain for their residents under a contracted service arrangement.

### CONSEQUENCES OF VOLUNTARY SYSTEMS

There are other benefits to be derived from municipal coordination of waste collection services, whether through contractual arrangements and/or ordinances directed at haulers, businesses, and residents. The voluntary nature of much of the Schuylkill County residential and commercial waste collection infrastructure allows local residents and businesses to avoid utilizing (i.e. pay for) the available services for proper waste removal and disposal.

Undesirable disposal methods create pollution, endanger public health and safety, and lower property values. The incidence of illegal dumping is far less in areas with organized waste collection.

Although unwillingness to pay is a significant reason for people to dump illegally, often a more compelling issue is simply the lack of reasonable and convenient disposal outlets. In communities where curbside collection of waste and recyclables is not mandatory, the incidents of illegal disposal activity increase. The abuse is even more noticeable when such services are unavailable at all. This is also true where normal household waste is collected, but bulk waste and white goods are not.

It is common for individuals who do not subscribe to commercial waste collection to dispose of their waste at the expense of others by leaving it in commercial dumpsters and/or at recycling drop-off sites. When unauthorized users place material in another's waste receptacle for disposal, it is considered theft of service. The responsible individuals and businesses that do pay for collection and proper disposal are the victims of this crime. Not only do the offenders avoid payment, their waste can result in price increases for the paying customer due to the need for more frequent service or larger containers.

The elimination of drop-off recycling programs frequently occurs due to contamination caused by illegal dumping conducted under the guise of recycling. This has been an issue at several of the Schuylkill County sponsored sites. Not only does contamination ruin the value of the recyclables resulting in a loss of revenue, but also the time and need to dispose of these materials adds extra costs. Therefore, by their actions, offenders of the system can destroy the very service designed to provide a cost saving alternative for waste disposal when utilized properly.

### EVIDENCE OF ILLEGAL DUMPING IN SCHUYLKILL COUNTY

The telltale signs of illegal dumping can be seen along roadways, streams, and wooded areas of Schuylkill County. Studies and surveys have shown the mere existence of dumpsites breeds more dumping. The contents of these sites demonstrates that residents are not the only ones that dump illegally. Transporters with

## Collateral Damage

**Drop-off recycling programs are frequently eliminated because of illegal dumping conducted under the guise of recycling.**



**Contamination ruins the value of the recyclables resulting in a loss of revenue and the extra cost of disposal.**



**Illegal Dumping at Schuylkill County's Recycling Drop-off Depots has contributed to the closure of several sites.**

smaller vehicles, roofers, home remodelers, and junk collectors are exempt from the regulatory controls placed upon full time waste transporters and larger building contractors. Consequently, the lack of regulation heightens the temptation and opportunity to increase profits by abandoning or burning waste, thus avoiding the cost of disposal.

This section discusses the types and prevalence of undesirable disposal practices in Schuylkill County. It outlines current efforts to remediate existing dumpsites along with suggestions for modifying this behavior to prevent future occurrences and minimize the effects.

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### Physical Survey of Dumpsites

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For the past decade, Keep Pennsylvania Beautiful (formerly Pa CleanWays) has inventoried the location of illegal dumping sites in each of Pennsylvania's 67 counties. The statewide project culminated in 2013 with a final report and analysis of the findings published in 2014. The report offered recommendations for a combination of preventative and enforcement actions to address the problem of illegal dumping.

The illegal dumpsite survey of Schuylkill County occurred in 2008. At that time, 74 illegal dumpsites were identified. Analysis of the results estimated a total of 523 tons of waste in existence at the sites. Similar to the findings in other counties, the results of the Keep Pennsylvania Beautiful survey of Schuylkill County showed ninety-six percent of the sites were located in areas categorized as rural. It should be noted the surveyors were constrained by criteria designed to ensure their safety. Essentially, their ability to identify sites was limited to those that could be seen from their vehicle. Consequently, all of the sites listed in the Schuylkill County survey were totally or partially visible from public roadways. Because comprehensive surveillance of the entire land area of the County was not possible for this study, it is suspected that the findings are representative of an even greater problem.

Based on the contents of the sites and the condition of the material, the survey estimated over ninety-three percent of the Schuylkill County dumpsites were still actively used. Of the six dumpsites, which were posted with warnings prohibiting illegal dumping, all had evidence of current dumping activity. A significant amount of the waste cataloged consisted of bulky items such as tires, furniture, and appliances. Among the discarded items, construction & demolition waste and regular household trash were found consistently.

Figure 2-6 shows the location of the sites and illustrates how population density plays a role.



## REMEDIAL EFFORTS

The efforts of Keep Pennsylvania Beautiful do not stop with identifying illegal dumpsites. Working together with their local affiliates, Keep Pennsylvania Beautiful periodically organizes volunteers to remediate illegal dumping areas.

Schuylkill Keep It Pretty (SKIP) is the local affiliate of Keep Pennsylvania Beautiful. SKIP has been coordinating clean-up efforts in Schuylkill County since 1986.

The volunteer efforts of SKIP are helpful in remediating some of the problem. However, it is important to note the value of in-kind services and direct funding from corporate sources and foundations to supplement and support these clean-ups.



Often overlooked is the reality that local municipalities bear the ongoing cost for cleaning up illegal dumpsites. Public works or road crews are often dispatched at significant taxpayer expense to remove and dispose of abandoned waste. According to actual expenditures attributable to local cleanups throughout the Commonwealth, Keep Pennsylvania Beautiful estimates the combined cost of labor, transportation, and disposal can easily tally up to \$700 per ton.

## ENFORCEMENT

Neither identifying nor cleaning up dumpsites reduces the prevalence of illegal dumping activity unless they are accompanied by other efforts. Prosecuting and convicting offenders is essential. Where the risk of discovery is low and the number of prosecutions are negligible, illegal dumping occurs more frequently. The fear of being caught factors significantly on those seeking to abandon their unwanted materials on other's property. Where enforcement and prosecution for illegal dumping is strong, consistent, and done in conjunction with public acknowledgement of offenders, it is an effective deterrent.

Neither SKIP nor the Schuylkill County Office of Solid Waste & Resource Management have the resources or the authority to identify, cite, and penalize offenders. Without all of the proper mechanisms and support staff in place, dealing with illegal dumping can be a futile effort.

The success of illegal dumping reduction programs requires a combination of ordinances, rules and regulations, surveillance tools, and the cooperation of law enforcement officials and the judicial system. To control costs and be more effective, many counties have implemented a Joint Code Enforcement Program. These programs are conducted in collaboration with local municipalities, which delegate the authority to a single individual or agency to implement and enforce local waste and recycling related ordinances and codes. Cost sharing is often part of the arrangement. Evidence shows where these programs exist the number of illegal dumpsites are considerably less.

## LITTERING

Littering is a behavior that occurs on a regular basis regardless of whether it is a rural or urban area. Studies have found no age, gender, education, or financial boundaries. Motorists as well as pedestrians are guilty of littering. For an individual that would never consider dumping garbage over the hillside, these seemingly tiny littering indiscretions often don't equate to the same level of offense. However, the cumulative toll on the environment is just as devastating.

One of the most common items found in litter is cigarette butts. They alone account for trillions of pieces of litter each year according to studies conducted by Keep America Beautiful. Single serve beverage containers and plastic bags are also prevalent.



The visible effects of littering exist in Schuylkill County. Littering can result from limited availability of waste and recycling receptacles in public places. Where pedestrian traffic is dominant studies show littering occurs most often, at the juncture of activities. In other words, entrance and exits of buildings, street corners, crosswalks, parking areas, etc.

Cigarette butts are one of the most common pieces of litter.

Public venue containers demonstrably reduce littering. Various granting agencies provide opportunities to purchase public venue containers. These containers are even more effective when introduced in conjunction with an anti-litter education campaign.

## OPEN BURNING

Convenience, habit, and the avoided cost of trash collection rank high on a list of factors that continue to foster open burning. Neighborhood tolerance and lack of effective deterrents can inadvertently translate into acceptance, even when the practice is not condoned by local governments.

The public in general has little to no awareness of the dangers of open burning. Yet open burning of municipal waste poses a significant health hazard. The increasing volume of plastics and other synthetics in the waste stream release dangerous carcinogenic emissions

when combusted. A misconception exists that it is a safe and natural to burn brush and leaves. However, smoke from any fire can affect the health of a community.

Backyard burning releases smoke close to the ground where people can easily breathe it. Smoke can trigger asthma attacks. People with heart and lung conditions are vulnerable, as are those with other chronic health problems. An often-overlooked consequence of backyard burning is that unattended burn barrels can cause accidental fires. Therefore, it poses an immediate as well as a long-term danger to the public health and welfare.

A first step toward minimizing the practice is the adoption and enforcement of burning ordinances. Some communities kick off the implementation of the ordinance with buy-back programs for the burning barrels, like those commonly seen in Schuylkill County. Enforcing existing ordinances that require mandatory waste collection could effectively eliminate the practice.

## **Schuylkill County's Collection and Transportation Network**

The municipal survey of collection services revealed a sampling of waste transporters that operate in Schuylkill County. Additionally, the survey shows, and stakeholder knowledge confirms, that service offerings differ from company to company. A few full service companies exist. However, others selectively provide services ranging from curbside collection to commercial dumpster service and roll-off containers for large volumes. Not accounted for in the survey are other types of transporters that specialize in selective segments of the industry. These transporters may provide dump trucks and /or trailers for construction, demolition, remodeling, and remediation projects. Specialty services and equipment are also available for materials that are difficult or potentially dangerous to handle.

## **STATE OVERSIGHT OF TRANSPORTERS OF MUNICIPAL WASTE**

Although local governments have the statutory authority to establish ordinances regarding solid waste storage, collection, and transportation in their jurisdictions, oversight for the industry falls primarily to state agencies.

Owners of waste transportation vehicles that transport municipal or residual waste to a processing or disposal facility in the Commonwealth are required to obtain written authorization from PADEP. Municipal or residual waste processing or disposal facilities are prohibited from accepting waste from vehicles that do not have a valid authorization sticker. These requirements were created by the Waste Safety Transportation Program, Act 90, enacted in 2002. The Act does allow certain processing and/or disposal facilities to accept material from transporters without the Act 90 Authorization. These include:

- Facilities where municipal or residual waste is being land applied through agricultural utilization or land reclamation.

- Facilities that operate under a permit-by-rule.
- Facilities that are not required to obtain a permit under §271.101 (relating to permit requirement).
- Cement kilns burning waste tires as fuel.
- Facilities that process electronic waste and components by sorting, disassembling or mechanical processing for beneficial use.
- Composting facilities.
- Facilities that process municipal or residual waste for beneficial use under an individual or general permit.

Transporters that collect waste in Pennsylvania but utilize an out of state disposal facility are also exempt, as are those with a registered gross vehicle weight less than 17,000 lbs., and trailers with a registered gross vehicle weight less than 10,000 lbs.

Table 2-2 lists the waste transporters known to operate within Schuylkill County. The current PADEP Waste Transportation and Safety Program database, as well as local and online business directories, were used to compile Table 2-2. Transporters with currently active Act 90 Authorization are shown with an identification number.

While some of the listed companies provide traditional residential curbside and commercial dumpster collection services, the remaining companies fall into two categories. Some offer roll-off or dump truck service, primarily for construction and demolition waste.

Absent from the authorizations listed for Schuylkill County in the PADEP Act 90 database, are the large numbers of home remodelers, roofing companies and general contractors prevalent in other counties. Others are small independently owned and operated businesses that haul junk and other goods resulting from household clean-outs of basements, attics, garages, etc. Because the primary focus of their business is not waste transportation, it might seem reasonable for them not to be included. However, these operations do generate and control a significant volume of construction and demolition waste.

Discards from household clean-outs and construction and demolition waste represent the types of materials commonly disposed illegally. The majority of transporters, who are known to operate in Schuylkill County and who handle these types of waste, do not have Act 90 Authorizations. Additionally, any number of others continue to handle similar materials, yet remain unknown. Due to the potential for poor operating practices, methods to track and monitor these activities, as well as to enforce local rules and regulations, must be considered in policies that result from the planning process.

Table 2-2 Waste Transporters Operating in Schuylkill County

Company	PA Waste Authorization Id	Municipality	State	Zip Code
A One Service, Inc.	WH15005	Shenandoah	PA	17976-1534
American Remodeling & Roofing,	WH8029	Schuylkill Haven	PA	17972-8926
Ankiewicz Enterprises, Inc.	WH13834	Tamaqua	PA	18252-4813
Arlan R. Wagner	WH2818	Pottsville	PA	17901-8944
Arthur "Pat" Aungst, Inc.	WH0171	Pine Grove	PA	17963-8629
Ash Resources, Inc.	WH12187	Schuylkill Haven	PA	17972-0559
Ashland Borough	WH2346	Ashland	PA	17921-1748
Barakat Associates, Ltd	WH16649	Gilberton	PA	17934-1009
Bob Dudash Excavating, LLC	WH14390	Pottsville	PA	17901-8444
Carol E. Collier	WH15367	Tremont	PA	17981-1714
Curtis J. Bailey, Inc.	WH6674	New Ringgold	PA	17960-9376
Dallago Backhoe Service, Inc.	WH16114	Pottsville	PA	17901-8517
Daniel J. Farber	WH15377	Tamaqua	PA	18252-1938
E & S Construction Co.	WH4399	Saint Clair	PA	17970-1325
Eric R. Jones	WH16483	Tamaqua	PA	18252-2312
Excavation Tech, Inc.	WH16127	Schuylkill Haven	PA	17972-9774
Fidler Brothers Construction C	WH4586	Pottsville	PA	17901-8772
Foster Township	WH1137	Pottsville	PA	17901-8909
Gerald C. Griffin	WH2796	Shenandoah	PA	17976-1414
Hahner Bros., Inc.	WH2610	Pottsville	PA	17901-1904
Heisler's Cloverleaf Dairy, In	WH2768	Tamaqua	PA	18252-9719
Hope's Collision & Towing Service	WH16826	Tamaqua	PA	18252-5324
Housing Authority Of The City	WH2939	Pottsville	PA	17901-2401
J. Marlin Ernst & Sons, Inc.	WH1140	Orwigsburg	PA	17961
James E. Buchman	WH15625	Frackville	PA	17931-2311
James R. Farro	WH14566	Llewellyn	PA	17944
Kessock Excavating	WH13856	Saint Clair	PA	17970-1115
Kreitzer Sanitation Management	WH0117	Frackville	PA	17931
M. C. Sherer, Inc.	WH10075	Pottsville	PA	17901-9272
Madonna Enterprises, Inc.	WH14024	Port Carbon	PA	17965-1419
Mahanoy City Borough	WH1018	Mahanoy City	PA	17948-2774
Meridian Precision, Inc.	WH5289	Pine Grove	PA	17963-9146
Miller Brothers Construction,	WH2657	Schuylkill Haven	PA	17972-9720
North Schuylkill Transfer Stat	WH13680	Gilberton	PA	17934-1009
Northeast Prestressed Products	WH12534	Cressona	PA	17929-1108
Norwegian Township	WH2858	Mar Lin	PA	17951-0251
Potts & Monger Sanitation, Inc.	WH1668	Pine Grove	PA	17963-9600

Company	PA Waste Authorization Id	Municipality	State	Zip Code
Primeau Services	WH11346	Tremont	PA	17981-1607
Ralph H. Bley	WH11542	Ringtown	PA	17967-9318
Reilly Mechanical & Construction	WH17121	Minersville	PA	17954-1320
Renn's Trash Removal, Inc.	WH1285	Pitman	PA	17964-9109
Rick's Backhoe Service, Inc.	WH4880	Zerbe	PA	17981-1604
Robert Koppenhaver Builder & C	WH4113	Spring Glen	PA	17978-9548
Ronald C. Neifert	WH16131	Tamaqua	PA	18252-2119
Saint Clair Borough	WH2681	Saint Clair	PA	17970-1207
Shenandoah Borough	WH3513	Shenandoah	PA	17976-1708
Spector Manufacturing, Inc.	WH1669	Saint Clair	PA	17970-0158
Spotts Brothers, Inc.	WH3802	Schuylkill Haven	PA	17972-1215
Stephen E. Horst	WH12531	Tamaqua	PA	18252-5008
T L Bressler & Son, Inc.	WH1893	Hegins	PA	17938-9386
Tamaqua Transfer And Recycling	WH13968	Tamaqua	PA	18252-2048
Terry L. Koch	WH15782	Schuylkill Haven	PA	17972-9467
The Harriman Corp.	WH15441	Orwigsburg	PA	17961-1607
Valley Waste Solutions, Inc.	WH6078	Tower City	PA	17980-1124
Weiner Iron & Metal Corporation	WH0271	Pottsville	PA	17901-8405
Wellspring Environmental Services	WH15152	Frackville	PA	17931-2337
Zerbe Refuse Hauling, Inc.	WH16244	Ashland	PA	17921-9402
<b>Schuylkill Transporters Located in Other Counties</b>				
Advanced Disposal Services	WH1502	McClellandtown	PA	15458-1118
Disposal Management Services,	WH0116	Coal Township	PA	17866-7810
Harold Adam Refuse Removal, Inc.	WH2036	Hamburg	PA	19526-8433
Heim's Disposal Service, Inc.	WH1147	Dornsife	PA	17823
Kleban Disposal Service	WH0495	Hazleton Township	PA	18202-1301
Louis Mascaro Sons, Inc.	WH1326	Norristown	PA	19401-3701
Love Disposal, Inc.	WH0478	Lock Haven	PA	17745-9230
Lupcho's Hauling	WH2510	Weston	PA	18256-0058
Michael's Disposal	WH1135	Bloomsburg	PA	17815-7439
Nester's Sanitation, Inc.	WH0433	Hamburg	PA	19526-9021
Waste Management Of Pennsylvania	WH1436	Ewing	NJ	08628-3200

## **LOCAL LICENSING PROGRAMS**

Prior to Act 90 Authorization, transporters of municipal solid waste were licensed under Schuylkill County Ordinance 1990-3 as amended. The ordinance applied to haulers of all types of municipal waste inclusive of septage, sewage sludge, construction demolition, and regulated medical waste. The primary function of the ordinance was to enforce flow control and to acquire the necessary data to fulfill the Act 101 reporting requirements.

The flow control policy originally instituted by Schuylkill County Ordinance 1990-3 required that all Schuylkill County municipal waste acceptable under the permitted operational criteria must be delivered to one of the landfills designated in the most recent version of the Schuylkill County Municipal Waste Management Plan. It also set forth reporting requirements to facilitate the County's need to comply with its own mandate to report waste and recycling activities to PADEP. The reports were also useful as a cross check of the disposal activity and subsequent fees due to the County from each designated disposal facility.

The licensing process served as an effective enforcement mechanism as it provided the County with the ability to revoke the license of a transporter who did not comply, thus relinquishing the rights of said transporter to operate in Schuylkill County.

Certain types of municipal waste that require special handling could be disposed or processed at any facility permitted to accept the material by the appropriate state regulatory agency. These included sewage, septage, and regulated medical waste.

## **IMPACT OF COURT RULINGS ON LOCAL LICENSING**

In 2005, based on the provisions of the Waste Safety Transportation Program, the Pennsylvania Supreme Court ruled that the licensing program established by local county and municipal ordinances were no longer valid. Therefore, other than designating facilities to accept Schuylkill County municipal waste, most of Ordinance 1990-3 has been superseded by Act 90. A major amendment to Ordinance 1990-3 or a repeal and enactment of a new ordinance in keeping with current levels of local authority were discussed during the planning process. The resulting changes are presented in Chapter 9.

## **OTHER METHODS OF TRANSPORTING MUNICIPAL WASTE**

A great portion of municipal waste generated in Schuylkill County is collected and then transported directly to a disposal facility. There are certain circumstances where loads of waste are taken to an interim handling facility. These interim facilities are known as transfer stations. Transfer stations accommodate small collection vehicles that cannot cost effectively deliver long distance loads. Instead, at the transfer station, these small loads can be consolidated into larger trailers and delivered to remote facilities at a lower cost. Thus, transfer stations make cost effective access to a greater number of potential disposal sites possible.

A number of transfer stations receive and manage Schuylkill County municipal solid waste. Table 2-3 lists the transfer stations that are known to service Schuylkill County

**Table 2-3 Transfer Stations that Received Waste from Schuylkill County 2004-2014**

Facility	Location
<b>Waste Management Allentown Transfer Stations</b>	2710 Golden Key Road Kutztown, Pa 19530
<b>Tamaqua Transfer &amp; Recycling</b>	244 E Broad Street Tamaqua, Pa 18252-2057
<b>North Schuylkill Landfill Association Transfer Station</b>	North Of Route 924 Turkey Run, Pa 17976
<b>Beach Lake Transfer Station</b>	Rosencranse Road Beach Lake, Pa 18405
<b>Waste Management Coal Township Transfer Station</b>	Route 901 Excelsior Road Coal Township, Pa 17866
<b>PA Waste Transfer Station</b>	RR 3 Box 1 Coal Township, Pa 17866

**STATE REQUIREMENTS FOR TRANSPORTERS OF SPECIAL HANDLING WASTE**

Prior to the enactment of the Waste Safety Transportation Program in 2002, required statewide registration for municipal waste transporters was limited to those who managed special handling wastes, such as septage and regulated medical waste. These transporters are still regulated under separate requirements and conditions.

**SEPTAGE TRANSPORTERS**

In Pennsylvania, transporters of residential septage must register with the PADEP. Transporters must record information for each load of septage they collect and transport. Required information, at a minimum, includes: the county and state where the septage was collected; the name and address of the hauler transporting the septage; the name and location of the transfer, processing, or disposal facility where the septage has been or will be delivered; the weight or volume of the septage; and a description of any handling problems or emergency disposal activities. Although a report is not filed, the information must be made available to PADEP inspectors upon request.

Septage cleanouts are done on a periodic as-needed basis. Therefore, homeowners contact the transporter of choice. It is common for transporters to cross county lines to provide

such services. The PADEP can only identify haulers based on the location of their business, not on their service area. Therefore, many counties also require septage transporters to report on the activities conducted within their borders. Schuylkill County does not currently require special reports from septage haulers.

Table 2-4 lists the septage transporters who are known to advertise their services and operate in Schuylkill County.

**Table 2-4 Septage Transporters Operating in Schuylkill County**

<p><b>ABC Sewage</b> 21 Weishample Road, Hegins, PA 17938</p>	<p><b>Nuway Cesspool &amp; Septic Tank</b> PO Box 124 Summit Station, PA 17979</p>
<p><b>Ankiewicz Enterprises Inc.</b> 794 Claremont Avenue, Tamaqua, PA 18252 (formerly Elton Teter Septic Cleaning)</p>	<p><b>Peterman Brothers Septic Service</b> 123 Main Street, Pottsville, PA 17901</p>
<p>Bailey's Septic Service Inc 4224 Pottsville Pike, Reading, PA 19605</p>	<p>Sell's Septic Tank &amp; Cesspool Tamaqua, PA 18252</p>
<p><b>Biros Septic &amp; Drain Cleaning</b> 1365 State Road Zion Grove, PA 17985</p>	<p><b>Strouse Brothers Inc.</b> 95 Pheasant Run Road Orwigsburg, PA 17961-9075</p>
<p><b>K&amp;W Septic Service and Septic Cleaning</b> 5874 Old State Road Bernville, PA 19506</p>	<p><b>Turlis Sewer &amp; Drain Cleaning Company</b> 613 Pine Street, Kulpmont, PA 17834</p>
<p><b>Millers Sanitary Services</b> 32 Miller Road Kutztown, PA 19530</p>	<p><b>Valley Septic</b> 644 Mauch Chunk Street Pottsville, PA 17901</p>

## REGULATED MEDICAL WASTE TRANSPORTERS

Transporters of regulated medical waste (formerly called infectious chemotherapeutic waste) also fall within the ranks of those requiring a license in Pennsylvania. A stipulation of the license is that each transporter must report the origin and ultimate destination of the waste to PADEP. Schuylkill County has no additional reporting requirements for medical waste transporters.

Unlike other solid waste services, medical waste transporters and processors cover a vast geographic territory. It is also a highly competitive business. The service providers can change more rapidly from year to year than in other areas of the solid waste industry. Therefore, it is more difficult to say with any long term certainty which transporters operate within Schuylkill County.

Table 2-5 lists the regulated medical waste transporters located in Pennsylvania. However, it should be noted that numerous other companies, which are located out of state, may service the Schuylkill County region, as well.

**Table 2-5 Regulated Medical Waste Transporters Operating in Schuylkill County**

<b>Advanced Disposal of Pa Inc.</b> 6330 Rt. 219 Brockway, PA 15824	<b>Brandywine Green Inc.</b> 126 Turner Lane West Chester, PA 19380	<b>JPS Equipment Co</b> 5038A West Chester Pike Edgemont, PA 19028
<b>Alpha Bio/Med Services LLC</b> PO Box 118 Paradise, PA 17562	<b>Carlucci Construction Co Inc.</b> 401 Meadow St Cheswick, PA 15024	<b>NE PA Pet Cremation Services, Inc.</b> 143 Gravity Rd Lake Ariel, PA 18436
<b>Asepsis Inc.</b> 424 W Lincoln Hwy Pennel, PA 19047	<b>Central Medical Waste Services, LLC</b> 357 Bethel Church Rd New Cumberland, PA 17070	<b>S H Bio-Waste Ltd</b> 104 G P Clement Dr Collegeville, PA 19426
<b>Bio-Haz Solutions Inc.</b> 23 Tonoli Rd Nesquehoning, PA 18240	<b>Cole Care Inc.</b> 1001 East Second St Coudersport, PA 16915	<b>Sioux Services LLC</b> 2912 Filbert Avenue Reading, PA 19606
<b>Bio-Team Mobile LLC</b> 6 E Kendig Rd Willow Street, PA 17584	<b>Conservative Env Svc Inc.</b> PO Box 745 Mechanicsburg, PA 17055	<b>Stericycle Inc.</b> 1525 Chestnut Hill Rd. Morgantown, PA 19543
<b>Biowaste Solutions Inc.</b> PO Box 533 Huntingdon Valley, PA 19006-0533	<b>Image First Medical Waste Services Inc</b> 900 E Eight Ave King Of Prussia, PA 19406	<b>Weavertown Transport Leasing Inc.</b> Dorrrington Rd Carnegie, PA 15106

## Framework for Disposal and Processing

For the past decade, a variety of facilities have managed both municipal and residual waste originating in Schuylkill County. Although some waste finds its way to resource recovery facilities where waste is combusted for energy, landfills remain the predominant method of disposal for municipal solid waste in Schuylkill County. This is not surprising as landfills are the types of disposal outlets within closest proximity to the County.

Schuylkill County is host to one landfill and another, which received its permit approval from PADEP during the planning process, should be constructed within the implementation phase of the Plan. Within a 50-60 mile radius of Pottsville, the County seat, there are nearly 15 disposal/processing facilities, all but the two previously mentioned are located outside of the County. Only three of these are not landfills. Additionally, transfer stations make several other disposal sites within a hundred-mile radius accessible and cost effective for the County's needs.

This section explores the policies, business practices, and facilities that influence how and where Schuylkill County waste is managed. It identifies trends that are useful in planning for future disposal capacity needs. It also illustrates why assumptions used in the original Schuylkill County Municipal Solid Waste Management Plan may apply moving forward.

### LOCAL CONTROL OF MUNICIPAL WASTE

Flow control, in other words, dictating where waste generated within a jurisdiction can be disposed, is a power offered to local governments. In a straightforward interpretation and enforcement of flow control, governmental laws or policies require waste materials to be disposed at one designated disposal facility. Public investment in a facility has been a proven and effective tool to ensure proper municipal waste management and guarantee funding of related solid waste and recycling programs. When local governments have invested in public facilities, flow control contributes to, although does not always ensure, the financial stability of the operation.

A series of federal and state court rulings have consistently supported public sector authority to flow control waste when implemented under the auspices of direct ownership. Other forms of flow control are also allowable, even when the local public entity has no stake in the operation. Sometimes flow control is implemented through a contractual arrangement. In other scenarios, flow control may be mandated via an ordinance or regulation.

When third party facilities are involved, the justification for flow control is often less clear cut. In these scenarios, the criteria and decision-making process needs to be more transparent. Contractual arrangements obtained through a fair, open, and competitive procurement process, and that include multiple outlets for disposal, provide greater assurance the power to flow control will not be challenged.

The contractual form of waste flow control exists in the Schuylkill County Municipal Solid Waste Management Plan. Support for the policy is evidenced by the municipalities' ratification of the 1991 Plan. No changes were suggested in the 2003 Plan update, and none were recommended for this Plan revision. The former agreements are nearing expiration beginning in 2014-2015. Chapters 3 and 6 describe the process for securing future capacity.

To comply with Act 101, Pennsylvania disposal and processing facilities are not permitted to accept municipal waste originating from counties with flow control provisions in their solid waste management plans, unless the facility is one of the designated disposal sites included in the county's municipal solid waste management plan. Table 2-6 lists the designated facilities where haulers and/or transfer stations were directed to dispose of Schuylkill County's municipal solid waste from 2005 through 2014. The table includes the permit number, location, owner/operator, and the overall daily volume that can be accepted at each facility.

Table 2-6 Designated Disposal Facilities for Schuylkill County 2004-2014

Landfill	Permit	Volume Daily Average/ Maximum Tons	Municipality /County	Address	Owner/Operator
<b>Alliance Sanitary Landfill</b>	100933	2000/ 5500	Ransom Township & Taylor Boroughs Lackawanna	398 S. Keyser Avenue Taylor, PA 18514	Waste Management
<b>Commonwealth Environmental Systems</b>	101615	4750/ 5000	Foster, Fraley, Reilly Townships Schuylkill	99 Commonwealth Road Hegins, PA 17938	DeNaples
<b>Dauphin Meadows</b>	101539 closed	N/A/ N/A	Washington & Upper Paxton Townships Dauphin	P.O. Box 68, Route 209 Millersburg, PA 18517	Waste Management
<b>Grand Central Sanitation</b>	100265	2750/ 3000	Plainfield Township Northampton	1963 Penn Argyl Road Pen Argyl, PA 18072	Waste Management
<b>Keystone Sanitary Landfill</b>	101247	7250/ 7500	Dunmore & Throp Boroughs Lackawanna	P.O. Box 249, Dunham Drive Dunmore, PA 18512	DeNaples
<b>Pioneer Crossing Landfill</b>	100346	1000/ 1600	Exeter Township Berks	727 Red Lane Road Birdsboro, PA 19508	J.P. Mascaro & Sons
<b>Phoenix Resources Landfill</b>	101649 C&D only	1250/ 2000	Duncan Township Tioga	782 Antrim Road Wellsboro, PA 16901	Waste Management
<b>Mountainview Reclamation</b>	101100	1800/ 2000	Atrim and Montgomery Townships Franklin	9446 Letzburg Road Greencastle, PA 17225	Waste Management

## REPORTED DISPOSAL ACTIVITY

Pennsylvania requires disposal and processing facilities to submit quarterly and annual reports to the Pennsylvania Department of Environmental Protection. These reports document the amount of each category of waste managed at the site along with the county and/or state of origin. Although there are subsets in each waste stream, the two major reported categories are municipal and residual waste. In addition to regular household trash, municipal waste includes sewage sludge, construction & demolition waste, regulated



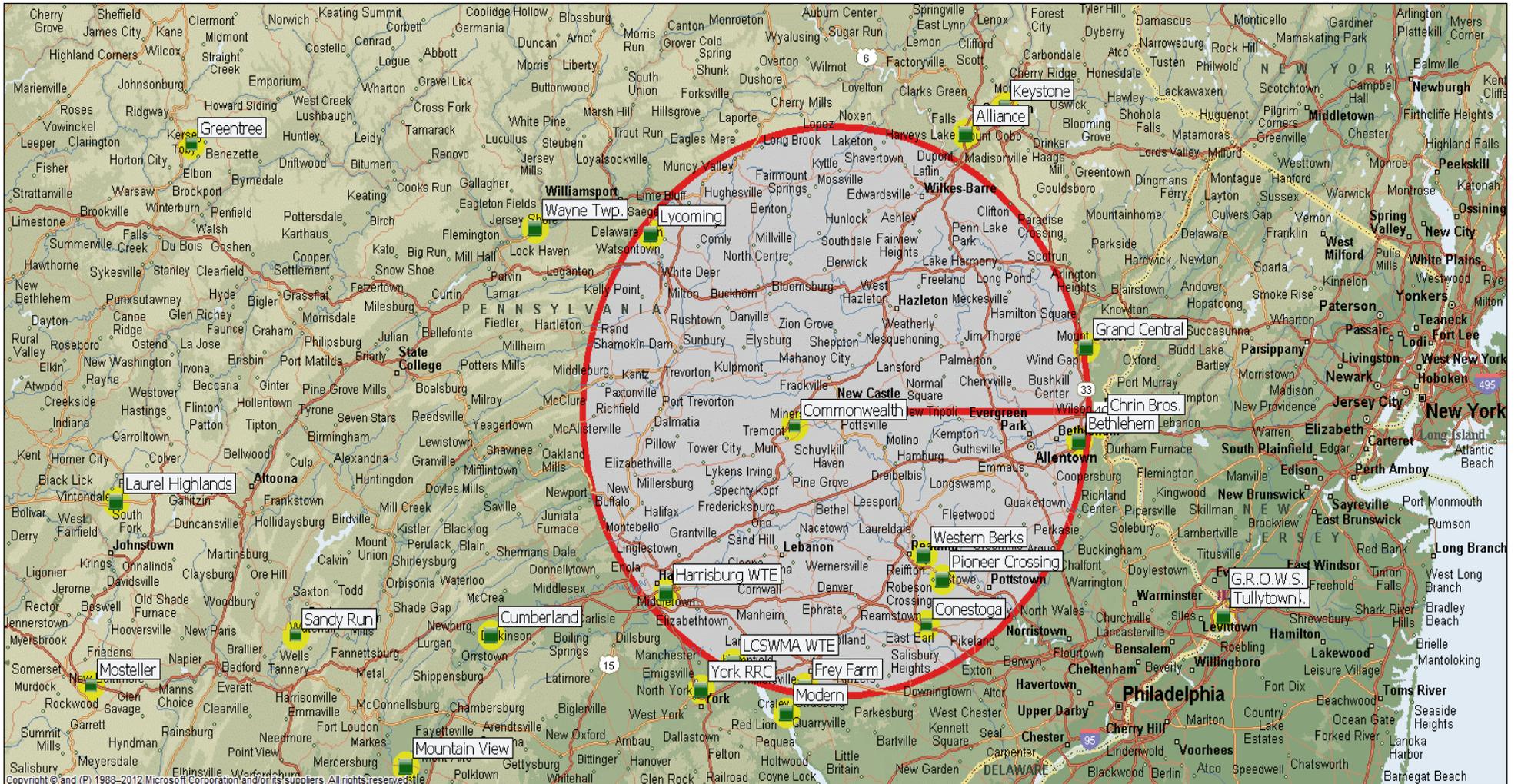
medical waste and incinerator ash. Residual waste comes primarily from industrial and manufacturing processes and includes asbestos.

Act 101 does not provide counties with the jurisdiction to regulate the collection, transportation, and disposal of residual waste. Nevertheless, residual waste factors into the development of the Schuylkill County Municipal Solid Waste Management Plan, because it consumes disposal capacity that otherwise could be available for Schuylkill County municipal waste. For the same reason, municipal and residual waste generated in other counties and other states must be considered.

From 2005 thru 2014, twenty-seven different facilities reported they received some type of municipal or residual waste that was generated in Schuylkill County. Many of the sites reported random and negligible amounts of the County's waste. Often disposal at a facility occurred only once during the ten-year period. Depending on the type of waste, these reported tons could simply be stray loads or those from other counties, which were accidentally misidentified as Schuylkill County waste. At the other end of the spectrum, several sites show consistent periods when waste from Schuylkill County is disposed there. Only one shows ongoing activity for the full ten-year period.

Figure 2-7 shows the location of each Pennsylvania facility that accepted waste from Schuylkill County during the period 2004 through 2014. Table 2-6 shows the reported quantities of Schuylkill County municipal and/or residual waste received at each facility from 2005 thru 2014.

Figure 2-7 Disposal/Processing Facility Locations



The red outlined circle illustrates a 50-mile radius from Pottsville, the County seat

Table 2-7 Schuylkill County Municipal & Residual Solid Waste Quantities and Facilities 2005-2014

	2005			2006			2007		
	MSW	RSW	TOTAL	MSW	RSW	TOTAL	MSW	RSW	TOTAL
Alliance	216	21	237	323	48	371	26	91	117
American Ref Fuel	0	0	0	0	0	0	0	17	17
Bethlehem	0	0	0	0	0	0	0	0	0
Chrin Bros	6	0	6	0	4	4	0	0	0
Commonwealth (CES)	156,412	25,238	181,650	152,474	17,335	169,808	138,565	16,142	154,707
Conestoga	0	0	0	0	0	0	3	0	3
Cumberland County	9	0	9	0	0	0	19	0	19
Frey Farm	0	2	2	0	8	8	0	25	25
G.R.O.W.S.	20	0	20	0	0	0	0	0	0
Grand Central	0	77	77	0	64	64	0	15	15
Greentree	0	119	119	0	127	127	0	45	45
Harrisburg WTE	0	0	0	0	0	0	0	0	0
Keystone	14	8	22	1	16	17	3	2	5
Lancaster County WTE	0	389	389	0	491	491	0	379	379
Lanchester	0	0	0	0	0	0	0	0	0
Laurel Highlands	0	0	0	0	0	0	0	0	0
Lycoming County	74	17	91	100	89	189	75	59	134
Modern	0	1,836	1,836	0	1,026	1,026	0	634	634
Mostoller	0	0	0	0	0	0	0	0	0
Mountain View Reclamation	0	0	0	0	0	0	0	351	351
Pine Grove	0	0	0	0	0	0	571	0	571
Pioneer Crossing	11	155	165	0	172	172	17	136	153
Pottstown		0	0	0	0	0		0	0
Sanitary	0	0	0	0	0	0	0	0	0
Tullytown	37	0	37	0	0	0	0	0	0
Wayne Township	20	2	22	678	0	678	939	6	945
Western Berks	0	24	24	0	0	0	0	0	0
York County RRC	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>156,820</b>	<b>27,889</b>	<b>184,709</b>	<b>153,575</b>	<b>19,381</b>	<b>172,956</b>	<b>140,217</b>	<b>17,903</b>	<b>158,120</b>

	2008			2009			2010		
	MSW	RSW	TOTAL	MSW	RSW	TOTAL	MSW	RSW	TOTAL
Alliance	0	136	136	7	72	79	0	90	90
American Ref Fuel	0	276	276	0	49	49	0	0	0
Bethlehem	0	1	1	0	0	0	0	1	1
Chrin Bros	0	0	0	0	0	0	7	0	7
Commonwealth (CES)	106,774	8,945	115,720	99,423	6,656	106,079	94,633	5,538	100,171
Conestoga	1	0	1	0	11	11	0	0	0
Cumberland County	0	0	0	3,568	331	3,900	0	0	0
Frey Farm	0	3	3	0	0	0	0	0	0
G.R.O.W.S.	0	0	0	0	0	0	0	0	0
Grand Central	0	21	21	0	165	165	0	127	127
Greentree	0	20	20	0	0	0	0	24	24
Harrisburg WTE	0	0	0	1,340	0	1,340	3,045	45	3,089
Keystone	0	0	0	0	36	36	0	0	0
Lancaster County WTE	0	366	366	0	276	276	0	313	313
Lanchester	0	0	0	7	0	7	0	7	7
Laurel Highlands	0	0	0	0	0	0	0	99	99
Lycoming County	87	173	260	81	221	302	97	77	174
Modern	0	545	545	0	364	364	7	575	581
Mostoller	0	0	0	0	0	0	0	0	0
Mountain View Reclamation	0	2,185	2,185	0	867	867	0	1,246	1,246
Pine Grove	26,195	5,422	31,617	18,242	5,006	23,248	25,171	4,690	29,860
Pioneer Crossing	99	105	205	98	21	119	161	0	161
Pottstown	0	0	0	0	0	0	0	0	0
Sanitary	0	0	0	0	0	0	0	0	0
Tullytown	0	0	0	0	0	0	0	0	0
Wayne Township	12	5	17	441	28	469	3,186	2,490	5,676
Western Berks	0	0	0	0	0	0	2	0	2
York County RRC	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>133,168</b>	<b>18,202</b>	<b>151,370</b>	<b>123,207</b>	<b>14,103</b>	<b>137,310</b>	<b>126,308</b>	<b>15,320</b>	<b>141,627</b>

	2011			2012			2013		
	MSW	RSW	TOTAL	MSW	RSW	TOTAL	MSW	RSW	TOTAL
Alliance	0	87	87	0	79	79	66	61	127
American Ref Fuel	0	0	0	0	22	22	0	0	0
Bethlehem	2	0	2	1	1	1	0	0	0
Chrin Bros	14	0	14	0	0	0	0	0	0
Commonwealth (CES)	96,935	8,912	105,847	93,416	10,466	103,883	107,467	11,781	119,249
Conestoga	1	0	1	0	0	0	46	5	51
Cumberland County	1,859	3,432	5,291	14,189	694	14,884	6,953	81	7,034
Frey Farm	0	0	0	0	0	0	0	0	0
G.R.O.W.S.		0	0	0	0	0	0	0	0
Grand Central	0	112	112	5	336	341	0	104	104
Greentree	2,583	0	2,583	0	85	85	0	0	0
Harrisburg WTE	12,038	210	12,248	12,842	627	13,469	600	193	793
Keystone	53	35	87	72	0	72	0	1	1
Lancaster County WTE	0	322	322	1,024	363	1,387	2,646	357	3,002
Lanchester	1	0	1	8	0	8	3	0	3
Laurel Highlands	0	0	0	0	0	0	0	0	0
Lycoming County	240	113	354	83	23	106	74	36	110
Modern	0	431	431	0	1,056	1,056	0	815	815
Mostoller	0	0	0	7	0	7	0	0	0
Mountain View Reclamation	0	1,213	1,213	0	1,459	1,459	0	132	132
Pine Grove	13,390	1,482	14,872	0	0	0	0	0	0
Pioneer Crossing	88	0	88	17	0	17	0	1,278	1,278
Pottstown	0	0	0	0	0	0	0	0	0
Sanitary	0	0	0	1	0	1	0	0	0
Tullytown	0	0	0	0	0	0	0	0	0
Wayne Township	2,628	3,381	6,009	2,225	495	2,719	1,517	4,026	5,543
Western Berks	58	0	58	1	0	1	4,010	0	4,010
York County RRC	9	0	9	0	0	0	3	0	3
<b>Total</b>	<b>129,899</b>	<b>19,730</b>	<b>149,629</b>	<b>123,891</b>	<b>15,706</b>	<b>139,597</b>	<b>123,385</b>	<b>18,868</b>	<b>142,252</b>

	2014			10 YEAR TOTAL		
	MSW	RSW	TOTAL	MSW	RSW	TOTAL
Alliance	34	54	88	671	740	1,411
American Ref Fuel	0	0	0	0	364	364
Bethlehem	0	0	0	3	3	5
Chrin Bros	6	0	6	33	4	37
Commonwealth (CES)	103,930	15,934	119,864	1,150,029	126,948	1,276,978
Conestoga	0	0	0	52	15	67
Cumberland County	4,049	7	4,056	30,647	4,545	35,192
Frey Farm	0	0	0	0	38	38
G.R.O.W.S.	0	0	0	20	0	20
Grand Central	3	74	77	8	1,096	1,104
Greentree	1,343	0	1,343	3,926	420	4,346
Harrisburg WTE	2,523	175	2,698	32,388	1,249	33,637
Keystone	7	0	7	149	97	247
Lancaster County WTE	0	289	289	3,670	3,544	7,214
Lanchester	0	0	0	18	7	25
Laurel Highlands	0	0	0	0	99	99
Lycoming County	264	428	692	1,176	1,237	2,413
Modern	6	991	997	13	8,273	8,285
Mostoller	1	0	1	8	0	8
Mountain View Reclamation	0	0	0	0	7,452	7,452
Pine Grove	0	0	0	83,568	16,600	100,168
Pioneer Crossing	0	0	0	491	1,867	2,357
Pottstown	0	0	0	0	0	0
Sanitary	0	0	0	1	0	1
Tullytown	0	0	0	37	0	37
Wayne Township	157	6,664	6,821	11,802	17,096	28,898
Western Berks	11,693	14	11,707	15,763	38	15,802
York County RRC	0	0	0	11	0	11
<b>Total</b>	<b>124,016</b>	<b>24,630</b>	<b>148,645</b>	<b>1,334,485</b>	<b>191,730</b>	<b>1,526,215</b>

## DISPOSAL/PROCESSING CAPACITY UTILIZATION

As shown in Table 2- 7 nearly all of the Schuylkill County municipal solid waste reported between 2005-2014 was delivered to Commonwealth Environmental Systems Landfill (CES), which is located within the Townships of Foster, Frailey, and Reilly, near Hegins, PA. CES is one of the eight landfills guaranteeing the County disposal capacity, and therefore designated in the 2004 version of the Schuylkill County Municipal Solid Waste Management Plan. Of the nearly 1.4 million tons of municipal solid waste reported from Schuylkill County in the ten-year span from 2005-2014, CES received 1.15 million tons.



Keystone Sanitary Landfill and Alliance Landfill, both located in Lackawanna County, as well as Pioneer Crossing Landfill in Berks County were the only ones of the remaining seven designated landfills that reported any amount of Schuylkill County's municipal solid waste disposal activity from 2005 through 2014. One of the designated facilities, Dauphin Meadows Landfill, closed and consequently could

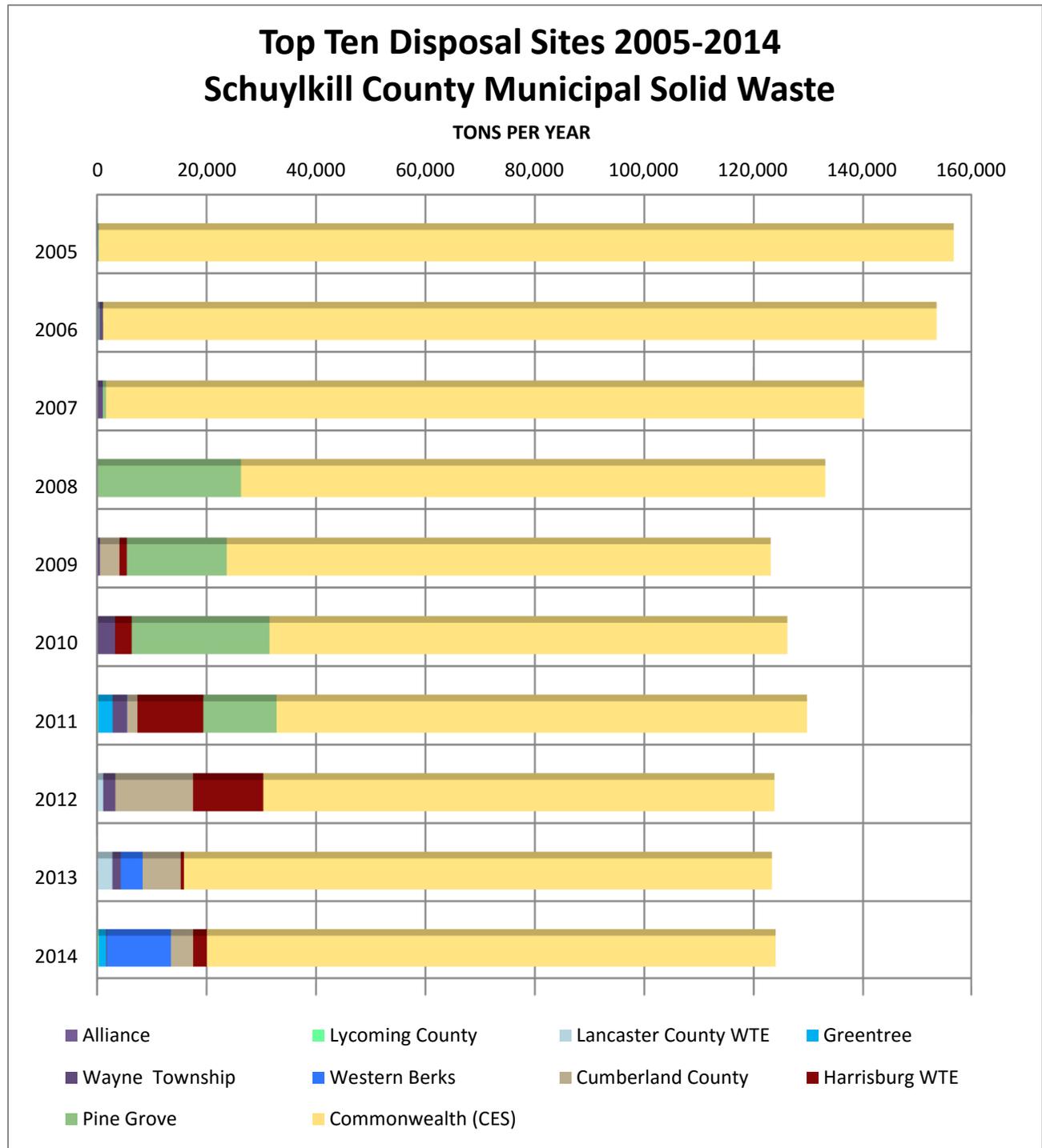
not receive waste. Another, Phoenix Resources Landfill has a permit that limits disposal at the site to construction & demolition waste. Since Construction & Demolition waste landfills are not required to submit quarterly or annual reports, the quantities of Schuylkill County waste that it may have accepted are unknown.

Other facilities, which were not designated in the 2004 version of the Schuylkill County Municipal Solid Waste Management Plan, also reported municipal waste from Schuylkill County disposed at their sites. Since the 2004 Plan established a mechanism to designate additional facilities during its implementation phase, and because, when a county exercises flow control, Act 101 prohibits facilities not designated to accept waste from that county from doing so, it is assumed these sites at some point in time executed a capacity agreement with the County. The number of transfer stations that operate in the region could have contributed to the requests to add more facilities. Their ability to cost effectively travel longer distances enables transfer operators to negotiate competitive disposal rates with a greater number of sites.

Of the top ten recipients of the County's municipal solid waste, only two are facilities originally designated in the 2004 Plan. These are CES and Alliance.

Figure 2-8 shows the facilities and the tons disposed per year. Noticeable is the decline in total tons disposed per year. Of additional interest are the fluctuations in the amounts of waste received on a per facility basis, from year to year. The graphic illustrates how sudden changes in the marketplace can affect the capacity consumed at any one facility.

Figure 2-8 Schuylkill County Trends in Municipal Solid Waste Disposal Facilities



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## **IMPACT OF RESIDUAL WASTE DISPOSAL**

In addition to municipal waste generated in homes, institutions, and other commercial establishments, manufacturers and other industrial concerns in Schuylkill County generate residual waste. Although the County's industrial economic base is not as robust as in the past, a number of manufacturers operate there. Industrial concerns represent metals, plastics, chemicals, textiles, and food processors, among others. The same landfills that manage Schuylkill County's municipal waste accept residual waste from both Schuylkill and other counties.

Just as it does for municipal solid waste, Commonwealth Environmental Systems still captures the majority share of the market for Schuylkill County's residual waste. However, a number of facilities that did not factor predominantly in acceptance of the County's municipal waste lead the top ten list for residual waste. These include Pine Grove Landfill, Modern Landfill, Wayne Township Landfill, Mountainview Reclamation Landfill, and the Lancaster Solid Waste Management Authority's Waste to Energy Facility.

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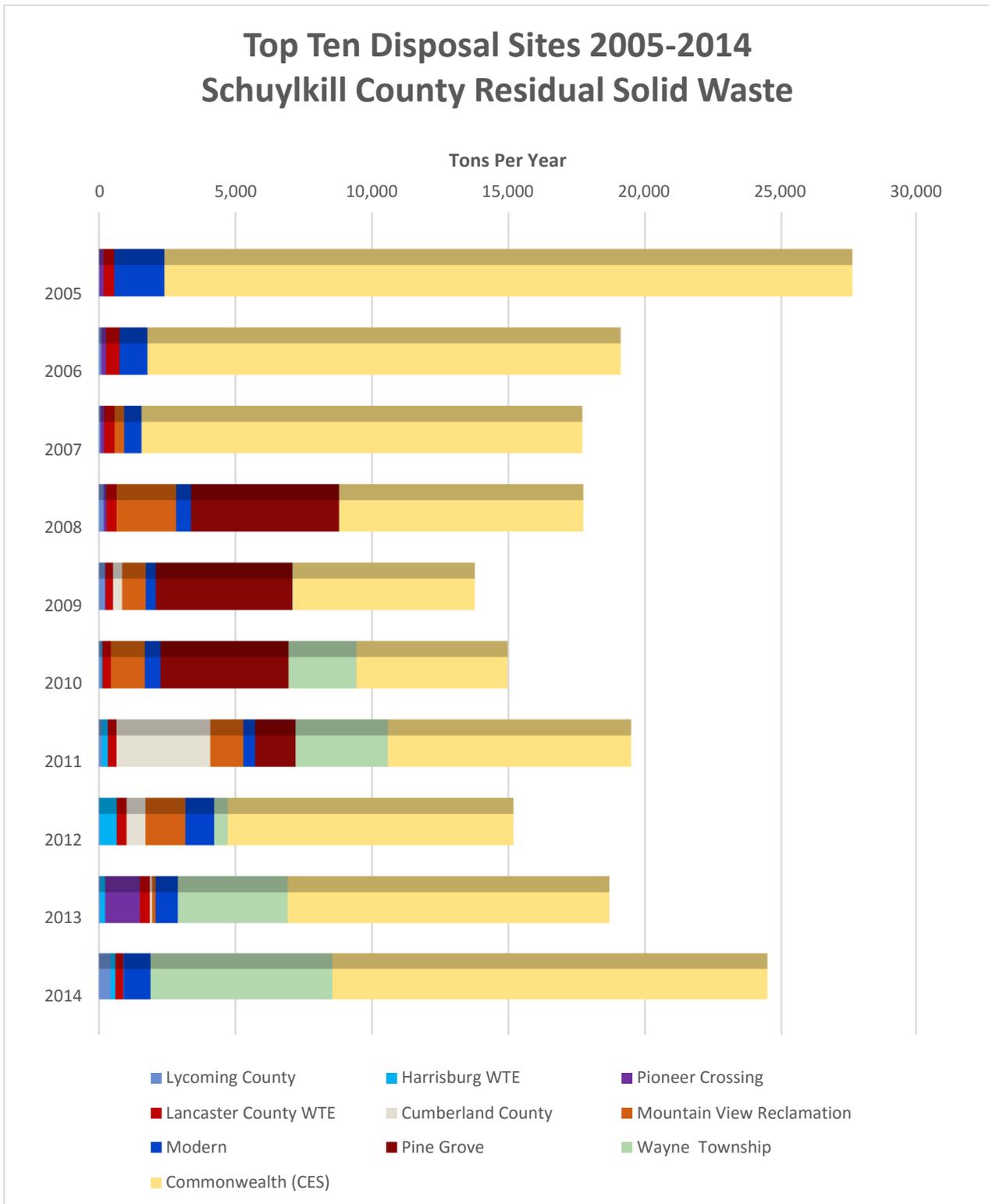
## **COMPETING INTERESTS**

For the most part, the disposal and processing facilities that receive Schuylkill County waste are owned and operated by the private sector. Unlike their public sector counterparts, these operations were not constructed as a public service based solely on the need to manage local waste disposal quantities. Rather, they were designed to handle the needs of a broader geographic area. The interstate highway system provided easy access to sources of waste generated in other states and regions. Since shipments from these areas have decreased, operators are forced to seek out new sources of waste to meet the profit expectations of the facility owners and in many cases, the shareholders.

One only has to look at historic reported data from Commonwealth Environmental Systems Landfill to verify how a business approaches the loss of one source of material. Although CES remains the largest single outlet for Schuylkill County municipal solid waste disposed, it could not avoid the dual effect of shifts in population and decreasing waste generation. Over time, as municipal waste from Schuylkill County lessened, CES's residual waste disposal from Schuylkill County sources increased. Other landfills follow this same practice. Therefore, a decrease in municipal waste does not necessarily mean current available landfill capacity is not being consumed.

Figure 2-8 shows the facilities and the tons disposed per year. Noticeable is the decline in total tons disposed per year.

Figure 2-8 Schuylkill County Trends in Residual Solid Waste Disposal Facilities



## WASTE FROM EXPLORATION AND PRODUCTION

A growing lucrative market for landfills in the northern tier of Pennsylvania is acceptance of drill cuttings generated from exploration in the Marcellus Shale Gas Formation. Although Schuylkill County has not experienced the waves of activity witnessed in surrounding areas, nevertheless, the disposal facilities that traditionally handle the County's waste are among those benefitting from this recent trend.

The amount of waste generated at each drill site differs somewhat and is dependent on the depth and horizontal distance of the drilling activity. The impact on any given landfill is difficult to predict accurately. It is, however, safe to say the results will be significant when the number of projected drill sites is considered along with the average drill cuttings generated per well site. Acceptance of this material would accelerate consumption of the excess disposal capacity currently thought to exist.

Drill cuttings from natural gas exploration are a growing market for regional disposal sites.



## Disposal Methods for Special Handling Waste

Specialized methods of processing and disposal are required for select portions of the municipal waste stream. These include land application of biosolids, and thermal treatment or incineration of regulated medical waste.

## MANAGEMENT OF SEWAGE SLUDGE, BIOSOLIDS, AND RESIDENTIAL SEPTAGE

Wastewater from our homes and businesses contains properties that can be beneficial if managed correctly. On the other hand, the material can also pose health and environmental problems if not properly managed.

In cities and suburban developments, the wastewater flows through a network of pipelines to centralized treatment facilities. In more rural areas, wastewater is held in a septic tank and periodically emptied by a septage transporter. There are essentially two acceptable methods of managing residential septage. The septage is typically transported to a municipal or private wastewater treatment facility or a septage treatment facility where it can be properly treated prior to final disposal.

At wastewater treatment facilities, special physical, chemical, and biological processes sanitize the wastewater and remove the solids. The results are sewage sludge. As

previously shown in Table 2-1 quantities of sewage sludge originating in Schuylkill County are consistently reported by Pennsylvania landfills. Over the 10-year period covered by the 2004 Schuylkill County Municipal Solid Waste Plan, an approximate Average of 5,000 tons of sewage sludge were disposed in landfills each year.

The wastewater treatment industry introduced the term “biosolids” to distinguish sewage sludge from industrial sludge by emphasizing the former is produced by a biological process. The term “biosolids” also helps to distinguish this material from raw sewage and from those sewage sludges that contain large quantities of environmental pollutants. Biosolids can be land-applied as a fertilizer to help rejuvenate farmland, forests, and minelands. Septage is often land applied as well. Land application of biosolids has been implemented in Schuylkill County, especially in mine reclamation projects.

## Dealing with the Aftermath—Disaster Debris

Planning for municipal solid waste management all too often stops once the logistics of collection and the disposal and processing outlets are established to handle the stable and relatively predictable quantities of waste generated by our day-to-day activities. It is the unexpected events in our lives, however, that can present the greatest challenges to the municipal solid waste infrastructure.

Schuylkill County is no stranger to floods, tornados, ice storms, fires, and other natural or manmade catastrophes. Each of these can quickly cause unimaginable devastation



and destruction. Proper management of this debris can literally mean the difference between life and death because the removal of debris can become an impediment to the provision of other emergency services, if it is not executed immediately and effectively. Access to victims and vital components of the infrastructure are often dependent on the existence and implementation of an organized debris management plan. Essentially, the process of remediation and rebuilding cannot begin until the clean-up occurs.

Municipalities may be able to manage debris from a small storm by having public works crews or contractors load and haul truckloads of branches and trees to a processing facility, or perhaps a disposal site. During a major crisis, debris removal becomes much more

complicated. The expected types and amounts of debris differ depending upon if the debris is from flooding, tornadoes, fires, earthquakes, ice storms, or other events. Damaged structures must be demolished. Cars, trucks, boats and refrigerators must be carted away, along with rotting food, decaying vegetation, and molding mattresses, upholstered furniture, draperies, and carpeting. Workers must continually check for hazardous chemicals, gas leaks, and substances like asbestos.

The financial effect of the devastation is equally important as public health and safety. Local municipalities and private property owners are faced with the overwhelming task of arranging disaster debris removal and coping with the ultimate costs. While disaster relief is often available from state and federal agencies, failure to follow proper protocol can reduce the amount of reimbursement due to a community. Procedures must be in place to document and monitor the invoicing process, the handling procedures, and the ultimate disposition of the material.

The County's disposal capacity agreements play an important role in that regard. First they offer predetermined caps on the tipping fees for disposal. Secondly, the County requires the designated sites to demonstrate how they could handle excess disaster waste from Schuylkill County, including the provision of a back-up facility.

The Schuylkill County Office of Solid Waste & Resource Management could serve as the lead agency in promoting a countywide disaster debris management plan. The County could help reduce some of the costs by also identifying and/or promoting the development of outlets for the recovery/recycling of materials from these events. Not only does it make environmental sense, it could also present an opportunity for economic development. Methods to incorporate reuse and recycling into a disaster recovery process are discussed in Chapter 4.

## Comments and Observations

The majority of Schuylkill County residents and businesses respect the environment and strive to handle their waste properly. The number of waste collection and disposal companies, which successfully operate within the boundaries of the County, provide strong evidence there is a need and demand for their services. The survey of local communities demonstrates a number of Schuylkill County municipalities have established policies and programs that provide a good foundation to encourage proper municipal solid waste management. Some private sector contractors have voluntarily expanded their service offerings to make curbside collection of waste, bulk items, and recycling more convenient and affordable. Unfortunately, there are still some significant gaps in the system.

It has been 25 years since the adoption of the first Schuylkill County Municipal Solid Waste Management Plan developed under the guidelines of Act 101 of 1988. In spite of

an adequate network for collection, transportation, and disposal, some citizens of Schuylkill County remain reluctant to utilize (i.e. pay for) these services. Roadside dumping, littering, and open burning still occur.

The Solid Waste Advisory Committee (SWAC) agreed that the County must do more than react to illegal dumping. The Committee agreed that future efforts must focus on decreasing the overall number of residents involved with open dumping and burning. Emphasis was placed on the need for municipalities to revisit local ordinances governing property maintenance, zoning, solid waste, and open burning to ensure that their requirements in all of the laws and regulations are consistent and that deterrents to non-compliance are substantial.

The Committee also suggested other actions to promote pollution prevention, and protect the health and safety of the community. The SWAC noted the expansion of private sector services as an important indicator of the affordability of curbside collection. Voluntary subscription collection programs were viewed as costlier and less effective than those coordinated by municipalities through a competitive bidding process. Entering into municipal contracts for waste and recycling services was seen as a vital tool in attaining these goals.

Throughout the planning process the validity of certain figures and reported data were questioned. The concern was that in the past misinformation may have hampered the County in making the best decisions for its solid waste and recycling programs. Revisions were suggested to the County's solid waste ordinance to provide for tracking and monitoring of transporters, better reporting requirements, and greater enforcement capabilities.

These and other recommendations along with potential methods of implementation are discussed in more detail in L 5.

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## CHAPTER THREE

# Future Capacity Projections

### Regulatory Requirements and Previous Concerns

The enactment of the Municipal Waste Planning, Recycling, and Waste Reduction Act (Act 101 of 1988) was a major milestone piece of legislation for Pennsylvania. It came at a time of transition and uncertainty in the waste industry. The introduction of more stringent federal and state landfill regulations prompted the closure of many small private and municipal landfills. While small operations struggled with the costs of engineering and construction needed to comply with the new requirements, larger conglomerates with more resources recognized this as a business opportunity. Intent on internalizing the disposal of waste collected by their hauling divisions, the acquisition of facilities became a high priority.

This activity caused concern throughout the environmental and regulatory community. They perceived the fewer number of landfills as a sign of decreasing disposal capacity and monopolization. Predictions were that in short time the nation would have no place to dispose of the ever-increasing municipal waste stream.

For these reasons, Act 101, similar to laws enacted at that time in surrounding states, specifies that securing long-term disposal capacity is the top priority for Pennsylvania counties during the development of a municipal solid waste management plan. Act 101 also places mandates for recycling on the municipalities in order to decrease the capacity demand by diverting waste material from disposal.

Pennsylvania counties are required to seek disposal capacity commitments approximately every ten years or at the time when their disposal capacity agreements expire. Schuylkill County's capacity contracts will expire during the planning process.

This chapter projects Schuylkill County's generation and disposal requirement for the next decade. It compares it to the rate at which capacity is being consumed at landfills and resource recovery facilities currently receiving the County's waste. Factors that could influence the availability of existing capacity to the County and alternative methods of disposal and processing are considered. Finally, the decision and justification to solicit for added capacity is discussed.

## **Current Market Conditions**

Much like the industry climate in 1988, a sense of uncertainty and transition currently prevails, but for opposite reasons than existed 25 years ago. The prediction that the nation would run out of landfill space never materialized. Although the number of disposal facilities are indeed fewer, the multitude of small local dumps were replaced by mega landfills able to accommodate large volumes of waste.

Unlike the escalating generation of municipal waste witnessed from the mid to late 20th century, national studies currently show those rates have reversed. Since the adoption of the last Plan revision in 2004, PADEP annual facility reports show a clear downward trend in tons received for most, if not all, of the facilities designated in the Schuylkill County Municipal Waste Management Plan. In many cases, the decrease in tonnage has been dramatic, 20 to 30% reductions. The decrease was fueled by recycling programs that remove post-consumer waste from disposal. Initiatives that tie waste minimization and source reduction practices to the corporate bottom line, along with modifications in product design and packaging have resulted in lighter weight and in some instances more recyclable material.

Combined with these universally occurring changes, disposal facilities in Pennsylvania also experienced an abrupt loss of waste from outside sources, who redirected their shipments to facilities in other states. Therefore, across the Commonwealth overall, but not necessarily in every specific geographic region, there tends to be a glut of available permitted capacity.

From that perspective, it would be easy to conclude that meeting Schuylkill County's future disposal and processing needs would not be problematic. However, the waste industry is dynamic in nature. Just as abruptly as out of state waste disappeared, new opportunities could present themselves. Operational or regulatory constraints could easily develop within the ten year confines of the Plan. Exploring these and other factors makes sense before making a final determination.

## **VARIABLES IN THE RATE OF CAPACITY CONSUMPTION**

Although federal and state guidelines mandate certain design and operating criteria, it is safe to say that landfills are not all created equal. Site conditions, operational practices, company policies, and the regulatory climate can all determine whether a

facility optimizes the capacity that could be made available at a location. Increases in permitted volumes due to windfall contracts, catastrophic events, and economic conditions also play a role.

Changes in ownership are common in the waste industry. Integrated companies that own hauling operations prefer to internalize disposal at their own facilities. It is not uncommon to see waste redirected to facilities that were obtained in mergers and acquisitions. Such shifts can accelerate the consumption of capacity.

## **Anticipated Disposal and Processing Capacity Needs**

To determine the County's future disposal and processing needs, a number of elements must be factored into the equation. Population is probably the primary indicator. The analysis uses historical data on the amounts of waste generated, recycled and disposed to establish trends and assumptions. This section reviews and calculates Schuylkill County's estimated needs for disposal capacity for the next decade and beyond.

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### **Trending Waste Generation**

In recent years, USEPA reports show the national municipal solid waste generation rate has been about 0.85 tons per person per year, with little variation. Similarly, the discard rate has also been relatively constant at about 0.52 tons per person per year. Thus, for projection purposes, it was assumed that per capita generation and discard rates would remain unchanged.

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### **Baseline Reported Disposal**

The initial waste disposal quantities are based on the PADEP facility reported data for Schuylkill County for the years 2011 and 2012. For those two years, the County disposed of an average of 117,126.6 tons per year of MSW and 6,697.8 tons per year of C&D. An average of 2,921.3 tons of sewage sludge was also landfilled.

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### **Population**

The most recent census data available during the planning process was the result of the national census conducted by the US Census Bureau in 2010. The Pennsylvania State Data Center at the Pennsylvania State University provides historical and current demographic information on counties and municipalities throughout the Commonwealth of Pennsylvania, much of it gathered from local sources. The Plan bases its population assumptions on the Data Center's projections.

Table 3-1 shows the County totals from the 2000 Census and the Data Center projections for 2010 to 2030.

Based on the census, Schuylkill County's population of 148,253 people was greater than projected for 2010. The projections for 2020 and 2030 were corrected accordingly.

Population was extrapolated to 2040 based on the projected rate of change from 2020 to 2030.

Over the period 2000 through 2030, the population of Schuylkill County is projected to decrease by 2.0%.

**Table 3-1 Pennsylvania Population Projections: 2000-2030**

	April 1, 2000	July 1, 2010	July 1, 2020	July 1, 2030	% Change	% Change	% Change
County	Census	Projection	Projection	Projection	2000-2010	2000-2020	2000-2030
Pennsylvania	12,281,054	12,540,718	12,871,823	13,190,400	2.1	4.8	7.4
Schuylkill	150,336	146,972	146,457	146,078	-2.2	-2.6	-2.8
Corrected	150,336	148,253	147,738	147,339	-1.4	-1.7	-2.0
Source Penn State Data Center							

## CAPACITY PROJECTIONS

Table 3-2 presents projected disposal capacity requirements in tons for the years 2013 through 2040. The figures are based on a constant per capita generation rate with adjustments due to projected population changes.

The potential impact of one or more of the issues presented in this chapter, justifies a need to seek out and secure disposal capacity for Schuylkill County for the next decade. Chapter 6 provides the results of the solicitation process.

**Table 3-2 Schuylkill County Disposal Capacity Projections 2013-2040**

Year	Population	MSW	Sludge	C&D	Total
2013	148,099	117,037.7	2,919.0	6,692.7	126,649.4
2014	148,047	116,997.0	2,918.0	6,690.4	126,605.4
2015	147,996	116,956.3	2,917.0	6,688.1	126,561.4
2016	147,944	116,915.6	2,916.0	6,685.7	126,517.3
2017	147,893	116,874.9	2,915.0	6,683.4	126,473.3
2018	147,841	116,834.2	2,914.0	6,681.1	126,429.2
2019	147,790	116,793.5	2,912.9	6,678.8	126,385.2
2020	147,738	116,752.8	2,911.9	6,676.4	126,341.2
2021	147,698	116,721.3	2,911.1	6,674.6	126,307.0
2022	147,658	116,689.7	2,910.4	6,672.8	126,272.9
2023	147,618	116,658.2	2,909.6	6,671.0	126,238.8
2024	147,578	116,626.7	2,908.8	6,669.2	126,204.7
2025	147,539	116,595.1	2,908.0	6,667.4	126,170.5
2026	147,499	116,563.6	2,907.2	6,665.6	126,136.4
2027	147,459	116,532.1	2,906.4	6,663.8	126,102.3
2028	147,419	116,500.5	2,905.6	6,662.0	126,068.2
2029	147,379	116,469.0	2,904.8	6,660.2	126,034.1
2030	147,339	116,437.5	2,904.1	6,658.4	125,999.9
2031	147,299	116,405.9	2,903.3	6,656.6	125,965.7
2032	147,259	116,374.3	2,902.5	6,654.8	125,931.5
2033	147,219	116,342.7	2,901.7	6,653.0	125,897.3
2034	147,179	116,311.0	2,900.9	6,651.2	125,863.1
2035	147,139	116,279.4	2,900.1	6,649.4	125,828.9
2036	147,099	116,247.8	2,899.3	6,647.5	125,794.7
2037	147,059	116,216.2	2,898.5	6,645.7	125,760.5
2038	147,019	116,184.6	2,897.8	6,643.9	125,726.3
2039	146,979	116,153.0	2,897.0	6,642.1	125,692.1
2040	146,939	116,121.4	2,896.2	6,640.3	125,657.9

Population Based on Penn State Data Center's Projections 2000-2030, the most recent available at the time the capacity projections were calculated.

Disposal based on current Schuylkill County data reported from PA disposal/processing facilities and recent disposal trends.

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## **CHAPTER FOUR**

# **Recycling Programs and Performance**

### **Recycling in Schuylkill County**

Throughout Schuylkill County, a variety of recycling opportunities exist. The combined efforts of the County, the municipalities, and the private sector service collection and processing providers have broadened the recycling infrastructure. Unfortunately, these outlets and services are not yet equally available in every municipality. Schuylkill County residents, businesses, government agencies, and other institutions have demonstrated that where recycling is convenient and accessible, they will recycle. Ensuring sustainable opportunities to recycle in all parts of the County was an important part of the planning process.

This chapter describes the types of recycling and material recovery programs that operate in the County, including current performance of the recycling activities and a comparison to national trends. The cost effectiveness of County programs in relationship to recovery rates are also discussed. Options to improve or transition existing services are featured.

### **Schuylkill County Sponsored Recycling Programs and Services**

The Schuylkill County Office of Solid Waste & Resource Management offers a variety of programs and services designed to enhance the recovery of a wide spectrum of recyclable materials and difficult to manage items. The responsibilities that counties have under the provisions of Act 101 are limited to planning, securing disposal capacity, and reporting, so these programs were established and continue to operate on a strictly voluntary basis. Included as part of the planning commitment is the need to demonstrate the mechanisms in place by all public and private sector sources within

the County to meet the State’s goal of attaining a 35 percent recycling rate, or to justify why local efforts will fall short of that goal.

### TECHNICAL SUPPORT AND EDUCATION

The Schuylkill County Office of Solid Waste & Resource Management provides outreach and support to the local community. The staff offers a host of free and informative programs to schools including assembly programs and classroom training, municipalities, businesses, civic organizations, and other community groups. In addition, the Office can develop customized presentations to organizations upon request.



The Schuylkill County Office of Solid Waste & Resource Management offers outreach programs to schools and local civic organizations

An important function of the Office is the technical assistance they can provide to help municipalities and businesses to help them comply with Act 101 or improve their recycling programs. One of the greatest benefits of this assistance is that municipalities who seek support are more likely to secure grant funding to advance or sustain their programs. Staff members also help motivate and mobilize volunteer participants in a number of events.

### SPECIAL COLLECTION EVENTS



Schuylkill County sponsors seasonal special collection events for those materials that have unique handling requirements. Most of the events accept a broad spectrum of materials; however, occasionally the events are dedicated to specific categories or items in the waste stream. Typically, for the convenience of residents the events are hosted at numerous municipalities throughout the County. Some of these items are household goods that, without a

proper outlet, tend to be disposed of at illegal dumpsites. These include household furnishings, mattresses, appliances, tires, carpeting, remodeling debris, etc.

Others, due to their chemical makeup, have hazardous characteristics harmful to the environment, or they have the potential to create public health and safety issues.

Although in Pennsylvania, it is currently legal for the majority of these materials generated by residential sources to be disposed in permitted landfills, there are practical reasons to handle the items in special programs.

To compensate for costs not covered by the County’s available resources, the events have been funded in part by grants made available by the Pennsylvania Department of Environmental Protection. User fees are imposed for certain items. A consistent level of traffic has been recorded throughout the decades of accepting materials from Schuylkill County households. Fluctuations tend to occur when more than one event is scheduled per year. The user fees have not been a deterrent to participation as feared by many program managers. In fact, Schuylkill County shows participation rates equal to if not higher than surrounding counties.

Table 4-1 shows the amount of problematic materials collected in these events, and thus diverted from the landfill and illegal dumping grounds. Following is a description of the types of materials and the value of having them collected in Schuylkill County.

**Table 4-1 Schuylkill County Special Collection Events 2009-2012**

<b>Materials</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	(Tons)	(Tons)	(Tons)	(Tons)
<b>Antifreeze</b>	6.7	0.5	3.4	1.5
<b>Batteries: Lead Acid</b>	93.4	244.2	70.2	209.6
<b>Batteries: Household Batteries</b>	73.9	0.4	0.1	3.1
<b>Catalytic Converters, Radiators</b>	1	1		
<b>Computer Systems</b>	1.6	7.1	23.4	2.6
<b>Consumer electronics</b>	1	1.1	26.9	82.1
<b>Fluorescent Tubes &amp; CFLs</b>	1.8	3.9	0.5	4.5
<b>Oil Filters</b>	11.1	24.5	10.2	0.4
<b>Household Hazardous Waste</b>	0.8		2.8	1.9
<b>Used Oil</b>	440	281.5	325.9	286.3
<b>Rubber Tires</b>	85	2.6	51.7	51.9
<b>White Goods</b>	10,402.00	942	4.2	4,924.80
<b>TOTAL TONNAGE</b>	<b>631.3</b>	<b>564.2</b>	<b>463.4</b>	<b>591.9</b>

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## HOUSEHOLD HAZARDOUS WASTE

Because they are generated in a residential setting, a variety of products that would otherwise be considered hazardous materials if found in an industrial operation, are classified as Household Hazardous Waste (HHW). Cleaning agents, pool chemicals, paints, petroleum based products, herbicides, pesticides, and other materials may be ignitable and/or poisonous. All are considered HHW.

The Pennsylvania Department of Environmental Protection, estimates that each person in Pennsylvania generates an average of four pounds of Household Hazardous Waste (HHW) each year. Using the 2012 US Census data, with a population of approximately 147,372 Schuylkill County could expect to produce approximately 295 tons of HHW per year. In municipalities where residents remain at the same location for many years, the expected annual volume of HHW accumulates in homes over time rather than being disposed on a regular basis. Based on data derived from HHW collection events in Pennsylvania, it is estimated the average household may have up to 16 pounds of HHW in storage. Schuylkill County's events are having a positive effect on reducing the amount of materials that might remain in storage or be disposed improperly.

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### Public Health and Safety Concerns

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Without adequate disposal outlets, the accumulation of these materials within each home can eventually become a liability in the community. Many of these materials create a serious health and safety hazard to children and the elderly. Due to their flammability, not only can they create house fires, but also make them difficult for



The Pennsylvania Department of Environmental Protection, estimates each home in Pennsylvania could have an average of sixteen pounds of Household Hazardous Waste (HHW) in storage

firefighters to manage and control. Costly damage to public wastewater treatment systems can occur when oils, solvents, and other HHW are poured into the sanitary sewer systems.

According to the Oklahoma State University Extension Fact Sheet *Household Hazardous Waste Handling Procedures to Prevent Environmental Contamination*, more than two percent of all garbage collectors are injured by chemical burns, explosions, etc. each year from HHW in trash. Unexpected dangers occur when HHW combines with regular household trash; for example, soft drinks mixed with swimming pool dry chlorine can ignite.

Figure 4-1 shows the types of materials collected in Schuylkill County's HHW events.

Figure 4-1 Sample Promotional Flyer for Household Hazardous Waste Collection Event




## 2014 SCHUYLKILL COUNTY HOUSEHOLD HAZARDOUS WASTE EVENT

THE COUNTY OF SCHUYLKILL, IN COOPERATION WITH THE MUNICIPALITY LISTED BELOW, IS SPONSORING A HOUSEHOLD HAZARDOUS PROGRAM FOR ALL COUNTY RESIDENTS. THE OPERATION SCHEDULE FOR THE HOST SITE ARE AS FOLLOWS:

**Where: Schuylkill Mall**  
830 Schuylkill Mall, Frackville, PA 17931

**When: November 15<sup>th</sup>, 2014**

**Time: 8:00 AM – 2:00 PM**

- Rain or Shine
- No Commercial Waste
- No more than 200 pounds per person
- Free Disposal



UNACCEPTABLE ITEMS

- Electronics
- Appliances
- Alkaline batteries
- Business wastes
- Tires
- Garbage
- 55 Gallon Drums
- Fireworks/explosives
- Ammunition
- Smoke/CO detectors
- Radioactive material
- Medical waste
- Infectious waste
- Sharp Controlled substances
- Institutional wastes
- Governmental wastes



Why collect Household waste?

This collection day is intended to provide Schuylkill County with a responsible way to dispose of old, unusable and unwanted hazardous products. Putting them in the trash or down the drain contributes to pollution of our air and drinking waters.

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How to bring materials to our collection site?

- Do not mix the materials or use plastic bags.
- Tighten Lids on all containers. If containers are leaking, place in larger containers.
- If not in original labeled container, please label the container used.

ACCEPTABLE ITEMS

- Antifreeze
- Asbestos
- Corrosives/caustics
- Lead acid batteries
- Oil based paints
- Paint products
- Turpentine
- Thinner
- Flammable liquids
- Used oil
- Contaminated motor oil,
- Oxidizers
- Latex Paint
- Pesticides
- Agricultural waste
- Propane cylinders (Only 1 and 20 pound cylinders)
- Fire extinguishers





PROOF OF COUNTY RESIDENCY MUST BE PROVIDED

QUESTIONS CONCERNING DISPOSAL OF UNACCEPTED ITEMS SHOULD BE DIRECTED TO THE SCHUYLKILL COUNTY OFFICE OF SOLID WASTE & RESOURCE MANAGEMENT AT 570-628-1220

THIS PROGRAM IS FUNDED BY THE SCHUYLKILL COUNTY BOARD OF COMMISSIONERS AND THE PA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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## ELECTRONIC SCRAP

When discarded electronic equipment is disposed, it can pose environmental hazards. Mercury, lead, and other metals can leach from the equipment and contaminate the soil and groundwater. To decrease the potential harm, Schuylkill County has been offering computer and electronics collections as part of its special collections. The reported results from the events indicate the volume of discarded televisions, computers, monitors, and cell phones continues to increase.

Many states have adopted extended producer responsibility policies and laws to force manufacturers to manage some portion of the cost or recovery logistics for end of life products.



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### Covered Device Recycling Act

Pennsylvania legislators recently adopted the Covered Device Recovery Act (Act 108 of 2010 or CDRA). This piece of legislation provides for extended producer responsibility for discarded electronics, including computers and televisions, and banned these items from disposal beginning in 2013. Because Schuylkill County already had a role in electronic recycling events, it has developed a program to coordinate the collection of discarded covered devices.

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## TIRES

Consumers in Pennsylvania sometimes reject the convenience tire retailers offer, to accept old tires for a small fee at the time of replacement purchase. Consequently, scrap tires often accumulate in garages, sheds, and residential properties. Even worse, unscrupulous transporters often remove scrap tires from retail outlets, but fail to deliver them to tire recyclers or waste to energy facilities. These tires are illegally dumped in piles that serve as the breeding grounds for mosquitos that can carry West Nile Virus. In addition, tire piles can combust spontaneously, and are often the fuel for lingering fires.

The Scrap Tire Management Council uses a standard assumption that waste (also known as scrap) tires are generated at a rate of one tire per person per year. Passenger car tires comprise 80 percent of the national annual waste tire generation. According to the Rubber Manufacturers Association, car tires weigh approximately 22 pounds each. Based on population and data reported by USEPA it is estimated Schuylkill County generated 2,196 tons of waste tires 2012. If recycled at the national recycling rate, about 978 tons would be recovered. The reported quantity recycled from all sources was 324 tons, somewhat less than the national norm. The Schuylkill County

events were responsible for collecting approximately 52 tons of tires in 2012, or roughly 16 percent of the total recovered that year. Tires have been removed during the cleanup of virtually every illegal dumping site remediated throughout Schuylkill County. Finally, Pennsylvania's tire retailers take back program does recover a significant number of scrap tires.

Recovered tires are used as fuel in cement kilns and related applications. They are often ground to make a crumb rubber that can be used as a mulch on playgrounds. Crumb rubber is also used in the manufacturing of asphalt.

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### **MAJOR APPLIANCES (WHITE GOODS)**

Based on population it is estimated Schuylkill County residents discarded 1,947 tons of major appliances 2012. If recycled at the national recycling rate, about 697 tons would be recovered. Schuylkill County reported the recovery of an average of 12,037 tons of major appliances using the 2011 and 2012 data. That's 962% of what would be expected. 4,924 tons were reportedly collected from Schuylkill County's collection events. It is suspected that results were actually recorded as pounds and inadvertently entered as tons in the reporting system. Simple errors like this are probably why Schuylkill County's waste generation, disposal, and recovery appear to be so much greater than the national norm.

Figure 4-2 shows the types of materials and recent fees charged for the collection, handling, and processing services.

Figure 4-2 Schuylkill County Special Collection Event Criteria



## 2014 SCHUYLKILL COUNTY FALL CLEANUP & RECYCLING EVENT



**SCRAP TIRES – ELECTRONICS – APPLIANCES – SCRAP METAL– BULKY ITEMS**

THE COUNTY OF SCHUYLKILL, IN COOPERATION WITH THE MUNICIPALITIES & BUSINESSES LISTED BELOW, IS SPONSORING A SCRAP TIRE, APPLIANCE, BULKY ITEM, & ELECTRONICS DROP-OFF PROGRAM FOR ALL COUNTY RESIDENTS. THE PROGRAM WILL ALSO SERVE AS AN OUTLET FOR MUNICIPALITIES THAT DO NOT HAVE TIRE & APPLIANCE COLLECTION PROGRAMS.  
THE OPERATION SCHEDULES FOR THE HOST SITES ARE AS FOLLOWS:

**WEEK OF SEPTEMBER 15<sup>TH</sup>:**

- ⇒ **WAYNE TOWNSHIP** - TOWNSHIP BUILDING, RT. 183 AND MUNICIPAL ROAD, PHONE (570)739-2629; THURSDAY SEPT. 18<sup>TH</sup> FROM 12:00 P.M. TO 6:00 P.M. & FRIDAY SEPT. 19<sup>TH</sup> FROM 7:30 A.M. – 12:00 P.M. & SATURDAY SEPT. 20<sup>TH</sup> FROM 7:30 A.M. TO 12:00 P.M.
- ⇒ **C.E.S. LANDFILL** -¼ MILE EAST OF I-81 AND RT. 25 INTERSECTION, PHONE (570) 695-3590; MONDAY SEPT. 15<sup>TH</sup> THROUGH FRIDAY SEPT. 19<sup>TH</sup> FROM 9:00 A.M. TO 3:00 P.M.
- ⇒ **CITY OF POTTSVILLE** - CITY GARAGE, E. RAILROAD ST., PHONE (570) 622-7690; MONDAY SEPT. 15<sup>TH</sup> THROUGH FRIDAY SEPT. 19<sup>TH</sup> FROM 7:00 A.M. TO 3:30 P.M., & SATURDAY SEPT. 20<sup>TH</sup> FROM 8:00 A.M. TO 12:00 P.M.
- ⇒ **RINGTOWN BOROUGH** – W. APPLE ST., NEAR DROP-OFF RECYCLING SITE, PHONE (570) 889-3095, THURSDAY SEPT 18<sup>TH</sup> & FRIDAY SEPT 19<sup>TH</sup> FROM 9:00 A.M. TO 4:00 P.M., & SATURDAY SEPT 20<sup>TH</sup> FROM 9:00 A.M. TO 1:00 P.M.
- ⇒ **NORTH MANHEIM TOWNSHIP** – TOWNSHIP BUILDING, 303 MANHEIM RD., PHONE (570) 385-2778; THURSDAY SEPT. 18<sup>TH</sup> & FRIDAY SEPT. 19<sup>TH</sup> FROM 8:00 A.M. TO 6:00 P.M., & SATURDAY SEPT. 20<sup>TH</sup> FROM 8:00 A.M. TO 12:00 P.M.
- ⇒ **PINE GROVE TOWNSHIP** – TOWNSHIP BUILDING, 175 OAK GROVE ROAD, PHONE (570) 345-4202; THURSDAY SEPT 18<sup>TH</sup> 8:00AM TO 12:00PM, FRIDAY SEPT 19<sup>TH</sup> 8:00 AM TO 12:00 PM & SATURDAY SEPT 20<sup>TH</sup> 8:00 AM TO 12:00PM.

**WEEK OF SEPTEMBER 22<sup>ND</sup> :**

- ⇒ **MINERSVILLE BOROUGH** - N. DELAWARE AVE. COMPOST SITE, PHONE (570)544-2149; MONDAY SEPT. 22<sup>ND</sup> THROUGH FRIDAY SEPT. 26<sup>TH</sup> FROM 10:00 A.M. TO 5:00 P.M., & SATURDAY SEPT. 27<sup>TH</sup> FROM 8:00 A.M. TO 12:00 P.M.
- ⇒ **TAMAQUA TRANSFER STATION** - SEWAGE PLANT ROAD, PHONE (570) 668-4515; MONDAY SEPT. 22<sup>ND</sup> THROUGH FRIDAY SEPT. 26<sup>TH</sup> FROM 7:00 A.M. TO 4:30 P.M., & SATURDAY SEPT. 27<sup>TH</sup> FROM 7:00 A.M. TO 12:00 P.M.
- ⇒ **GIRARDVILLE BOROUGH** – BEHIND THE "A" ST. SCHOOL, PHONE (570) 276-1635; THURSDAY SEPT. 25<sup>TH</sup> & FRIDAY SEPT. 26<sup>TH</sup> FROM 7:00 A.M. TO 7:00 P.M., & SATURDAY SEPT. 27<sup>TH</sup> FROM 9:00 A.M. TO 1:00 P.M.
- ⇒ **PORTER TOWNSHIP** – TOWNSHIP BUILDING, 309 W. WICONISCO ST., MUIR, PHONE (717) 647-4656; THURSDAY SEPT. 25<sup>TH</sup> & FRIDAY SEPT. 26<sup>TH</sup> FROM 2:00 TO 6:00 P.M. & SATURDAY SEPT. 27<sup>TH</sup> FROM 7:00 A.M. TO 2:00 P.M.
- ⇒ **HEGINS TOWNSHIP** – TOWNSHIP BUILDING, 421 S GAP STREET, VALLEY VIEW, PHONE (570)682-9133, THURSDAY SEPT 25<sup>TH</sup> AND FRIDAY SEPT 26<sup>TH</sup> 8:00 AM TO 2:00 PM & SATURDAY SEPT 27<sup>TH</sup> 8:00 AM TO 12:00 PM
- ⇒ **SCHUYLKILL HAVEN BOROUGH** – ST CHARLES STREET, COMPOST SITE, (570) 385-2841; MONDAY SEPT 22<sup>ND</sup> TO FRIDAY SEPT 26<sup>TH</sup> 10:00 AM TO 6:00 PM & SATURDAY SEPT 27<sup>TH</sup> 8:00 AM TO 12:00 PM

**ITEMS ACCEPTED & FEE SCHEDULE:**

- **ELECTRONICS** – TV SETS, MICROWAVES, COMPUTER SYSTEMS, ETC. – NO CHARGE  
(\*NOTE: COMPUTER SYSTEM INCLUDES: 1 MONITOR, 1 HARD DRIVE, 1 PRINTER AND/OR 1 SCANNER & PERIPHERALS)  
SINGLE MONITOR, HARD DRIVE, PRINTER, ETC. – NO CHARGE; SINGLE PERIPHERAL – NO CHARGE.
- **TIRES** – ONLY AUTOMOBILE, LIGHT TRUCK, & MOTORCYCLE/RV TIRES UP TO 16" DIAMETER ARE ACCEPTED. \$2 PER TIRE WITHOUT RIMS – \$3 PER TIRE WITH RIMS. LIMIT 10 TIRES PER LOAD AND NO MORE THAN 2 LOADS PER CUSTOMER  
\*MUNICIPALITIES WILL ALSO BE CHARGED THE PER TIRE FEE AND ARE REQUESTED TO MAKE AN APPOINTMENT WITH THE HOST COLLECTION SITE FOR LARGE LOADS.
- **APPLIANCES** – **FREON BEARING** – AIR CONDITIONERS, REFRIGERATORS, DEHUMIDIFIERS – \$10 EACH  
– **NON-FREON BEARING & SCRAP METAL** – STOVES, WASHERS, DRYERS, WATER HEATERS, BICYCLES, BARBECUE GRILLS, METAL FURNITURE – NO CHARGE
- **BULKY ITEMS** – MATTRESSES, BOX SPRINGS, ROLLS OF CARPET, DOORS AND WINDOWS – \$10 EACH.  
– SOFAS, OVERSTUFFED CHAIRS – \$5 PER CUSHION (EXAMPLE: LOVE SEAT – 2 CUSHIONS – \$10)

**PROOF OF COUNTY RESIDENCY MUST BE PROVIDED**

NOTE: **HOUSEHOLD HAZARDOUS WASTE** (I.E. PAINTS, SOLVENTS, CLEANERS, POISONS) WILL **NOT** BE ACCEPTED. QUESTIONS CONCERNING DISPOSAL OF SUCH ITEMS SHOULD BE DIRECTED TO THE SCHUYLKILL COUNTY OFFICE OF SOLID WASTE & RESOURCE MANAGEMENT AT 628-1220

**THIS PROGRAM IS FUNDED BY THE SCHUYLKILL COUNTY BOARD OF COMMISSIONERS AND THE PA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

## SCHUYLKILL COUNTY DROP-OFF COLLECTION PROGRAM

Since 1994, Schuylkill County has operated a countywide recycling drop-off collection program. The program offers residents the opportunity to recycle plastic, glass, and metal food and beverage containers. Newspapers, magazines, and cardboard are also accepted. County employees work five days per week to service each collection bin one to two times per week depending on the volume of material and storage capacity at each site. These materials are transported to a local facility for processing and resale on the recycling commodities market. The vehicles and the collection containers were funded primarily by the PADEP Act 101, Section 902 Equipment, and Implementation Grants.

The drop-off collection program is one of the most visible services offered by the Schuylkill County Office of Solid Waste & Resource Management. It is undoubtedly the most costly as well. An evaluation of the operational aspects of the program, which includes some options for consideration, was conducted during the planning process. Those findings are discussed later in Chapter 5.

The sites, which are accessible seven days per week 24 hours per day, are typically hosted by local municipalities who agree to maintain and monitor the collection areas.



The drop-off collection program is the most visible and most costly service offered by the Schuylkill County Office of Solid Waste & Resource Management.

A list of the current sites is shown in Figure 4-3.

## Municipal Recycling Programs

In Pennsylvania, the Municipal Waste Planning, Recycling, and Waste Reduction Act (Act 101) delegates specific duties and responsibilities to municipal governments. While counties are required to focus on disposal, select municipalities are directed to address municipal waste and recycling collection issues. This section discusses basic regulatory requirements for Pennsylvania municipalities that meet the criteria of Act 101.

Figure 4-3 Schuylkill County Recycling Drop-off Collection Municipal Site Locations

 <b>Ashland Boro</b> •(Wastewater Treatment Plant)	 <b>Auburn Boro</b> • (Borough Hall)	 <b>Branch Twp</b> • (Brickey Road)
 <b>Butler Twp</b> • (Wastewater Treatment Plant)	 <b>Cressona Boro**</b> •(Municipal Bldg)	 <b>East Brunswick</b> • Twp (Municipal Bldg)
 <b>Eldred Twp</b> •(Municipal Bldg)	 <b>Frailey Twp</b> • (Municipal Bldg)	 <b>Girardville</b> • (Borough Hall)
 <b>Hegins Twp</b> •(Municipal Bldg)	 <b>Hegins Twp</b> • (Midway Supermarket) SITE CLOSED	 <b>Kline Twp</b> • (McAdoo Boyer's Market) SITE CLOSED
 <b>Mahanoy Twp</b> • (Twp Bldg) Site Closed	 <b>New Philadelphia</b> • (Little League field)	 <b>Orwigsburg</b> • (Boyer's Market) SITE CLOSED
 <b>Pine Grove Boro</b> •(Rt. 443) SITE CLOSED	 <b>Pine Grove Twp</b> •(Municipal Bldg)	 <b>Port Carbon</b> • (Borough Hall)
 <b>Porter Twp</b> •(Municipal Bldg)	 <b>Reilly Twp</b> •(Newtown Fire Co.)	 <b>Ringtown Boro</b> •(Apple Street)
 <b>Rush Twp</b> • (Hometown Fire Co.)	 <b>Ryan Twp</b> • (Fire Co.)	 <b>Saint Clair Boro</b> • (Franklin Street)
 <b>Walker Twp</b> • (Municipal Bldg)	 <b>Wayne Twp*</b> •* (Municipal Bldg)	 <b>West Penn Twp</b> • (Police Station; Annex Bldg)

## **MANDATED MUNICIPAL PROGRAMS**

Act 101 places unique mandates upon municipalities with populations of 10,000 or more, and those with populations of 5,000 or more with a population density of greater than 300 people per square mile. The Act requires these communities to implement mandatory residential curbside collection programs for recyclables and leaf waste. The municipality also must have mechanisms to ensure that commercial, institutional, and government establishments recycle and manage leaf waste accordingly. In addition to the original requirements, mandated communities are subject to amendments to Act 101 resulting from the provisions of Act 140 of 2006.

Four Schuylkill County communities have initiated recycling programs due to Act 101 mandates. These include the City of Pottsville, and the Boroughs of Tamaqua, Schuylkill Haven, and Shenandoah.

Figure 4-4 outlines the responsibilities of the municipalities mandated by Act 101.

## **METHODS OF COMPLIANCE**

The responsibilities of communities that meet the population criteria of the Act are direct and straightforward. To ensure compliance by residents and businesses, municipalities meeting the criteria are required to pass ordinances mandating waste and recycling collection. The Act also requires certain services and standards for collection frequency.

The Act allows municipalities choices in how these services can be provided. Municipal employees and equipment can perform the collections, or communities can enter into contracts with an outside service provider for these functions. Provisions of the Act are inclusive of commercial, institutional, and municipal establishments, which are located in mandated municipalities. These entities must recycle and separate leaf waste for composting. The municipality is not required to ensure the service to commercial establishments; however, they are expected to enforce the mandate.

## **NON-MANDATED MUNICIPALITIES**

Although the remainder of the municipalities in Schuylkill County are not mandated to recycle, curbside recycling opportunities are available in many of those communities.

Table 4-2 shows the mandated and non-mandated municipalities in Schuylkill County along with the reported curbside and drop-off recycling activity for 2012.

Figure 4-4 Act 101 Minimum Requirements for Mandated Municipalities

-  An ordinance requiring all residents to have waste and recycling collection service.
-  An ordinance requiring a commercial recycling program.
-  Curbside collection of residential recyclables at least once per month.
-  Collection of three recyclable materials designated in the Act (glass, aluminum, or bi-metal containers; plastics #1 or #2; newspaper, office paper and cardboard).
-  Curbside collection of leaf waste once per month, or alternatively, twice per year collection if a drop-off collection area for leaf waste is accessible between collections.
-  Implementation of a residential and business recycling education program.
-  Implementation of an enforcement program that monitors participation, receives complaints, issues warnings, and provides fines, penalties, or both.
-  Participation in a program for the recycling of special materials.
-  Sponsorship or facilitation a program to prevent illegal dumping and/or littering problems.
-  Designation of a person or entity as the recycling coordinator.

**Table 4-2 Recycling Reported by Municipality Act 101 Materials**

	2012 Curbside	2012 Drop-Off
<b>MANDATED</b>		
<b>Pottsville</b>	472.5	241.3
<b>Schuylkill Haven</b>	523.4	0
<b>Shenandoah</b>	25.7	0
<b>Tamaqua</b>	422	120
<b>NON-MANDATED</b>		
<b>Ashland</b>	0	746.3
<b>Auburn</b>	0	291.8
<b>Branch</b>	0	89.9
<b>Butler</b>	0	226.2
<b>Cass</b>	0	49.8
<b>Coaldale</b>	88.5	0
<b>Cressona</b>	0	393.3
<b>East Brunswick</b>	0	148.6
<b>Eldred</b>	0	108
<b>Frackville</b>	86.4	0
<b>Frailey</b>	0	127.2
<b>Girardville</b>	0	238.2
<b>Hegins</b>	0	461.8
<b>Mahanoy*</b>	0	186.2
<b>Mahanoy City</b>	149.4	0

**Table 1-1 continued**

	2012 Curbside	2012 Drop-Off
<b>McAdoo</b>	0	0
<b>Mechanicsville</b>	45	0
<b>Minersville</b>	220.9	0
<b>New Philadelphia</b>	0	124
<b>North Manheim</b>	4.2	0
<b>Orwigsburg</b>	280.3	3.4
<b>Pine Grove Borough</b>	77.3	0
<b>Pine Grove Township</b>	6.2	340.6
<b>Port Carbon</b>	0	165.7
<b>Porter</b>	12.5	295.7
<b>Reilly</b>	0	80.3
<b>Ringtown</b>	0	379
<b>Rush</b>	0	383.9
<b>Ryan</b>	0	114.1
<b>South Manheim</b>	35.3	0
<b>St. Clair</b>	0	155.8
<b>Tremont</b>	27	0
<b>Tremont</b>	4.2	0
<b>Walker</b>	0	98.8
<b>Washington</b>	0	31.1
<b>Wayne</b>	43.6	556.6
<b>West Penn</b>	0	226.1

## MUNICIPAL CURBSIDE AND DROP-OFF COLLECTION PERFORMANCE

It is important for counties to consider how certain components of municipal collection systems ultimately affect the performance of the county as a whole. Comparing similar metrics for each municipality offering a recycling collection program is a step toward determining trends in programs that may be succeeding and for ones that may revision. It often points to conditions that may otherwise go overlooked or misunderstood.

For evaluation purposes, providing a level playing field for large and small municipalities is important. While knowing how many total tons are collected is informative, it is better to understand the ratio of material recovered using some common denominator. Often this is done using a per person or per home basis.

To put this in perspective, assume a total of 100 tons were recovered from a borough with 400 homes and a total of 3000 tons were recovered from a city with 18,000 homes. Although the city in this scenario clearly collected more total tons of material, the borough collected a greater portion of the amount of material available for recovery from sources within its jurisdiction. In other words, the borough collected .25 tons per home and the city only collected .16 tons per home. Therefore, the borough would be considered to have a more effective and successful program than the city.

Converting the actual tons collected into a per unit measure based on all potential housing units provides an accurate view of overall performance. This metric creates an equal standard for large and small communities, and is more commonly becoming the basis for performance driven monetary incentive plans and grants that deliver the highest results. This criterion was applied to Schuylkill County municipalities that reported curbside recycling activity in 2012.

As discussed previously in Chapter 1, the reported raw data in Schuylkill County in most categories far exceeds the expected national norm, particularly for a rural county. When reduced to a per unit basis, the differences in residential performance are even more pronounced. However, by viewing the reported data on a per unit basis the cause of at least a portion of those anomalies are more visible.



Using a per home or per person metric to judge recycling performance is an equalizer for large and small municipalities



Studies consistently demonstrate the convenience of curbside collection boosts both resident participation and the amount of material recovered for recycling. The pounds per capita and per home trend higher where there is curbside service than in areas where only drop-off collection is available.

In Schuylkill County, the per unit numbers for curbside collection are lower than might be expected. However, many of the curbside programs are voluntary, so not every home participates. In addition, many of the programs do not collect the full spectrum of recyclable materials. The figures are consistent with studies that show people prefer the convenience of curbside over drop-off collection. In Schuylkill County, just as in others, drop-off quantities decrease in every town that has implemented curbside collection.

***Vast discrepancies exist between the curbside and drop-off data.***

***Reported drop-off collection results are not only much higher than the curbside collection, in some instances they are twice as much as one would expect each household to generate.***

The reported curbside data ranges from a low of 0.12 pounds per home per week to a high of nearly 9.00 pounds per home per week. The City of Pottsville, and the Boroughs of Pine Grove, and Coaldale represent the average for curbside programs in Schuylkill, which is approximately 3 pounds per home per week. Higher performing curbside programs include the Boroughs of Schuylkill Haven, Orwigsburg, and Mechanicsville with nearly 9 pounds per home per week. The lowest curbside rates came from Wayne, Pine

Grove Township, and North Manheim, each with rates less than 1 pound per home per week.

#### **CURBSIDE AND DROP-OFF COMPARISONS**

What is out of the norm are the figures reported for the Schuylkill County drop-off collection communities. Not only are the reported drop-off collection results much higher than in the communities with curbside collection, in some instances they are twice as much as one would expect a household to generate. The vast discrepancies

between the curbside and drop-off performance, along with the inflated reported data, raise some questions.

Comments are not meant as a negative, nor to distract from those communities with legitimate results. However, some extenuating circumstances that are known to inflate the numbers must be considered. Regardless of the cause, the data demonstrates Schuylkill County residents do have a desire to recycle.

Figure 4-5 shows reported results.

#### IMPACT OF VOLUNTARY PARTICIPATION AND CONTAMINATION

With curbside recycling collection, it is easier to show the reported results correlate with a defined number of participating households. In drop-off programs, participants can come from anywhere. Because not every Schuylkill County municipality has recycling collection, nor did each report, it is reasonable to assume that residents where no drop-off service is available take advantage of sites in neighboring municipalities. The material they deliver is counted, but the homes in their communities are left out of the equation, thus skewing the results. Many of the users are not only from other Schuylkill County communities, but from other counties.

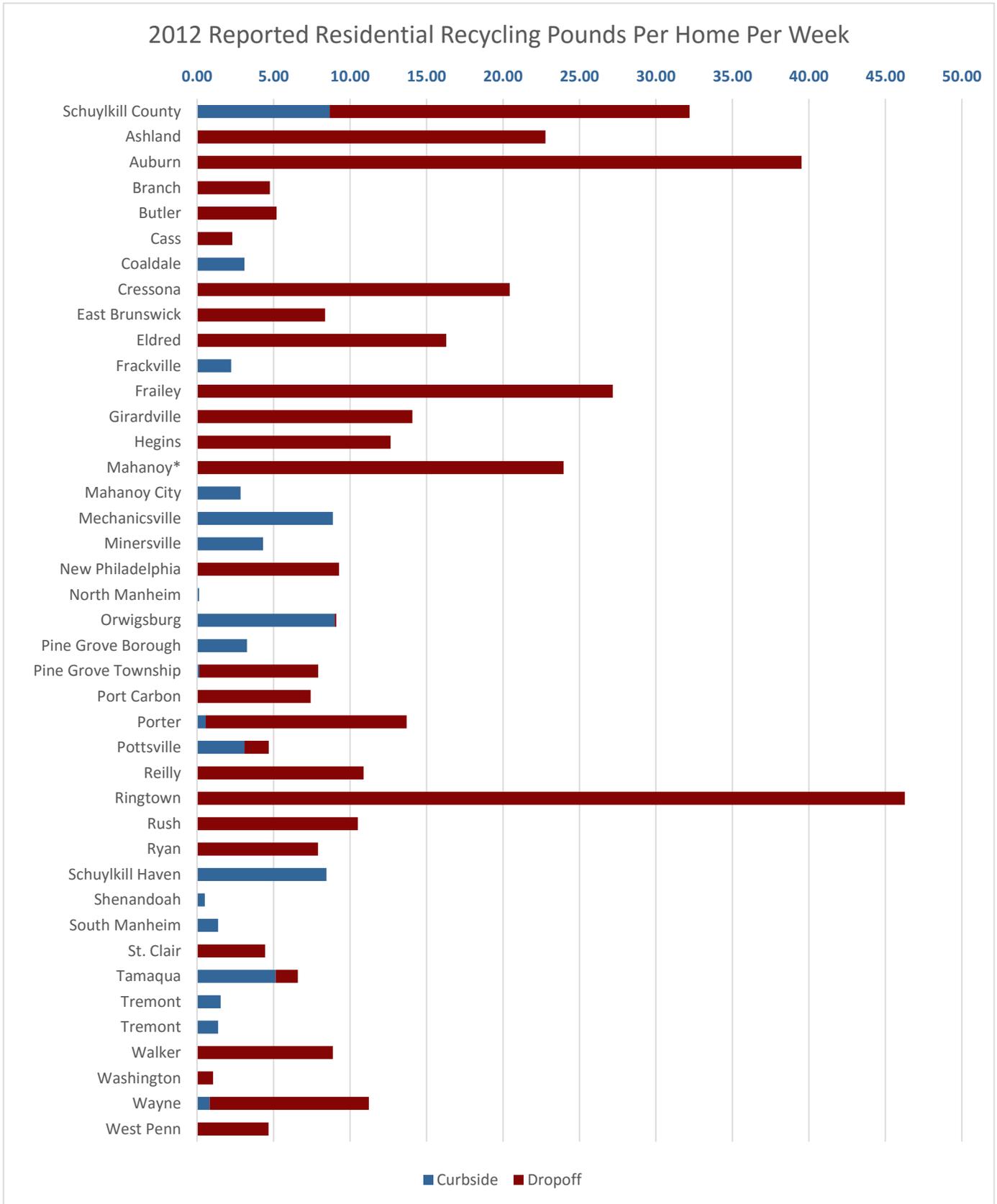


The drop-off sites also attract trash and other debris that is not recyclable. This material is often included in the inbound loads of recyclables where the reported data is derived. Debris can account for 25 percent of the material handled. In some cases, the debris and contamination was so excessive sites have been closed permanently.

This phenomenon is not unique to Schuylkill County, but prevalent in all counties, like Schuylkill, where voluntary waste and recycling

exists. The true concern here is that by providing a convenient outlet, the drop-off sites have enabled people to avoid the cost of proper waste collection, rather than encouraged them to recycle properly. This factor could explain why curbside performance is lower than it could be. Because participating in (i.e. paying for) curbside programs is voluntary in most instances and the drop-off sites are available at no charge, willingness to pay may be an influencing factor. The voluntary programs are considerably more costly than those in communities that have contracted for or provide collection services with public employees. If municipalities took the steps to institute contracted services or requirements for haulers to provide recycling to all customers, the costs per home could be lowered, and more residents would participate.

Figure 4-5 Schuylkill County Residential Recycling Per Home 2012 Act 101 Materials



## Commercial Recycling

Within the Act 101 mandated municipalities of the City of Pottsville, and the Boroughs of Tamaqua, Shenandoah, and Schuylkill Haven, recycling in commercial establishments is required. Commercial accounts include retail stores, restaurants, offices, schools, institutions, and government facilities. There are challenges in motivating small businesses, schools, and rural locations to recycle. These operations can perceive recycling as an added cost. Space for outside recycling containers can be limited in urban settings. Although services are available in more remote locations of the County, due to the lack of route density, the costs are higher than in urban areas. When recycling is a voluntary option, the immediate costs may be considered prohibitive by some business owners. Ironically, if more businesses opted to recycle in a geographic area, prices would be lower.

In 2012, thirty-nine of Schuylkill County's sixty-eight municipalities reported some type of commercial recycling activity. The County collects data in municipalities that



When more business owners opt to recycle in a community, the collection prices for each one tend to be lower.

do not report and consolidates it under a countywide total with no municipal source identified. The process of gathering and organizing data from local businesses is low on the priority list for municipal staffs that have added functions besides oversight of the recycling program. In non-mandated areas, where no ordinances exist to stipulate recycling and/or reporting requirements, businesses may have no incentive to submit this information. Complicating the matter is that local transporters and processors do not always break down their reported tonnage by municipality. Therefore, it is not surprising

that a little less than half of the municipalities had no commercial recycling to report.

The combined gross total of the reported raw data resulting from commercial recycling efforts for 2012 was 168,113 tons. The information reported by municipality is shown in Table 4-3.

Although, the reporting system could break down the municipal data by residential and commercial, it was unable to show the materials that each municipality reported for the commercial sources. Therefore, these commercial figures shown by municipality include all sorts of materials that are not designated as source-separated recyclables in Act 101. Consequently, the municipal efforts as they appear are somewhat inflated.

Nevertheless, the table is still useful as a snapshot of where commercial recycling does occur in some fashion in Schuylkill County.



Some type of commercial recycling activity was reported in thirty-nine Schuylkill County municipalities.

To compare and validate the data, Figure 4-6 shows the commercial reported results on a per person per day basis. The results for some municipalities are considerably higher than the expected norm, in some instance by as much as five to ten times more. This confirms the assumption that the data includes materials other than those designated as source separated materials by Act 101. The reported data in two municipalities, North Manheim and Tremont Township, was so disproportionately higher than the others it artificially skewed the results (see Table 4-3). Thus, both municipalities were excluded from Figure 4-6.

Later in Chapter 4, Act 101 performance is analyzed on a material-by-material basis for the County as a whole. Also discussed is how certain materials factor into residential and commercial recycling, as well as how the County compares to the national averages.

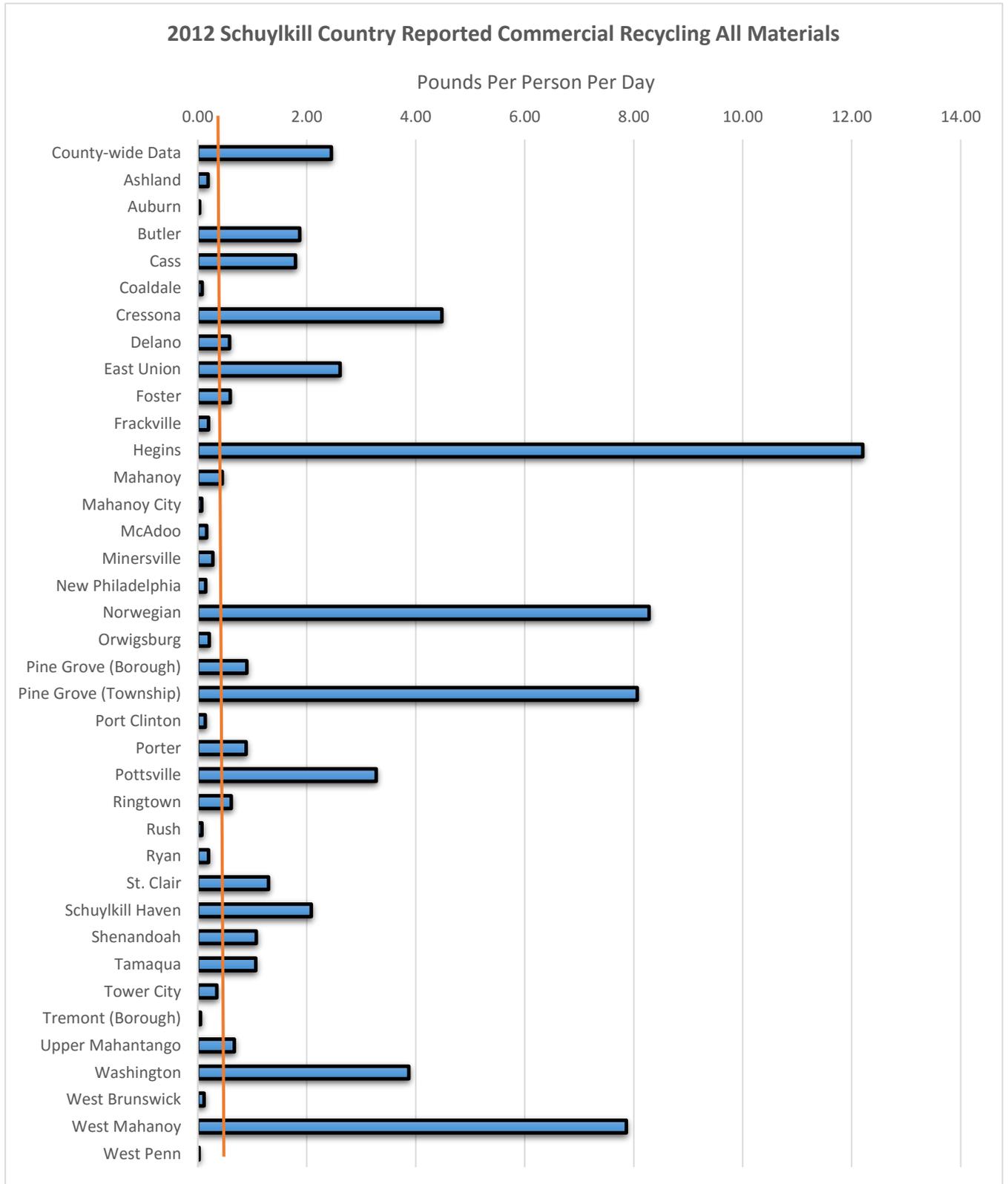
## Managing Organics from Municipal Waste

There are no commercial permitted food waste composting facilities in Schuylkill County other than Summit Anthracite, who has a GP 46, which allows acceptance of food processing wastes to be directly applied on reclaimed mine land.

*Table 4-3 2012 Reported Commercial Recycling All Materials by Municipality*

<i>Municipality</i>	<i>Tons</i>
<i>Schuylkill County-wide Data</i>	<i>65,972</i>
<i>Ashland</i>	<i>97</i>
<i>Auburn</i>	<i>5</i>
<i>Butler</i>	<i>1,810</i>
<i>Cass</i>	<i>634</i>
<i>Coaldale</i>	<i>34</i>
<i>Cressona</i>	<i>1,343</i>
<i>Delano</i>	<i>47</i>
<i>East Union</i>	<i>769</i>
<i>Foster</i>	<i>27</i>
<i>Frackville</i>	<i>136</i>
<i>Hegins</i>	<i>7,817</i>
<i>Mahanoy</i>	<i>187</i>
<i>Mahanoy City</i>	<i>42</i>
<i>McAdoo</i>	<i>122</i>
<i>Minersville</i>	<i>220</i>
<i>New Philadelphia</i>	<i>29</i>
<i>North Manheim</i>	<i>53,609</i>
<i>Norwegian</i>	<i>3,473</i>
<i>Orwigsburg</i>	<i>118</i>
<i>Pine Grove (Borough)</i>	<i>357</i>
<i>Pine Grove (Township)</i>	<i>6,084</i>
<i>Port Clinton</i>	<i>8</i>
<i>Porter</i>	<i>350</i>
<i>Pottsville</i>	<i>8,465</i>
<i>Ringtown</i>	<i>90</i>
<i>Rush</i>	<i>48</i>
<i>Ryan</i>	<i>91</i>
<i>St. Clair</i>	<i>704</i>
<i>Schuylkill Haven</i>	<i>2,042</i>
<i>Shenandoah</i>	<i>981</i>
<i>Tamaqua</i>	<i>1,365</i>
<i>Tower City</i>	<i>86</i>
<i>Tremont (Borough)</i>	<i>17</i>
<i>Tremont (Township)</i>	<i>4,571</i>
<i>Upper Mahantango</i>	<i>80</i>
<i>Washington</i>	<i>2,128</i>
<i>West Brunswick</i>	<i>71</i>
<i>West Mahanoy</i>	<i>4,086</i>
<i>West Penn</i>	<i>21</i>

Figure 4-6 Commercial Recycling Reported by Municipality in Pounds Per Person Per Day



## Reported Overall Achievements

The Schuylkill County Office of Solid Waste & Resource Management tracks and monitors recycling activities in Schuylkill County. Descriptions of individual municipal and county programs were offered earlier in this chapter along with discussions on the level of effectiveness of various models. Residents, businesses, government offices, and institutions are all responsible for the success of local recycling programs. Therefore, Schuylkill County Office of Solid Waste & Resource Management relies on a variety of sources for information, and often the data is reported in a number of formats. A considerable amount of effort is required to acquire the data, and unfortunately, the accuracy and consistency of what the sources report is not a given.

This section includes the overall combined reported results of all recycling sources and programs in Schuylkill County. The reported data is presented in a format to help the reader consider the questions that have been raised regarding the validity of the reported information and to understand the importance of data management in planning and managing these programs.

## UNDERSTANDING COLLECTION & PROCESSING METHODS

Recyclables are collected and processed in a variety of ways. Traditionally, materials were collected by type and each material was placed for collection in a separate bin. The materials were also transported in individual compartments of the body of the collection vehicle. This method is source separated recycling. Because of the pre-sorted condition, the weight of each material collected was easier to determine and report. At this time, fewer Schuylkill County municipalities report conducting source separated collection programs.

It is more common for Schuylkill County commercial establishments to source separate their recyclables. In many instances this is done to improve the marketability and/or because the materials may be handled by different vendors. Therefore, some of the materials collected in Schuylkill County were reported on an individual or separated basis.

Unlike source separated collection systems, there are other recycling collection and processing programs where certain materials are collected together in the same bin and then transported together within the body of the collection vehicle. One system is commonly referred to as commingled or dual stream collection and the other as single stream. Although similar, these two collection methods have some distinct differences.

In commingled/dual stream programs, glass, plastic, and metal, bottles, cans and jugs are usually mixed together, while whatever forms of paper and cardboard accepted in

the program are collected separately. Typically, a more narrow selection of plastics and paper are included in these commingled/dual stream programs.

In a single stream recycling program, wider varieties of plastics are mixed in the bin with the glass and metals for collection, along with all forms of paper and cardboard. Larger bins, typically wheeled carts, are beneficial to residents under this type of collection system

The majority of the residential recycling data reported in Schuylkill County includes materials collected in primarily the source separated method, but the 2011- 2012 recycling reports are beginning to show showed a mix of commingled and single stream loads collected at curbside. Schuylkill County has traditionally maintained a source separated drop-off collection program, although the option to transition to a commingled/dual stream or single stream collection does exist.

#### **ACCOUNTING FOR THE COMPOSITION OF MIXED LOADS**

In-bound commingled or single stream loads is the source of data from which most Schuylkill County recycling performance is reported, and providing an individual weight for each material is more complicated, if not impossible in such systems. However, waste composition and characterization studies of commingled and single stream systems provide relatively consistent data that can be applied to Schuylkill County's reported figures. This makes sense where the cost and time to conduct a local composition study is prohibitive. The composition of single stream and commingled recyclables differs depending on the items accepted by local processors. Other contributing factors include local demographics, economic conditions, frequency of collection, types of vehicles and processing equipment, and if materials are from a residential or a commercial source. Because the number of transporters and recycling processors that accept material from Schuylkill County programs is limited, these factors were easily identifiable and were taken into consideration in the adjustments applied to the Schuylkill County reported data.

#### **Measuring Up**

Although the need for disposal capacity prompts the planning process for counties, Act 101 also requires a review and justification of the overall waste management programs, including recycling. The planning process includes a review and analysis of a broad spectrum of historic and current reported data from all sources in Schuylkill County. The local reported statistics were compared to national figures to evaluate the overall performance of those combined recycling activities in relationship to expected results.

The following sections explain the evaluation and comparison process and discuss the findings of that exercise. Any anomalies, positive or negative, found during the process are explored with potential explanations described in detail.

## DEFINING THE TYPES OF SOURCES AND MATERIALS

Commonly, county and municipal recycling reports include extraneous materials not commonly collected in residential and commercial recycling programs. Likewise, materials reported from industrial concerns may be incorporated. These efforts recover, reuse, and recycle significant quantities. Gathering and documenting this data may serve the purpose of identifying where end users can obtain recycled feedstock or provide information on outlets. In addition, these figures may be beneficial in illustrating the broad impact of recycling in an area. However, that data has nothing to do with whether or not a residential curbside or drop-off recycling collection program is performing successfully. In fact, including those other sources and materials in an evaluation of a municipal recycling program distorts the data and indicators of a local operation's strengths and/or weaknesses, and thus lead program managers into poor decisions.

Unless otherwise indicated, the narratives and tables shown throughout the Schuylkill County Municipal Solid Waste Management Plan include and evaluate only those materials commonly found in residential and commercial recycling programs. For example, rather than consider all sources and types of aluminum (siding, fencing, gutters, etc.) that might have been recovered in Schuylkill County, the Plan will simply address aluminum cans. Instead of measuring all potential types and forms of plastics (piping, siding, toys, etc.), the Plan is concerned with plastics primarily found in bottles, jugs and other forms of packaging.

By limiting the analysis to specific components of the municipal waste stream, it is easier to establish a true comparison of one program to another and between local and national results. In addition, it quickly reveals anomalies and quirks that require additional investigation.

## BENCHMARKING

One way to interpret data is to establish some sort of benchmark against which it can be compared and measured. Recycling statistics from local programs are generally compared to national information gathered and compiled on behalf of the United States Environmental Protection Agency (USEPA). Since 1986, the USEPA has commissioned the Franklin Associates of Prairie Village, Kansas to research, analyze, and compile a report on municipal solid waste trends. The study is commonly known as "The Franklin Study" however, the title of the most recent version available during the planning process is *"Generation, Recycling, and Disposal in the United States: Facts and Figures for 2011."* This ongoing project tracks municipal solid waste data back as far as 1960. USEPA issues a new report approximately every two years; therefore, it tends to stay more current than periodic state waste composition studies. The industry considers The Franklin Study the definitive expert resource on waste characterization and composition. It is a useful tool to make initial assumptions in a

recycling analysis. Such an evaluation often raises questions, which prompt further observations and more in-depth investigations. It also helps to create greater awareness and understanding of the local data, which ultimately leads to program enhancements.

## **OVERVIEW OF THE CRITERIA AND COMPARATIVE ANALYSIS**

Because raw data can be interpreted in a variety of fashions to demonstrate any number of findings, the USEPA requires states to utilize certain standards in reporting recycling performance. These requirements are largely based on the findings of the Franklin Study and Pennsylvania utilizes these criteria in its annual reporting requirements. This section reviews the results of the 2011-2012 reported recycling efforts in Schuylkill County and compares the performance of the program to the 2011 national figures, which were derived by using the background data and methodology from the USEPA for a true “apples to apples” evaluation.

Table 4-2 provides a snapshot of municipal waste recovery for Schuylkill County as compared to the national averages. It focuses on those materials Act 101 designates for municipal recycling programs as well as reported recyclables found in municipal curbside and drop-off programs and collection events in Schuylkill County. Schuylkill County’s actual reported recycling quantities for each material are then compared to the estimated results that would be expected if Schuylkill County performed similarly to the national average.

In Schuylkill County, some residential curbside and drop-off collection services are single stream and/or commingled/dual stream systems. To account for individual materials assumed included at specific ratios in the commingled and single stream composition, the figures shown in Table 4-2 were adjusted. Based on the assumed composition, actual reported single stream and commingled values were converted to individual material weights and redistributed. Nestor Resources’ assumptions were based on a review of collection guidelines published by local municipalities and hauling companies, published data from USEPA, as well as accumulated professional experience with the materials encountered in material processing facilities and subsequently marketed.

Figure 4-7 provides a stepwise guide to assist readers in understanding and comparing the information presented in Table 4-4.

Figure 4-7 Guide to the Data and Column Categories in Table 4-4

#### Material by Category

- Materials found in the Schuylkill County municipal solid waste stream.

#### 2011 Percent of Total MSW

- The percent each item represents in the overall composition of the total municipal waste stream in Schuylkill County.

#### 2011 Percent Recovered Nationally

- The rate at which each material was recovered at the national level in 2010. Note that each material is captured at a different rate.

#### Expected Total Tons Generated

- Total tons of each material expected to be generated if Schuylkill County performed similarly to the national averages for the level of population and types of materials produced.

#### Expected Total Tons Disposed

- Total tons of each material expected to be disposed if Schuylkill County performed similarly to the national averages for the level of population and types of materials generated.

#### Expected Total Tons Recovered

- Total tons of each material expected to be recovered if Schuylkill County performed similarly to the national averages for the level of population and types of materials collected.

#### Reported Adjusted Recovery Average 2011-2012

- Two year average for Schuylkill Countywide total reported tons of materials recovered adjusted for single stream

#### Schuylkill Percent of Expected Recovery Achieved

- Schuylkill County is rated based on a percentage of the national averages for 2011 it achieves.

**Table 4-4 Schuylkill County Recycling Performance Compared to National Data**

Material	% of Total MSW Generated	National Recovery Rate	Schuylkill Tons Expected to be Generated	Schuylkill Tons Expected to be Disposed	Schuylkill Tons Expected to be Recovered	Schuylkill Two-Year Reported Average	% of Expected
<b>Act 101 Recyclable Materials:</b>							
Glass Containers	3.71%	34.16%	4,429	2,916	1,513	5,265.85	348.02%
Aluminum Cans	0.53%	54.55%	630	286	344	2,219.23	645.76%
Bi Metal Cans	0.72%	70.56%	859	253	606	657.33	108.44%
Plastic #1 thru #7	5.55%	12.95%	6,635	5,775	859	3,471.69	404.08%
Plastic #1 and #2	1.40%	29.06%	1,675	1,189	487	391.05	80.32%
Newspapers/Mechanical papers	3.65%	72.46%	4,367	1,203	3,165	1,791.73	56.62%
Other Paper Nondurables	9.10%	46.56%	10,878	5,814	5,064	5,164.37	101.98%
Corrugated Boxes	11.76%	91.03%	14,052	1,260	12,792	18,779.57	146.81%
Other Paper & Paperboard	3.43%	21.68%	4,095	3,208	888	3,518.46	396.31%
Other Miscellaneous Nondurables	1.47%	3.00%	1,752	1,699	53	0	0.00%
<b>Other Recyclable Materials:</b>							
Textiles	4.13%	14.33%	4,931	4,224	706	419.90	59.44%
Carpeting	1.53%	7.05%	1,828	1,699	129	0	0.00%
Furniture	4.44%	0.09%	5,312	5,308	5	0.00	0.00%
Rubber Tires	1.84%	44.57%	2,196	1,217	978	293.95	30.04%
Batteries	1.15%	96.19%	1,379	53	1,327	139.90	10.54%
Major Appliances	1.63%	64.22%	1,947	697	1,251	12,037.45	962.57%
Small Appliances	0.71%	6.78%	845	788	57	0	0.00%
Consumer Electronics	1.36%	24.93%	1,628	1,222	406	54	13.3%
Other Miscellaneous Durables	7.04%	2.10%	8,415	8,238	177	129.50	73.33%
Yard Waste	13.46%	57.25%	16,090	6,878	9,212	3,988.20	43.29%
Steel Drums	0.15%	78.95%	181	38	143	32.40	22.63%
Wood Waste	3.99%	23.80%	4,773	3,637	1,136	30,389.30	2675.12%
Food Waste	14.50%	3.86%	17,331	16,663	668	4467	734.7%

### **Understanding the Ratings**

The last column in Table 4-4 shows a percentage rating for each material. It does not represent the percentage of the total materials recovered, or what is often known as the “recycling rate.” Rather, for each material it shows whether Schuylkill County’s performance is:

- average (100%),
- better than average (more than 100%) or
- less than average (less than 100%)

Much of Schuylkill County’s reported data raises questions. Several of the commodities are reportedly recovered in quantities that exceed the national averages by three, four, ten, and in one instance more than twenty times the expected norm. Even the most aggressive and stellar curbside recycling programs throughout the nation do not experience the ostensibly high performance rates reported in Schuylkill County. For a rural county with intermittent curbside recycling collection and voluntary collection in the majority of the municipalities, the data is even more of an anomaly.

It is worth noting that large quantities of materials are recycled outside of the municipal recycling programs. Therefore, for some of the materials shown on the table, the quantities may be recycled through other means and the materials may have been reported in the wrong categories. For example, considerable amounts of aluminum are normally recycled directly by commercial processors. It is safe to assume at least a portion of these reported materials is aluminum scrap and not aluminum cans. Likewise, local processors in Schuylkill County accept materials from outside sources. It is reasonable to think some of the reported tons result from materials that originated in places other than Schuylkill County. Another common variable is to erroneously report weights in pounds rather than the expected measurement, tons.

Another important factor that skew the reported data is the open access to the containers located at the County’s drop-off recycling sites. Overflowing conditions, higher frequencies of service, and the contamination all have been ongoing issues with the program and have contributed to the increasing costs. It is likely that the taxpayers of Schuylkill County are paying to service residents and businesses in contiguous counties with out such programs.

### **Meeting the State’s Goals**

Nationally the rate of recovery for all municipal waste generated in 2011, including recyclable and non-recyclable material, was approximately 34.7%, which is close to the targeted goal of 35% recovery for Pennsylvania. Therefore, a comparison of the County’s performance to the national norm, can demonstrate to what degree Schuylkill County has attained Pennsylvania’s goal. This is the purpose of Table 4-5. It combines

the results of not only Act 101 designated materials, but also other items reported locally. If the reported data is accurate, by comparing those totals to the national totals, Schuylkill County can demonstrate its success in attaining the recycling goals of the Commonwealth. However, much like Table 4-4, the unreliability of the data poses more questions than answers.

#### DETERMINING THE RECYCLING RATE

It is important to remember, as Table 4-4 shows, each material is recovered at a different rate. For instance, newspapers are recycled nationally at the rate of 72.46% but glass containers are only recycled at a rate of 34.164%.

The cumulative total recovery of all tons of materials typically accepted in municipal recycling programs determines the national rate and the state's goal. Table 4-5 includes the subtotals for non recyclable materials, items designated as Act 101 recyclable materials, and other items that are recycled but not designated by Act 101. It also shows the cumulative total for all materials.

Based on the average reported data for 2011-2012, Schuylkill County greatly exceeds the 35% recycling rate for all municipal solid waste based on the expected quantities of material generated disposed and recovered.. Currently, the reported data shows Schuylkill County supposedly has an overall recycling rate of approximately 77%. This represents 224.72% of the national recovery rate of 34.7%. For the items designated by Act 101, however, Schuylkill County allegedly has attained a 86% recycling rate or 163.19% of the national recovery rate of approximately 53% for those specific items.

Material	% of Total MSW Generated	National Recovery Rate	Schuylkill Tons Expected to be Generated	Schuylkill Tons Expected to be Disposed	Schuylkill Tons Expected to be Recovered	Schuylkill Two-Year Reported Average	% of Expected
Subtotal Non Recyclable Materials	4.16%	0%	4,969	4,969	0		
<b>Subtotal Act 101 Recyclable Materials</b>	39.9%	53.01%	47,698	24,414	25,283	41,259.28	163.19%
<b>Subtotal Other Recyclable Materials:</b>	55.94%	24.22%	66,856	50,662	16,195	51,951.6	320.79%
<b>Totals All recyclable Materials</b>	95.84%	36.21%	114,554	73,076	41,478	93,210	224.72%
<b>Total All MSW</b>	100%	34.7%	119,523	78,045	41,478	93,210	224.72%

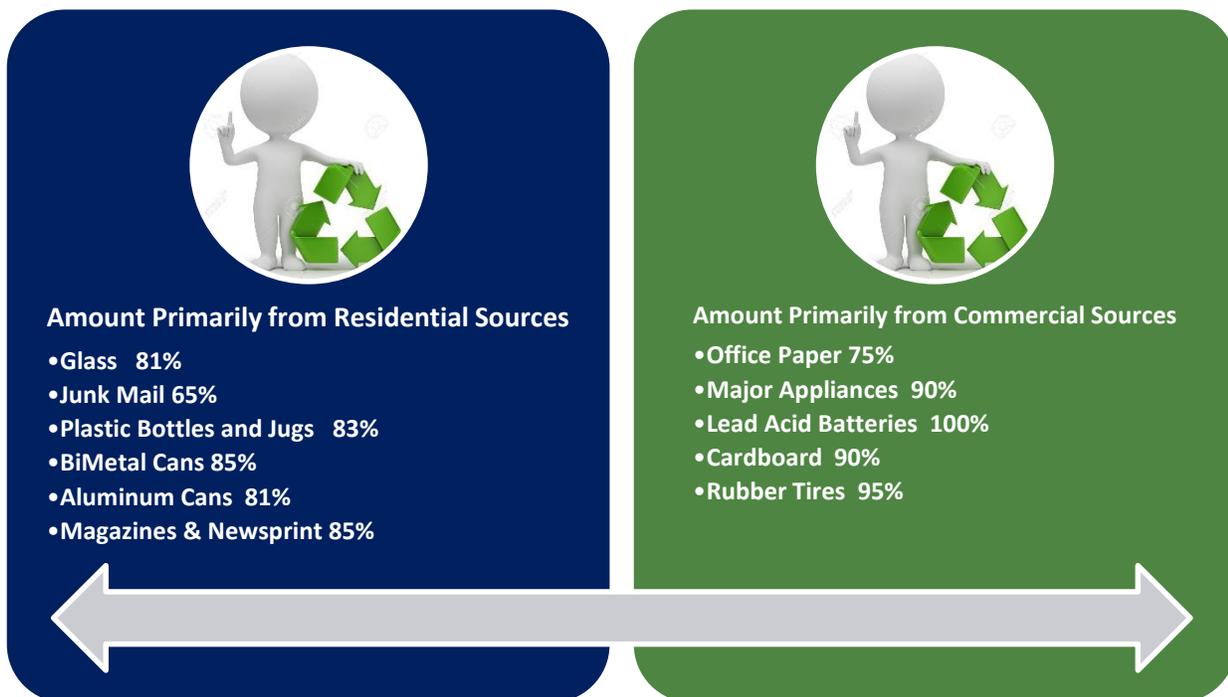
## PUTTING THE DATA IN PERSPECTIVE

In order to assess the current recovery rate of each material accurately, it is vital to know who generates it. Identifying the potential sources enables program managers to determine where the material exists in the local market, how it might be captured, and at what cost.

Municipal solid waste consists of everyday items generated by both residences and commercial entities. Considerable quantities of materials are recycled through means other than municipal recycling programs. Several items are primarily generated and recycled from commercial rather than residential sources, such as office paper and cardboard. Some products, like major appliances, tires, and rechargeable batteries are generated in residential settings, but because of take-back programs where stores or manufacturers accept the old product when a consumer purchases a replacement, the source of the recyclable item is considered the commercial outlet for reporting purposes.

Figure 4-8 shows the source with the highest percentage of each type of recyclable material available for recovery.

**Figure 4-8 Primary Sources of Common Recyclable Materials**



## COMMENTS AND OBSERVATIONS

The purpose of data management, benchmarking, and the whole planning process is to identify strengths and weaknesses in the system, and capture opportunities. It should be noted that the results can only be calculated based on the data that is reported. Schuylkill County's figures contain so many anomalies compared to state and national trends that it is impossible to provide an accurate analysis.

If the results could be validated, Schuylkill County unquestioningly would exceed the top performing communities in the country. A host of known factors coupled with other related circumstances strongly suggests that there is more than sufficient evidence to cast doubt on the County's reported results. Similar anomalies were noted in the County's reported disposal data. Although the contributing factors are somewhat different, preventing inconsistent, inaccurate, and unrealizable reporting is an issue that the Solid Waste Advisory Committee noted as a high priority.



**Improvement in the area of information management is one of the Plan's vital recommendations.**

It is strongly suspected a considerable portion of the materials reported as recycled in Schuylkill County originate elsewhere. The obvious confirmation of that assumption is the drop-off recycling program. It is well known residents from Northumberland County, and perhaps others, regularly use the drop-off recycling sites operated by Schuylkill County. Two local recycling facilities and a number of local scrap dealers report their activities to the County. None limits the materials they accept to those from Schuylkill residents or businesses. It is likely that they do not make such a distinction when reporting the types and amounts of materials, either.

There is evidence that, although legitimately recycled, some of the reported materials originated from sources not traditionally considered commercial or residential. It is also likely materials other than those included in traditional curbside and drop-off programs have been misidentified or mistakenly included as part of the wrong category. Finally, based on some of the very large discrepancies, weights recorded as pounds may be incorrectly reported as tons. Improvement in the area of information management is one of the vital parts of the Plan's recommendations.

Following are a few examples of the oddities found in the data for specific materials.

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## GLASS

Glass containers constituted about 3.71% of the total municipal solid waste generated. Of all of the commodities, the ability to recycle glass bottles and jars is one the majority of individuals expect, in spite of the fact it does not represent a large portion of the municipal waste generated. Residential sources generate about 80% of the glass containers contained in MSW.

Based on population, it is estimated Schuylkill County generated 4,429 tons of waste glass packaging in 2011 . If recycled at the national recycling rate, the expectation is about 1,513 tons recovered. Based on recycling reports, the average quantity of glass recycled in 2011 and 2012 was estimated at 5,266 tons, about 348.02% of the national norm. It is likely the reported total includes glass other than containers.

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## ALUMINUM CANS

The estimated annual quantity of waste aluminum generated nationally in 2011 was 3.47 million tons per year. Of this, 1.85 million tons per year of aluminum was in the form of packaging available for recycling, but nearly all aluminum recovered was in the form of aluminum cans. Aluminum cans constituted 0.53% of the total municipal waste generated and was recovered nationally at the rate of 54.55%.

Based on population, in 2011 Schuylkill County generated an estimated 630 tons of waste aluminum packaging in the form of beer and soft drink cans readily suitable for recycling. If recycled at the national recycling rate, about 344 tons would be expected to be recovered. The average quantity of aluminum recycled in Schuylkill County in 2011 and 2012 was estimated at 2,219 tons, 645.76% of the national norm.

Residential sources generate about 73% of the aluminum cans contained in municipal solid waste. It is likely the reported total included aluminum other than. It is also possible the weights were pounds entered as tons.

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## MAJOR APPLIANCES

Since retailers often retrieve old appliances as a service to customers when new appliances are delivered, commercial sources are estimated to account for about 90% of the total generated waste major appliances (white goods). The estimated annual generation rate of waste major appliances (white goods) nationally in 2011 was 4.08 million tons per year. These items constituted 1.63% of the total municipal waste generated and an estimated 2.62 million tons per year were recovered nationally, a rate of 64.22%.

Based on population, it is estimated 1,947 tons of waste major appliances were generated in 2011 in Schuylkill County. If recycled at the national recycling rate, about

1,251 tons would be recovered. The average reported quantity recycled in 2010 and 2012 was 12,037 tons, about 962.57% of the national norm.

It is likely the reported quantity includes appliances from sources outside the county. Also possible is the weights were recorded as pounds but reported as tons.

## Economic and Environmental Benefits

Recycling is one thing that the average citizen can do that has a direct impact on the conservation of energy, natural resources, pollution prevention, and climate change. It also creates jobs and reduces the costs of manufacturing. Recyclers in Schuylkill County helped divert 11,715 reported tons of material from disposal in 2010. Considerable value was derived from those efforts. Before discussing the intricacies of local programs, it is worth noting how the recovery of materials from our homes, businesses, and factories is vital to the sustainability of our economy and our environment.

## FINANCIAL RISKS AND REWARDS OF LOCAL RECYCLING EFFORTS



Business opportunities and economics are the contemporary drivers for material recovery rather than regulatory mandates

In the United States, early residential recycling programs ignored the basic premise of supply and demand. Often, the decision to recover materials was and for decades continued to be disproportionate to the available outlets for their reuse. Current market conditions differ from those common 25 years ago. We participate in a global economy, which presents opportunities along with challenges. The need for affordable raw materials in developing countries has fueled interest in recovering greater volumes of recyclable materials from our waste stream. Similarly, as has been the prevailing policy in the European Union, waste materials are becoming widely recognized as a renewable source of energy recovery.

In recent years, recyclables have exceeded manufactured products as the top U.S. exports. True to its origins, business opportunities and economics are the contemporary drivers for material recovery rather than regulatory mandates. The industrial growth of our nation, as well as the personal wealth and fortunes of

many, resulted from such resourcefulness.

Because many understand recyclable materials are brokered as commodities, residents often resist sharing the direct cost of a recycling collection and processing program. Similar to all commodities, dealing in the recyclables markets is not without risks. At

various times and sometimes quickly, the resale value of recyclable materials can surge or plummet, based on the whims and business practices of global participants. Whether published rates are high or dramatically low, the notion prevails that recycling services should be free. Conveniently forgotten and little mentioned in the media are the costs of operations. Processing as well as transportation remains an expense rather than revenue to the generator and collector. In some instances, the economic “value” of recovering certain recyclable materials is primarily the avoided cost of disposal. In other words, the cost of processing the material for recycling may be less than disposing of it in a landfill.

### **LOCAL AND REGIONAL EMPLOYMENT**

Throughout the Coal Region, private-sector companies have invested millions of dollars in new recycling facilities, high-tech sorting and processing equipment, consolidation and transfer facilities, along with collection vehicles and containers. Likewise, in Schuylkill County grants and other sources of public funding have supported the development and implementation of educational programs, equipment purchases, and a number of recycling and special collection services. A variety of re-use and re-manufacturing ventures, all of which produce sustainable jobs, operate in Schuylkill County. The savings from replacing virgin materials with recycled feedstock helps these businesses to remain competitive in the marketplace and sustain employment.

### **ENVIRONMENTAL EFFECTS OF RECYCLING**

Until recently, the environmental effects of recycling have been difficult to measure and quantify. Because the impact of these benefits is not immediate and direct to the recycler, the gains are often overlooked. Figure 4-8 shows the environmental benefits of recycling in Schuylkill County based on the Waste Reduction Model (WARM), a tool created by the USEPA to track and evaluate greenhouse gas (GHG) emissions reductions. WARM can be used to assess the performance of a variety of waste management practices. These include source reduction, recycling, combustion, composting, and landfilling.

## **A Solution to Glass Recycling Developed in Schuylkill County**

In July 2013, Harsco Metals & Minerals announced the acquisition of a crushed glass manufacturing operation in Orwigsburg, Pennsylvania. The facility was previously held by LVH Industries, Inc. and launched with the support of the Pennsylvania Recycling Markets Center located at the Penn State Harrisburg campus.

Harsco is a worldwide sustainable resource recovery services and environmental products company with a longstanding commitment to the beneficial recycling of industry by-products.

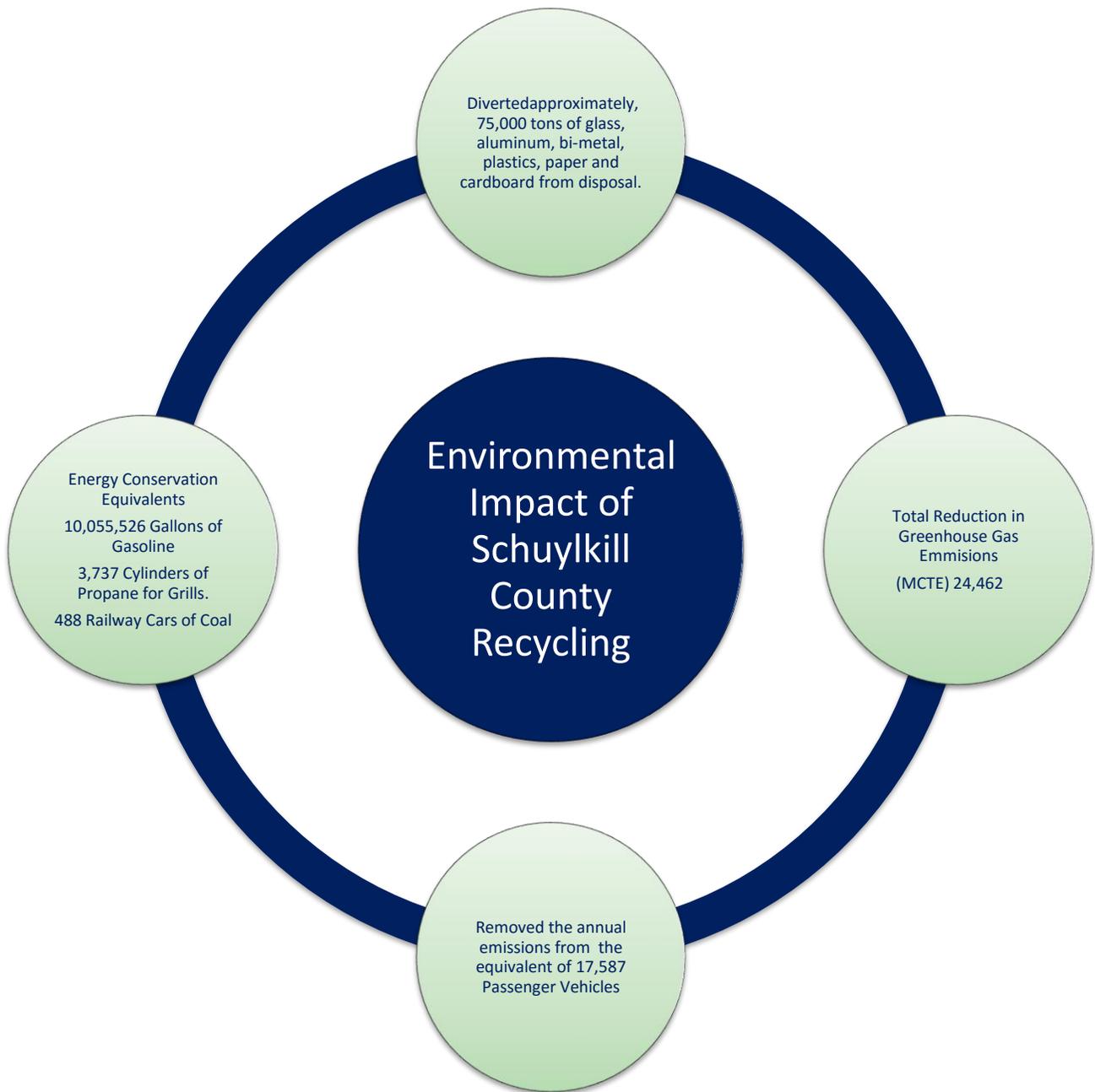
The new product manufactured in Orwigsburg complements Harsco’s original line of abrasives, BLACK BEAUTY®, manufactured from coal slag. BLACK BEAUTY® GLASS abrasives are high quality, chemically inert, environmentally friendly and contain less than 1% free silica. The product is processed from recycled post-consumer bottle glass, much of which is collected from municipal and commercial recycling programs throughout Pennsylvania.

In addition to producing recycled crushed glass for the abrasive markets, the company offers industrial cullet, countertops and solid surfaces, filtration, and filler and coatings.



The model calculated emissions in metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>E), and energy units (million BTU) based on material types commonly found in municipal solid waste collection programs in Schuylkill County. GHG savings for Schuylkill County were calculated by comparing the emissions associated with the current form of disposal versus recycling over ?? tons of glass, cardboard, aluminum and bi-metal cans, mixed plastic containers, newspapers, magazines, cardboard, and mixed papers reported in local curbside and drop-off collection programs during 2012.

Figure 4-8 Reduction in Emissions and Energy Consumption



## Summary and Conclusions

Many strong residential and commercial recycling programs are implemented and facilitated by Schuylkill County and many of the municipalities. This update of the Schuylkill County Municipal Solid Waste Management Plan focuses on how to replicate these successful endeavors in more Schuylkill County communities.

Noticeable improvements and advancements in recycling and waste diversion have occurred. Through grants, local tax dollars, and user fees, municipal governments were able to purchase a variety of equipment and recycling bins to launch and sustain local recycling programs. Private sector investment has ensured the growth of the recycling infrastructure and has allowed the municipalities to provide cost effective curbside recycling collection to their residents.

During the planning process, a review of collection practices provided insight into the County and municipal programs. A comparison to national generation and recovery trends pointed to the need for better data management and the establishment of benchmarks and performance standards. The availability of services is no longer an issue in Schuylkill County. Motivating municipalities to implement programs that require residents and businesses to participate and utilize the services available appears to be a greater challenge. In Chapter 5, these ideas and suggestions are expanded into an actionable plan along with a timeline for implementation.

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## CHAPTER FIVE

### Goals and Implementation

#### Visions and Priorities

The Schuylkill County Municipal Waste Management Plan was last reviewed and revised in 2004. Significant accomplishments resulted from the recommendations established at that time. The most notable success was the implementation of the countywide recycling drop-off collection program. Collection events for special handling materials occur on a more regular basis and include a greater array of materials. Finally, the cleanup of illegal dumpsites continues.

The purpose of this project was to identify strengths and weaknesses in the current municipal waste infrastructure. Included in that exercise was an assessment of the availability and utilization of waste and recycling collection services. Data management practices were evaluated. Finally, the ability of the County to sustain current services with projected resources and under current market conditions was explored

From those findings, the Solid Waste Advisory Committee identified certain priorities for future actions. The Committee offered recommendations to fortify and sustain successful components of the municipal solid waste system, and considered solutions to improve others. A lack of consistent municipal standards and effective ordinances for solid waste management was noted. Poor public participation in available waste and recycling collection programs was cause for concern. A review of the reported data strongly suggested that Schuylkill County was without proper metrics and reliable information to make future decisions. The existence of illegal dumping at the County's drop-off collection sites, as well as on private and public lands throughout the County confirmed the need for stricter enforcement and prosecution of offenders. Finally, the

financial support required to operate the Countywide drop-off recycling program for the long-term caused concern.

This chapter presents the key municipal solid waste management issues, which were identified during the planning process. It offers goals and recommendations, and each has an accompanying course of action. Also included is a time by which specific elements of the Plan are projected to be initiated and implemented.

There are numerous programs and services discussed throughout the Plan. Only improvements and modifications to existing programs or the addition of new services are presented here. Unless otherwise noted, an exclusion of a program or service from Chapter 5 is an indication that each will continue through the planning period.

## **Overview of the Recommendations**

When asked to establish goals to encourage and enhance countywide solid waste management practices, the members of the Solid Waste Advisory Committee individually and collectively targeted similar objectives. Policies to ensure all Schuylkill County residents and businesses utilize the solid waste disposal and collection system was considered the primary mission. The need to increase the number of municipalities with contracts for residential collection services while increasing the recovery of recyclables was strongly reinforced. The importance of creating a greater awareness of the proper handling and disposal of all forms of municipal solid waste was stressed to decrease illegal dumping and littering. All of the discussions reinforced the need for comprehensive data management that includes accurate reporting, analysis of the information, and application of the findings.

## **Data Management and Reporting**

If the Schuylkill County Department of Solid Waste & Resource Management were to make only one improvement in its internal operation that would significantly advance its attainment of the State's planning goals and objectives, it should be an overhaul of its internal data management practices, and improvements in its efforts to obtain information from external sources. These actions alone could result in the County's available resources being properly allocated to services that were of greatest benefit to local residents.

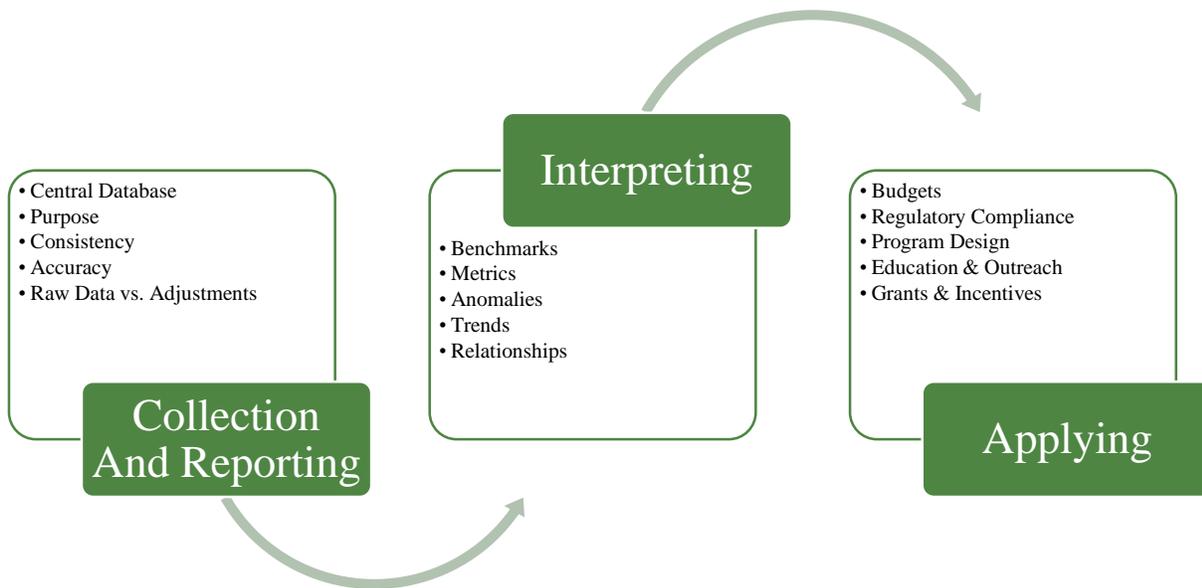
The inconsistent and unreliable data must be addressed first before other goals and objectives. The Schuylkill County Office of Solid Waste & Resource Management should develop a systematic and efficient approach to data management. The system should have mechanisms to notify the potential sources of recycling in the County and monitor this activity. A checks and balance system should be established internally to assure data is entered into the reporting system accurately.

While there will always be those reluctant to comply, gathering comprehensive data on municipal collection programs, ordinances, and contracts is essential in understanding the growth of recycling and recovery trends for the County overall. Outreach and communication is vital in establishing this municipal network. By understanding the needs and ambitions of the municipalities, the Schuylkill County Office of Solid Waste & Resource Management can provide support more effectively. In addition, the County will be able to make better decisions on its own programs and expenditures.

An exercise during the planning process was to assess program performance and trends. The experience led to the realization the data and statistics maintained frequently contained inconsistencies. Great duplication in efforts was discovered. A cumbersome paper trail of historic information was implemented which eradicated data previously recorded in a digital electronic filing process. Therefore the inability was lost to access data through simple queries or across a network.

Figure 5-1 illustrates the value in collecting and using data for evidenced based decision making.

Figure 5-1 Collecting and Utilizing Data



## Programs and Services

Previous chapters discussed the prevalence of littering, illegal dumping, and open burning in Schuylkill County. The Solid Waste Advisory Committee concluded the voluntary nature of many collection programs is one of the contributing factors to these undesirable behaviors. Therefore, residential collection was considered an important area for improvement in Schuylkill County. By ensuring all residents are serviced, the

Committee suggested unit costs could be lowered, recycling could be expanded, and the overall quality of life in the County would be improved.

### **FUTURE EXPECTATIONS**

Every citizen has a role in municipal solid waste management. To require each household, business, institution, and government facility to participate in an organized program for the collection and processing of the waste they generate is reasonable. To ask them to share in the cost for those services is fair.

### **FOSTERING PUBLIC ACCEPTANCE**

Creating the environment for universal participation is a responsibility local governments may overlook, neglect, misunderstand, and/or fear. Those that have already accepted the task are often confronted with misinformation or conflicting claims regarding service options, rapidly changing technologies, and opportunities. The existence or lack of “political will” and/or “willingness to pay” is a factor in the decision to implement a contracted versus a subscription collection system. Similar, if not greater, concerns exist when shifting from drop-off collection, which is perceived as free, to a user pay curbside program. Likewise, misperceptions about the implementation of Pay-As-You-Throw collection, variable rate structures, automated collection, and other features have stalled the growth of these beneficial programs in Schuylkill County.

To affect change, municipal officials appreciate support in understanding the elements that contribute to higher costs, service inefficiencies, and poor performance. In addition, they also benefit when others who have experience transitioning to different types of service and programs share their knowledge.

### **FACILITATING CHANGE**

The Schuylkill County Office of Solid Waste & Resource Management lacks direct jurisdiction over the municipal residential collection systems. Therefore, to make improvements to the overall residential program and diversion rate, it is more appropriate for the County to assume the role of educator, motivator, and mediator. This is not to suggest that the County should involve itself in the competitive bidding process for municipal contracts. To facilitate a transition to more effective municipal programs, however, the County could help foster the cooperation from all stakeholders, including: elected officials, service directors, and service providers.

Moving forward the County must frequently engage and inform local decision makers and service managers to create greater awareness of new trends and opportunities in residential collection programs.

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## REGULATIONS AND ENFORCEMENT

To accomplish the reporting and information management goals and objectives of the Plan, the County should update its solid waste ordinance. In addition, the Department of Solid Waste & Resource Management should work with municipalities to ensure that local ordinances are updated to reflect recommended policies for waste management, collection and recycling.

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## BEYOND BOTTLES AND CANS

Schuylkill County has always strived to provide outlets for a broad spectrum of materials generated by local residents and businesses. Over time, greater support from the County was needed to facilitate the collection of difficult to market materials, or items whose characteristics make them potentially hazardous to manage. Consumer expectations, regulatory initiatives, and new uses will continue to create the need to expand the list of items that must be considered in county and local municipal collection programs.

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## Concluding Comments and Future Actions

SWAC participants offered valuable input during the development of the 2013 Schuylkill County Municipal Solid Waste Management Plan. They identified the need for new components to build upon the already successful programs and services offered by LMCRSW, the municipalities, and the private sector. In addition, they provided suggestions to enhance policies and enforcement so as to strengthen the protection of public health and safety resulting from proper municipal solid waste management. Based on the discussions and findings during the planning process, a tangible action plan was designed to attain new goals and objectives.

Figure 5-2 lists the goals established during the planning process for the Schuylkill County Municipal Solid Waste Management Plan from 2016 thru 2025.

Figure 5-3 illustrates the timeframe during which specific actions will take place to facilitate the implementation of the Plan's recommendations.

Because plans are dynamic by nature, the exact dates and chronology might vary as the Plan is implemented. In addition, circumstances could present new opportunities that currently do not exist. Unforeseen events do occur, and they could redirect the focus or needs of the County to issues that were unknown or less important in the planning process. Therefore, periodic evaluations of the Plan's goals and objectives are encouraged.

Figure 5-2 Recommended Goals for Municipal Waste Management 2016 through 2025

<p><b>Goal #1</b>  <b>Evidence Based Decision Making</b></p>	<p>Recommendation: For Department of Solid Waste and Resource Management to implement a system of data retrieval and management that ensures consistent and reliable information for reporting, program evaluation, and future planning.</p>
<p><b>Goal #2</b>  <b>Universal Waste Collection</b></p>	<p>Recommendation: For all residents of Schuylkill County to subscribe to professional curbside waste &amp; recycling collection services or participate in an organized program provided by public workers or contracted by their local municipality.</p>
<p><b>Goal #3</b>  <b>Expand Curbside Recycling Opportunities</b></p>	<p>Recommendation: Promote the inclusion of recycling in municipal waste collection programs and contracts. .</p>
<p><b>Goal #4</b>  <b>Make Recycling More Convenient</b></p>	<p>Recommendation: Support local municipalities that expand collection programs by providing grant support and assistance to acquire recycling bins/carts and increase their performance grants.</p>
<p><b>Goal #5</b>  <b>Downsize the Countywide Drop-off Recycling Collection Program</b></p>	<p>Recommendation: Control program costs by implementing drop-off collection sites only in areas without convenient access to residential curbside recycling programs or transition to one or more staffed convenience centers.</p>
<p><b>Goal #6</b>  <b>Provide Ongoing Comprehensive Public Education Program</b></p>	<p>Recommendation: Develop a regular and consistent public education program that covers all aspects of waste and recycling management.</p>
<p><b>Goal #7</b>  <b>Decrease Illegal Dumping &amp; Other Forms of Improper Disposal</b></p>	<p>Recommendation: Strive for consistency in county and municipal solid waste related ordinances, rules and regulations.</p>
<p><b>Goal #8</b>  <b>Recovery of Greater Varieties of Materials</b></p>	<p>Recommendation: Provide more frequent HHW and Ewaste collections when funds permit. Consider operating one or more permanent centrally located outlet for bulky items, tires, appliances etc.</p>

Figure 5-3 Implementation Timeline

## 2016 Through 2018

### Phase I Establishing a Foundation For Change

#### Regulatory

- Explore the development of a countywide waste & recycling collection ordinance.
- Update the Ordinance and Rules and Regulations to reflect the latest court decisions, Commonwealth directives, and county-identified needs.
- Establish a registration program for waste and recycling haulers.

#### Program Feasibility, Administration, and Finances

- Audit and assess the Countywide Recycling Drop-off Collection Program.
  - Analyze the effectiveness and perceived value of the program:
    - Survey residents about their views on the program and recycling in general.
    - Conduct traffic count at the sites.
    - Gage incidents of inappropriate site usage per 100 people.
- Collect data/conduct survey that assesses number of residents subscribing to curbside waste collection service
- Develop a Retirement Plan for equipment (bins and collection vehicle) that coincides with projected closure of select sites.
- Explore the feasibility of establishing one or more staffed County convenience centers to replace current system and to include hard to recycle/bulky items, ewaste.

#### Public Education and Awareness

- Develop a curriculum and agenda for a regular and consistent public education program that covers all aspects of waste and recycling management.

#### Collection Programs and Services

- Continue to offer the Countywide Recycling Drop-off Collection Program while residents are systematically transitioned to convenient access to curbside programs
  - During this phase, strive to reduce the number of drop-off locations on the ground by 35% through the expansion of curbside recycling throughout the County.

## 2018 through 2020

### Phase II Targeted Adjustments and Improvements

#### Regulatory

- Consider establishing a countywide demolition permit with incentives for recycling and proper disposal
- Encourage municipalities to include these same incentives in local building permits.
- Develop a model waste management, open burning, and illegal dumping ordinance for municipalities.
- Provide draft language for municipal building permits that include incentives for recycling and proper disposal.

#### Program Feasibility, Administration, and Finances

- Determine the feasibility of including more hard-to-recycle items , such things as textiles, hand bags, mattresses, books, etc. in collection events or at the convenience center established in Phase I.
- Explore opportunities to establish a regional resale center for construction/demolition materials similar to “Construction Junction.”

#### Technical Assistance

- Support municipalities and other interested parties to develop and implement collections for hard to recycle and bulky items.
  - Provide guidelines, promotional tools, and other support for spring/fall community clean-ups and similar collection events.
  - Provide guidelines for the inclusion of bulky item collection through curbside programs via the use of tags.

#### Public Education and Awareness

- Initiate annual educational seminars for special stakeholder groups including: local officials, commercial businesses and industry, waste & recycling companies, civic groups, the general public, etc.
- Develop an educational materials tool kit for municipalities with benefits and incentives of PAYT programs.
- Develop a regional directory of outlets for hard to recycle items.
- Develop and distribute fact sheets for special materials.
- Increase the number of school education programs each year.

## 2021 through 2023

### Phase III Transition and Expansion

#### Enforcement

- Evaluate the effectiveness of recent enforcement efforts.
- Continue to enlist municipalities into the Joint Solid Waste Code Enforcement Program.
- Utilize the Joint Code Enforcement Program to expand commercial and institutional recycling in mandated communities.

#### Program Feasibility, Administration, and Finances

- Investigate options to provide ongoing HHW collection programs.
- Explore the market outlets and mechanics for textile recycling..

#### Technical Assistance

- Develop guidelines for municipalities to use in the development of collection, processing and disposal contracts and specifications.
- Encourage PAYT contracts to municipal officials.
- Provide support, tools, and resources to non-mandated communities that wish to implement curbside recycling programs.

#### Public Education and Awareness

- Update and distribute the county recycling directory

#### Collection Programs and Services

- Continue to expand the distribution and use of recycling carts in subscription areas when grant funds are available .
- Include textile recycling at special collection events.

## 2024

### Phase IV Reinforce, Reassess and Regroup

#### Program Feasibility, Administration, and Finances

- Reconvene a Solid Waste Advisory Committee.
- Evaluate overall program performance and return on investment.
- Identify strengths and weaknesses of the previous recommendations.
- Identify goals and objectives that were not implemented and determine why.
- Determine how needs and priorities have changed since 2014.
- Establish the criteria for a new planning process.

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## **CHAPTER SIX**

# **Disposal Capacity Assurances**

### **Legal and Regulatory Premise for Capacity Guarantees**

The single most important responsibility outlined for Pennsylvania counties by the Municipal Waste Planning, Recycling and Waste Reduction Act (Act 101) is to ensure sufficient disposal capacity is made available to manage the volumes of municipal waste generated within their jurisdictions. Act 101 does not specifically define one preferred method of securing that capacity. It does make clear, however, that the manner in which a county acquires disposal capacity must be fair, open, and competitive. In addition to Pennsylvania's laws, federal constitutional concerns apply. Therefore, the selection criteria should not unfairly favor Pennsylvania facilities nor discriminate against facilities located outside of the Commonwealth. In order to withstand a potential legal challenge of the process or the selected service provider(s), counties must maintain these standards in their procurement actions.

Chapter 6 discusses the steps utilized by Schuylkill County to request and secure disposal capacity. It provides a brief overview of the evaluation criteria and the review process. Finally, it identifies those facilities selected to accept Schuylkill County municipal solid waste for disposal over the next decade. It also illustrates the location of those sites.

## Determining Disposal Capacity Requirements

The planning process examined the waste disposal practices of Schuylkill County. Through a comparative assessment, the actual utilization of the designated facilities was conducted, and projections made in the 2004 Plan. To determine the effectiveness of Plan enforcement and to validate the assumptions used to estimate future needs, the committee investigated the quarterly and annual facility reports submitted to the PADEP. The purpose was to identify landfills that may have taken municipal waste from Schuylkill County without an official designation, as well as those that accepted other types of waste generated in Schuylkill County. Of consideration was the impact of out-of-state waste and residual waste at facilities that commonly reserve capacity for the County. Finally, the exploration and drilling activities in the Marcellus Shale Gas Formation and their potential impact on current and future available capacity was noted.

Schuylkill County's disposal capacity needs for the next decade were calculated by applying a number of standard indicators. A baseline disposal rate was established using reported disposal data. Population is a determining factor in overall waste generation and thus disposal needs. Current population data and projections from the US Census Bureau and the Penn State Data Center were applied. The projections also factored in current recycling performance.

In keeping with national trends, waste generation in tons per person per year is not expected to vary significantly during the Plan period. However, a continual decline in the population of Schuylkill County is expected. An overall decrease of 2 percent is projected during the next ten years. In turn, the County is expected to generate and dispose of less municipal waste.

With decreases in both reported disposal activity and population, there is little to no concern for pending capacity deficits. The procurement process was therefore driven by regulatory requirements regarding the expiration of the existing agreements beginning in 2012.

## Solicitation of Proposals

Schuylkill County issued a formal Request for Proposals for Disposal Capacity. The request was posted in the Pennsylvania Bulletin and published in Waste 360 Daily News Wire, a national trade journal. Industry trade organizations were asked to distribute the solicitation to their membership. Organizations with facilities that have historically accepted waste from Schuylkill County were alerted regarding the issuance of the RFP. These combined efforts assured facilities located both within and out of the state would be informed of the County's request.

## **FAIR, OPEN AND COMPETITIVE SELECTION PROCESS**

Act 101 requires the counties' processes and criteria for procuring disposal capacity guarantees are not biased, influenced by outside sources, or slanted in favor of one facility over another. To ensure equal consideration and opportunity prevailed, Schuylkill County expected facilities to adhere to clearly defined proposal submission guidelines, which specified the format and content required for administrative completeness and technical merit review. Allowances for the County to request supplemental documentation or further clarifications as needed were built into the technical review process. The criteria consisted of a series of categories, each with established requirements. A description of each, in no particular order of value or importance follows.

## **OPERATIONAL STATUS AND REMAINING CAPACITY**

Facilities were required to demonstrate the existence of a current operating permit issued by the PADEP or the equivalent state regulatory agency for non-Pennsylvania facilities. The projected life of the facility and its ability to provide available capacity for all or some portion of the County's needs during the period of the Plan was a key indicator of the site's ability to meet the service needs of the County. Permitted facilities where the ability to currently receive waste was dependent on anticipated construction and subsequent quality assurances and controls were considered for designation pending PADEP approval of those activities once completed.

## **FINANCIAL STRENGTH AND RISK ASSESSMENT**

The levels of public and environmental liability protection were considered an important indicator of the potential level of risk to the County. The resources available to the owner/operator to maintain and provide a financially sound disposal system was of equal importance.

## **FACILITY DESIGN AND OPERATION**

Because the ability to regulate disposal and processing facilities is beyond the statutory authority of the County, perhaps the most basic requirement was for each facility to demonstrate its ability to meet Federal, State, and Local standards for the operation of a municipal solid waste disposal facility. The proposed facility's technical design and disposal process were required to demonstrate regulatory permitted use of proven and accepted technology, demonstrated and approved alternatives, and best engineering practices. Approved permitted mechanisms for pollution prevention and control, safety, operational efficiency and energy production were also required. These included but were not limited to; liner composition, leachate treatment, methane gas recovery, combustor units, boiler design, and capacity. The effectiveness of operational plans for waste acceptance, emergency management, and contingencies were also considered.

## **INDUSTRY QUALIFICATIONS AND EXPERIENCE**

The planning process included a review of the experience of personnel located at the facility and who were directly responsible for management and operations. The depth of waste industry experience was considered as a demonstration of the contractor's ability to provide reliable disposal service. Documented performance in related contractual scenarios was also considered in the evaluation.

## **REGULATORY COMPLIANCE**

The assessment included a review of each facility's compliance history. The severity and consistency of violations was noted. However, most important was the ability of the facility or operator to achieve resolution and disposition of any such incidents to the satisfaction of the prevailing regulatory agency.

## **MINIMUM AND MAXIMUM ALLOWABLE DISPOSAL REQUIREMENTS**

Each facility was required to demonstrate its ability to guarantee acceptance of the proposed quantities of the municipal solid waste generated by Schuylkill County on a daily and annual basis during the ten-year period of the Plan. The criteria made clear the County considered "Put or Pay" disposal guarantees for predetermined quantities of Schuylkill County waste disincentives to recycling and therefore objectionable.

## **MAXIMUM GATE RATES AND POTENTIAL COST TO COUNTY**

Competitive pricing was not part of the procurement criteria. However, because disposal is restricted to the facilities designated in the Plan, transporters, municipalities, individuals, and businesses needed full disclosure of the potential cost of each available disposal option. Therefore, facilities were required to submit a pricing matrix that established ceilings for the maximum fees that would be charged for the contracted disposal services. Facilities were allowed to submit separate disposal rates for the different categories of municipal waste for which capacity was reserved. Facilities had to identify and quantify all fees and surcharges resulting from Act 101, host municipality or county agreements or other federal, state, and local statutes.

No conditions were imposed on the disposal rate other than the facility-defined cap. The use of one or more of the designated facilities remains a matter of choice. The maximum rates do not preclude the ability of parties to negotiate lower fees based on business relationships and other factors. Although this solicitation process invited proposals for new or alternative disposal technologies, none were received. In addition, no proposal included supposition of County partnerships or investments in the construction and operation of facilities. Based on these factors, no further cost/benefit comparison, life cycle analysis, or evaluation was deemed necessary.

## Review and Evaluation

The County received proposals from ten organizations with a combined total of seventeen proposed facilities. The majority of these were landfills; however, three resource recovery facilities also proposed capacity assurances to the County. The proposals were examined and reviewed to determine compliance with the submission criteria. Any minor deficiencies and/or questions in a proposal that may have been noted during the review have been resolved.

The following five sections include the results of the evaluation process. Each section contains a table, which highlights how each facility fulfilled the selection criteria for each specific component, including legal, technical, operational, and financial.

## SECTION 1 CONTRACTORS, PROPOSED FACILITIES, LEGAL FORMALITIES

Site Name	Facility		Contacts		Capacity Agreement		
	Owner	Site Location	Technical	Operational	All Required Forms and Signatures	Agreed to Contract Terms and Conditions Exceptions or Comments	Requires Put or Pay or Minimum Tonnage
Alliance Landfill	Waste Management	398 South Keyser Avenue Taylor, PA 18517	Tara Hemmer	Tara Hemmer	YES	YES	NO
Blythe Recycling & Demolition Site	FKV, LLC	PO Box 91 Cumbola, PA 17930	Rick Bodner	Charlie Nowak	YES	YES	NO
Commonwealth Environmental Landfill	Commonwealth Environmental Systems LP	99 Commonwealth Road Hegins, PA 17938	Brett Dexter	David Leung	YES	YES	NO
Conestoga Landfill	BFI Waste Systems of North America, LLC Republic Services, Inc	420 Quarry Road PO Box 128 Morgantown, PA 19543	Mark Pedersen	Mark Pedersen	YES	YES	NO
Cumberland County Landfill	Advanced Disposal Services	620 Newville Road Newburg, PA 17240	Kevin Bush	Kevin Bush	YES	YES	NO
Grand Central Landfill	Waste Management	910 W. Pennsylvania Avenue Pen Argyl, PA 18072	Scott Perin	Scott Perin	YES	YES	NO
Hyland Landfill	Casella Waste	6653 Herdman Road Angelica, NY	Joseph Boyles	Joseph Boyles	YES	YES	NO
Keystone Sanitary Landfill	Keystone Sanitary Landfill Inc	249 Dunham Drive Dunmore, PA 18512	Joe Dexter	Joe Dexter	YES	YES	NO
Lancaster County Waste to Energy Facility	Lancaster County Solid Waste Management Authority	1299 Harrisburg Pike PO Box 4425 Lancaster, PA 17604	James Warner	Robert Zorbaugh	YES	YES	NO
McKean	Casella Waste	19 Ness Lane Kane, PA 16735	Larry Shilling	Raymond Duerr	YES	YES	NO
Modern Landfill	Republic Services, Inc	4400 Mount Pisgah Road York, PA 17406	Mark Pedersen	Mark Pedersen	YES	YES	NO

Site Name	Facility		Contacts		Capacity Agreement		
	Owner	Site Location	Technical	Operational	All Required Forms and Signatures	Agreed to Contract Terms and Conditions Exceptions or Comments	Requires Put or Pay or Minimum Tonnage
Mountain View Reclamation Landfill	Waste Management	9446 Letzburg Road Greencastle, PA 17225	John Wardzinski	Dylan See	YES	YES	NO
Pioneer Crossing	J.P. Mascaro & Sons		Johnathan March	Thomas O'Connor	YES	YES	NO
Susquehanna Resource Management Complex	Lancaster County Solid Waste Management Authority	1670 S 19th Street Harrisburg, PA 17101	James Warner	Robert Zorbaugh	YES	YES	NO
Wayne Township Landfill	Clinton County Solid Waste Authority	264 Landfill Lane PO Box 209 McElhattan, PA 17748	Jay Alexander	Jay Alexander	YES	YES	NO
Western Berks Landfill	Advanced Disposal Services	455 Poplar Neck Road Birdsboro, PA	Kevin Bush	Kevin Bush	YES	YES	NO
York County Resource Recovery Center	York County Solid Waste Authority	2700 Blackbridge Road York, PA	Greg Pearson	Greg Pearson	YES	YES	NO

## SECTION 2 PERMIT STATUS AND CONDITIONS OF OPERATIONS

Facility		Local	Permitted	Accessibility and Terms of Use		
Site Name	Host Agreements	Permit # Issuing State Expiration Date	Remaining Permitted Capacity 2014	Current Constraints or Limitations	Operating Days Per Year	Operating Hours
Alliance Landfill	Taylor Borough Ransom Township Lackawanna County	PA 100933 10/31/20	29,605,544 cyds	NONE	Monday-Saturday (305)	7:00 AM-3:00 PM Monday-Friday 7:00 AM-11:00 AM Saturday
Blythe Recycling & Demolition Site	Blythe Township Schuylkill County	PA 101679 1/20/2025	PENDING CONSTRUCTION	PENDING CONSTRUCTION	PENDING CONSTRUCTION	PENDING CONSTRUCTION
Commonwealth Environmental Landfill	Reilly Township Foster Township Frailey Township Schuylkill County	PA 101615 1/31/2017	17,516,254 cyds	NONE	Monday-Friday (305)	6:00 AM-3:00 PM Monday-Friday
Conestoga Landfill	New Morgan Borough Caernarvon Township Berks County	PA 101509 9/1/2017	19,824,585 cyds	NONE	Monday-Saturday (274)	5:00 AM-7:30 PM Monday-Friday (Sat-6:00 AM-11:00 AM)
Cumberland County Landfill	Hopewell Township North Newton Township Newburgh Borough	PA 100945 12/8/2017	14,844,127 cyds	NONE	Monday-Saturday (312)	7:00 AM-4:00 PM Monday-Friday (Sat-7:00 AM-noon)
Grand Central Landfill	Pen Argyl Borough Wind Gap Borough Plainfield Township Northampton County	PA 100265	1, 127, 993 cyds.	NONE	Monday-Saturday (305)	6:00 AM-6:00 PM Monday-Friday 6:00 AM-11:00 AM Saturday
Hyland	Angelica Allegany County, NY	NY 9-0232-00003/00002 5/1/2015	9,733,784 cyds	NONE Proposed as back-up facility only	Monday-Saturday (266)	7:00 AM-9:00 PM Monday-Saturday

Facility	Local	Permitted		Accessibility and Terms of Use		
Site Name	Host Agreements	Permit # Issuing State Expiration Date	Remaining Permitted Capacity 2011	Current Constraints or Limitations	Operating Days Per Year	Operating Hours
Keystone Sanitary Landfill	Throop Borough Dunmore Borough Lackawanna County	PA 101247 4/6/2015	21,914,769 cyds	NONE	Monday-Saturday (306)	6:00 AM-3:00 PM Monday-Friday (Sat-6:00 AM-11:00 AM)
Lancaster Waste to Energy Facility	Conoy Township	PA 400592 3/30/2019	1200 tpd based on three boilers	Limited to Processible MSW	Monday-Saturday (260)	6:00 AM-4:30 PM Monday-Friday (Sat-6:30 AM-1:00 PM)
McKean	Sergeant Township McKean County	PA 100361 2/23/2021	31,172,085 cyds	NONE	Monday-Saturday (312)	5:00 AM-6:00 PM Monday-Friday (Sat-5:00 AM-5:00 PM )
Modern Landfill	Windsor Township Lower Windsor Township	PA 100113 7/01/2017	11, 927, 325 cyds	NONE	Monday-Saturday (307)	6:00 AM-4:30 PM Monday-Friday (Sat-6:00 AM-11:00 AM)
Mountain View Reclamation Landfill	Antrim Township Montgomery Township Franklin County	PA 101100 7/10/2019	12,978,905 cyds	NONE	Monday-Saturday (286)	7:00 AM-4:00 PM Monday-Friday (Sat-7:00 AM-11:00 AM)
Pioneer Crossing Landfill	Exeter Township Berks County	PA 100346	5,469,278	NONE	Monday-Saturday (308)	6:00 AM-4:00 PM Monday-Friday (Sat-6:00 AM-noon)

Facility	Local	Permitted		Accessibility and Terms of Use		
Site Name	Host Agreements	Permit # Issuing State Expiration Date	Remaining Permitted Capacity 2011	Current Constraints or Limitations	Operating Days Per Year	Operating Hours
Susquehanna Resource Management Complex	City of Harrisburg Swatara Township Dauphin County (NO)	PA 100758 11/29/2022	800 tpd based on three boilers	NONE	Monday-Saturday (250)	6:00 AM-4:00 PM Monday-Friday (Sat-7:00 AM-11:00 AM)
Wayne Township Landfill	Wayne Township Clinton County	PA 100955 9/14/2036	938,537 cyds	NONE	Monday -Saturday (312)	7:00 AM-4:00 PM
Western Berks Landfill	Cumru Township Shillington Borough Kenhorst Borough Berks County	PA 100739 3/28/2018	missing cyds	NONE	Monday-Saturday (312)	7:00 AM-4:00 PM Monday-Friday (Sat-7:00 AM-noon)
York County Resource Recovery Center	Manchester Township	PA 400561 5/5/2013	1344 tpd based on BTU value	Limited to Processible MSW Temporary Combustor Maintenance Outages with advance notice	Monday -Saturday (275)	6:00 AM-4:00 PM Monday-Friday (Sat-6:00 AM-noon)

## SECTION 3 FACILITY DESIGN, REGULATORY COMPLIANCE, AND FINANCIAL ASSURANCES

Facility	Design and Contingencies			Regulatory Compliance			Financial Assurance		
	Site Name	Design, Leachate Treatment	Waste Plan for Emergency Disasters	Waste Plan for Facility Emergencies	# Violations	# Penalties, Consent Orders, Settlement Agreements	Unresolved Violations	Financial Disclosure	Public Liability Protection
Alliance Landfill	Double composite liner Treatment On site	YES	YES submitted capacity agreements for back-up landfill	2	0	0	Publicly Held Company Shareholders Report	\$5 million	Surety Bond \$21.6 million
Blythe Recycling & Demolition Site	Single Liner Treatment Off Site	YES	YES on site transfer station would haul to other County designated facilities	0	0	0	Privately Held Company/ Performance guarantee provided upon request		Must post \$10 million
Commonwealth Environmental Landfill	60 mil double liner Treatment On site	YES	YES has agreement with another County designated facility	0	0	0	Privately Held Company/ Performance guarantee provided upon request	\$2 million	Surety Bond \$18.7 million
Conestoga Landfill	Double composite liner Treatment Onsite	YES	YES submitted capacity agreements for proposed back-up landfills	34	6	0	Publicly Held Company Shareholders Report	\$5 million	Surety Bond \$28.9 million
Cumberland County Landfill	Double composite liner Treatment Onsite	YES	YES submitted capacity agreements for proposed back-up landfills	2	0	0	Privately Held Company/ Provided upon request	\$2 million	Surety Bond \$14.5 million
Grand Central Landfill	Double composite liner Treatment Onsite	YES	YES submitted capacity agreements for proposed back-up landfills	14	3	0	Publicly Held Company Shareholders Report	\$5 million	Surety Bond 32.1 million

Facility		Design and Contingencies		Regulatory Compliance			Financial Assurance		
Site Name	Design, Leachate Treatment	Waste Plan for Emergency Disasters	Waste Plan for Facility Emergencies	# Violations	# Penalties, Consent Orders, Settlement Agreements	Unresolved Violations	Financial Disclosure	Public Liability Protection	Environment Pollution & Liability Protection
Hyland	Double composite liner Treatment Off site	YES	Submitted capacity agreements strictly as a back-up landfill	8	1	0	Publicly Held Company Shareholders Report	\$3 million	Surety Bond \$6,346,376
Keystone Sanitary Landfill	60 mil double liner/ Treatment On site	YES	YES submitted capacity agreements for proposed back-up landfill	3	0	0	Privately Held Company/ Provided upon request	\$2 million	Surety Bond \$21.6 million
Lancaster County Resource Recovery Facility	Three Boiler WTE Facility	YES	YES submitted capacity agreements for proposed back-up WTE	2	35	0	Municipal Authority Provided Annual Independent Auditor's Report	\$2 million	Collateral Bond \$477,065
McKean	Double composite liner Treatment Onsite		YES submitted capacity agreements for proposed back-up landfill	0	0	0	Publicly Held Company Shareholders Report	\$3 million	Surety Bond \$25.3 million
Modern Landfill	Double composite liner Treatment Onsite	YES	YES submitted capacity agreements for proposed back-up landfills	11	3	0	Publicly Held Company Shareholders Report	\$5 million	Surety Bond \$27 million

Facility		Design and Contingencies			Regulatory Compliance			Financial Assurance		
Site Name	Design, Leachate Treatment	Waste Plan for Emergency Disasters	Waste Plan for Facility Emergencies	# Violations	# Penalties, Consent Orders, Settlement Agreements	Unresolved Violations	Financial Disclosure	Public Liability Protection	Environment Pollution & Liability Protection	
Mountain View Reclamation Landfill	Double composite liner Treatment Off site at Antrium Twp. WWTP	YES	YES submitted capacity agreements for proposed back-up landfills	3	1	0	Publicly Held Company Shareholders Report	\$5 million	Surety Bond \$20 million	
Pioneer Crossing Landfill	Double composite liner Treatment Off site at Exeter Twp. WWTP		YES agreements from CES as proposed back-up landfill	35	8	0	Privately Held Company/ Provided upon request	\$2 million	Surety Bond \$13.2 million	
Susquehanna Resource Management Complex	Three Boiler WTE Facility	YES	YES submitted capacity agreements for proposed back-up WTE	41	10	0	Municipal Authority Provided Annual Independent Auditor's Report	\$2 million	Surety Bond \$254,011	
Wayne Township Landfill	60 mil double liner Treatment Off site	YES	YES on site transfer station would haul to other County designated facilities	1	1	0	Provided Independent Auditor's Report	\$1 million	Irrevocable Line of Credit \$6.4 million	
Western Berks Landfill	Double composite liner Treatment Onsite	YES	YES submitted capacity agreements for proposed back-up landfills	5	0	0	Privately Held Company/ Provided upon request	\$2 million	Surety Bond \$10.9 million	
York County Resource Recovery Center	Three Boiler WTE Facility	YES	YES has agreement with another County designated facility	21	18	0	Municipal Authority	\$2 million	Collateral Bond \$436,000	

## SECTION 4 DAILY AND ANNUAL CAPACITY GUARANTEES

Facility		Guarantees for Schuylkill Waste Volumes		Daily Tons Reserved Capacity for Types of Waste				Donated Tons for Non Profits
Site Name	Owner	Maximum Annual Volume in Tons	% Schuylkill Waste will accept	MSW	C&D	Sludge	Other	
Alliance Landfill	Waste Management	10,000	8%	35	0	0	N/A	100
Blythe Recycling & Demolition Site	FKV, LLC	Missing info						
Commonwealth Environmental Landfill	Commonwealth Environmental Systems LP	130,760	>100%	467	21	9	3	100
Conestoga Landfill	Republic Services	70,250	55%	200	50	N/A	N/A	100
Cumberland County Landfill	Advanced Disposal	Missing info						
Grand Central Landfill	Waste Management	100,000	88%	325	0	0	N/A	100
Hyland	Casella Waste back-up only	126,517.3	100%	449.7	25.7	11.2		
Keystone Sanitary Landfill	Keystone Sanitary Landfill Inc	127,000	100%	384	21	9	3	50
Lancaster Waste to Energy Facility	Lancaster County Solid Waste Management Authority	5,000	4%	16	N/A	N/A	N/A	0
McKean	Casella Waste	126,517.3	100%	449.7	25.7	11.2		
Modern Landfill	Republic Services	70,250	55%	200	50	N/A	N/A	100
Mountain View Reclamation Landfill	Waste Management	127,000	100%	287	111	44	N/A	100
Pioneer Crossing Landfill	J.P. Mascaro & Sons	83,200	65.7%	200	100	20	N/A	0
Susquehanna Resource Management Complex	Lancaster County Solid Waste Management Authority	6,000	4%	16	3	N/A	N/A	N/A
Wayne Township Landfill	Clinton County Solid Waste Authority	48,600	38%	50	50	50	50 Asbestos 50 Contaminated Soil	0
Western Berks Landfill	Advanced Disposal Services	Missing info						
York County Resource Recovery Center	York County Solid Waste & Refuse Authority	2,750	<1%	10	N/A	N/A	N/A	N/A

## SECTION 5 SCHEDULE OF MAXIMUM CHARGES

Facility  Site Name	Maximum Base Disposal Rate 1st Year					Add-on Costs  Fees, Taxes, Surcharges	Total Maximum Disposal Rate with Fees 1st Year				
	MSW	C&D	SEWAGE SLUDGE	ICW	OTHER		MSW	C&D	SEWAGE SLUDGE	ICW	OTHER
Alliance Landfill	\$86.00	\$86.00	\$86.00	\$86.00		\$11.00	\$97.00	\$97.00	\$97.00	\$97.00	
Commonwealth Environmental Landfill	\$64.00	\$64.00	\$64.00		\$64.00 Residual	\$12.25	\$76.25	\$76.25	\$76.25		\$76.25 Residual
Conestoga Landfill	\$92.09	\$92.09	N/A	N/A	N/A	\$19.91	\$112.00	\$112.00	N/A	N/A	N/A
Cumberland County Landfill	\$70.00	\$70.00	\$80.75	\$70.00	\$70 Residual \$80 Asbestos	\$11.75	\$81.75	\$81.75	\$92.50	\$81.75	\$81.75 Residual \$91.75 Asbestos
Grand Central Landfill	\$85.95	\$85.95	\$85.95	\$85.95		\$10.95	\$97.00	\$97.00	\$97.00	\$97.00	
Hyland Landfill	\$35.00	\$35.00	\$38.00	N/A	N/A	\$3.69	\$38.69	\$38.69	\$41.69	N/A	N/A
Keystone Sanitary Landfill	\$90.00	\$90.00	\$90.00		\$90.00 Residual	\$9.49	\$99.49	\$99.49	\$99.49		\$99.49 Residual
Lancaster County Resource Recovery Facility	\$73.00	N/A	N/A	N/A	N/A	\$0	\$73.00	N/A	N/A	N/A	N/A
McKean County Landfill	\$35.00	\$35.00	\$38.00	N/A	N/A	\$7.25	\$42.25	\$42.25	\$45.25	N/A	N/A
Modern Landfill	\$45.55	\$52.25	N/A	N/A	N/A	\$17.45	\$63.00	\$70.00	N/A	N/A	N/A
Mountain View Reclamation Landfill	\$65.00	\$71.00	\$65.00	\$65.00		11.03	\$76.03	\$82.03	\$76.03	\$76.03	
Pioneer Crossing Landfill	\$64.79	\$64.79	\$69.79	\$69.79		\$9.45	\$74.24	\$74.24	\$79.24	\$79.24	
Susquehanna Resource Management Complex	\$80.00	\$60.00	N/A	N/A	N/A	\$0	\$80.00	\$60.00	N/A	N/A	N/A
Wayne Township Landfill	\$41.00	\$41.00	\$41.00	\$41.00	\$51.00 Asbestos \$41.00 Soil	\$9.00	\$50.00	\$50.00	\$50.00	\$50.00	\$61.00 Asbestos \$50.00 Soil
Western Berks Landfill	\$70.00	\$70.00	\$80.75	\$70.00	\$70 Residual \$80 Asbestos	\$11.75	\$81.75	\$81.75	\$92.50	\$81.75	\$81.75 Residual \$91.75 Asbestos
York County Resource Recovery Center	\$80.00	N/A	N/A	N/A	N/A	\$3.00	\$83.00	N/A	N/A	N/A	N/A

## Recommendations for Disposal Facility Designation

Based upon the review and evaluation of the proposals, it was determined all of the facilities meet the established selection criteria. Some of the facilities are operating with permits that will expire before 2024. A few have capacity that could be greatly depleted during the term of the contract, but have room for expansion and design modifications. In these instances, actions to modify or renew existing permits are expected to result in approvals. One of the facilities currently has an active permit, but during the planning and procurement process it was not yet constructed and in operation. This same facility is restricted to accepting only construction and demolition waste.

All qualify to become designated disposal facilities in the Schuylkill County Municipal Solid Waste Management Plan. The facility with pending construction otherwise satisfies the requirements, and will be considered a designated facility contingent on receipt of PADEP’s approval for it to physically receive waste.

In summary, the Schuylkill County Board of Commissioners will execute and enter into disposal capacity agreements with the facilities shown here. The table is arranged in alphabetical order by the owner/operator with each corresponding facility listed below.

<b>Advanced Disposal</b> Cumberland County Western Berks Landfill	<b>Keystone Environmental ordinance</b>  Commonwealth Environmental Systems Landfill Keystone Sanitary Landfill
<b>FKV, LLC</b> Blythe Recycling & Demolition Site (upon approval of Constriction QA & QC)	<b>Lancaster County Solid Waste Management Authority</b> LCSWMA Waste to Energy Facility Susquehanna Resource Recovery Complex
<b>Casella Waste Management</b> McKean County Landfill Hyland Landfill* *Back-up Facility:	<b>Republic Services</b> Conestoga Landfill Modern Landfill
<b>Clinton County Solid Waste Authority</b> Wayne Township Landfill	<b>Waste Management</b> Alliance Landfill Grand Central Landfill Mountain View Reclamation Landfill
<b>J.P. Mascaro &amp; Sons</b> Pioneer Crossing Landfill	<b>York County Solid Waste &amp; Refuse Authority</b> York County Resource Recovery Center



## **CHAPTER SEVEN**

### **Administration and Enforcement**

#### **Office of Solid Waste & Resource Management**

The Schuylkill County Board of Commissioners, as with other County functions, have a responsibility to oversee the enforcement and implementation of the Schuylkill County Municipal Solid Waste Management Plan's content and recommendations. Realistically, it is impossible for the Commissioners to carry out the day-to-day functions necessary to fulfill that task. Fortunately, under the provisions of Act 101, the County has the choice to delegate those duties to another representative, agency, or organization. Chapter 7 outlines the associated responsibilities.

In Schuylkill County, the Office of Solid Waste & Resource Management has and will continue to oversee the implementation of the Schuylkill County Municipal Solid Waste Management Plan. The Office is responsible for monitoring the disposal capacity agreements and reviewing the reports submitted by each facility. Public education and coordination of County sponsored programs commence here. In addition, the Office fulfills the County's reporting requirements to PADEP, and ensures the recommendations resulting from the planning process are put into action and in turn, enforced.

## STAFFING



Schuylkill County employs a small administrative staff. A full time Recycling Coordinator, who reports to the County Engineer and Real Estate Director, is the sole professional employee. The Coordinator must see the guidelines and recommendations set forth in the Plan are implemented according to schedule. Serving as the County's liaison with the Pennsylvania Department of Environmental Protection, the Coordinator is ultimately responsible for regulatory compliance and reporting, including submission of the County's Annual Report.

Acting as the County's ambassador, the Recycling Coordinator interacts directly with members of the community, municipal officials, and the private sector.

The Recycling Coordinator originates and supervises outreach programs, special collection events, and feasibility studies. The Coordinator also has the responsibility to secure grants to fund those programs. A significant responsibility for the Recycling Coordinator is the operation of the County's recycling drop-off collection program. The Coordinator supervises three drivers and three helpers who run the collection routes. The drop-off program is time consuming and often prevents the Coordinator from providing other beneficial services to the community. With more and more public and regulatory demands for programs and services, the Office of Solid Waste & Resource Management inevitably will need additional support staff.

## NETWORKING AND PROFESSIONAL DEVELOPMENT

Because it is important for the Office of Solid Waste & Resource Management to be aware of pending regulatory changes that could affect the County's programs, the Recycling Coordinator should be an active participant in the periodic PADEP Northeast Regional Roundtables. These meetings offer a perfect opportunity to foster a peer-to-peer network and develop a solid working relationship with the Department.

With greater competition for funding and other sources of revenue on the horizon, a staff knowledgeable in industry trends, new technology, and applications positions the County to offer the best mix of services for

*With greater competition for funding on the horizon, a highly qualified staff knowledgeable in industry trends, positions the county to offer the best mix of services for Schuylkill county residents and businesses.*

Schuylkill County residents and businesses. It also allows the staff to be prepared with the background data required to write and submit strong grant applications and obtain funding. Most Recycling Coordinators benefit from membership and participation in the variety of municipal waste and recycling related trade organizations and associations. The Pennsylvania Recycling Markets Center offers frequent webinars, summits, and seminars on timely topics and issues. The National Recycling Coalition, the Solid Waste Association of North America, and Keep America Beautiful, among others, host special events, workshops and professional certification programs. Reading and reviewing industry related articles and publications are also useful. Periodically, training should go beyond industry topics and focus on leadership, fiscal responsibility, fundraising and strategic planning.

The Office of Solid Waste & Resource Management should maintain an open line of communication with the Schuylkill County Board of Commissioners regarding solid waste and recycling issues. As the implementing entity, the Office of Solid Waste & Resource Management should keep the Commissioners' informed of the program's achievements and constraints; provide regulatory updates; communicate funding needs; and offer suggestions for program improvements. In turn, for the Plan to be implemented successfully, the Commissioners will need to support the efforts of their delegate.

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# CHAPTER EIGHT

## Public Sector Roles and Functions

### Equal Contributors

In Schuylkill County, the public sector focuses primarily on the development of policies, public awareness and education, as well as the coordination of municipal solid waste and recycling programs. At times, these functions include services to the public, which are provided through arrangements with private sector contractors. Regionally, the private sector is the sole source of waste disposal and recycling processing facilities. The private sector is also the dominant, but not exclusive, provider of waste collection and recycling collection services.

This arrangement has successfully served the needs of Schuylkill County for multiple decades. The County supports the efforts of private industry through open communication, education, and enforcement of proper waste management practices. Planning and development are as vital to the growth of the municipal waste infrastructure as the services themselves.

The relationship between the public and private sectors, as it currently exists, is expected to continue throughout the planning period. This chapter summarizes the operational role of local government in municipal solid waste management. It describes the functions and assets of both County and municipal entities. Factors that could influence change in the future are also discussed.

### COUNTY LEVEL FACILITIES AND FUNCTIONS

The Schuylkill County Office of Solid Waste & Resource Management supports the advancement of solid waste management technologies and processes that capture the

greatest value from the waste stream and minimize disposal. The Office of Solid Waste & Resource Management owns vehicles, containers, and other related items all utilized in the implementation of the Countywide Recycling Drop-off Collection program. These purchases were made possible by PADEP Act 101, Section 902 grants. County employees conduct the day-to-day operations of collecting and processing the materials collected from the program.

### **MUNICIPAL LEVEL FACILITIES AND FUNCTIONS**

While there are some exceptions, for the most part, municipalities in Schuylkill County are not directly engaged in the collection and transportation of municipal solid waste or recyclables.

On a seasonal basis, a few municipalities utilize the public works crews to collect leaves, leaf waste and yard debris. These materials are sometimes chipped and mulched for use on public grounds. The details of every equipment purchase are unknown; however, at least a portion of the chippers/shredders used for this purpose were funded, in part by the Section 902 grants.

One municipality recently obtained a permit approval from {PADEP [ for the operation of a construction and demolition landfill. At the time the Plan was being developed and reviewed, the facility had yet to be constructed.

### **FUTURE PROGRAMS AND FACILITIES**

Based on the private sector's current level of investment in the major components of the municipal solid waste infrastructure, there is no reason to believe the County or the municipalities will seek to compete in that realm.

New processes or methods of managing waste materials may develop during this planning period. As in the past, the County may develop pilot programs or policies to introduce new concepts. However, it is anticipated the private sector's role of service provider will not change during the Plan's implementation period.



## CHAPTER NINE

### Legal Documents and Mechanisms

#### Purpose and Need

Clarity and openness are vital when communicating goals and expectations to the public. When residents, businesses, and service providers understand their roles and responsibilities in municipal solid waste management, implementing and enforcing the Plan becomes easier. Rules and regulations are the means that most local governments use to convey these messages. Such guidelines are valuable deterrents to illegal waste management practices and are useful in resolving conflicts and disputes regarding solid waste issues. The members of the Solid Waste Advisory Committee discussed and supported the need to have effective tools and mechanisms to implement and enforce the goals and objectives set forth in the Plan.

The County is granted certain powers under Act 101. However, local ordinances, contracts, and other legal documents empower the Schuylkill County Office of Solid Waste & Resource Management to enforce these policies. The following narratives provide brief descriptions and explanations for the various mechanisms that will Schuylkill County use. The documents are provided in separate sections of the Appendices, with the specific location for each noted below.

It should be noted that throughout the time in which the Plan will be implemented, forms and guidelines, as well as other documents, might be developed and revised to simplify and improve the procedures and policies. However, these changes will not alter the legal or contractual content of the Plan.

## COUNTY SOLID WASTE AND RECYCLING ORDINANCE

The Solid Waste and Recycling Ordinance was drafted to provide a comprehensive set of standards for municipal solid waste management throughout the County. It replaces the previous solid waste ordinance that focused primarily on hauler licensing. Commensurate with the provisions of the Waste Transportation Safety Act (Act 90), which supersedes local governments' authority in this area, licensing

has been abandoned. Nevertheless, the Solid Waste and Recycling Ordinance does establish requirements for those collecting and transporting municipal waste.



Transporters of municipal solid waste are still subject to flow control. All transporters will be required to report their activities. Transporter reporting facilitates the County's annual reporting requirements to PADEP. Additionally, the County increases its opportunities to obtain Act 101, Section 904 Performance Grants by more thoroughly tracking and monitoring the activities of those engaged in handling and transporting recyclables.

The Solid Waste and Recycling Ordinance also establishes, in Schuylkill County, standards for the management of municipal

waste and recyclables from all sources. Greater enforcement measures for violations of the ordinance and the authority to execute them have been included. The ordinance is in Appendix F.

## REQUEST FOR PROPOSALS FOR DISPOSAL CAPACITY AGREEMENT

To fulfill its primary responsibility under Act 101, the County issued a Request for Proposals for Disposal Capacity. The County posted the solicitation in a national trade publication and the PA Bulletin. The Request for Proposals established a fair, open, and competitive procurement process. It outlined specific eligibility criteria for inclusion of a facility in the Plan. It also provided a universal contractual agreement to be executed by the facility and the County. The Request for Proposal and the published solicitation are in Appendix D.

## EXECUTED DISPOSAL CAPACITY AGREEMENTS

A fully executed contract from each facility guaranteeing disposal capacity to Schuylkill County is in Appendix I.

### **PETITION TO ADD A FUTURE DISPOSAL FACILITY**

Unforeseen opportunities and circumstances will occur throughout the implementation period of the Plan. Technological advancements could present processes and/or facilities that are not currently available. Mergers and acquisitions could prompt industry requests to divert waste to facilities that do not have capacity agreements with the County. To accommodate such situations, the Plan provides a mechanism to add facilities in the future. The same criteria set forth in the original Request for Proposals will apply to any future facilities. In addition, each facility will be required to execute the same disposal capacity agreement as those landfills currently designated in the Plan. The local municipalities and the PADEP must be notified of the inclusion of a new facility. Appendix E includes the Petition to add a Processing/Disposal Facility in the Plan. The requirements for completing that process are also described.

### **MOTION TO ADOPT THE PLAN REVISIONS**

Upon completion of this Plan revision, the Schuylkill County Board of Commissioners adopted the revised Plan in the form of a motion contained in Appendix H.

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# CHAPTER TEN

## Changes and Impact

### Transition Plan

Representatives from all classes of Schuylkill County municipalities, worked together with local agencies and institutions, as well as the waste and recycling industry to ensure revisions to the 2015 Schuylkill County Municipal Solid Waste Management Plan were reasonable. The participants voiced a need to implement change in a seamless non-disruptive fashion. Based on a consensus of future priorities, recommended changes or additions in program structure, services, or policies, may be phased in during the implementation schedule. This approach is designed to provide a smooth transition for all stakeholders. In addition, it will ensure the availability and readiness of local resources and infrastructure.

For the most part, the Plan builds upon the foundation of previous decisions and philosophies, but with current finances, circumstances, and regulatory expectations taken into consideration. It thoroughly explores services and technologies not available during the development of the original Plan. Each was evaluated to determine if and how it may serve to improve Schuylkill County's municipal solid waste management system.

### Core Programs and Services

Distinctions were made between the types of services that *are* and that *could be* provided more practically by municipalities, and those that could be more effectively managed by the County. Promotion and use of private sector resources and investments was highly favored.

A number of vital programs and services are reliant on certain economies of scale that can only be accomplished by County coordination and implementation. These include Household Hazardous Waste, Electronic Waste, and periodic bulk waste collections.

On the other hand, based on the survey conducted by the Office of Solid Waste & Resource Management, there are services which are manageable, affordable, and more effective when municipalities lead those the initiatives. At the municipal level, as well as in conjunction with the private sector, funding in the form of direct user fees and invoicing is possible for many services, while the County does not have that ability.

**SHIFTING FROM DROP-OFF TO CURBSIDE**

The Solid Waste Advisory Committee voiced strong consensus on the need for the County to abandon its drop-off recycling collection program. With aging equipment, decreasing revenues, and ongoing contamination, the program has become less sustainable. The SWAC recommends a transition to curbside waste and recycling collection service throughout the County. The background and justification for this recommendation are discussed in more detail in Chapter 4 and Chapter 5.

To achieve universal standards and services, the SWAC favored the growth of municipal contracts for residential waste and recycling collection. At a minimum, municipalities should consider ordinances that mandate participation by residents. A phased in approach is suggested.

During that time the County will gradually withdraw collection sites and/or temporarily contract with the private sector if it can reduce costs. A staffed convenience center(s) is recommended. Such a center or centers could collect recyclables well as bulky items, ewaste, etc.

Intergovernmental cooperation is expected in order to attain this objective over the course of the Plan’s implementation period. Due to the decrease in illegal dumping and littering, an improvement in general public health and safety is expected.





# CHAPTER ELEVEN

## Cooperative Use of Facilities

### Mutual Needs and Obligations

All Pennsylvania counties share the responsibility to provide adequate disposal capacity for municipal waste generated within their borders and to attain the state's recycling goals. These requirements are clearly outlined by the Municipal Waste Planning, Recycling, and Waste Minimization Act of 1988 (Act 101). A municipal solid waste management plan is the exercise in which counties determine needs, policies, and procedures, along with an action plan to attain these goals.

The premise and content of Act 101 is not unique. Similar laws were enacted throughout the nation. Local governments in states surrounding Pennsylvania share the struggle to achieve these goals. Based on the economies of scale, it is unreasonable to think each county would meet its capacity obligations by investing in and operating its own disposal facility. This same logic applies to the processing and marketing of recyclable commodities. Counties, who forego this option, often rely on local private sector development or facilities in other locales.

Meeting the technological standards and the regulatory criteria imposed on the design and operation of contemporary facilities requires a substantial financial commitment. To justify these investments and to operate a profitable and therefore sustainable facility requires a set and predictable volume of materials. The same is true whether the facility is developed for waste or recycling.

When put in this perspective, the ability to move waste and recyclables across county and state lines, not only makes sense, but also is necessary to control the cost to all

users. For those reasons, private sector facilities are typically developed with the intent of drawing from a regional waste shed, rather than a single county. This chapter demonstrates how Schuylkill County protects its need for municipal solid waste capacity without interfering with the needs of other counties.

## **A REGIONAL WASTE SHED**

The Schuylkill County Municipal Solid Waste Management Plan, through a local ordinance directs haulers who are transporting Schuylkill County municipal solid waste for disposal to a number of facilities that executed contractual commitments guaranteeing disposal capacity to the County. During the planning process, it was noted that historically, Schuylkill County solid waste has been disposed in twenty-seven different facilities. Schuylkill County is host to one of those facilities, which is currently operating, and another that will be constructed during the implementation phase of the Plan. The remainder of the County's municipal and residual waste is managed at sites operating in other counties, and its hazardous waste is likely managed in other states.

Likewise, the County and its municipalities use privately operated material recovery facilities to process and market recyclable commodities. These operations rely on a global economy to provide markets to sustain their operations, which include Schuylkill County's recycling programs. Therefore, the County's recyclable materials are ultimately transported elsewhere, including out of state, and out of the country.

County plans throughout the Commonwealth and surrounding states utilize this same approach. Waste from these areas flows into the same network of disposal and processing facilities used by Schuylkill County, including those located within the County's borders. Each facility has entered into long term agreements, which share a secured portion of their capacity with one or more counties or businesses. Recyclables from other counties and states are also transported to the facilities that Schuylkill County and its municipalities utilize for processing.

## **NON-INTERFERENCE**

Just as Schuylkill County relies on the cooperation of other counties and states, which permit the disposal facilities in their jurisdictions to manage the County's waste, others expect a mutual response from Schuylkill County. In return, the County respects the contractual obligations that local facilities may have with other parties. In addition, the County understands the local operators' need to design, finance, and construct reasonable expansions to meet these various capacity commitments. The County will not interfere with the normal operational and regulatory process involved with such expansions. Additionally, the County will not inhibit the free enterprise of the local facilities nor prevent them from generating the necessary profits to support such projects, provided each complies with the provisions of the Schuylkill County Municipal Solid Waste Management Plan.



# CHAPTER TWELVE

## Stakeholder Participation

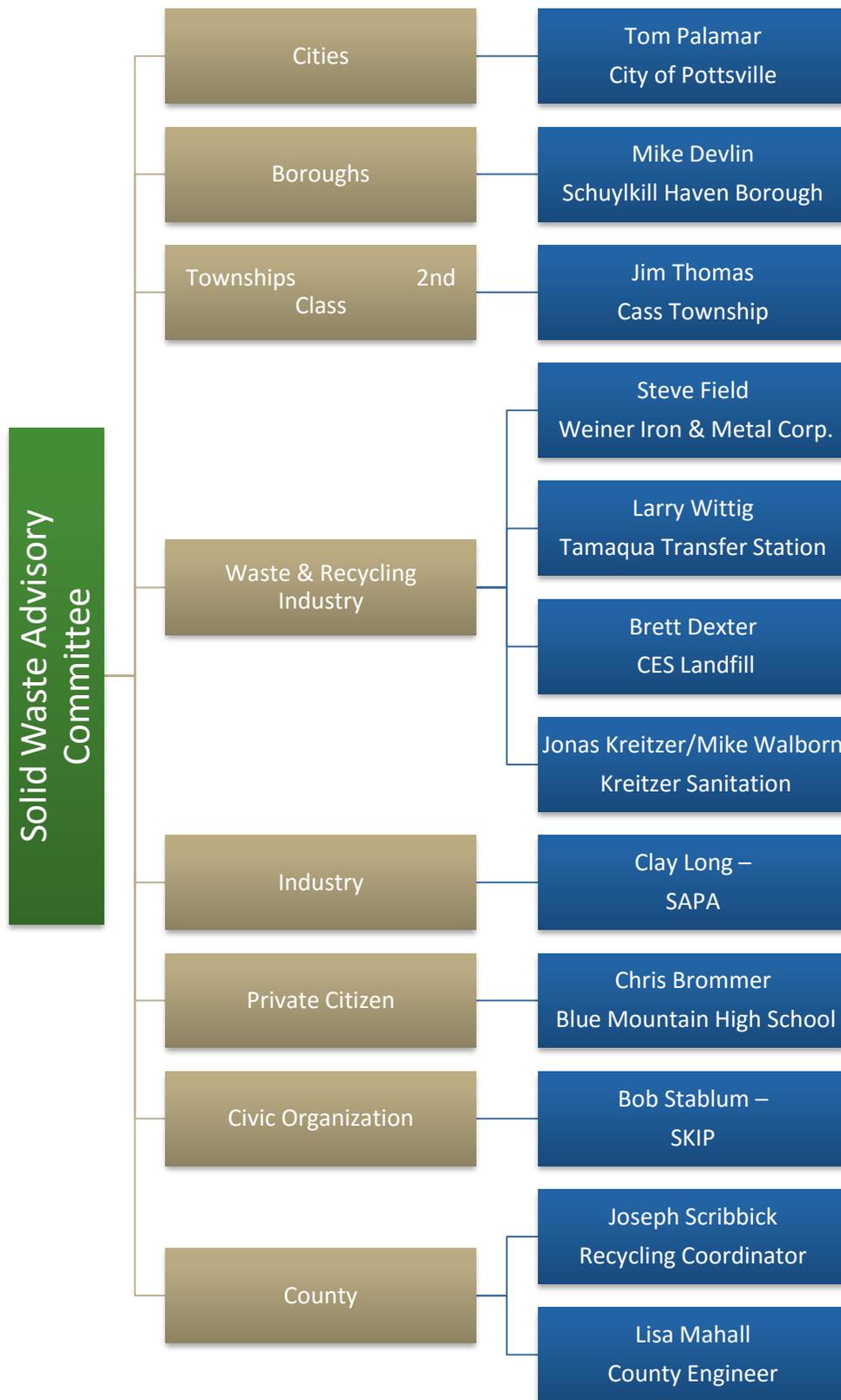
### A Plan Customized for the Local Community

Regardless of the locale, solutions to municipal solid waste management must meet four basic and simple criteria. Plans, policies, and programs should be realistic, easily implemented, cost effective, and enforceable. Equipment, material processes, and funding mechanisms must all follow this criteria. Public participation ensures to a greater degree that this will occur.

Of equal, if not greater importance are political and personal concerns that often dictate or limit the regulatory framework and/or the types of services made available. Soliciting input from a wide spectrum of individuals and organizations that will be affected directly or indirectly by solid waste management decisions is essential to achieve balanced decisions during the planning process. Typically, elected officials, regulatory agencies, enforcement officers, and quasi-governmental organizations have an expected role. However, the opinions and ideas of citizens, businesses, industries, service providers, and municipalities are key in assessing public awareness and motivation, along with service needs.

Chapter 12 summarizes the stakeholder experience in the development of the Schuylkill County Municipal Solid Waste Management Plan. It outlines the criteria for advisory committee member selection. It highlights the agenda topics, the information presented, and the comments and suggestions offered.

Figure 12-1 Schuylkill County Municipal Waste Advisory Committee



## **FORMATION OF THE SOLID WASTE ADVISORY COMMITTEE**

To develop a Plan that would meet the needs of the local community, the Schuylkill County Board of Commissioners recognized the importance of obtaining feedback from sources outside of County government. To facilitate this valued interaction with local stakeholders, the County established the Solid Waste Advisory Committee (SWAC). The Board of Commissioners appointed thirteen individuals who represent a balance of specific interests within the County to serve on the Committee. Local government representatives were selected from specific classes of the political jurisdictions, including the County. In addition to public sector representation, individuals from environmental interest groups, private waste and recycling industry companies, and local industry all served as members on the committee. Figure 12-1 lists the members and their affiliations.

## **PRESENTATIONS AND DISCUSSIONS**

A series of meetings, facilitated by the Recycling Coordinator and the Project Consultant, were scheduled periodically during the development of the Plan. Each meeting focused on one or more related elements. Most meetings included presentations by the Project Consultant on findings resulting from analyses of local data. The Project Consultant addressed comments and questions from the group. The Recycling Coordinator also offered commentary to clarify data, policies, and operational methods.

Topics included County demographics, national and local municipal waste composition trends, infrastructure strengths and weaknesses, and generation, recovery and disposal. During the discussions, some issues surfaced that deserved further investigation.

## **MEETING RECORDS**

Appendix H includes the agendas/presentations of the Solid Waste Advisory Committee meetings and comments received from municipalities, PADEP, and the general public during the review process, along with the Committee's responses.

## **COMMITTEE DIALOGUE**

The SWAC meetings were interactive, and the members were open and forthcoming with their views. The Committee made observations and expressed their concerns on certain prevailing conditions, specifically intolerance for illegal dumping, littering, and open burning.

A common thread in the discussions was the roles and responsibilities of elected officials to adopt and enforce policies that protect the environment and ensure public health and safety. The SWAC favored municipally contracted services with mandatory participation.

Lower than desired recycling rates, particularly in the mandated municipalities was the subject of significant commentary. Ordinances that would require all haulers to offer recycling to their waste collection customers as part of a bundled service package were considered desirable. With the continued prevalence of single stream recycling, the Committee reinforced the need for larger capacity recycling containers, particularly those suited for automated collection. Different ways to finance the purchase and distribution of the containers were suggested.

## **Outcome**

The comments and concerns of the SWAC were given serious consideration, and to the fullest extent possible, they have been incorporated into the final recommendations included in Chapter 5.



# **APPENDIX A**

## **Common Words and Acronyms**

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The following words, terms, and acronyms are commonly used in discussions of municipal solid waste management and recycling. Throughout this plan, those words, terms, and acronyms have the following meanings, unless the context clearly indicates otherwise:

**Abatement**—The restoration, reclamation, recovery, and the like of a natural resource adversely affected by the activity of a person, permittee, or municipality.

**Act**—The Solid Waste Management Act (35 P. S. § § 6018.101–6018.1003).

**Agricultural utilization**—The land application of sewage sludge for its plant nutrient value or as a soil conditioner as part of an agricultural operation.

**Agricultural waste**—Poultry and livestock manure, or residual materials in liquid or solid form generated in the production and marketing of poultry, livestock, fur bearing animals, and their products, if the agricultural waste is not hazardous. The term includes the residual materials generated in producing, harvesting, and marketing of agronomic, horticultural, and silvicultural crops or commodities grown on what are usually recognized and accepted as farms, forests, or other agricultural lands.

**Aluminum**—Refers to cans comprised of 100% aluminum.

**Association**—A corporation, partnership, limited liability company, business trust, or two or more persons associated in a common enterprise or undertaking.

**Autoclave**—A pressure vessel in which infectious waste is disinfected using high temperature steam, directly or indirectly, to maintain specified temperatures for retention times consistent with the waste being processed.

**Beneficial use**—Use or reuse of residual waste or residual material derived from residual waste for commercial, industrial or governmental purposes, where the use does not harm or threaten public health, safety, welfare, or the environment, or the use or reuse of processed municipal waste for any purpose, where the use does not harm or threaten public health, safety, welfare or the environment.

**C&D**— Construction Demolition Waste

**Chemotherapeutic waste**—Waste resulting from the production or use of antineoplastic agents used for the purpose of inhibiting or stopping the growth of malignant cells or killing malignant cells. The term does not include waste containing antineoplastic agents that are hazardous wastes under Chapter 261a (relating to identification and listing of hazardous waste) and 40 CFR Part 261 (relating to identification and listing of hazardous waste) to the extent that Part 261 is incorporated in § 261a.1 (relating to incorporation by reference, purpose and scope).

**Clean fill**—Uncontaminated, nonwatersoluble, nondecomposable inert solid material used to level an area or bring the area to grade. The term does not include material placed into or on waters of this Commonwealth.

**Closure**—The date on which a municipal waste processing or disposal facility permanently ceases to accept waste, and access is limited to activities necessary for postclosure care, maintenance, and monitoring.

Commercial establishment—An establishment engaged in nonmanufacturing or nonprocessing business, including, but not limited to, stores, markets, office buildings, restaurants, shopping centers, and theaters.

Community activities—Events sponsored in whole or in part by a municipality, or conducted within a municipality and sponsored privately, which include, but are not limited to, fairs, bazaars, socials, picnics, and organized sporting events that will be attended by 200 or more individuals per day.

Composting—The process by which organic solid waste is biologically decomposed under controlled anaerobic or aerobic conditions to yield a humus-like product.

Composting facility—A facility using land for processing of municipal waste by composting. The term includes land thereby affected during the lifetime of the operations, including, but not limited to, areas where composting actually occurs, support facilities, borrow areas, offices, equipment sheds, air and water pollution control and treatment systems, access roads, associated onsite or contiguous collection, transportation and storage facilities, closure and postclosure care and maintenance activities and other activities in which the natural land surface has been disturbed as a result of or incidental to operation of the facility. The term does not include a facility for composting residential municipal waste that is located at the site where the waste was generated.

Construction/demolition waste—Solid waste resulting from the construction or demolition of buildings and other structures, including, but not limited to, wood, plaster, metals, asphaltic substances, bricks, block and unsegregated concrete. The term does not include the following if they are separate from other waste and are used as clean fill:

- (i) Uncontaminated soil, rock, stone, gravel, brick and block, concrete and used asphalt.

Waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material.

Construction/demolition waste landfill—A facility using land exclusively for the disposal of construction/demolition waste. The term includes land affected during the lifetime of the operations, including, but not limited to, areas where disposal activities actually occur, support facilities, borrow areas, offices, equipment sheds, air and water pollution control and treatment systems, access roads, associated onsite or contiguous collection, transportation and storage facilities, closure and postclosure care and maintenance activities and other activities in which the natural land surface has been disturbed as a result of or incidental to the operation of the facility.

Container—A portable device in which waste or recyclables are held for storage or transportation.

Corrugated paper—A structural paper material with an inner core shaped in rigid parallel furrows and ridges.

Department—The Department of Environmental Protection of the Commonwealth, and its authorized representatives

**Disposal**—The deposition, injection, dumping, spilling, leaking or placing of solid waste into or on the land or water in a manner that the solid waste or a constituent of the solid waste enters the environment, is emitted into the air or is discharged to the waters of this Commonwealth.

**Disposal area**—The part of the site where disposal is occurring or will occur.

**Environmental protection acts**—The act, The Clean Streams Law (35 P. S. §§ 691.1—691.1001), the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. §§ 4001.101—4001.1904), the Hazardous Sites Cleanup Act (35 P. S. §§ 6020.101—6020.1305), the Low-Level Radioactive Waste Disposal Act (35 P. S. §§ 7130.101—7130.906), the act of July 13, 1988 (35 P. S. §§ 6019.1—6019.6), known as the Infectious and Chemotherapeutic Waste Disposal Law, the Air Pollution Control Act (35 P. S. §§ 4001—4015), the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.31), the Noncoal Surface Mining Conservation and Reclamation Act (35 P. S. §§ 3301—3326), the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27), and other State or Federal statutes relating to environmental protection or the protection of public health, including statutes adopted or amended after April 9, 1988. Environmental Stewardship and Watershed Protection Act—27 Pa.C.S. § §6101—6113.

**Facility**—Land, structures and other appurtenances or improvements where municipal waste disposal, processing or beneficial use is permitted or takes place.

**Feasibility study**—A study which analyzes a specific municipal waste processing, recycling or disposal system to assess the likelihood that the system can be successfully implemented, including, but not limited to, an analysis of the prospective market, the projected costs and revenues of the system, the municipal waste stream that the system will rely upon and various options available to implement the system.

**Final closure**—The date after which no further treatment, maintenance or other action is or will be necessary at a municipal waste processing or disposal facility to ensure compliance with the act and this article.

**Generator**—A person or municipality that produces or creates a municipal waste.

**Hazardous waste**—Garbage, refuse or sludge from an industrial or other waste water treatment plant; sludge from a water supply treatment plant or air pollution control facility; and other discarded material, including solid, liquid, semisolid or contained gaseous material resulting from municipal, commercial, industrial, institutional, mining, or agricultural operations, and from community activities; or a combination of the above, which because of its quantity, concentration or physical, chemical or infectious characteristics may do one of the following:

(i) Cause or significantly contribute to an increase in mortality or increase in morbidity in either an individual or the total population.

(ii) Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed.

The term does not include coal refuse as defined in the Coal Refuse Disposal Control Act (52 P. S. §§ 30.51—30.101). The term does not include treatment sludges from coal mine

drainage treatment plants, disposal of which is being carried on under and in compliance with a valid permit issued under The Clean Streams Law (35 P. S. § § 691.1—691.1001). The term does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act (33 U.S.C.A. § 1341) or source, special nuclear or byproduct material as defined by the Atomic Energy Act of 1954 (42 U.S.C.A. § § 2011—2284).

HDPE—High Density Polyethylene

HHW— Household hazardous waste

High-grade office paper—Bond, copier, letterhead or mimeograph paper typically sold as “white ledger” paper; and computer paper.

Household hazardous waste— Waste generated by a household that could be chemically or physically classified as a hazardous waste under the standards of Article VII (relating to hazardous waste management).

For the purpose of this definition, the term “household” includes those places described as “households” in 40 CFR 261.4(b)(1) (relating to exclusions).

ICW— Infectious Chemotherapeutic Waste (now Regulated Medical Waste)

Incinerator—An enclosed device using controlled combustion for the primary purpose of thermally breaking down solid waste, and which is equipped with a flue as defined in § 121.1 (relating to definitions).

Industrial establishment—An establishment engaged in manufacturing or processing, including, but not limited to, factories, foundries, mills, processing plants, refineries, mines and slaughterhouses.

Institutional establishment—An establishment engaged in service, including, but not limited to, hospitals, nursing homes, orphanages, schools and universities.

Land application—Agricultural utilization or land reclamation of solid waste. The term does not include the disposal of solid waste in a landfill or disposal impoundment.

Land disposal—The land application of sewage sludge for purposes other than agricultural utilization or land reclamation.

Landowner—The person or municipality in whom legal title to the surface of the land is vested.

Land reclamation—The land application of sewage sludge for its plant nutrient value or as a soil conditioner, in order to establish vegetative growth or restore or enhance the soil.

Schuylkill County Office of Solid Waste and Resource Management— The entity responsible for implementing the provisions of the Schuylkill County Municipal Solid Waste Management Plan.

Leachate—A liquid that has permeated through or drained from solid waste.

Leaf composting facility—A facility for composting vegetative material, including leaves, garden residue and chipped shrubbery and tree trimmings. The term does not include a facility that is used entirely or partly for composting grass clippings.

Leaf waste—Leaves, garden residues, shrubbery and tree trimmings, and similar material, but not including grass clippings.

Liquid waste—A waste that contains free liquids as determined by Method 9095 (paint filter liquids test), as described in the EPA’s “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (EPA Publication No. SW-846).

Management—The entire process, or a part thereof, of storage, collection, transportation, processing, treatment and disposal of solid wastes by a person engaging in the process.

Marketed—The transfer of ownership of recyclable materials for the purpose of recycling the materials into a new product or use.

Maximum daily volume—The maximum daily volume limit that is permitted to be received for disposal at the facility on an operating day.

MRF— Materials Recovery Facility

MSW— Municipal solid waste

Municipality—A city, borough, incorporated town, township, county or an authority created by any of the foregoing.

Municipal recycling program—A source separation and collection program for recycling municipal waste or source-separated recyclable materials, or a program for designated drop-off points or collection centers for recycling municipal waste or source-separated recyclable materials, that is operated by or on behalf of a municipality. The term includes a source separation and collection program for composting yard waste that is operated by or on behalf of a municipality. The term does not include a program for recycling construction/demolition waste or sludge from sewage treatment plants or water supply treatment plants.

Municipal waste—Garbage, refuse, industrial lunchroom or office waste and other material, including solid, liquid, semisolid or contained gaseous material resulting from operation of residential, municipal, commercial or institutional establishments and from community activities; and sludge not meeting the definition of residual or hazardous waste under this section from a municipal, commercial or institutional water supply treatment plant, waste water treatment plant or air pollution control facility.

Municipal waste disposal or processing facility—A facility using land for disposing or processing of municipal waste. The facility includes land affected during the lifetime of operations, including, but not limited to, areas where disposal or processing activities actually occur, support facilities, borrow areas, offices, equipment sheds, air and water pollution control and treatment systems, access roads, associated onsite or contiguous collection, transportation and storage facilities, closure and postclosure care and maintenance activities and other activities in which the natural land surface has been disturbed as a result of or incidental to operation of the facility.

Municipal waste landfill—A facility using land for disposing of municipal waste. The facility includes land affected during the lifetime of operations including, but not limited to, areas

where disposal or processing activities actually occur, support facilities, borrow areas, offices, equipment sheds, air and water pollution control and treatment systems, access roads, associated onsite and contiguous collection, transportation and storage facilities, closure and postclosure care and maintenance activities and other activities in which the natural land surface has been disturbed as a result of or incidental to operation of the facility. The term does not include a construction/demolition waste landfill or a facility for the land application of sewage sludge.

**Municipal waste management plan**—A comprehensive plan for an adequate municipal waste management system in accordance with Chapter 272, Subchapter C (relating to municipal waste planning).

**Municipal Waste Planning, Recycling and Waste Reduction Act**—53 P. S. §§ 4000.101—4000.1904.

**NPDES**—National Pollutant Discharge Elimination System

**Normal farming operations**—The customary and generally accepted activities, practices and procedures that farms adopt, use or engage in year after year in the production and preparation for market of poultry, livestock and their products; and in the production, harvesting and preparation for market of agricultural, agronomic, horticultural, silvicultural and aquicultural crops and commodities; if the operations are conducted in compliance with applicable laws, and if the use or disposal of these materials will not pollute the air, water or other natural resources of this Commonwealth. The term includes the storage and utilization of agricultural and food process wastes for animal feed, and the agricultural utilization of septic tank cleanings and sewage sludges, which are, generated offsite. The term also includes the management, collection, storage, transportation, use or disposal of manure, other agricultural waste and food processing waste on land where the materials will improve the condition of the soil, the growth of crops or in the restoration of the land for the same purposes.

**OCC**— Old corrugated cardboard

**ONP**— Old newsprint

**Onsite**—The same or geographically contiguous property owned or leased or used by a generator or waste management facility, which may be divided by public or private right-of-way, if the entrance and exit between the properties is at a crossroads intersection, and access is by crossing, as opposed to going along the right-of-way. Noncontiguous properties owned or leased by the same person or municipality but connected by a right-of-way under the control of the person or municipality and to which the public does not have access, are also considered onsite property. A facility that does not meet the requirements of this definition is an offsite facility.

**Operate**—To construct a municipal waste management facility in anticipation of receiving solid waste for the purpose of processing or disposal; to receive, process or dispose of solid waste; to carry on an activity at the facility that is related to the receipt, processing or disposal of waste or otherwise affects land at the facility; to conduct closure and postclosure activities at a facility.

**Operator**—A person or municipality that operates a municipal waste processing or disposal facility.

**Owner**—The person or municipality who is the owner of record of a facility or part of a facility.

**PADEP**— Pennsylvania Department of Environmental Protection

**PAYT**— Pay as you throw. A method of charging for waste collection that is based on incremental volume.

**Permit**—A permit issued by the Department to operate a municipal waste disposal or processing facility, or to beneficially use municipal waste. The term includes a general permit, permit-by-rule, permit modification, permit reissuance and permit renewal.

**Permit area**—The area of land and water within the boundaries of the permit, which is designated on the permit application maps as approved by the Department. The area includes the areas, which are or will be affected by the municipal waste processing or disposal facility.

**Person**—An individual, partnership, corporation, association, institution, cooperative enterprise, municipal authority, Federal Government or agency, State institution and agency—including, but not limited to, the Department of General Services and the State Public School Buildings Authority—or another legal entity which is recognized by law as the subject of rights and duties. In the provisions of this article pertaining to a fine or penalty, the term includes the officers and directors of a corporation or other legal entity having officers and directors.

**PET**—PolyethyleneTeraphthalate

**Plan revision**—A change that affects the contents, terms or conditions of a Department approved plan under the Municipal Waste Planning, Recycling and Waste Reduction Act.

**Pollution**—Contamination of air, water, land or other natural resources of this Commonwealth that will create or is likely to create a public nuisance or to render the air, water, land or other natural resources harmful, detrimental or injurious to public health, safety or welfare, or to domestic, municipal, commercial, industrial, agricultural, recreational or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other life.

**Postclosure**—Activities after closure which are necessary to ensure compliance with the act and this article, including application of final cover, grading and revegetation; groundwater, surface water and gas monitoring; erosion control and gas control; leachate treatment, and abatement of pollution or degradation to land, water, air or other natural resources.

**Post consumer material**—A product generated by a business or consumer which has served its intended end use, and which has been separated or diverted from solid waste for the purposes of collection, recycling and disposition. The term includes industrial byproducts that would otherwise go to disposal or processing facilities. The term does not include internally generated scrap that is commonly returned to industrial or manufacturing processes.

**Processing**—Technology used for the purpose of reducing the volume or bulk of municipal or residual waste or technology used to convert part or all of the waste materials for offsite reuse. Processing facilities include, but are not limited to, transfer facilities, composting facilities and resource recovery facilities.

**Project development**—Activities required to be conducted prior to constructing a processing or disposal facility that have been shown to be feasible, including, but not limited to, public input and participation, siting, procurement and vendor contract negotiations, and market and municipal waste supply assurance negotiations.

**Reasonable expansion**—A municipal waste landfill that meets the following:

(i) The facility represents growth of an existing permitted municipal waste landfill to land, which is contiguous to the existing landfill.

(ii) The contiguous land meets one of the following:

(A) The land is owned in fee by the owner of the municipal waste landfill.

(B) The land is subject to an irrevocable option exercisable within 1 year of one of the following:

(I) If the land is located in a county that will be submitting a plan under § 272.211(a) (relating to general requirement), the date that the first written notice of plan development is given under § 272.203 (relating to notice to municipalities).

(II) If the land is located in a county that had a plan approved under § 272.211(b), the date that the first written notice of proposed revision of the approved plan is given under § 272.203.

(iii) The contiguous land contains the same geological features as are present at the existing municipal waste landfill.

(iv) A complete permit application for the expansion is filed with the Department within 1 year of one of the following:

(A) If the land is located in a county that will be submitting a plan under § 272.211(a), the date that the first written notice of plan development is given under § 272.203.

(B) If the land is located in a county that had a plan approved under § 272.111(b), the date that the first written notice of proposed revision of the approved plan is given under § 272.203.

**Recycling**—The collection, separation, recovery and sale or reuse of metals, glass, paper, plastics and other materials which would otherwise be disposed or processed as municipal waste.

**Recycling facility**—A facility employing a technology that is a process that separates or classifies municipal waste and creates or recovers reusable materials that can be sold to or reused by a manufacturer as a substitute for or a supplement to virgin raw materials. The term does not include transfer facilities, municipal waste landfills, composting facilities or resource recovery facilities.

**Recycling Fund**—The fund established under section 706 of the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. § 4000.706).

**Regulated Medical Waste** — (i) General. Municipal and residual waste which is generated in the diagnosis, treatment, immunization or autopsy of human beings or animals, in research pertaining thereto, in the preparation of human or animal remains for interment or

cremation, or in the production or testing of biologicals, and which falls under one or more of the following categories:

(A) Cultures and stocks. Cultures and stocks of infectious agents and associated biologicals, including the following: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines except for residue in emptied containers; and culture dishes, assemblies and devices used to conduct diagnostic tests or to transfer, inoculate and mix cultures.

(B) Pathological wastes. Human pathological wastes, including tissues, organs and body parts and body fluids that are removed during surgery, autopsy, other medical procedures or laboratory procedures. The term does not include hair, nails or extracted teeth.

(C) Human blood and body fluid waste.

(I) Liquid waste human blood.

(II) Blood products.

(III) Items saturated or dripping with human blood.

(IV) Items that were saturated or dripping with human blood that are now caked with dried human blood, including serum, plasma and other blood components, which were used or intended for use in patient care, specimen testing or the development of pharmaceuticals.

(V) Intravenous bags that have been used for blood transfusions.

(VI) Items, including dialysate that have been in contact with the blood of patients undergoing hemodialysis at hospitals or independent treatment centers.

(VII) Items saturated or dripping with body fluids or caked with dried body fluids from persons during surgery, autopsy, other medical procedures or laboratory procedures.

(VIII) Specimens of blood products or body fluids, and their containers.

(D) Animal wastes. Contaminated animal carcasses, body parts, blood, blood products, secretions, excretions and bedding of animals that were known to have been exposed to zoonotic infectious agents or nonzoonotic human pathogens during research (including research in veterinary schools and hospitals), production of biologicals or testing of pharmaceuticals.

(E) Isolation wastes. Biological wastes and waste contaminated with blood, excretion, exudates or secretions from:

(I) Humans who are isolated to protect others from highly virulent diseases.

(II) Isolated animals known or suspected to be infected with highly virulent diseases.

(F) Used sharps. Sharps that have been in contact with infectious agents or that have been used in animal or human patient care or treatment, at medical, research or industrial laboratories.

(ii) Mixtures.

(A) The term also includes materials identified under subparagraph (i) that are mixed with municipal and residual waste, including disposable containers.

(B) The term also includes mixtures of materials identified in subparagraph (i) with quantities of radioactive waste not subject to regulation.

(iii) Exceptions. The term does not include the following:

(A) Wastes generated as a result of home self-care.

(B) Human corpses, remains and anatomical parts that are intended for interment or cremation, or are donated and used for scientific or medical education, research or treatment.

(C) Etiologic agents being transported for purposes other than waste processing or disposal pursuant to the requirements of the United States Department of Transportation (49 CFR 171.1–190), the Department of Transportation (67 Pa. Code Part I) and other applicable shipping requirements.

(D) Samples of infectious waste transported offsite by Commonwealth or United States government enforcement personnel during an enforcement proceeding.

(E) Body fluids or biologicals which are being transported to or stored at a laboratory prior to laboratory testing.

(F) Ash residue from the incineration of materials identified in subparagraphs (i) and (ii) if the incineration was conducted in accordance with § 283.402 (relating to infectious waste monitoring requirements). The ash residue shall be managed as special handling municipal waste.

(G) Reusable or recyclable containers or other nondisposable materials, if they are cleaned and disinfected, or if there has been no direct contact between the surface of the container and materials identified in subparagraph (i). Laundry or medical equipment shall be cleaned and disinfected in accordance with the United States Occupational Safety and Health Administration Requirements in 29 CFR 1910.1030 (relating to blood borne pathogens).

(H) Soiled diapers, which do not contain materials identified in subparagraph (i).

(I) Mixtures of hazardous waste subject to Article VII (relating to hazardous waste management) and materials identified in subparagraph (i) shall be managed as hazardous waste and not infectious waste.

(J) Mixtures of materials identified in subparagraph (i) and regulated radioactive waste shall be managed as radioactive waste in accordance with applicable Commonwealth and Federal statutes and regulations, including, but not limited to, § 236.521 (relating to minimum requirements for classes of waste).

Mixtures of materials identified in subparagraph (i) and chemotherapeutic waste shall be managed as chemotherapeutic waste in accordance with this article.

Remaining available permitted capacity—The remaining permitted capacity that is actually available for processing or disposal to the county or other municipality that generated the waste.

Remaining permitted capacity—The weight or volume of municipal waste that can be processed or disposed of at an existing municipal waste processing or disposal facility. The term includes weight or volume capacity for which the Department has issued a permit

under the act. The term does not include a facility that the Department determines, or has determined, has failed and continues to fail to comply with the act, the regulation thereunder, an order issued thereunder or permit conditions.

**Residential septage**—Liquid or solid material removed from a septic tank, cesspool or similar treatment works that receives only waste or wastewater from humans or household operations. The term includes processed residential septage from a residential septage treatment facility. The term does not include liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant.

**Residual waste**—Garbage, refuse, other discarded material or other waste, including solid, liquid, semisolid or contained gaseous materials resulting from industrial, mining and agricultural operations; and sludge from an industrial, mining or agricultural water supply treatment facility, wastewater treatment facility or air pollution control facility, if it is not hazardous. The term does not include coal refuse as defined in the Coal Refuse Disposal Control Act (52 P. S. §§ 30.51–30.66). The term does not include treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on under and in compliance with a valid permit issued under The Clean Streams Law (35 P. S. §§ 691.1–691.1001).

**Resource recovery facility**— (i) A processing facility that provides for the extraction and utilization of materials or energy from municipal waste.

(ii) The term includes a facility that mechanically extracts materials from municipal waste, a combustion facility that converts the organic fraction of municipal waste to usable energy and a chemical and biological process that converts municipal waste into a fuel product.

(iii) The term includes a facility for the combustion of municipal waste that is generated offsite, whether or not the facility is operated to recover energy.

(iv) The term includes land affected during the lifetime of operations, including, but not limited to, areas where processing activities actually occur, support facilities, borrow areas, offices, equipment sheds, air and water pollution control and treatment systems, access roads, associated onsite or contiguous collection, transportation and storage facilities, closure and postclosure care and maintenance activities and other activities in which the natural land surface has been disturbed as a result of or incidental to operation of the facility.

(v) The term does not include:

(A) A composting facility.

(B) Methane gas extraction from a municipal waste landfill.

(C) A separation and collection center, drop-off point or collection center for recycling, or a source separation or collection center for composting leaf waste.

A facility, including all units in the facility, with a total processing capacity of less than 50 tons per day.

**Salvaging**—The controlled removal or recycling of material from a solid waste processing or disposal facility.

**Sewage sludge**—Liquid or solid sludges and other residues from a municipal sewage collection and treatment system; and liquid or solid sludges and other residues from septic and holding tank pumpings from commercial, institutional or residential establishments. The term includes materials derived from sewage sludge. The term does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator, grit and screenings generated during preliminary treatment of sewage sludge at a municipal sewage collection and treatment system, or grit, screenings and nonorganic objects from septic and holding tank pumpings.

**Sharps**—Broken glass that has been in contact with pathogenic organisms, hypodermic needles and syringes to which a needle can be attached, with or without the attached needle, suture needles, disposable razors, Pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, culture dishes, suture needles, slides, cover slips and other broken or unbroken glass or plastic ware.

**Site**—The area where municipal waste processing or disposal facilities are operated. If the operator has a permit to conduct the activities, and is operating within the boundaries of the permit, the site is equivalent to the permit area.

**Soil additive or soil substitute**—Municipal waste which is beneficially used at specified loading or application rates, to replace soil that was previously available at the site, to enhance soil properties or to enhance plant growth. The term does not include structural fills, construction material, valley fills or the use of municipal waste to fill open pits from coal or noncoal mining or the disposal of coal ash.

**Solid waste**—Waste, including, but not limited to, municipal, residual or hazardous wastes, including solid, liquid, semisolid or contained gaseous materials.

**Solid Waste Abatement Fund**—The fund established under section 701 of the act (35 P. S. § 6018.701).

**Source reduction**—The reduction or elimination of the quantity or toxicity of residual waste generated, which may be achieved through changes within the production process, including process modifications, feedstock substitutions, improvements in feedstock purity, shipping and packing modifications, housekeeping and management practices, increases in the efficiency of machinery and recycling within a process. The term does not include dewatering, compaction, reclamation or the use or reuse of waste.

**Source separated recyclable materials**—Materials that are separated from municipal waste at the point of origin for the purpose of recycling. The term is limited to clear glass, colored glass, aluminum, steel and bimetallic cans, high-grade office paper, newsprint, corrugated paper, plastics and other marketable grades of paper.

**Special handling waste**—Solid waste that requires the application of special storage, collection, transportation, processing or disposal techniques due to the quantity of material generated or its unique physical, chemical or biological characteristics. The term includes dredged material, sewage sludge, infectious waste, chemotherapeutic waste, ash residue from a solid waste incineration facility, friable asbestos containing waste, PCB containing waste and waste oil that is not hazardous waste.

**Stabilized sewage sludge**—Sewage sludge that has been treated to reduce odor potential and the number of pathogenic organisms. Treatment methods include anaerobic and aerobic digestion, composting, lime stabilization and chlorine stabilization.

**Storage**—The containment of any waste on a temporary basis in such a manner as not to constitute disposal of the waste. It shall be presumed that the containment of waste in excess of 1 year constitutes disposal. This presumption can be overcome by clear and convincing evidence to the contrary.

**Surety bond**—A penal bond agreement in a sum certain, payable to the Department, executed by the operator and a corporation licensed to do business as a surety in this Commonwealth and approved by the Department, and which is supported by the guarantee to payment on the bond by the surety.

**SWAC**— Solid Waste Advisory Committee

**Thermal processing**—A method, technique or process, excluding incineration and autoclaving, designed to disinfect infectious waste by means of exposure to high thermal temperatures through methods such as ionizing radiation or electric or plasma arc technologies.

**Transfer facility**—A facility which receives and processes or temporarily stores municipal or residual waste at a location other than the generation site, and which facilitates the transportation or transfer of municipal or residual waste to a processing or disposal facility. The term includes a facility that uses a method or technology to convert part or all of the waste materials for offsite reuse. The term does not include a collecting or processing center that is only for source-separated recyclable materials, including clear glass, colored glass, aluminum, steel and bimetallic cans, high-grade office paper, newsprint, corrugated paper and plastics.

**Transportation**—The offsite removal of solid waste at any time after generation.

**Treatment**—A method, technique or process, including neutralization, designed to change the physical, chemical, or biological character or composition of waste to neutralize the waste or to render the waste nonhazardous, safer for transport, suitable for recovery, suitable for storage or reduced in volume. The term includes an activity or processing designed to change the physical form or chemical composition of waste to render it neutral or nonhazardous.

**Used oil**—A petroleum-based or synthetic oil which is used in an internal combustion engine as an engine lubricant, or as a product for lubricating motor vehicle transmissions, gears or axles which, through use, storage or handling has become unsuitable for its original purpose due to the presence of chemical or physical impurities or loss of original properties.

**USEPA**— United States Environmental Protection Agency

**Waste**—A material whose original purpose has been completed and which is directed to a disposal, processing or beneficial use facility or is otherwise disposed of, processed or beneficially used. The term does not include source separated recyclable materials, material approved by the Department for beneficial use under a beneficial use order issued by the Department prior to May 27, 1997, or material which is beneficially used in accordance with a general permit issued under Subchapter I or Subchapter J (relating to beneficial use; and beneficial use of sewage sludge by land application) if a term or condition of the general permit excludes the material from being regulated as a waste.

Waste oil—Oil refined from crude oil or synthetically produced, used and as a result of the use, contaminated by physical or chemical impurities. The term includes used oil.

Waste reduction—Design, manufacture or use of a product to minimize weight of municipal waste that requires processing or disposal, including, but not limited to:

(i) Design or manufacturing activities which minimize the weight or volume of materials contained in a product, or increase durability or recyclability.

The use of products that contain as little material as possible, are capable of being reused or recycled or have an extended useful life.

WWTP— Waste Water Treatment Plant

Yard waste—Leaves, grass clippings, garden residue, tree trimmings, chipped shrubbery and other vegetative material.

Yard waste composting facility—A facility that is used to compost leaf waste, or leaf waste and grass clippings, garden residue, tree trimmings, chipped shrubbery and other vegetative material. The term includes land affected during the lifetime of the operation, including, but not limited to, areas where composting actually occurs, support facilities, borrow areas, offices, equipment sheds, air and water pollution control and treatment systems, access roads, associated onsite or contiguous collection and transportation activities, and other activities in which the natural surface has been disturbed as a result of or incidental to operation of the facility

Sources

PA Title 25. ENVIRONMENTAL PROTECTION Article VIII. MUNICIPAL WASTE  
CHAPTER 271. MUNICIPAL WASTE MANAGEMENT—GENERAL PROVISIONS



# **APPENDIX B**

## **Background Resources & Acknowledgements**

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## Reference Materials

The following books, documents, articles and other publications were used as professional sources of information during the development of the Plan revisions.

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*County Population Projections: Pennsylvania 2010-2030*. 2010. Pennsylvania State Data Center. Harrisburg, Pennsylvania

*Evaluation of Emissions from the Open Burning of Household Waste in Barrels: Volume 1. Technical Report*. 1997. Prepared for the United States Environmental Protection Agency

*Handbook for the Collection, Transportation, Disposal and Land Application of Residential Septage in Pennsylvania*. 2008. Pennsylvania Department of Environmental Protection, Harrisburg, Pennsylvania

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*Municipal Solid Waste in the United States: Facts and Figures for 2012* Prepared for the United States Environmental Protection Agency by Franklin Associates, Prairie Village, Kansas

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*Pennsylvania Infectious and Chemotherapeutic Waste Plan*. 1990 Prepared for the Pennsylvania Department of Environmental Resources by Jack Faucett Associates, Inc.

Pennsylvania LEED Certified and Registered Buildings. 2009. Pennsylvania Department of Environmental Protection and the U.S. Green Building Council. Harrisburg, Pennsylvania

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Pollution Prevention Measures from Unwanted Pharmaceuticals. 2005. Gualtero, Sandra. Department of Earth and Environmental Engineering, Columbia University, New York, New York

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Statewide Waste Composition Study. 2003. prepared for the Pennsylvania Department of Environmental Protection by R.W. Beck. Harrisburg, Pennsylvania.

The Determinants of Household Recycling: A Material Specific Analysis of Recycling Program Features and Unit Pricing. April 2000 Jenkins, Martinez, Palmer, and Podolsky. Resources for the Future 1616 P Street, NW Washington, D.C. 20036

The New Economic Reality of Recycling. February 2011. Tim O'Donnell and Michele Nestor. Pittsburgh Post Gazette, Pittsburgh, PA



# **APPENDIX C**

## **Public Solicitation for Disposal Capacity**

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**SCHUYLKILL COUNTY BOARD OF COMMISSIONERS, POTTSVILLE, PENNSYLVANIA  
REQUESTS PROPOSALS FOR  
MUNICIPAL SOLID WASTE DISPOSAL AND/OR PROCESSING CAPACITY**

In accordance with Pennsylvania Code Title 25. Environmental Protection. Chapter 272.225 Municipal Waste Planning Recycling and Waste Reduction (as amended December 22, 2000), the Board of Commissioners of Schuylkill County has determined that additional waste disposal or processing capacity for municipal solid waste (MSW), including construction/demolition (C/D) waste and sewage sludge generated within the County is required for a period covering the next ten years. The Schuylkill County Office of Solid Waste

on behalf of the Schuylkill County Board of Commissioners is hereby soliciting proposals for disposal capacity for MSW generated in Schuylkill County PA with contract approval and execution anticipated by June 2015.

The Request for Proposals (RFP.) will be available from the Schuylkill County Office of Solid Waste on or after Monday, January 5, 2015. There is a

\$50 fee for printed copies. All proposals must be made on and inclusive of the required Proposal Forms and be in accordance with the Requirements for Submitting Proposals contained in the Request for Proposals. Proposers may withdraw their proposal at any time prior to the scheduled closing time for receipt of proposals. The Schuylkill County Board of Commissioners reserves the right to reject any or all proposals, to waive any irregularities and/or information in any proposal and to make an award in any manner, consistent with applicable laws, which is deemed to be in the best interest of the County

The Schuylkill County Office of Solid Waste will receive sealed proposals until 3:00 p.m., Prevailing Time on Wednesday, February 25, 2015. The Proposer is required to submit two (2) hard copies, each executed in blue ink and labeled "original," and two (2) separate electronic media, ( CD-ROMs or Flash Drives) each with a copy of the proposal in MS Word or pdf format.. The proposals must be packaged, sealed, and clearly labeled to show the statement "Proposal Disposal Capacity" and the name and address of the Proposer.

Proposals should be submitted and be addressed to: the Schuylkill County Office of Solid Waste Schuylkill County Courthouse, 401 North Second Street, Pottsville, Pa 17901 Attention: Mr. Joseph Scribbick, Recycling Coordinator.

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# **APPENDIX D**

## **Request for Proposals Disposal Capacity**



Issued by the  
Office of Solid Waste  
and Resource  
Management  
on behalf of the  
Board of  
Commissioners

Municipal Solid Waste  
Disposal and Processing Capacity  
2015 -2024

**Schuylkill County**

Request for Proposals Issued January 5, 2015  
Proposals must be submitted by 3:00 PM February, 25, 2015

## **Schuylkill County Office of Solid Waste and Resource Management**

Joseph Scribbick  
Recycling Coordinator  
Schuylkill County Office of Solid Waste  
Schuylkill County Court House  
401 North Second Street  
Pottsville, PA 17901  
[jscribbick@co.schuylkill.pa.us](mailto:jscribbick@co.schuylkill.pa.us)

### **Project Consultant Primary Contact for Proposal Related Questions**

Michele Nestor  
Nestor Resources, Inc.  
Valencia, PA 16059

Phone: (724) 898-3489  
Mobile: (724) 612-7675  
Email: [michele@nestorresources.com](mailto:michele@nestorresources.com)

# INTRODUCTION

The Schuylkill County Office of Solid Waste on behalf of the Schuylkill County Board of Commissioners is accepting proposals for the disposal and processing of Municipal Waste generated within the County of Schuylkill. Through this Request for Proposal, the County will select the disposal and processing methods and facilities to ensure disposal and processing capacity in accordance with the provisions of Act 101, the Pennsylvania Municipal Waste Planning, Recycling, and Waste Reduction Act of 1988. Act 101 mandates that each County must have secured disposal and processing capacity for the Municipal Waste generated within its boundary for a period of ten years. Those facilities entering into agreement with the County for secured capacity will be designated in the Municipal Solid Waste Management Plan of Schuylkill County.

This document, which comprises the request for proposal, includes five sections:

1. Procurement Approach and Purpose
2. Evaluation Criteria
3. History and Background
4. Contract Provisions
5. Required Forms for Submission of Proposal

**Sealed Proposals in response to this RFP are due on Wednesday, February 25, 2015, by 3:00 PM. To qualify for consideration, the Proposer must submit two (2) hard copies, each executed in blue ink and labeled "original," and two (2) "copies" formatted as MS Word or pdf files each on separate electronic media, CD-ROMs or Flash Drives.**

**Schuylkill County Office of Solid Waste  
Schuylkill County Courthouse,  
401 North Second Street, Pottsville, PA 17901**

**Attention: Mr. Joseph Scribbick, Recycling Coordinator**

The outside of each sealed envelope must be marked "Proposal-Disposal Capacity."

The Office of Solid Waste intends to review and evaluate all proposals to determine which contractor(s) submitting proposals are deemed to serve the best interests of the County in meeting its needs for disposal and processing capacity in accordance with Act 101. The Office of Solid Waste will consider only those facilities which have submitted qualified proposals. After the evaluation of the proposals is complete and based on the recommendations, which result from it, the County of Schuylkill will execute the disposal and processing contract(s) with the selected contractor(s).

A contractor responding to this RFP shall be prepared to enter into a contract with the County to provide up to ten (10) years disposal and processing capacity for Municipal Waste generated within the County and to perform disposal and processing service in accordance with the conditions set forth in Section 4, Contract Provisions, of this RFP. The contractor shall operate a fully permitted disposal and processing facility which meets at a minimum the federal guidelines of Title 40--Protection of Environment CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY PART 257--CRITERIA FOR CLASSIFICATION OF SOLID WASTE DISPOSAL FACILITIES AND PRACTICES and PART 258--CRITERIA FOR MUNICIPAL SOLID WASTE LANDFILLS as well as any design or operating criteria exceeding these standards required by the state and local governments in which the facility is located.

**Under all alternatives and provisions described herein, the collection and transportation of waste is handled by municipal or private collection firms and is not a consideration in this proposal.**

# Section 1

## PROCUREMENT APPROACH

### PURPOSE OF REQUEST FOR PROPOSALS

The County of Schuylkill intends to comply with the specifications set forth in Act 101, the Pennsylvania Municipal Waste Planning, Recycling, and Waste Reduction Act of 1988, by securing sufficient disposal and processing capacity, which is both economically feasible and environmentally sound, for the Municipal Waste generated within the County's borders for a period of ten years.

### COUNTY DESIGNATION OF FACILITIES AND EXECUTION OF CONTRACTS

If the proposal is accepted by the County, one of the originals will be returned to the Contractor once it is executed by the County of Schuylkill. The County anticipates that the proposals will be reviewed, accepted and contracts executed on or about June 1, 2015. The contract term will commence immediately upon execution by the County of Schuylkill.

### PENNSYLVANIA RIGHT-TO-KNOW LAW

If supporting information contained in the proposal is considered confidential, that information should be submitted under separate cover and clearly labeled "CONFIDENTIAL INFORMATION" on the cover along with the applicable law and/or regulation that supports the treatment of such information as confidential. The Proposal is subject to the Pennsylvania Right-to-Know Law ("RTKL") and therefore the County can make no guarantee that any material will remain confidential. The provisions set forth in the proposed Municipal Waste Disposal Service Contract attached hereto shall apply to this Proposal.

### REQUIREMENTS FOR SUBMITTING PROPOSALS

To be considered as a response qualified for review, proposals must meet the requirements set forth in this Section.

Proposals must be received by the date and time specified in the Introduction. Proposals received after the specified date and time will not be considered as a response qualified for review and will be returned unopened. The County of Schuylkill reserves the right to reject any or all proposals, to request additional information or clarifications, to waive any irregularities and/or information in any proposal and to make an award in any manner, consistent with applicable laws, which is deemed to be in the best interest of the County

Packages containing the proposals must be sealed and clearly labeled to show the name and address of the Proposer, the statement "Proposal-Disposal Capacity" and be addressed to: ***Schuylkill County Office of Solid Waste, Schuylkill County Courthouse, 401 North Second Street, Pottsville, PA 17901, Attention: Mr. Joseph Scribbick, Recycling Coordinator***

**Proposals must be submitted in both print and electronic digital formats.**

- Two printed and separately bound hard copies must be clearly marked "ORIGINAL" and contain the forms, contract and certifications as indicated and be executed with original signatures in blue ink.

- Two (2) CD-ROMs or Flash Drives with each containing a copy of the proposal formatted as an MS Word or pdf file. Each “copy” must contain all of the required information, forms, contract and certifications. The electronic file must be saved to clearly identify the facility by name.

#### **For Contractors proposing multiple facilities**

- **Separate Hard Copies Required for Each Proposed Facility** the Contractor must submit two printed and *separately bound* hard copies clearly marked “ORIGINAL” which contain the forms, contract and certifications as indicated and be executed with original signatures in blue ink.
- **Shared Electronic Media for All Proposed Facilities** Two (2) CD-ROMs or Flash Drives with each containing a copy of the proposal for each facility formatted as a pdf file. Each “copy” must contain all of the required information, forms, contract and certifications for each facility. An electronic file must be created for each facility, must be saved to clearly identify the facility by name. However the CD-ROM or Flash Drive may contain the files for all of the facilities submitted by the contractor.

#### **Emergency Back-up Disposal and Processing**

Contractors are required to identify a back-up facility(ies) in the event the proposed site exceeds its daily volume and/or for emergency closures.

- **Owner/Operated Back-up Facilities.** Intercompany facilities may not be identified simply by name to serve as back-ups for one another. Each facility must also submit a complete response to this RFP along with a signed contract.
- **Third Party Back-up Facilities.** A Contractor may fulfill the requirement for an emergency back-up facility by providing an agreement with a third party facility that has submitted a proposal package.

**CAREFULLY READ THE DESCRIPTIONS AND INSTRUCTIONS FOR EACH OF THE SECTIONS LISTED.  
AVOID SUBMITTING MORE INFORMATION AND DOCUMENTATION THAN THE RFP REQUESTS OR REQUIRES.  
PLEASE Expedite The Submission/Review Process and Save Yourself Time And Expense By Adhering To The Format.**

## ORGANIZATION OF THE PROPOSAL

The proposal must consist of the following information organized into sections. **Each section must be in the order shown below, separated by clearly labeled tabs/dividers:**

- Cover Letter
- Statement of Qualifications
- Experience and Qualifications of Managers and Supervisors
- Compliance History
- Certificate of Permit
- Facility Design and Operational Plan
- Permitted Volumes in Tons, Operating Hours and Performance Guarantee
- Current Available Permitted Capacity in Cubic Yards
- Financial Assurances
- Completed and Signed Contract
  - Cost of Processing and Disposal
  - Reserved Capacity
- Representations and Certifications
- Contractor Information

### *COVER LETTER AND SIGNATURE REQUIREMENTS*

A cover letter, which is addressed to the County of Schuylkill must accompany each proposal. The cover letter shall commit the contractor, if selected, to carry out all of the provisions of the proposal. It shall state that all information submitted and represented both in the proposal and in support of the proposal is accurate and factual. The letter shall designate by name and title the key technical and business representatives who, if the contractor is selected, will negotiate with the County.

An officer of the organization submitting the proposal empowered and authorized to sign such documents shall sign the cover letter. The same individual signing the cover letter shall sign the disposal and processing capacity contract and all forms in the proposal requiring signatures. Two copies of the proposal document must be clearly marked as the original and contain the original forms, the disposal and processing capacity contract and cover letter. **The original forms, the disposal and processing capacity contract, and the cover letter shall be submitted as printed hard copy and signed in “BLUE” ink.**

**The other copies shall be submitted as electronic media, (CD-ROMs or Flash Drives) in MS Word or pdf format with each file saved to include and clearly identify the name of the facility.**

#### *STATEMENT OF ORGANIZATION'S QUALIFICATIONS*

The organization submitting the proposal shall provide sufficient information to demonstrate and prove experience, management, and resources required to provide consistent, reliable, and legal disposal and processing facilities to Schuylkill County.

- A list of the **counties** currently contracting with the facility for disposal and processing capacity shall be included.
- A list of the host municipalities with which the facility has secured host agreements shall be included.
- Experience in the successful operation of disposal and processing facilities shall be documented. **This section should be limited to 4 pages of text or printed material.**

#### *EXPERIENCE OF MANAGERS AND SUPERVISORS*

Experience and qualifications of the management team directly responsible for the day-to-day operation of the facility proposed to accept waste shall be documented.

- This section should include a list of the site's management personnel and for each a detailed description of their industry experience, training, and responsibilities. (GM, Ops., Technical, Financial)

#### *FACILITY COMPLIANCE HISTORY*

A compliance history shall be provided for the **facility** submitting the proposal, which covers the most recent ten-year period, or if in operation less than ten years, for the length of its operating term. The history must be inclusive of Federal, State and Local Environmental Protection Acts and Regulations including but not limited to those concerning Solid Waste Management, Air Quality, Water Quality, Water Supply, Surface Mining, Oil and Gas Management, Dam Safety and Encroachment, Conservation and Reclamation.

The compliance history must list any permit or license denial, suspensions, or revocations; any notices of violations; any administrative orders, consent agreements or adjudications issued or civil penalties assessed by Federal State or Local Regulatory Agencies. The dates and resolutions for each item listed must be included. The organization submitting the proposal must describe any summary, misdemeanor, or felony convictions and pleas of guilty and no contest obtained against the organization both within the Commonwealth of Pennsylvania and also outside of its borders. The description shall include the date, location nature, and disposition of each stated action.

Organizations may submit a copy of **PADEP Form HWC, Compliance History, (not Form C-1)** in lieu of a written description of the compliance history. Facilities located in other states that require completion of a similar document may submit it in lieu of a written description provided that document includes all of the information required in this section.

#### *CERTIFICATE OF PERMIT*

A copy of the approved current operating permit, **with the current pending expiration date clearly shown**, shall be submitted for the organization's facility proposing to accept waste. Copies of approvals for any addendums or revisions approved since its issuance by the State Regulatory Agency with direct oversight for the facilities operation.

#### *FACILITY DESIGN AND OPERATIONAL PLAN*

The organization submitting the proposal shall provide a short description of the disposal and processing facility it intends to utilize in response to this RFP. **Do not include** the entire narrative from the facility's permit.

Responses should be clear and informative without being encyclopedic. **Please submit no more than four pages of narrative** to describe the design, its components, and the operations plan.

**Pennsylvania Facilities should not include the full Form14 from their permit application. Please provide only short excerpts to demonstrate each point.**

**All facilities must include in their descriptions:**

A paragraph or two describing the general procedural mechanism for each item listed below. **Do not submit** the complete description from the facility's permit.

- ✓ the name and location of the facility (including the names of the municipalities in which it is physically located),
- ✓ a brief outline of its operating plan for the life of the facility including post closure care,
- ✓ a brief description of the daily record keeping procedures and measurement of waste,
- ✓ a brief outline of its waste acceptance and monitoring program, and also
- ✓ its environmental emergency response plan.

**Requirements unique to the type of facility:** (no more than two–three paragraphs each item)

A **LANDFILL** shall submit a brief description of:

- ✓ its liner system,
- ✓ methane recovery and utilization and
- ✓ method of leachate control, monitoring, and treatment, , (on-site/off-site).

**OTHER TYPES** of disposal and processing facilities shall include

- ✓ a detailed description of the technology and equipment utilized to process Municipal Waste,
- ✓ the byproducts of the process and
- ✓ the methods of handling the byproducts.

Design drawings are not required in the proposal, but the County reserves the right to request such information during the review and/or selection process.

#### ***PERMITTED VOLUMES AND OPERATING HOURS AND PERFORMANCE GUARANTEE***

In this section the following information shall be provided:

- ✓ The current permitted average and maximum daily, yearly, and life-of-permit tonnage limits shall be listed for the organization's disposal and processing facility utilized in response to this RFP.

- ✓ The hours that facility is permitted to accept waste shall be listed.
- ✓ an outline of the preferred procedures for accepting an excessive amount of waste resulting from a natural disaster or other emergency in the County at the proposed facility
- ✓ In addition, a contingency plan for accepting waste outside of the normal operating hours or during emergency or temporary closure of the disposal and processing facility.
- ✓ The method by which uninterrupted disposal and processing service will be provided to Schuylkill County in the event that an emergency or other uncontrollable circumstance precludes the use of the facility.

## **BACK UP FACILITIES**

**Back-up facilities proposed for the purpose of emergency or temporary service must also submit a complete response to this RFP along with a signed contract.**

**If not submitting a multi-facility proposal, the Contractor may fulfill the requirement for an emergency back-up facility by providing an agreement with a third party facility that has submitted a proposal package.**

### *AVAILABLE CAPACITY (AIRSPACE OR BURNER CAPACITY)*

The facility proposing to accept waste must prove and document both its most current annual and also its most current quarterly airspace usage and available capacity in cubic yards based on its existing permitted status.

- ✓ **Pennsylvania landfills should submit Page 1 of the PADEP Annual Operations Report, which requires the facility to calculate the available airspace in cubic yards.**
- ✓ **Resource Recovery Facilities should demonstrate the daily throughput capacity and burner design.**

Should the facility's current available permitted capacity be less than ten years, the organization submitting the proposal shall include narrative detailing provisions for providing disposal and processing capacity beyond the fixed terms of the permit. Options for expanding capacity shall be consistent with the current Federal, State and Local laws and regulations.

### *FINANCIAL ASSURANCES*

**The organization must submit in the proposal the following proof of sufficient financial responsibility for the operation of the facility:**

- ✓ a certificate of pollution liability and public liability insurance; and
- ✓ the closure/post closure bonding requirements /worksheets of the facility with the type of security, dollar amount, terms, conditions, and limits stated.

The following information would be provided later, and only upon request:

Upon request, the organization must also demonstrate sufficient financial resources to carry out the responsibilities as outlined in this RFP and to back up the contractual obligations. Proof of financial resources must be provided upon request either at the time the contractor is selected or at the time that the disposal and processing capacity contract is executed.

Proof of sufficient financial resources will be in the form of complete audited financial statements for the most recent three years of continuing operation. If the organization submitting the proposal is a joint venture, subsidiary, or partnership, the financial information must be supplied for the parent company

and the parent company must state its willingness to guarantee such joint venture, subsidiary, or partnership throughout the term of the disposal and processing services contract.

### *SIGNED CONTRACT*

The organization submitting the proposal shall complete and submit the signed Contract guaranteeing disposal and processing capacity. The same person authorized to submit the proposal shall sign the contract **in blue ink**.

### **Contract Form A-Cost of Processing and Disposal**

The organization submitting the proposal shall submit a Form A as provided in the Contract Agreement. The same individual signing the cover letter shall sign the completed form, which must be included with the signed contract with the proposal. The method of price adjustment, if any, over the contract period must be explained and demonstrated with the Form. The tipping fee must include any and all Act 101 or host municipality fees or surcharges, which should also be outlined and described.

### **Contract Form B- Reserved Capacity**

The organization submitting the proposal shall submit a Form B as provided in the Contract Agreement. The same individual signing the cover letter shall sign the completed form, which must be included with the signed contract with the proposal. The capacity reserved shall be specified in tons, and percentage on an annual basis and by tons on a daily basis. The number of operating days each year the facility is available to accept waste must be specified.

### *ADDITIONAL REQUIRED FORMS*

#### **Form C- Representations and Certifications**

The organization submitting the proposal shall submit a Form C as provided in this RFP. The same individual signing the cover letter shall sign the completed form, which must be included with the proposal.

#### **Form D -Contractor Information**

The organization submitting the proposal shall submit a Form D as provided in this RFP. The same individual signing the cover letter shall sign the completed form, which must be included with the proposal.

# Section 2

## EVALUATION CRITERIA

The County will utilize the following criteria in evaluating and ranking proposals submitted in response to this RFP. There is no significance or correlation to the order in which the items are listed and the value or importance each has in the selection criteria

### Financial Stability

Contractors will be evaluated on the basis of their overall financial strength and credit worthiness as well as their public and environmental liability protection as an indication of their ability to establish and maintain a financially sound disposal and processing system. Financial assurances for closer and post closure care are important.

### Regulatory Compliance

Contractors will be evaluated on their overall compliance history with attention given toward severity of violations, consistency of violations and most importantly, the demonstrated resolution and disposition of any such incidents.

### Operating Permit Status and Capacity

Contractors will be evaluated on the current status, terms, and conditions of the facility's operating permit as well as the life expectancy of the facility and its available capacity as an indication of its ability to provide adequate disposal and processing service for the needs outlined by the County in this RFP.

**Facilities without a currently approved permit should not submit a proposal. If and when a permit is issued, those facilities may petition the County at that time for inclusion in the Plan.**

### Technical Design and Operational Plan

Contractors will be evaluated on the effectiveness of the facility's design and overall operation to provide a sound and reliable environmental solution to the County's disposal and processing needs as well as its ability to meet Federal, State and Local regulatory standards for municipal solid waste management. Issues such as leachate collection and treatment, methane recovery and utilization, ash management, ground water monitoring systems, waste acceptance plans and radiation monitoring are considered important.

### Solid Waste Management Experience

Contractors will be evaluated on their demonstrated management experience in the successful operation of the proposed disposal and processing technology or process and their demonstrated successful performance in providing disposal and processing services through other county and municipal contractual.

### Minimum and Maximum Waste Volume Expectation

Contractors will be evaluated on their ability to accept all or some of the municipal solid waste generated by Schuylkill County on a daily and annual basis for a period covering ten years along with no minimum guarantees of waste required from the County. Facilities need not commit to 100% of the County's capacity needs. However, the facilities must be capable of providing the capacity which they propose. "Put or Pay" (as defined below) contract requirements will be objectionable to the County as they are viewed as providing disincentives to recycling.

### Tipping Fees and Annual Costs

Contractors will be evaluated based on their compliance with providing a maximum cost charged per ton for the disposal and processing service including any and all fees and surcharges resulting from Act 101, host municipality agreements or other federal or state statutes, and local ordinances and resolutions. The maximum cost per ton may not exceed the facility's published gate rates. The total

annual cost to the County, if any, to construct, operate or otherwise invest in a proposed processing and disposal facility must be provided in detail and will also be a critical part of the evaluation.

Based upon these criteria, the contractor(s) will be selected. The County of Schuylkill reserves the right to enter into agreements with any or all of the parties that submitted complete responses on the date and time required by the RFP.

# Section 3

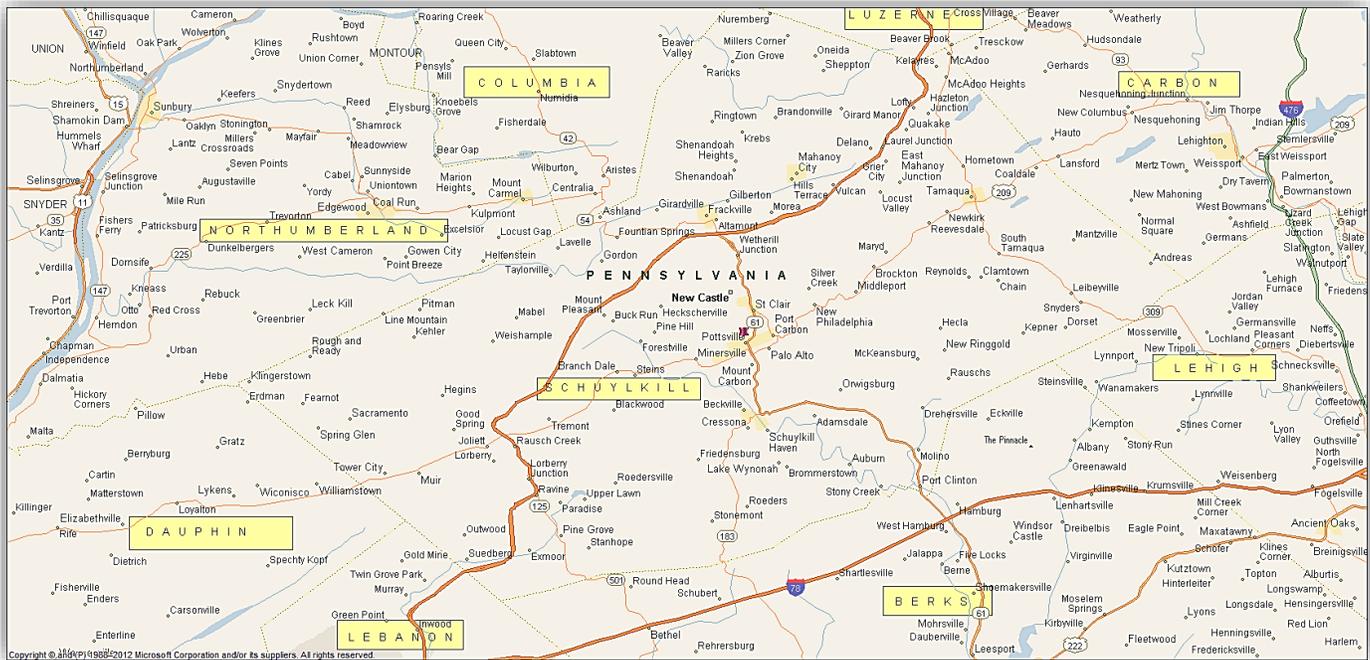
## SCHUYLKILL COUNTY BACKGROUND INFORMATION

### LOCATION AND GENERAL CHARACTERISTICS

Schuykill County is located in northeast Pennsylvania within what is commonly called the Coal Region. In total area, Schuykill County is only 783 square miles, however, differences in communities, lifestyles and services occur from one side of the County to the other. Schuykill County is bordered on the northeast by Columbia and Northumberland counties. To the north and west are Carbon and Luzerne counties. Lehigh and Berks counties are to the southeast with Lebanon and Dauphin counties to the southwest. Interstate 81 is the only Interstate Highway that passes through the County. However State Routes 61 and 209 provide gateways to the County, south to north and east to west.

Schuykill County is classified as a fourth class county. The City of Pottsville is the county seat. The closest metropolitan areas are the City of Reading and the Lehigh Valley. With lower property taxes, affordable housing and a strong local heritage, many residents prefer to live in Schuykill County and actually commute to the City of Harrisburg or to Manhattan each day.

**Figure 1 General Location of Schuykill County, Pennsylvania**



## CURRENT PROCESSING AND DISPOSAL PRACTICES

The Schuylkill County Municipal Solid Waste Management Plan utilizes a modified form of flow control. In accordance with the provisions of Act 101, the County entered into processing and disposal capacity agreements with a number of qualified processing and disposal facilities. Disposal is limited to those sites designated in the Plan, however, an extensive menu of facility options is available to local haulers, businesses, and municipalities. The current disposal capacity contracts are due to expire beginning in 2015.

Logistics and practicality have influenced the actual flow of waste more than any ordinance. Nearly all of Schuylkill County's municipal waste is disposed at CES Landfill, which is located within the County. No guarantees, or put or pay provisions, were made by Schuylkill County for minimum waste volumes to be delivered for processing and disposal as part of any of the existing agreements. It is anticipated that on or around June 1, 2015, new contracts will be executed with qualified facilities, based on the content of this RFP, for a minimum term of ten years.

## PROJECTED LANDFILL CAPACITY REQUIREMENTS

This section presents the estimated future disposal capacity required for Schuylkill County. It is based on current reported disposal quantities with some adjustments made to correct for suspected reporting errors. The projections allow for possible future changes in the rate of MSW generated per capita, and projected changes in population.

**Population.** The Pennsylvania State Data Center at the Pennsylvania State University has produced State and county population projections for the Commonwealth of Pennsylvania. Presented below are county totals from the 2000 Census and projections for 2010 to 2030. Adjusted population in 2010 based on the census was 148,253, greater than projected. The projections for 2020 and 2030 were corrected accordingly. Population was extrapolated to 2040 based on the projected rate of change from 2020 to 2030.

**Table 1. Schuylkill County Population Projections: 2010-2040**

	April 1, 2000	July 1, 2010	July 1, 2020	July 1, 2030	% Change	% Change	% Change
County	Census	Projection	Projection	Projection	2000- 2010	2000- 2020	2000- 2030
Pennsylvania	12,281,054	12,540,718	12,871,823	13,190,400	2.1	4.8	7.4
Schuylkill	150,336	146,972	146,457	146,078	-2.2	-2.6	-2.8
Corrected	150,336	148,253	147,738	147,339	-1.4	-1.7	-2.0

**Estimated Future Generation Rate for MSW.** The USEPA reports on national MSW generation and disposal rates. In recent years, the generation rate per capita has been about 0.85 tons/person/year with little variation. The discard rate has also been relatively constant at about 0.52 tons/person/year. Thus, for projection purposes, it was assumed that per capita generation rates will remain unchanged.

Table 2 presents projected disposal capacity requirements for the years 2013 through 2040. The figures are based on a constant per capita generation rate with adjustments due to projected population changes

*Table 2. Projected Landfill Capacity Requirements Schuylkill County 2013 through 2040 in Tons)*

Year	Population	MSW	Sludge	C&D	Total
2013	148,099	117,037.7	2,919.0	6,692.7	126,649.4
2014	148,047	116,997.0	2,918.0	6,690.4	126,605.4
2015	147,996	116,956.3	2,917.0	6,688.1	126,561.4
2016	147,944	116,915.6	2,916.0	6,685.7	126,517.3
2017	147,893	116,874.9	2,915.0	6,683.4	126,473.3
2018	147,841	116,834.2	2,914.0	6,681.1	126,429.2
2019	147,790	116,793.5	2,912.9	6,678.8	126,385.2
2020	147,738	116,752.8	2,911.9	6,676.4	126,341.2
2021	147,698	116,721.3	2,911.1	6,674.6	126,307.0
2022	147,658	116,689.7	2,910.4	6,672.8	126,272.9
2023	147,618	116,658.2	2,909.6	6,671.0	126,238.8
2024	147,578	116,626.7	2,908.8	6,669.2	126,204.7
2025	147,539	116,595.1	2,908.0	6,667.4	126,170.5
2026	147,499	116,563.6	2,907.2	6,665.6	126,136.4
2027	147,459	116,532.1	2,906.4	6,663.8	126,102.3
2028	147,419	116,500.5	2,905.6	6,662.0	126,068.2
2029	147,379	116,469.0	2,904.8	6,660.2	126,034.1
2030	147,339	116,437.5	2,904.1	6,658.4	125,999.9
2031	147,299	116,405.9	2,903.3	6,656.6	125,965.7
2032	147,259	116,374.3	2,902.5	6,654.8	125,931.5
2033	147,219	116,342.7	2,901.7	6,653.0	125,897.3
2034	147,179	116,311.0	2,900.9	6,651.2	125,863.1
2035	147,139	116,279.4	2,900.1	6,649.4	125,828.9
2036	147,099	116,247.8	2,899.3	6,647.5	125,794.7
2037	147,059	116,216.2	2,898.5	6,645.7	125,760.5
2038	147,019	116,184.6	2,897.8	6,643.9	125,726.3
2039	146,979	116,153.0	2,897.0	6,642.1	125,692.1
2040	146,939	116,121.4	2,896.2	6,640.3	125,657.9

# Section 4

## CAPACITY AGREEMENT

The following Contract/Agreement shall be executed between the County of Schuylkill and the Contractor. The contract signed in BLUE ink must be included in the Contractor's two ORIGINAL proposals with reproductions in the remaining three electronically formatted copies. The contract shall become effective on the date the agreement is signed by the Schuylkill County Executive

MUNICIPAL WASTE PROCESSING AND DISPOSAL SERVICE CONTRACT

THIS MUNICIPAL WASTE PROCESSING AND DISPOSAL SERVICE CONTRACT (hereinafter referred to as the "Contract") entered by and between THE COUNTY OF SCHUYLKILL, Pottsville, Pennsylvania, hereinafter jointly referred to as the "County" AND

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(Name of Facility/Parent Company)

hereinafter referred to as the "Contractor" whose permitted processing and disposal facility Permit No \_\_\_\_\_ issued by \_\_\_\_\_ is located in \_\_\_\_\_ (Municipality)(ies), \_\_\_\_\_ County, \_\_\_\_\_ State.

WITNESSETH:

WHEREAS, the County of Schuylkill, acting through the Schuylkill County Office of Solid Waste, have developed and adopted the 1991 Municipal Waste Management Plan for Schuylkill County and its revisions in 2003 in accordance with the requirements of the Pennsylvania Municipal Waste Planning, Recycling and Waste Reduction Act of 1988 ("Act 101"); and,

WHEREAS, the municipalities in Schuylkill County have duly approved and ratified this 1991 Municipal Waste Management Plan for Schuylkill County pursuant to the requirements of section 501 of Act 101; and,

WHEREAS, this 1991 Municipal Waste Management Plan for Schuylkill County and its revisions in 2003, requires that all Municipal Waste generated within Schuylkill County must be disposed only at a Municipal Waste processing and disposal facility that is designated by the County pursuant to this plan to insure the availability of adequate permitted processing and disposal capacity for the Municipal Waste generated in Schuylkill County; and

WHEREAS, Act 101, requires the County, as part of its plan, to provide for assurance for capacity or the processing and disposal of all Municipal Waste expected to be generated within the County for a period of at least the next ten (10) years, and further requires the County to execute and submit to the Department, contracts evidencing the implementation of its approved Plan and insuring sufficient available processing or disposal capacity; and,

WHEREAS, the Contractor wishes to be designated by the County as one of the Municipal Waste processing or disposal facilities where the Municipal Waste generated within Schuylkill County must be disposed; and,

WHEREAS, the Contractor is willing to guarantee the availability of adequate, permitted processing or disposal capacity for such waste and the costs for such services for a ten-year contract period in exchange for such designation by the County; and,

WHEREAS, the County and the Contractor now desire to enter into this Contract in order to effectuate the goals of the Municipal Waste Management Plan for Schuylkill County and to further set forth the agreements between the parties with respect thereto;

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and pursuant to the parties' intent to be legally bound under the Uniform Written Obligations Act, 33 Pa.C.S. § 6, the undersigned hereby agrees as follows:

## I. DEFINITIONS

Unless the context clearly indicates otherwise, the following words and terms, as used in this Contract, shall have the following meanings:

Acceptable Waste -Waste that Contractor is permitted to manage, process, store and/or dispose at the Landfill, or Resource Recovery Facility in accordance with its Permit for a Solid Waste Processing and Disposal Facility, which was issued by the Pennsylvania Department of Environmental Protection ("DEP") or the equivalent regulatory agency in the state where the facility is located and under applicable Pennsylvania law or that in which the facility is located, including, but not limited to, the Pennsylvania Solid Waste Management Act and the rules and regulations promulgated thereunder; and waste which is not inconsistent with the Facility's Waste Acceptance Policy as defined herein.

Act 101 - The Pennsylvania Municipal Waste Planning Recycling and Waste Reduction Act of 1988.

Affiliate - Any individual or entity that controls, is controlled by, or is under common control with a party to this Contract, or in the case of a sole proprietor, any blood relative or employee of the contractor, as designated by this Contract.

Bulky Waste (White Goods) -Large items of Refuse, including, but not limited to, appliances, furniture, auto parts, trees, branches or stumps which may require special handling due to their size, shape or weight.

Commercial Waste -All solid waste originating from commercial establishments engaged in non-manufacturing or non-processing business, including, but not limited to, stores, markets, office buildings, restaurants, shopping centers and theaters.

Construction Demolition Waste - Municipal Solid waste resulting from the Construction or Demolition of buildings and other structures, including, but not limited to, wood, plaster, metals, asphaltic substances, bricks, block and unsegregated concrete.

Contract -The Municipal Waste Processing and Disposal Service Contract, between the County and the Contractor.

Contractor-The Facility and Parent Company identified as such on the first page of this contract or any permitted successors, assigns, or affiliates.

County -The County of Schuylkill, Pennsylvania, acting by and through the Schuylkill County Board of Commissioners, and the Office of Solid Waste or their designated representative.

Office of Solid Waste - An agency of Schuylkill County Government delegated with the responsibility of developing and implementing the Schuylkill County Municipal Solid Waste Management Plan and associated programs and services.

Department or DEP The Pennsylvania Department of Environmental Protection (DEP).

Domestic or Residential Waste -Solid waste comprised of Garbage and Rubbish, which normally originates from residential private households or apartment houses.

Schuylkill County- a fourth class county located in the Commonwealth of Pennsylvania

Facility—Land, structures and other appurtenances or improvements where municipal waste processing and disposal is approved and permitted to occur under Federal and state law. A Facility includes a landfill, a resource recovery facility, a waste-to-energy facility, a digester and/or other municipal solid waste processing and disposal technologies operating under the provisions of a permit approved and issued by the Pennsylvania Department of Environmental Protection or the state regulatory agency in which the operation is located.

Garbage -Putrescible animal or vegetable wastes resulting from the handling, preparation, cooking, serving or consumption of food and food containers.

Hauler and Waste Collector -Any person, firm partnership, association or corporation, including any municipality, engaged in the business of collecting and transporting municipal solid waste to processing or disposal facilities.

Hazardous Waste -A solid waste or combination of solid wastes which, because of its quantity, concentration or physical, chemical or infectious characteristics may: (1) cause or significantly contribute to an increase in mortality or an increase in morbidity in either an individual or the total population; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed or otherwise managed; or (3) is otherwise defined as "hazardous" by any Federal or State statute or regulation.

Industrial Waste -Solid waste resulting from manufacturing and industrial processes, including, but not limited to, those carried out in factories, foundries, mills, processing plants, refineries, mines and slaughterhouses.

Institutional Waste Solid waste originating from institutions including, but not limited to, public buildings, hospitals, nursing homes, orphanages, schools and universities.

Landfill -The Contractor's permitted landfill identified on the first page of this contract.

Leaf Waste -Leaves, garden residues, shrubbery and tree trimmings, and similar material, but not including grass clippings.

Municipal Recycling Program A source separation and collection program for recycling Municipal Waste, or a program of designated drop-off points or collection centers for recycling Municipal Waste, that is operated by or on behalf of a municipality .The term shall include any source separation and collection program for composting leaf waste that is operated by or on behalf of a municipality. The term does not include any program for recycling construction and demolition waste or sludge from sewage treatment plants or water supply treatment plants.

Municipality -Any city, borough, incorporated town, township or county or any municipal authority- created by any of the foregoing.

Municipal Waste or Solid Waste -Garbage, Refuse, industrial lunchroom or office waste and other material, including solid, liquid, semi-solid or contained gaseous material, (but excluding Hazardous Waste) resulting from operation of residential, municipal, commercial or institutional establishments or from community activities; and any sludge not meeting the definition of residual or hazardous waste from a municipal, commercial or institutional water supply treatment plant, wastewater treatment plant or air pollution control facility. The term does not include source separated recyclable materials or material approved by DEP for beneficial use.

Operator Any person or municipality that operates a municipal solid waste processing or disposal facility.

Owner - The person or municipality who is the owner of record of a solid waste processing or disposal facility.

Permit -A permit issued by the Pennsylvania DEP to operate a Municipal Waste disposal, processing or transfer station facility.

Permit Area -The area of land and water within the boundaries of the permit, which is designated on the permit application maps as approved by the Pennsylvania DEP, or equivalent regulatory agency in the state in which the facility is located.

Proposal - Complete response to the Request for Proposals for Municipal Waste Processing and Disposal Services that was submitted by Contractor to the County.

"Put or Pay" - A requirement to guarantee delivery of predetermined quantities of waste to a facility which also requires payment to the facility regardless of whether or not the waste was delivered for processing and disposal.

Recycling - The collection, separation, recovery and sale or reuse of metals, glass, paper, leaf waste, plastics and other materials which would otherwise be disposed or processed as Municipal Waste.

Refuse -Discarded waste materials in a solid or semi-liquid state, consisting of Garbage, Rubbish or a combination thereof.

Remaining Permitted Capacity -At any time the remaining weight or volume of Municipal Waste that can be disposed at a permitted Municipal Waste disposal or processing facility. The term shall only include the weight or volume capacity for which the Pennsylvania DEP (or the equivalent regulatory agency in state which the facility is located) has issued a permit.

Residual Waste -Any Garbage, Refuse, other discarded material or other waste, including solid, liquid, semi-solid or contained gaseous material resulting from industrial, mining and agricultural operations and any sludge from an industrial, mining or agricultural water supply treatment facility, wastewater treatment facility or air pollution control facility, if it is not hazardous.

Resource Recovery Facility -A facility that provides for the extraction and utilization of materials or energy from Municipal Waste that is generated off-site, including, but not limited to, a facility that mechanically extracts materials from Municipal Waste, a combustion facility that converts the organic fraction of Municipal Waste to usable energy and any chemical or biological process that converts Municipal Waste into a fuel product or other usable material. The term does not include methane gas extraction from a Municipal Waste landfill, nor any separation and collection center, drop-off point or collection center for recycling Municipal Waste, or any source separation or collection center for composting leaf waste.

Rubbish -Non-putrescible solid wastes consisting of combustible and non-combustible materials including leaf wastes.

Sewage Sludge -The coarse screenings, grit and dewatered or air-dried sludges, septic and holding tank pumpings and other residues from municipal and residential sewage collection and treatment systems.

Stabilized Sewage Sludge -Sewage sludge that has been treated to reduce odor potential and the number of pathogenic organisms. Treatment methods include anaerobic and aerobic digestion, composting, lime stabilization and chlorine stabilization.

Tipping Fee -The schedule of fees established by the owner or operator of a transfer station, sanitary landfill, processing and/or resource recovery facility for accepting various types of solid waste for processing or disposal.

Unacceptable Waste -Any material that by reason of its composition, characteristics or quality, is ineligible for disposal at the processing and disposal facility pursuant to the provisions of the Resource Conservation and Recovery Act of 1976, 42 U.S.C. S2605 (e), the Pennsylvania Solid Waste Management Act, 35 P.S. S6018.101, et seq., or other applicable Federal, State or local law; or any other material that the Contractor concludes would require special handling or present an endangerment to the landfill, the public health or safety, or the environment.

## II. SCOPE OF CONTRACT

### 1. Designation as Processing and Disposal Site

In consideration of Operator's Covenants and this Agreement, the County hereby agrees to include operator's Facility in its Plan as a designated non-exclusive processing or disposal facility for Municipal Waste generated in the County.

### 2. Effective Date

This Contract shall become effective and the contractor shall begin providing Municipal Waste processing and disposal, service for the County under the terms and conditions of this Contract on the date the Contract is duly executed by the Board of County Commissioners.

### 3. Term of contract

The term of this Contract shall commence on the effective date, and shall terminate on the earlier of (a) any event, the effect of which is to permanently terminate the validity of the DEP Permit for the Facility (or the equivalent regulatory agency in state which the facility is located) or (b) Ten (10) years, or (c) terminated in writing by consent of both parties.

### 4. Compliance with Applicable Laws

The parties to the Contract agree that the laws of the Commonwealth of Pennsylvania shall govern the validity, construction, interpretation and effect of the Contract. The Contractor shall conduct the service of Municipal Waste processing and disposal as provided by for by the Contract in compliance with all applicable federal and state regulations and laws. The contract and the work to be performed as described herein is also subject to the provisions of all pertinent municipal ordinances which shall be made a part thereof with the same force and effect as if specifically set out therein.

### 5. Breach of Contract

If the Contractor fails to materially perform in a satisfactory manner in accordance with applicable Permit requirements or regulations the County shall have the right to demand in writing adequate assurances from the Contractor that steps have been or are being taken to rectify the situation. Within ten (10) days of receipt of any such demand the Contractor must submit to the County a written statement that explains the reasons for the non-performance or delayed, partial or substandard performance during that period and any continuance thereof. The Contractor shall also have the option to appear before the County to present any such explanation. Upon the failure of the contractor to submit a statement or failure of the Contractor to correct any such condition within fifteen (15) days after responding to the demand by the County, unless the County has agreed to a longer period (which agreement will not be unreasonably withheld), the County may, except under the conditions of force majeure, as defined herein, assess liquidated damages to the Contractor in accordance with the provisions stated herein and/or to terminate the Contract, and as a remedy make demands under any remedy available to the County as provided by law.

### 6. Penalties and Actual Damages

A. It is hereby understood and mutually agreed by and between the Contractor and the County that the Municipal Waste processing and disposal services to be performed under this Contract are vital for the protection of public health and welfare *and* it is further understood and agreed that the services to be performed under this Contract will be commenced on the date specified in this Contract.

B. It is hereby understood and mutually agreed by and between the Contractor and the County that reporting of complete and accurate data in the format required by this Contract is vital to evidence the implementation of Schuylkill County's approved Plan and the continued availability of sufficient processing or disposal capacity *and* it is further understood and agreed that the reports to be submitted under this Contract in the format required will be received by the County on the dates specified in this Contract.

1. A Contractor that operates, or whose parent company operates, a transfer station that receives Schuylkill County municipal waste for transport to one of the designated facilities shall also submit a report from the transfer station in accordance with Section IV.

C. If the Contractor neglects, fails or refuses to provide the Municipal Waste processing and disposal services in accordance with the terms and provisions of the Contract, and as a result thereof there is a disruption or termination of the Municipal Waste processing and disposal services to be performed by Contractor under this Contract, then the Contractor does hereby agree, as a partial consideration for the awarding of the Contract, to pay to the County an amount to be determined as hereinafter set forth as actual damages for such breach of Contract for each and every calendar day that such service is disrupted or terminated.

D. The amount of actual damages shall be equal to any additional total waste processing and disposal cost (i.e., any processing and disposal cost in excess of the amount that haulers normally would have paid for processing and disposal of the same amount of waste at the Contractors' Facility under the contract), if any, plus any additional total waste transportation costs (i.e., any transportation cost in excess of the amount that haulers normally would have paid for transporting the same amount of waste to the Contractors' Facility) if any, that the haulers have incurred for transportation and processing and disposal of the Municipal Waste to an alternative processing or disposal facility or transfer station.

E. The Contractor shall not be responsible for the payment of any actual damages whenever the County determines that the Contractor was without fault and the Contractor's reasons for the breach of Contract are acceptable. Furthermore, the Contractor shall not be responsible for any actual damages under the conditions of force majeure as defined herein.

F. If the Contractor neglects, fails or refuses to provide the complete and accurate reports in the format required by the County in accordance with the terms and provisions of Section IV of the Contract, then the Contractor does hereby agree, as a partial consideration for the awarding of the Contract, to pay to the County an amount to be determined as hereinafter set forth as penalties for such breach of Contract for each and every calendar day that such reports in the format required by the County are late, incomplete, inaccurate or insufficient.

G. The amount of penalties shall be calculated at the rate of \$300 per day for each and every calendar day past the required date for submission. If more than one report required in Section IV of the Contract is to be submitted on the same calendar day then the amount of penalties shall be calculated separately for each and every report that is late, incomplete, inaccurate or insufficient or improperly formatted.

#### 7. Force Majeure

Neither the Contractor nor the County shall be liable for the failure to perform their duties and obligations under the Contract or for any resultant damages, loss or expense, if such failure was the result of an act of God, riot, insurrection, war, catastrophe, natural disaster or any other cause which was beyond reasonable control of the Contractor or the County and which the contractor or County was unable to avoid by exercise of reasonable diligence.

#### 8. Assignment of Contract

No transfer or assignment of the Contract or any right accruing under the Contract shall be made in whole or in part by the Contractor without prior express written approval by the County (which approval shall not be unreasonably withheld). The delegation of any Contract duties will require the written consent of the surety for the Contractor's performance bond, since such delegation will not relieve the Contractor or his surety of any liability and/or obligation to perform. In the event of any delegation of a duty, the delegate shall assume full responsibility and liability for performance of that duty without affecting the Contractor's liability, and shall be responsible for compliance with and performance of all terms and conditions of this contract including but not limited to provisions for sureties and assurances of availability of 10-year service.

#### 9. Change of Ownership

In the event of any change of control or ownership of the Contractor's Facilities the County shall maintain the right to hold the original owner solely liable. However, the County, at its option may determine that the new ownership can adequately and faithfully perform the duties and obligations of the Contract for the remaining term of the Contract, and elect to execute a novation, which will allow the new ownership to assume the rights and duties of the Contract and release the former ownership of all obligations and liabilities. The new ownership would then be solely liable for the performance of the Contract and any claims or liabilities under the Contract.

#### 10. Waivers

A waiver by either party of any breach of any provisions of the Contract shall not be taken or held to be a waiver of any succeeding breach of such provisions or as a waiver of any provision itself. No payment or acceptance of

compensation for any period subsequent to any breach shall be deemed a waiver of any right or acceptance of detective performance.

#### 11. County's Obligations

County shall not be obligated by the terms of this Contract to guarantee the delivery to Contractor's Facility of any minimum quantities of Municipal Waste or payment for any services provided by Contractor to any hauler.

#### 12. Illegal and Invalid Provisions:

In the event any term, provision or other part of the Contract should be declared illegal , inoperative, invalid or unenforceable such term or provision shall be amended to conform to the appropriate laws or regulations. In the case of illegal or invalid provisions, the remainder of the Contract shall not be affected and shall remain in full force and effect.

#### 13. Joint and Severable Liability

If, after the date hereof, the Contractor is comprised of more than one individual, corporation or other entity, each of the entities comprising the Contractor shall be jointly and severally liable.

#### 14. Binding Effect

The provisions, covenants and conditions of the Contract shall apply to and bind the parties, their legal heirs, representatives, successors and assigns.

#### 15. Entire Agreement /Amendments to the Contract

The provisions of this Contract, together with the Agreements and exhibits incorporated by reference, shall constitute the entire Municipal Waste Processing and Disposal Capacity Contract between the County and the Contractor, superseding all prior processing and disposal capacity agreements or contracts, if any, except as otherwise provided in this Contract. No amendment or modifications of the terms and conditions of the Contract shall be made prior to the date the Contract is duly executed by the Schuylkill County Board of Commissioners. Once the Contract is duly executed by the Schuylkill County Board of Commissioners, no amendment or modifications of the terms and conditions of the Contract shall be effective unless such amendment or modification is in writing and signed by authorized representatives of all parties entitled to receive a right or obligated or perform a duty under the Contract. A signed original amendment to the Contract shall be furnished to all parties to be attached to the original Contract. The County and the Contractor agree that any existing Municipal Waste processing and disposal contracts between them are hereby rendered null and void and superseded by this Contract.

Any existing Host County Fee Agreements between the parties shall remain in full force and effect notwithstanding any provisions of this Contract.

#### 16. Merger Clause

The Contract shall constitute the final and complete agreement and understanding between the parties. All prior and contemporaneous agreements and understandings, whether oral or written, including, without limitation, the Request For Proposals (RFP) submitted by Contractor, shall be without effect on the construction of any provisions or terms of the final contract if they alter, vary or contradict the Contract.

#### 17. Notices

All notices, demands, requests and other communications under this contract shall be deemed sufficient and properly given if in writing and delivered in person, or by recognized carrier service to the following addresses, or sent by certified or registered mail, postage prepaid, with return receipt requested, at such addresses. Provided, if such notices, demands, requests or other communications are sent by mail, they shall be deemed as

given on the third day following such mailing, which is not a Saturday, Sunday or day on which United States mail is not delivered:

**For the County:**

*Schuylkill County Office of Solid Waste,  
Schuylkill County Courthouse,  
401 North Second Street,  
Pottsville, PA 17901  
Attention: Mr. Joseph Scribbick ,Recycling Coordinator*

**For the Contractor:**

**Notice Address as shown on Form B.**

Either party may, by like notice, designate any further or different addresses to which subsequent notices shall be sent. Any notice under this Contract signed on behalf of the notifying party by a duly authorized attorney at law shall be valid and effective to the same extent as if signed on behalf of such party by duly authorized officer or employee.

**III. SERVICE, OPERATIONS, AND PERFORMANCE**

**1. Services of the Contractor**

The Contractor agrees to accept, process and dispose specified quantities and types of Municipal Waste originating from sources located in Schuylkill County, in accordance with all applicable Federal, state and local regulations. Nothing herein shall prohibit any Contractor from entering into any separate contract with another person or municipality to provide such waste collection and/or transportation services.

**2. Types and Quantities of Municipal Waste**

The specific types and quantities of Municipal Waste that will be accepted at the Contractor's Facility under this contract shall be those as listed in Form B:

Annual adjustments to the maximum Municipal Waste quantities not shown on may be permitted if the request for adjustments is made in writing at least sixty (60) days in advance of the anniversary of the effective date of the Contract . Any quantity adjustment request will be mailed to the County by United States Postal Service, Certified Mail. If an authorization is approved, it will be considered an amendment to this Contract and the adjusted quantities will supersede those previously in effect.

**3. Maximum Tipping Fees or Rate Schedule**

The maximum rate or tipping fee to accept the various types of Municipal Waste shall be as listed on Form A.

**4. Delivery of Wastes**

The Municipal Waste to be accepted at the Contractor's Facility under this Contract will be delivered to the Contractor's Facility by municipal and/or private waste haulers. The waste haulers responsible for delivering the Municipal Waste that will be accepted under the contract will be those required to be authorized by the Pennsylvania Waste Transportation Safety Act 90 as well as those regularly engaged in the business of waste transportation but are exempt. Only Municipal Waste materials delivered to the Contractor's Facility by authorized and such exempt waste haulers shall count towards any maximum waste quantity limits under the Contract. Contractor shall be responsible for obtaining a current list of the authorized waste haulers from the appropriate State agency.

**5. Minimum Hours of Operation**

Unless mutually agreed upon otherwise by the Contractor and the County, the Contractor will accept delivery of Municipal Waste from waste haulers authorized by the Pennsylvania Waste Transportation Safety Act 90 during the hours shown on Form B, excluding generally recognized business holidays, including without limitation (President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas and New

year's Day). In the event of any lengthy travel time from sources in the County to an out-of-county processing and disposal facility, the Contractor will be required to exhibit flexibility in the operating hours for accepting wastes from Schuylkill County. The Contractor shall have complete discretion to make additional arrangements for accepting waste at any earlier or later hours and/or on Sundays.

#### 6. Complaints

The Contractor shall receive and respond to all complaints from waste transporters authorized by the Pennsylvania Waste Transportation Safety Act 90 as well as those regularly engaged in the business of waste collection and transportation in Schuylkill County regarding the acceptance of waste materials at his Facility. Any complaints received by the County will be directed to the Contractor. In the event the Contractor cannot satisfactorily resolve a complaint within five (5) days after receipt of the complaint, the County shall have the right to demand a written explanation or satisfactory resolution of the complaint pursuant to the breach of contract provisions herein.

#### 7. Municipal Recycling Programs

The County and individual municipalities in Schuylkill County shall have the right to establish and operate any municipal recycling programs, including drop-off recycling centers and curbside collection programs, to source separate and remove recyclable materials from the Municipal Waste stream prior to the delivery of the waste to the Contractor's facility. The Contractor shall notify the County in the event Contractor becomes aware that materials that are being collected in the County and/or municipal recycling programs are being routinely delivered to Contractor for waste processing and disposal. The Contractor shall cooperate with the County in reaching the Commonwealth of Pennsylvania's Recycling goals.

#### 8. Title to Solid Waste

Except in the case where any unacceptable waste or Hazardous Waste is delivered to the Contractor's Facility, the title to the Municipal Waste and any benefits of marketing any materials or energy recovered from the Municipal Waste shall pass to the Contractor upon delivery of the waste to the Contractor's Facility and acceptance of the waste by the Contractor.

#### 9. Unacceptable or Hazardous Waste

The Contractor shall have the right and discretion to inspect and reject any such Hazardous and/or Unacceptable waste delivered to the Facility by the haulers servicing the county. The waste haulers authorized by the Pennsylvania Waste Transportation Safety Act 90, as well as those regularly engaged in the business of waste transportation but are exempt from Act 90, shall be responsible for the prompt removal and processing and disposal of any such unacceptable waste and shall bear all costs associated with the subsequent removal, transportation and processing and disposal of such Hazardous and/or Unacceptable waste.

#### 10. Basis and Method of Payment

A. The County shall not be responsible for the direct payment of any tipping fees to the Contractor under the Contract. All tipping fees shall be paid directly by the municipal and/or private waste haulers, which deliver the waste to the Contractor's Facility.

B. The Contractor shall be responsible for the billing and collection of all tipping fees from the waste haulers. The method of billing and collection arrangements between the waste haulers and the Contractor shall comply with all applicable Federal and State laws governing such commerce and business activities.

C. The County shall not be responsible for failure of any waste hauler, authorized or otherwise, to pay the Contractor's tipping fees and no such fees will be paid by the County. In the event County is notified of repeated delinquency or non-payment by any waste hauler of Contractor's tipping fees, County may enforce any remedies, which may be available to the County.

D. The Contractor shall not charge a tipping fee to any waste hauler authorized by the Pennsylvania Waste Transportation Safety Act 90, as well as those regularly engaged in the business of waste transportation but are exempt from Act 90, that is greater than the maximum rates established by this Contract for each type of waste originating in Schuylkill County. Nothing in this Contract shall be construed to prevent or preclude the Contractor from negotiating alternate tipping fees with any waste hauler provided such fees do not exceed the maximum rates under this Contract.

#### 11. Rate Escalation and Adjustments

A. If Contractor desires to adjust the maximum rate or tipping fee for processing and disposal of each type of Municipal Waste under the Contract in excess of the amount provided in Form A in the RFP submitted by Contractor to the County, the Contractor may request the consent of the County for such increase by providing the County with at least 60 days advance written notice of the proposed increase. Consent to any proposed increase shall be at the sole discretion of the County. The notice of proposed increase to the County shall be delivered to the County by United States Postal Service, Certified Mail on or before October 1 of the year prior to the proposed effective date of the increase.

B. Unless the County and Contractor mutually agree to an alternate date, all annual rate adjustments shall become effective on January 1st of each year of the Contract to be consistent with the starting dates and new contract periods of most Municipal Waste collection contracts.

C. The Contractor may also request consent of the County at any time for additional rate or fee adjustments on the basis of unforeseen changes in operating costs resulting from any new or revised federal, state or local laws, ordinances, regulations or permit requirements, which were not in effect at the time when the original Contract was awarded. The Contractor shall have the burden of preparing and submitting any necessary information to support and document any such rate adjustments. The County shall have the right to inspect, by itself or by an independent auditor, any pertinent financial records that document the need for a rate adjustment using audit standards similar to the Federal procurement regulations. The County shall also have the right to modify the amount of a rate increase requested, modify the effective date of a rate adjustment or to reject a rate increase petition for lack of justification.

D. In the event that any one rate adjustment petition for unforeseen changes in the operating costs of the processing or disposal facility, as set forth in paragraph C above, or the cumulative impact of several such rate adjustment petitions, results in a rate increase greater than 25 percent of the base tipping fee under this contract, the County at its discretion shall have the right to solicit new Municipal Waste, processing and disposal service proposals and the right to terminate this Contract, if in the judgment of the County, more favorable processing and disposal contracts can be secured from other facilities.

E. All annual rate adjustments shall be calculated on only the actual operating cost for the Contractor's processing and disposal facility. All annual rate adjustments as set forth in , demonstrated and included with Form A represent the total tipping fee including any and all fees, taxes, and surcharges as described. Any fixed pass-through or add-on surcharges or costs, such as the surcharge for the recycling fund, post-closure trust fund and County or host municipality benefit fee imposed on Pennsylvania Facilities by Act 101 or any other surcharge or pass-through cost imposed by any host county or municipality, will be deducted from the maximum rate or tipping fee prior to calculating any annual rate adjustment.

#### 12. **RESERVED** County Administration/Recycling Surcharge

In the event that legislation should be enacted during the period of this contract authorizing the County to assess fees or surcharges for the administration and implementation of its solid waste and recycling programs the County reserves all such rights and privileges to negotiate and collect such fees from the Contractor.

#### IV. RECORD KEEPING AND REPORTING REGULATED WASTE

1. The Contractor will be required to install and maintain a scale to weigh all incoming waste to the contractor's Municipal Waste processing or disposal facility or, in the case of a transfer station, to weigh all Municipal Waste delivered to the County designated processing or disposal facility by the transfer station. The scale used to weigh Municipal Waste shall conform to the Weights and Measurement Act of 1965 (73 P.S. sections 1651- 1692) and applicable regulations thereunder; the operator of the scale shall be a licensed public weighmaster under the Public Weighmasters Act (13 P.S. sections 1771-1796) and any regulations.

## 2. Daily Operational Records

The Contractor shall make and maintain an operational log for each day that Municipal Waste is received, processed or disposed. At a minimum, the following information shall be recorded in the daily operational log:

- A. The total weight of each type of Municipal Waste received at the Facility from all sources;
- B. The County from which the Solid Waste originated, or if the waste originated from outside the state, the state from which the waste originated; and
- C. The name of each waste hauler or transporter delivering Municipal Waste to the Facility.

1. Loads from transfer facilities should be made distinguishable from those directly hauled.

## 3. Quarterly Operation Reports

The Contractor shall prepare and submit on forms approved by the County a quarterly operation report. The quarterly operation reports shall be submitted to the County on or before the 20th day of April, July, October and January of each year for the preceding three (3) month calendar period ending on the last day of March, June, September and December, respectively. At a minimum, the following information shall be included in each quarterly operation report:

- A. The total weight of each type of Municipal Waste received from all sources within the County during each month of the quarterly reporting period;
- B. The names of the waste haulers or transporters and self-haulers that delivered waste originating from sources in Schuylkill County.
- c. A summary of the total weight of each type of Municipal Waste received each month from each waste hauler or transporter and self-hauler delivering waste originating from sources in Schuylkill County;
- D. A summary of the total weight of each type of Municipal Waste received each month from all waste haulers and self-haulers delivering waste originating from sources in Schuylkill County. Loads from transfer facilities should be made distinguishable from those directly hauled; and
- E. A Contractor that operates, or whose parent company operates, a transfer station that receives Schuylkill County municipal waste for transport to one of the designated facilities shall also submit a report from the transfer station showing:

- 1. The names of the waste haulers or transporters and self-haulers that delivered Municipal Waste originating from sources in Schuylkill County.
- 2. A summary of the total weight of each type of Municipal Waste received each month from each waste hauler or transporter and self-hauler delivering waste originating from sources in Schuylkill County.
- 3. The total amount of tons of Schuylkill County Municipal Waste transported from the transfer station to each disposal facility designated in the Plan to receive waste from Schuylkill County.

The inbound and outbound tons of Schuylkill County waste must reconcile.

## 4. Annual Operation Report

The Contractor shall prepare and submit on forms approved by the County an annual operation report for each calendar year or other fiscal year approved by the County. The annual operation report shall be submitted to the County on or before June 30th of each year unless an alternate submission date is approved by the County. At a minimum, the following information shall be included in the annual operational report:

- A. For Municipal Waste landfills, a description of the capacity or volume used during the past year and the remaining permitted capacity based upon the annual topographic survey information;
- B. A current Certificate of Insurance as evidence of continuing insurance coverage for public liability insurance as required under the Contract;
- C. For Resource Recovery or other Municipal Waste processing facilities, the name and the location of the landfill disposal facilities where any bypassed wastes, unprocessable waste and waste by-products, such as incinerator ash, were ultimately disposed;
- D. Copies of all notices of violation, civil penalty assessments and/or administrative orders issued by federal, state or county regulatory authorities to the owner and/or operator of the Facility during the year; and
- E. If available to the Contractor, Certificate of good standing- from its bonding company.
- F. The annual operating reports that must be prepared and submitted to the DEP by Pennsylvania processing and disposal facilities (or equivalent regulatory agency in the state in which the facility is located) may constitute acceptable information for portions of the annual operating report for the purposes of the Contract, provided they are accompanied by completed and accurate forms approved by the County along with any required supporting information.

#### 5. Administrative Inspections

Upon reasonable notice, and during regular business hours, the County and its authorized representatives shall have access to Contractors' logs and records pertaining to the quantities and sources of Municipal Waste for the purpose of verifying compliance with the terms and conditions of this Contract.

#### 6. Special Reporting Requirements

The Contractor shall provide written notification to the County of any permit modification applications for the following types of permit changes, on the same date the application is first submitted to the Pennsylvania DEP (or equivalent regulatory agency in the state in which the facility is located):

- A. Changes in the permitted site volume or capacity,
- B. Changes in the permitted average and/or maximum daily waste volume or loading rates,
- C. Changes in the excavation contours or final contours, including the final elevations and slopes,
- D. Changes in the permitted acreage, and
- E. Changes in ownership.

### V. PUBLIC LIABILITY INSURANCE REQUIREMENTS

#### 1. Insurance Requirement

The Contractor shall be required to maintain in full force and effect throughout the term of the Contract, and any renewal or extension thereof a general liability insurance policy to provide continuous coverage against third party claims for property damage and personal injury, as specified in Chapter 271 of the DEP's Municipal Waste Management Regulations (Pennsylvania Bulletin, Vol. 18, No. 15, April 9, 1988) and the following section. The effective date of the required insurance policy shall be prior to the initiation of any waste processing and disposal services under this Contract. Contractor shall cause County to be added as an additional insured on all policies of insurance required under the terms of this Contract.

## 2. Proof of Insurance Coverage

The Contractor shall be required to submit to the County proof of insurance coverage upon execution of the Contract. At a minimum, the proof of insurance shall consist of a certificate of insurance which:

- A. States the name of the insurance company, the insured owner and facility covered by the policy.
- B. Identifies the kinds of coverage provided by the policy and the amounts of coverage, exclusive of legal costs.
- C. Identifies the beginning and ending dates for the policy.
- D. Specifies that a minimum 30-day period written notice shall be given by the insurer to the County and the Owner, by certified mail, before any cancellation or other termination of the policy becomes effective.
- E. States that the insurer is liable for payment on the policy without regard for the bankruptcy or insolvency of the insured.
- F. Be signed by an authorized agent of the insurance company.

## 3. Maintenance of Insurance Coverage

The Contractor shall be required to submit to the County a current certificate of insurance as evidence of continuous insurance coverage as part of the annual operation report required under the Contract. The annual certificate of insurance shall contain the same information and provisions as specified in the original proof of insurance certificate under the requirements of the preceding paragraph. Failure to submit the required proof of insurance or to maintain the required minimum insurance coverages would be considered a default by the Contractor in accordance with the provisions of the Contract.

## VI. NONDISCRIMINATION

Neither the Contractor nor any subcontractor nor any person(s) acting on his behalf shall discriminate against any person because of race, sex, age, creed, color, religion, national origin or any other protected category.

## VII. INDEMNIFICATION

The Contractor or its successors and assigns shall indemnify and save harmless the County, their officers, agents, servants and employees from and against any and all suits, actions, legal proceedings, claims, demands, damages, costs, expenses and attorney fees resulting from any willful or negligent act or omission of the Contractor or its successors or assigns, its officers, agents, servants and employees in the performance of this Contract; provided however, that the Contractor or its successors and assigns shall not be liable for any suits, actions, legal proceedings, claims, demands, damages, costs, expenses and other attorney fees arising out of the award of this Contract or the willful or negligent act or omission of the County, their officers, agents, servants and employees.

## VIII. PERMITS

The Contractor shall be responsible for obtaining any and all permits necessary for the construction and operation of the Municipal Waste processing and disposal facilities required to comply with the terms and conditions of the Contract, and any and all costs or expenses of obtaining such permits. Failure to obtain and maintain permits shall constitute a breach of this Contract.

## IX. Right-to-Know Law

The Pennsylvania Right-to-Know Law, 65 P.S. § 67.101-3104, applies to this Contract.

Unless the Contractor provides the County in writing, with the name and contact information of another person, the County shall notify the Contractor's Project Coordinator using the Contractor information provided by the Contractor in the legal contact information provided in this Contract, if the County needs the Contractor's

assistance in any matter arising out of the Right-to-Know LAW ("RTKL"). The Contractor shall notify the County in writing of any change in the name or the contact information within a reasonable time prior to the change.

Upon notification from the County that the County requires the Contractor's assistance in responding to a RTKL request for records in the Contractor's possession, the Contractor shall provide the County within 14 calendar days after receipt of such notification, access to, and copies of, any document or information in the Contractor's possession which arises out of the Contract that the County requests ("Requested Information") and provide such other assistance as the County may request in order to comply with the RTKL. If the Contractor fails to provide the Requested Information within 14 calendar days after receipt of such request, the Contractor shall indemnify and hold the County harmless for any damages, penalties, detriment or harm that the County may incur under the RTKL as a result of the Contractor's failure, including any statutory damages assessed against the County.

The County's determination as to whether the Requested Information is a public record is dispositive of the question as between the parties. The Contractor agrees not to challenge the County's decision to deem the Requested Information as Public Record. If the Contractor considers the Requested Information to include a request for a Trade Secret or Confidential Proprietary Information, as those terms are defined by the RTKL, the Contractor will immediately notify the County, and will provide a written statement signed by a representative of the Contractor explaining why the requested material is exempt from public disclosure under the RTKL within seven (7) calendar days of receiving the request. If, upon review of the Contractor's written statement, the County still decides to provide the Requested Information, the Contractor will not challenge or in any way hold the County liable for such a decision.

The County will reimburse the Contractor for any costs associated with complying with this provision only to the extent allowed under the fee schedule established by the Office of Open Records or as otherwise provided by the RTKL if the fee schedule is inapplicable.

The Contractor agrees to abide by any decision to release a record to the public made by the Office of Open Records, or by the Pennsylvania Courts. The Contractor agrees to waive all rights or remedies that may be available to it as a result of the County's disclosure of Requested Information pursuant to the RTKL. The Contractor's duties relating to the RTKL are continuing duties that survive the expiration of this Contract and shall continue as long as the Contractor has Requested Information in its possession.

WITNESS the execution hereof, the parties expressly intending to be legally bound pursuant to the Uniform Written Obligations Act, 33 Pa. C.S. § 6, Contractor and County have caused this contract to be executed by their respective duly authorized agents, as of the date and year first written.

COUNTY OF SCHUYLKILL

---

\_\_\_\_\_ DATE \_\_\_\_\_

Frank Staudenmeier, Chair

\_\_\_\_\_ ATTEST: \_\_\_\_\_  
George Halcovage *Chief Clerk*

Gary J. Hess

CONTRACTOR

---

CONTRACTOR: \_\_\_\_\_

WITNESS: \_\_\_\_\_

TITLE: \_\_\_\_\_

**Form A – Cost of Processing and Disposal**

<p><b>Name of Facility</b> _____</p>		<p><b>Maximum Tipping Fees Per Ton For Each Category of Waste</b></p>				
<p>The maximum tipping fee shall not exceed the posted gate rate.</p>						
<p>Include all applicable surcharges, fees, taxes from Legislation, Regulation, or Programs of State, Federal, County or Host Municipalities</p>						
<p>Show a breakdown of those fees in the following table</p>						
<p>Indicate any annual escalators that will apply or attach a separate table demonstrating future rates.</p>						
	<b>MSW</b>	<b>Construction Demolition</b>	<b>Sewage Sludge</b>	<b>Approved Regulated Medical Waste</b>	<b>Other</b>	<b>Other</b>
<b>Base Tipping Fee</b> (without taxes, and other fees)						
<b>List Name of Fee, Tax, Surcharge below.</b>	<b>List Amount for Each Fees, Taxes, Surcharges that will apply to Schuylkill County MSW</b>					
<b>Total Tipping Fee including all fees and surcharges</b>						

**Form B -Reserved Capacity**

FACILITY: \_\_\_\_\_

Types and Quantities of Municipal Solid Waste		Specify tons per day and tons per year				
Year	MSW Only	C&D	Sludge	Other	Other	Total
<b>2015-2016</b>						
Tons Per Day						
Tons Per Year						
<b>2016-2017</b>						
Tons Per Day						
Tons Per Year						
<b>2017-2018</b>						
Tons Per Day						
Tons Per Year						
<b>2018-2019</b>						
Tons Per Day						
Tons Per Year						
<b>2019-2020</b>						
Tons Per Day						
Tons Per Year						
<b>2020-2021</b>						
Tons Per Day						
Tons Per Year						
<b>2021-2022</b>						
Tons Per Day						
Tons Per Year						
<b>2022-2023</b>						
Tons Per Day						
Tons Per Year						
<b>2023-2024</b>						
Tons Per Day						
Tons Per Year						

# Form B - Part II Reserved Capacity

Total Combined Quantities of all Accepted Categories of Municipal Waste

YEAR	TOTAL SCHUYLKILL MSW TONS PER YEAR (all categories)	PERCENTAGE Reserving Capacity for % of Schuylkill MSW Annually (all categories)	ANNUAL TONS Reserving Capacity for #Tons Schuylkill MSW Annually (all categories)	OPERATING DAYS Estimated Annual Working Days	TONS PER DAY Reserving Capacity for #Tons Schuylkill MSW Daily (all categories)
2015	126,561.4				
2016	126,517.3				
2017	126,473.3				
2018	126,429.2				
2019	126,385.2				
2020	126,341.2				
2021	126,307.0				
2022	126,272.9				
2023	126,238.8				
2024	126,204.7				

**Operating hours** from \_\_\_\_\_ to \_\_\_\_\_ Monday through Friday and from \_\_\_\_\_ to \_\_\_\_\_ on Saturdays,

Indicate tons of Schuylkill County Municipal Waste donated by Contractor per year for non-profit activities including but not limited to road adoptions and open dump clean-ups: \_\_\_\_\_ tons

Notices

All notices, demands, requests, and other communications under this contract shall be delivered to:

Contractor: \_\_\_\_\_

Address: \_\_\_\_\_

Attention: \_\_\_\_\_

With a copy to: \_\_\_\_\_ Attention: \_\_\_\_\_

# Section 5

## REQUIRED FORMS

The following forms shall be completed, signed by an official authorized to bind the Offeror, and attached to the proposal.

1. Form C- Representations and Certifications
2. Form D- Contractor Information



*FORM C- REPRESENTATIONS AND CERTIFICATIONS*

Company \_\_\_\_\_

Facility \_\_\_\_\_

Authorized Official \_\_\_\_\_

An officer of the organization submitting the proposal empowered and authorized to sign such documents makes the following representations and certifications as part of this proposal:

**1. Certification of Non Collusion and Independent Price Determination**

I certify that as an officer of \_\_\_\_\_, I have lawful authority and have thus been empowered to submit and execute the proposal contained herein; that neither have I nor any representative of \_\_\_\_\_ has either directly or indirectly entered into any agreement, express or implied with any representative or representatives of other companies or individuals submitting such proposals for the object of controlling of price, the limiting of proposals submitted, the parceling out of any part of the resulting contract or subject matter of the proposal or proposals or any profits thereof; and that I nor any representatives of \_\_\_\_\_ have not nor will not divulge the sealed proposal to any person or persons except those having a partnership or other financial interest with him or her in the proposal or proposals until after the said sealed proposal or proposals are opened.

I further certify that neither I nor any representative of \_\_\_\_\_, have been a party to collusion among proposers in restraint of the freedom of competition by agreement to make a proposal at a fixed price or to refrain from submitting a proposal or with any state official or employee as to quantity, quality, or price in any discussions between proposers and any County official concerning exchange of money or other things of value for special consideration in the letting of the contract and that neither I nor any representative of \_\_\_\_\_ have paid, given, donated or agreed to pay give or donate to any official, officer, or employee of Schuylkill County any money or other thing of value either directly or indirectly.

**2. Acceptance Period**

I agree to allow 180 days from the date of this proposal for acceptance thereof by the Commissioners of Schuylkill County.

**3. Ambiguity**

I recognize and accept that in the case of any ambiguity or lack of clarity in stating fees, prices or other information and conditions in the proposal, the County shall have the right

to construe such prices or information and conditions in a manner most advantageous to the County or to reject the proposal.

**4. Contingent Fee Representation**

I certify that \_\_\_\_\_ has not employed or retained any company or person other than a full time bona fide employee working solely for \_\_\_\_\_ to solicit or secure this contract nor has it paid or agreed to pay any company or person other than a full time bona fide employee working solely for \_\_\_\_\_ any fee commission, percentage or brokerage fee contingent upon or resulting from the award of this contract. I agree to furnish any information relating to both conditions as requested by Schuylkill County.

**5. Equal Employment Opportunity**

I assure that neither the employees, applicants for employment, nor those of any labor organization, subcontractor or employment agency in either referring or furnishing employee applicants are discriminated against by \_ \_\_\_\_\_.

*Executed under penalty of perjury this \_\_\_\_\_ day of 2015,  
at \_\_\_\_\_*

*By\_ \_\_\_\_\_ (name)  
\_\_\_\_\_ (title)*

SEAL \_\_\_\_\_ (company)

Date: \_ \_\_\_\_\_

On \_ \_\_\_\_\_, 2015, before me, the undersigned, a Notary Public in and for \_\_\_\_\_, personally appeared \_\_\_\_\_, known to me to be the \_\_\_\_\_ of Company that executed the within instrument on behalf of the Proposer therein named, and acknowledged to me that such Proposer executed the same.

In witness whereof, I have hereunto set my hand and affixed my official seal in the County of \_\_\_\_\_, this \_\_\_\_\_ day of \_ \_\_\_\_\_ 2015.

Notary \_\_\_\_\_

My Commission expires \_\_\_\_\_ Notary Public

*FORM D- CONTRACTOR INFORMATION*

Company\_ \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone \_ \_\_\_\_\_ Fax \_ \_\_\_\_\_

Owner/President\_ \_\_\_\_\_

Type of organization (corporation, joint venture, partnership, individual)

- \_\_\_\_\_

For joint ventures, indicate role and ownership share of each participant. Providing information for each. List any and all subcontractors.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Proposed Processing and Disposal Facility \_ \_\_\_\_\_

Permit #/ State /Date Issued/Expiration \_ \_\_\_\_\_

Physical Location  
(County/Municipalities)\_ \_\_\_\_\_

Have you or any officer of the company or facility ever failed to complete any contract awarded in your own name or that of the company or facility?

If yes, explain who, where and why\_\_\_\_\_

\_\_\_\_\_

Have you or any officer of the company or facility ever failed to complete any contract awarded in your own name or that of any other company or facility?

If yes, explain who, where and why\_\_\_\_\_

\_\_\_\_\_

Are you or any officer of the company or facility engaged in any contracts for services similar to those contained in the proposal herein?

If yes, explain who, where and when \_\_\_\_\_

Have you or any officer of the company or facility your partners or joint ventures been party to a lawsuit issued within the past three years that might impact your ability to perform the obligations of this contract?

If yes, explain who, where and why \_\_\_\_\_

Have you submitted a complete an accurate compliance history outlining any and all judicial actions, convictions, consent orders or agreements, violations, and resolutions for any environmental, or public health and safety laws and regulations?

Explain or comment on any desired actions \_\_\_\_\_

Executed under penalty of perjury this \_\_\_\_\_ day of 2015  
at \_\_\_\_\_

By \_\_\_\_\_ (name)

\_\_\_\_\_ (title)

SEAL \_\_\_\_\_ (company)

Date: \_\_\_\_\_

On \_\_\_\_\_, 2015, before me, the undersigned, a Notary Public in and for \_\_\_\_\_, personally appeared \_\_\_\_\_, known to me to be the \_\_\_\_\_ of Company that executed the within instrument on behalf of the Proposer therein named, and acknowledged to me that such Proposer executed the same.

In witness whereof, I have hereunto set my hand and affixed my official seal in the County of \_\_\_\_\_, this \_\_\_\_\_ day of \_\_\_\_\_ 2015\_

My Commission expires \_\_\_\_\_

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# **APPENDIX E**

## **Process to Add Future Disposal Facilities**

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## **Schuylkill County Municipal Solid Waste Management Plan Petition for Designation as Processing/Disposal Facility**

Schuylkill County has secured Disposal Capacity Agreements for a sufficient amount of disposal capacity for all municipal waste generated within the County. However, the County recognizes that new disposal and processing opportunities may present themselves from time to time. Therefore, Schuylkill County has established guidelines to include added facilities during the ten-year period of its current Municipal Solid Waste Management Plan.

Municipalities, haulers, and/or transfer stations must use this form to notify the County of a party's interest in using another facility. Information provided in this form will be used by the County to contact a facility representative and send the requirements necessary to qualify the facility as a participant in the Plan.

The facility must meet all of the same criteria required in the original Request for Proposals for Disposal Capacity, including execution of the Contract as presented.

Any and all costs, which may be associated with preparation of the petition and required documentation and/or the Plan revision to add a facility shall be the responsibility of either the Petitioner or the Facility as indicated and authorized by a signature on this form.

**Please complete and submit the form to:**  
**Office of Solid Waste & Resource Management**  
**Schuylkill County Court House**  
**401 North Second Street**  
**Pottsville, PA 17901**  
**(570)-628-1220**

### **Petitioner**

Name: _____
Organization: _____
Address: _____
_____ Phone Number: _____
Fax Number: _____
E-Mail Address: _____

### **Facility**

Name of Facility: _____
Contact Person: _____
Address: _____
_____ Phone Number: _____
Fax Number: _____
E-Mail Address: _____

**Explain the need to have this facility included in the Plan:** (Attach Additional Sheets if Necessary)

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**Party responsible for total costs of Plan Revision to add facility:**

Name _____	Title _____
Signature _____	Date _____

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## PROCEDURES AND INSTRUCTIONS TO PETITIONER

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A disposal/processing facility, a hauler, a municipality or a business must complete and submit the petition form to the the Schuylkill County Office of Solid Waste & Resource Management .

Within 15 working days of the receipt of a petition, the Schuylkill County Office of Solid Waste & Resource Management . will send to the petitioner or the facility, a request for proposal for disposal capacity outlining the same requirements and format for submission as the original document utilized in the selection of those facilities currently designated in the Plan.

Upon receipt of the completed proposal from the petitioning facility, the Schuylkill County Office of Solid Waste & Resource Management will notify the Pennsylvania Department of Environmental Protection of its intentions to add a facility.

The Schuylkill County Office of Solid Waste & Resource Management will review and respond to the information in the proposal within 45 working days.

If information in the submitted proposal is complete, accurate and meets the accepted criteria, Schuylkill County Office of Solid Waste & Resource Management will notify by letter all municipalities within the County of the intent to add a facility to the Plan. The County will accept comments for a period of thirty days.

After the thirty day comment period, Schuylkill County Office of Solid Waste & Resource Management will formally submit the addition of the facility to the Pennsylvania Department of Environmental Protection for approval.

Upon approval by the Pennsylvania Department of Environmental Protection, , the Schuylkill County Office of Solid Waste & Resource Management will notify by letter all County municipalities that a facility has been added to the Plan.

At that time the requesting facility, hauler, municipality or business will also be notified that the facility is formally designated in the Plan for disposal of Schuylkill County generated municipal waste.

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# **APPENDIX F**

## **Ordinances**

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**COUNTY SOLID WASTE AND RECYCLING TRANSPORTERS ORDINANCE**

ORDINANCE NO. 2016-  
COUNTY OF SCHUYLKILL, PENNSYLVANIA

AN ORDINANCE OF THE COUNTY OF SCHUYLKILL, PENNSYLVANIA, ESTABLISHING A HAULER REGISTRATION PROGRAM TO BE ADMINISTERED BY THE SCHUYLKILL COUNTY OFFICE OF SOLID WASTE & RESOURCE MANAGEMENT FOR ALL PERSONS THAT COLLECT AND TRANSPORT MUNICIPAL WASTE AND/OR RECYCLABLES GENERATED FROM SOURCES LOCATED IN SCHUYLKILL COUNTY; PROVIDING WASTE FLOW CONTROL REQUIREMENTS TO DIRECT WASTE TO DESIGNATED PROCESSING AND/OR DISPOSAL SITES; AND PROVIDING PENALTIES FOR VIOLATION OF THIS ORDINANCE.

WHEREAS, Act 101 of 1988, the Municipal Waste Planning, Recycling and Waste Reduction Act 101 requires that counties accept responsibilities including the preparation and implementation of municipal waste management plans that provide for the processing and disposal of the municipal waste generated within their boundaries for at least ten years; and ensure maximum feasible waste reduction and recycling of municipal waste or source separated recyclable material.

WHEREAS, it is the position of the Pennsylvania Department of Environmental Protection that counties can implement a waste flow control mechanism ensuring that the municipal waste generated within the county is disposed at the disposal sites designated in the county plan; and

WHEREAS, the Board of County Commissioners has adopted and approved the 1992 Schuylkill County Municipal Waste Management Plan and non-substantial revisions in 2004 and 2016 in accordance with the requirements of Section 501 of Act 101, and said Plan has been duly ratified by the municipalities of Schuylkill County; and

WHEREAS, the Board of County Commissioners has adopted and approved Ordinance 1990-3 on October 17, 1990 as amended, which Ordinance is being repealed and replaced by this Ordinance; and,

WHEREAS, the County has the power and duty to adopt any such ordinances deemed necessary to implement this Plan and its revisions by the authority vested to the County pursuant to section 303 of Act 101, including requirements that all persons must register to collect and transport municipal waste subject to the Plan to a municipal waste processing and/or disposal facility designated by the County pursuant to Subsection 303(3) of Act 101.

NOW, THEREFORE, the Board of County Commissioners of Schuylkill County hereby enact and ordain as follows:

**SECTION 1- SHORT TITLE**

This Ordinance shall be known and referred to as the "County Solid Waste and Recycling Transporters Ordinance".

## **SECTION 2- DEFINITIONS**

The following words and phrases as used in this Ordinance shall have the meaning ascribed to them herein, unless the context clearly indicates a different meaning:

**Act 90** -- The Pennsylvania Waste Transportation Safety Program (HB 2044, Act 2002-90, June 29,2002)

**Act 97** -- The Pennsylvania Solid Waste Management Act of 1980 (P.L. 380, No.97, July 7, 1980)

**Act 101** -- The Pennsylvania Municipal Waste Planning, Recycling and Waste Reduction Act of 1988 (SB 528, Act 1988-101, July 28, 1988)

**Commercial Establishment** - Any establishment engaged in nonmanufacturing or nonprocessing business, including, but not limited to, stores, markets, offices, restaurants, shopping centers and theaters.

**Construction/Demolition Waste** — Solid waste resulting from the construction or demolition of buildings and other structures, including, but not limited to, wood, plaster, metals, asphaltic substances, bricks, block and unsegregated concrete. The term does not include the following if they are separate from other waste and are used as clean fill:

(i) Uncontaminated soil, rock, stone, gravel, brick and block, concrete and used asphalt

(ii) Waste from land clearing, grubbing and excavation

**County** --Schuylkill County or any agency designated as the County's representative for the purposes of this Ordinance.

**County Authorization** – An authorization from Schuylkill County issued to any Transporter of municipal waste and recyclables that is not required by Act 90 to obtain Pennsylvania Waste Transportation Authorization.

**County Registered Transporter** - Any person, firm, partnership, corporation, or public agency who is engaged in the collection and/or transportation of municipal waste and/or recyclables currently registered with the County pursuant to this Ordinance.

**Department or DEP** --The Pennsylvania Department of Environmental Protection.

**Disposal** - The deposition, injection, dumping, spilling, leaking or placing of solid waste into or on the land or water in a manner that the solid waste or a constituent of the solid waste enters into the environment, is emitted into the air or is discharged to the waters of the Commonwealth of Pennsylvania

**Industrial Establishment** Any establishment engaged in manufacturing or production activities, including, but not limited to, factories, foundries, mills, processing plants, refineries, mines and slaughterhouses.

**Institutional Establishment** Any establishment or facility engaged in services, including, but not limited to, hospitals, nursing homes, schools and universities.

**Leaf Waste** Leaves, garden residues, shrubbery and tree trimmings, and similar material, but not including grass clippings.

**Marketed**— The transfer of ownership of recyclable materials for the purpose of recycling the materials into a new product or use.

**Municipality** --Any local municipal government within Schuylkill County. A city, borough, incorporated town, township, county or an authority created by any of the foregoing.

**Municipal Waste** --Any garbage, refuse, industrial lunchroom or office waste and other material including solid, liquid, semisolid or contained gaseous material resulting from operation of residential, municipal, commercial or institutional establishments and from community activities; and any sludge not meeting the definition of residual or hazardous waste under Act 97 from any municipal, commercial or institutional water supply treatment plant, wastewater treatment plant, or air pollution control facility. The term does not include any source-separated recyclable materials. For the purposes of this Ordinance, the term "Municipal Waste" shall include all types of municipal waste except regulated medical waste and septage waste since all haulers of regulated medical waste are licensed and regulated by the DEP under special regulations.

**Municipal Waste Disposal or Processing Facility**—A facility using land for disposing or processing of municipal waste. The facility includes land affected during the lifetime of operations, including, but not limited to, areas where disposal or processing activities actually occur, support facilities, borrow areas, offices, equipment sheds, air and water pollution control and treatment systems, access roads, associated onsite or contiguous collection, transportation and storage facilities, closure and postclosure care and maintenance activities and other activities in which the natural land surface has been disturbed as a result of or incidental to operation of the facility

**Municipal Waste Landfill** – A facility using land for disposing of municipal waste. The facility includes land affected during the lifetime of operations including, but not limited to, areas where disposal or processing activities actually occur, support facilities, borrow areas, offices, equipment sheds, air and water pollution control and treatment systems, access roads, associated onsite and contiguous collection, transportation and storage facilities, closure and postclosure care and maintenance activities and other activities in which the natural land surface has been disturbed as a result of or incidental to operation of the facility. The term does not include a construction/demolition waste landfill or a facility for the land application of sewage sludge.

**Municipal Waste Management Plan**— A comprehensive plan for an adequate municipal waste management system in accordance with Chapter 272, Subchapter C (relating to municipal waste planning).

**Pennsylvania Waste Transportation Authorization** – An authorization issued to municipal and residual waste Transporters pursuant to Act 90 of 2002.

**Person** -- Any individual, partnership, corporation, association, institution, cooperative enterprise, municipal authority, municipality, state institution and agency, or any other legal entity recognized by law as the subject of rights and duties. In any provisions of this Ordinance prescribing a fine, penalty or imprisonment, or any combination of the foregoing, the term "person" shall include the officers and directors of any corporation or other legal entity having officers and directors.

**Plan Revision** — A change that affects the contents, terms or conditions of a Department approved plan under the Municipal Waste Planning, Recycling and Waste Reduction Act.

**Processing** ~- Any technology used for the purpose of reducing the volume or bulk of municipal or residual waste or any technology used to convert part or all of such materials for off-site reuse. Processing facilities include, but are not limited to, transfer stations, composting facilities and resource recovery facilities.

**Recyclables** – All metals, glass, paper, leaf waste, plastics and other materials, which would otherwise be disposed or processed as municipal waste. that are collected, separated, recovered for sale or reuse.

**Recycling** --The collection, separation, recovery and sale or reuse of metals, glass, paper, leaf waste, plastics and other materials which would otherwise be disposed or processed as municipal waste,

**Recycling Facility**—A facility employing a technology that is a process that separates or classifies municipal waste and creates or recovers reusable materials that can be sold to or reused by a manufacturer as a substitute for or a supplement to virgin raw materials. The term does not include transfer facilities, municipal waste landfills, composting facilities or resource recovery facilities.

#### **Resource Recovery Facility -**

(i) A processing facility that provides for the extraction and utilization of materials or energy from municipal waste.

(ii) The term includes a facility that mechanically extracts materials from municipal waste, a combustion facility that converts the organic fraction of municipal waste to usable energy and a chemical and biological process that converts municipal waste into a fuel product.

(iii) The term includes a facility for the combustion of municipal waste that is generated offsite, whether or not the facility is operated to recover energy.

(iv) The term includes land affected during the lifetime of operations, including, but not limited to, areas where processing activities actually occur, support facilities, borrow areas, offices, equipment sheds, air and water pollution control and treatment systems, access roads, associated onsite or contiguous collection, transportation and storage facilities, closure and postclosure care and maintenance activities and other activities in which the natural land surface has been disturbed as a result of or incidental to operation of the facility.

(v) The term does not include:

(A) A composting facility.

(B) Methane gas extraction from a municipal waste landfill.

(C) A separation and collection center, drop-off point or collection center for recycling, or a source separation or collection center for composting leaf waste.

(D) A facility, including all units in the facility, with a total processing capacity of less than 50 tons per day.

**Sewage Sludge**—Liquid or solid sludges and other residues from a municipal sewage collection and treatment system; and liquid or solid sludges and other residues from septic and holding tank pumpings from commercial, institutional or residential establishments. The term includes materials derived from sewage sludge. The term does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator, grit and screenings generated during preliminary treatment of sewage sludge at a municipal sewage collection and treatment system, or grit, screenings and nonorganic objects from septic and holding tank pumpings

**Source Separated Recyclable Materials** --Materials that are separated from municipal waste at the point of origin or generation for the purpose of recycling.

**Street** --A strip of land, including the entire right-of-way, intended for use as a means of vehicular and pedestrian circulation, includes street, avenue, boulevard, road, highway, freeway, parkway, lane, alley, viaduct and any other ways used or intended to be used by vehicular traffic or pedestrians whether public or private.

**Transfer facility**—A facility which receives and processes or temporarily stores municipal or residual waste at a location other than the generation site, and which facilitates the transportation or transfer of municipal or residual waste to a processing or disposal facility. The term includes a facility that uses a method or technology to

convert part or all of the waste materials for offsite reuse. The term does not include a collection or processing center that is only for source-separated recyclable materials, including clear glass, colored glass, aluminum, steel and bimetallic cans, high-grade office paper, newsprint, corrugated paper and plastics.

**Transportation** --The off-site removal of any municipal waste and/or recyclables at any time after generation.

**Transporter** Any person, firm, partnership, corporation or public agency who is engaged in the collection and/or transportation of municipal waste and/or recyclables.

For the purposes of this ordinance, the singular shall include the plural and the masculine shall include the feminine and neuter.

### **SECTION 3 -STANDARDS FOR COLLECTION AND TRANSPORTATION**

1. All Transporters operating within the County must comply with the following minimum standards and regulations:
  - A. All trucks or other vehicles used for collection and transportation of municipal waste must comply with the requirements of Act 97, Act 90, and Act 101 as currently enacted or hereafter amended, and Department regulations adopted pursuant to Act 97, Act 90 and Act 101, including the Title 25, Chapter 285, Subchapter B Regulations for the Collection and Transportation of Municipal Waste as currently worded or hereafter amended .
  - B. All collection and transportation vehicles conveying municipal waste and/or recyclables shall be operated and maintained in a manner that will prevent creation of a nuisance or a hazard to public health, safety and welfare.
  - C. All collection and transportation vehicles conveying putrescible municipal waste and/or recyclables shall be watertight and suitably enclosed to prevent leakage, roadside littering, attraction of vectors and the creation of odors and other nuisances.
  - D. All collection and transportation vehicles conveying nonputrescible municipal waste and/or recyclables shall be capable of being enclosed or covered to prevent roadside litter and other nuisances.
  - E. All collection and or transportation vehicles conveying municipal waste and/or recyclables shall bear signs identifying the name and business address of the person or municipality, which utilize said vehicle in the collection and or transportation of municipal waste and/or recyclables and the specific type of municipal waste and/or recyclables transported by the vehicle. All such signs shall have lettering, which is at least six inches in height as required by Act 101.
2. All collection and transportation vehicles and equipment used by Transporters, shall be subject to inspection by the County or its authorized agents to determine compliance with the regulations in the section at any reasonable hour without prior notification.
3. All Transporters shall be responsible for payment of all disposal, processing, resource recovery, or recycling fees.

### **SECTION 4 - REGISTRATION REQUIREMENTS**

1. No person shall collect, remove, haul or transport any municipal waste and/or recyclables originating in Schuylkill County through or upon the streets, alleys,

highways, by-ways, township roads and any other public easement through any of the various municipalities within Schuylkill County without first registering with the County of Schuylkill in accordance with the provisions of this Ordinance.

2. Any person who desires to collect, haul or transport municipal waste and/or recyclables within Schuylkill County shall register for the first time at least thirty (30) days before beginning collection and/or transporting of municipal waste in the County.

3. Any person who desires to collect, haul or transport municipal waste and/or recyclables within Schuylkill County shall submit a copy of its Pennsylvania Waste Transportation Authorization application and a copy of the proof of Authorization to the County at the time of registration.

4. In lieu of submitting Pennsylvania Waste Transportation Authorization application and the proof of Authorization, any person who desires to collect, haul or transport municipal waste and/or recyclables within Schuylkill County that is not required by Act 90 to obtain Pennsylvania Waste Transportation Authorization, must complete the full registration form. At the time of registration all information required by the registration form must be provided to obtain an authorization from the County. The County shall have a minimum period of thirty (30) calendar days to review any authorization application and take approval or denial action.

5. The County shall designate specific processing and disposal facilities where Transporters must transport and dispose of any municipal solid waste collected from sources within Schuylkill County. No person shall dispose of municipal waste collected within Schuylkill County, except at an approved processing and disposal facility. The County shall not designate specific facilities for the processing and/or marketing of recyclables.

6. There shall be no registration or authorization fee.

7. The registration form, which will be supplied by the County, shall state the processing and disposal facilities that the applicant intends to use for the purpose of disposal of Schuylkill County Municipal Waste as well as the recycling facilities or end use facilities where Schuylkill County recyclables are marketed and shall set forth the minimum information required to establish the applicant's qualifications to collect and transport municipal waste and/or recyclables, including, but not necessarily limited to:

- A. Name together with actual mailing address of business location of the applicant,
- B. Name and telephone number of contact person,
- C. List of all collection vehicles to be used for the collection and transport of solid waste and recyclables and the Pennsylvania Waste Transportation Authorization identification number for each.
- D. List of collection vehicles to be used for the collection and transport of solid waste and recyclables and to be covered under the County authorization rather than Pennsylvania Waste Transportation Authorization. The vehicle identification information and the vehicle license number for each vehicle. The company tax identification number; certificate(s) of insurance to present evidence that the applicant has valid liability, automobile and workmen's compensation insurance.
- E. Type of municipal waste and/or recyclables collected and transported,

8. Any person who desires to collect, haul or transport municipal waste and/or recyclables within Schuylkill County and who is currently registered shall submit a registration renewal application and if applicable an authorization renewal to the

County at least sixty (60) days prior to the expiration date of their existing registration if renewal of the registration and authorization is desired.

9. No new authorization or authorization renewal shall be approved and issued by the County to any person who fails to satisfy the minimum standards and requirements of this Ordinance

10. Written complaints filed by residents or county designated facilities may result in the delay or denial of authorization renewal.

#### **SECTION 5- PROHIBITED ACTIVITIES**

1. It shall be unlawful for any person to collect and or transport municipal solid waste from any sources within Schuylkill County in a manner that is not in accordance with the provisions of this Ordinance and the minimum standards and requirements established in Chapter 285 of the DEP's Municipal Waste Management Regulations, (as amended) or any other applicable state law.
2. It shall be unlawful for any person to transport any municipal waste collected from sources located within Schuylkill County to any processing and disposal facility other than the facilities that are designated disposal and processing sites or resource recovery facility under the approved Schuylkill County Act 101 Municipal Waste Management Plan. The following types of municipal waste and materials are exempt from this sub-section:
  - a. Transporters of regulated medical waste shall be exempted from use of the designated disposal facilities.
  - b. Transporters of sewage sludge shall be exempted from use of the designated disposal facilities if proof of an approved land application or composting facility is provided.
  - c. Transporters of septage shall be exempted from use of the designated disposal facilities but must provide proof of use of a DEP approved land application or permitted wastewater treatment facility for disposal.
  - d. Transporters of recyclables shall be exempted from use of the designated disposal facilities but must provide proof that the recyclables are taken to a material recovery processing facility or marketed for end use.

#### **SECTION 6- EXEMPTED ACTIVITIES**

1. Municipalities and municipally owned vehicles participating in municipally sponsored clean-up days shall not be subject to the provisions of this ordinance with respect to standards for collection and transportation, licensing, prohibited activities, reporting requirements or penalties during the time that such vehicles or municipalities are engaged in those municipally sponsored clean-up activities.
2. Municipalities and municipally owned vehicles participating in county or municipally sponsored recycling collection shall not be subject to the provisions of this ordinance with respect to standards for collection and transportation, licensing, prohibited activities, reporting requirements or penalties during the time that such vehicles or municipalities are engaged in those county or municipally sponsored recycling activities.

3. The transportation of less than 500 pounds of municipal waste and/or recyclables collected and/or transported as part of a non-commercial activity occasionally occurring at an individual residence.

#### **SECTION 7- REPORTING REQUIREMENTS**

1. All Transporters shall promptly report any significant changes in the collection vehicles or equipment covered under the authorization and insurance coverage changes to the County.
2. All County Registered Transporters shall maintain current, up-to-date records of the customers serviced within Schuylkill County. Such records and customer list shall be subject to inspection and must be made available for view to the County or its authorized agents upon request.
3. Each Transporter shall prepare and submit on forms provided by the County, a typewritten or legibly printed quarterly report to the Office of Solid Waste & Resource Management. The report shall be submitted on or before the last day of the following months: April, July, October and January. At a minimum, the following information shall be included in each quarterly report
  - A. The total weight of each type of municipal waste and/or recyclables collected from all sources located in Schuylkill County during each month of the reporting period;
  - B. The name of each processing or disposal facility and/or material recovery or end market the hauler used during the reporting period and the total weight of each type of municipal waste and/or recyclable that was delivered to each site during each month of the reporting period;
  - C. The name of each municipality in Schuylkill County in which the hauler collected municipal waste and/or recyclables from any source during the reporting period; and
  - D. A summary for each municipality of the total weight of each type of municipal waste and/or recyclables collected from each municipality during each month of the reporting period;

#### **SECTION 8- PENALTIES**

1. Any person who violates any provision of this Ordinance shall, upon conviction, be guilty of a summary offense punishable, by a fine of not more than three hundred (\$300.00) dollars, or by imprisonment for a period of more than thirty (30) days, or both. Each incident shall be considered a separate and distinct offense punishable under the provisions of this Ordinance.
2. The County shall have the right at any time, after a hearing to suspend or revoke the County issued authorization of any County Registered Transporter for any of the following causes:
  - A. Falsification or misrepresentation of any statements in any authorization application;
  - B. Lapse or cancellation of any required insurance coverages;
  - C. Collection and/or transportation of any municipal waste and/or recyclables in a careless or negligent manner or any other manner that does not comply with the requirements of this Ordinance;

D. Transportation and disposal of any municipal waste collected from sources within Schuylkill County at any site other than those processing or disposal facilities designated by the County; and

E. Failure to meet the specific reporting requirements outlined in this Ordinance

F. Violation of any part of this Ordinance, any other applicable county ordinances or other applicable Pennsylvania laws or regulations.

**SECTION 9- INJUNCTIVE POWERS**

The County or its designated agency may petition the Court of Common Pleas of Schuylkill County for an injunction, either mandatory or prohibitive, in order to enforce any of the provisions of this Ordinance.

**SECTION 10 -SEVERABILITY**

In the event that any section, paragraph, sentence, clause, or phrase of this Ordinance, or any part thereof, shall be declared illegal, invalid or unconstitutional for any reason, the remaining provisions of this Ordinance shall not be affected, impaired or invalidated by such action.

**SECTION 11 -CONFLICT**

Any ordinances or any part of any ordinances, which conflict with this Ordinance are hereby repealed insofar as the same is specifically inconsistent with this Ordinance.

**SECTION 7. EXISTING CONTRACTS**

1. Nothing in this Ordinance shall be construed to impair the obligations of any existing Contract in force prior to the effective date of this Ordinance.
2. No renewal or modification of any existing Contract, and no new Contract shall be entered into after the effective date of this Ordinance unless such renewal, modification, or new contract shall conform to the requirements of this Ordinance.

**SECTION 13- EFFECTIVE DATE**

This Ordinance shall take effect on \_\_\_\_\_ ORDAINED AND ENACTED into an Ordinance this \_\_\_\_\_ day of 2016.

COUNTY OF SCHUYLKILL

BOARD OF COUNTY COMMISSIONERS

ATTEST:

\_\_\_\_\_

\_\_\_\_\_

(County Seal)

\_\_\_\_\_

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# **APPENDIX G**

## **Resolution to Adopt the Plan**

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DRAFT RESOLUTION TO ADOPT PLAN

RESOLUTION NO. \_\_\_\_\_  
RESOLUTION BY THE SCHUYLKILL COUNTY BOARD OF COMMISSIONERS  
ADOPTING THE REVISED MUNICIPAL SOLID WASTE MANAGEMENT PLAN

WHEREAS, the Schuylkill County Board of Commissioners have undertaken the development of a revised Municipal Solid Waste Management Plan for Schuylkill County in accordance with the requirements of the Solid Waste Management Act of 1980 (Act 97) and the Municipal Waste Planning, Recycling and Waste Reduction Act of 1988 (Act 101) ; and

WHEREAS, this revised Municipal Solid Waste Management Plan for Schuylkill County will be financed by a grant from the Pennsylvania Department of Environmental Protection and local funds and services provided by the Schuylkill County Commissioners; and

WHEREAS, upon the recommendations of the Schuylkill County Solid Waste Advisory Committee, the Schuylkill County Office of Solid Waste & Resource Management , and the Schuylkill County Board of County Commissioners have reviewed and approved the recommendations of this proposed plan to insure the availability of adequate permitted processing and disposal capacity for the municipal waste generated within Schuylkill County.

NOW, THEREFORE, BE IT RESOLVED, that the Schuylkill County Board of Commissioners do hereby approve and adopt the 2013 Revised Municipal Solid Waste Management Plan for Schuylkill County pursuant to the requirements of Section 501 of the Pennsylvania Municipal Waste Planning, Recycling and Waste Reduction Act of 1988 (Act 101).

PASSED AND APPROVED on the     day of     , 2016,

COUNTY OF Schuylkill

ATTEST:                     County Clerk

BOARD OF COUNTY COMMISSIONERS

\_\_\_\_\_, Chairman

\_\_\_\_\_

\_\_\_\_\_





# **APPENDIX H**

## **Meeting Minutes and Public Comments**

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## **SCHUYLKILL COUNTY MUNICIPAL SOLID WASTE MANAGEMENT PLAN REVISION**

### **Why Revise the Plan?**

- ◆ Act 101 (The Municipal Waste Planning Recycling and Waste Reduction Act of 1988) requires counties to update their plans every 10 years
- ◆ Revisions are triggered by expiration of disposal capacity agreements
- ◆ Revision process begins three years prior to expiration
- ◆ Impact of court rulings on hauler licensing and waste flow issues
- ◆ New PADEP Technical Guidance for Plan Development

### **Goals & Objectives of Planning Process**

- ◆ Determine future needs and guidelines for disposal capacity agreements
- ◆ Improve methods of tracking and monitoring waste activities for reporting
- ◆ Establish benchmarks in existing program to measure future performance
- ◆ Determine realistic potential to meet the state's recycling goals
- ◆ Identify services desired by the local community
- ◆ Develop a feasible action plan and timeline to implement any changes required

### **Members and Responsibilities of the Solid Waste Advisory Committee**

- ◆ Balanced group of stakeholders defined by Act 101 including representatives from:
  - ◆ Each class of municipal government
  - ◆ County recycling coordinator
  - ◆ Private sector waste industry
  - ◆ Private sector scrap & recycling industry
  - ◆ Business & industry
  - ◆ Civic and/or environmental organization
- ◆ Provide input based on representative stakeholder perspective
- ◆ Identify issues for discussion and consideration
- ◆ Review preliminary findings and draft documents
- ◆ Attend a series of 4-6 meetings over the next 12 -14 months

### **Responsibilities of the Consultant**

- ◆ Identify the sources, types and amounts of materials generated in Schuylkill
- ◆ Review the impact of the existing plan on current collection and processing for disposal or reuse
- ◆ Assess programs and service offerings of the county, municipalities and the private sector
- ◆ Explore reasonable methods and alternatives to complement and enhance the existing plan, and comply with PADEP guidelines
- ◆ Provide cost/benefit analyses and other supporting data to justify decisions of the County
- ◆ Provide the tools to ensure the plan can be implemented and programs sustained. (ordinances, contracts, reporting mechanisms, budgetary guidelines)

### **How does it become a plan?**

- ◆ Solid Waste Advisory Committee (SWAC) Meetings to cover the most significant issues
- ◆ Input from committee and municipalities
- ◆ Analyses and recommendations from consultant
- ◆ Final Approval – Planning Department, Board of County Commissioners, PADEP

- ♦ **CAUTION – Substantial revisions require ratification by 50% of municipalities with 51% of population.** (changes in waste flow control, public ownership of facilities, elimination of recycling, etc)

**Focus Areas for the Current Plan**

- ♦ Countywide Recycling Drop-off Program & Overall Recycling Rate
- ♦ New Collection & Processing Technologies
- ♦ Residential Waste Collection Practices
- ♦ Generation, Disposal, Recovery Trends
- ♦ New Laws for Electronic Waste
- ♦ Existing County Ordinances & Agreements
- ♦ Education/Awareness
- ♦ Reporting Difficulties
- ♦ Illicit Dumping
- ♦ Enforcement Issues
- ♦ Funding Mechanisms

**Possible Topics for Future Solid Waste Advisory Committee Meetings**

- ♦ State of Recycling in Schuylkill County vs. National Trends
- ♦ Changes in Waste Generation, Disposal, Recovery Trends
- ♦ Impact of Current Waste Collection & Disposal Practices
- ♦ Special Handling Wastes
- ♦ Potential for Future County/Municipal/Private Partnerships
- ♦ Funding Mechanisms
- ♦ Ongoing Findings and Recommendations
- ♦ Presentation of final draft



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# Recycling Collection Options

Schuylkill County Solid Waste Advisory Committee  
June 27, 2013

## Evolution of Curbside Collection Vehicles



## Drop-off Collection Vehicles



## Evolution of Processing Technology



## Cost of Recycling



County provides curbside and drop-off collection and processing. Accepts third party material. Municipalities or private sector offer curbside collection. <b>Centre/Indiana/Lycoming/Bradford/Tioga/Sullivan</b>	Examples of Pennsylvania's Fragmented Infrastructure
County provides drop-off collection and processing. Accepts third party material. Municipalities or private sector offer curbside collection. <b>Armstrong</b>	
County provides drop-off collection using third party processor. Municipalities or private sector offer curbside collection. <b>Schuylkill/Cambria/Monroe/Delaware/Blair</b>	
County provides drop-off collection and processing. No curbside collection available. <b>Greene</b>	
County contracts with private sector for drop-off collection and processing. Municipalities or private sector offer curbside and/or drop-off collection. <b>Erie/Mercer/Crawford/Lawrence/Venango/Elk/Jefferson/Clearfield</b>	Who provides Collection and Processing?
Municipalities or private sector offer curbside and/or drop-off collection. <b>Allegheny/Lancaster/York/Nothumberland/Cumberland</b>	
No drop-off programs. All Municipalities and private sector offer curbside collection. <b>Butler</b>	

**Schuylkill County** Source Separated Drop-Off  
**Cranberry Township** Fully Automated PAYT, Single Stream and Yard Waste Collection  
**Philadelphia** Manual Single Stream with Rewards  
**Lawrence County** Dual Stream Drop-Off  
**Centre County** Manual Curbside Sort  
**Recyclebank** Semi-Automated Single Stream with Rewards

**Pennsylvania Collection Systems**

## PAYT Rate Structure

**GARBAGE, RECYCLING, and YARD WASTE Cart Selection**

**GRAY-TOP Garbage Cart:** Check your preferences. Keep this for your records.

- 35 Gallon \$41.28 per quarter — # Additional 35 gallon cart(s) @ \$4.45 extra per quarter
- 64 Gallon \$42.75 per quarter — # Additional 64 gallon cart(s) @ \$6.75 extra per quarter
- 96 Gallon \$44.58 per quarter — # Additional 96 gallon cart(s) @ \$8.45 extra per quarter

No cart, bag service only \$26.54 per quarter plus \$52 tag for each 32-gallon trash bag. Tag required for extra bags, bulky items, water appliances and volume pickup are sold separately. Go to [www.ci.berwynnj.org](http://www.ci.berwynnj.org) for details.

**BLUE-TOP Recycling Cart**

- 35 Gallon Included in basic service
- 64 Gallon Included in basic service
- 96 Gallon Included in basic service

**GREEN-TOP Yard Waste Cart**

- 96 Gallon Included in basic service
- No yard waste cart. You may use interlocking paper bags brought from a street-to-collection charge.

**Size Matters!** Your rate depends on the size of your top garbage cart: 35, 64, or 96 gallons. Recycle as best!

Here's what each size cart can hold:

- 35 gallon: 35 bags
- 64 gallon: 64 bags
- 96 gallon: 96 bags

**Recycling Rewards Card**

**Recycling Rewards Card**

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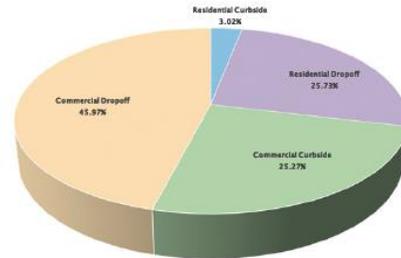
## Schuylkill County Municipal Solid Waste Management Plan 2012- 2013 Update and Revisions

Solid Waste Advisory Committee Meeting  
09/05/13

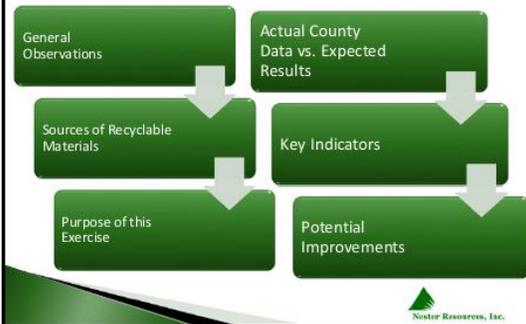


Nestor Resources, Inc.  
Michele Nestor

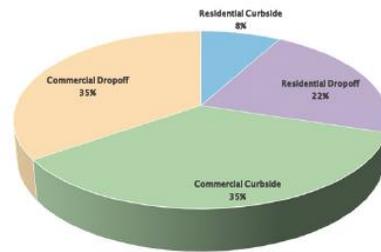
### Sources of All Schuylkill County Reported Recyclables



### Today's Agenda



### Sources of Schuylkill County Act 101 Reported Recyclables



### Sources with Greatest Amounts of Common Recyclables



### Reaching Schuylkill County's Potential Overall Recovery Rate

	Expected Total Generated tpy	Expected Total Recovered tpy	Expected Total Disposed tpy	2011 % of Total MSW	2011 % Recovered
<b>Traditional Recyclable Materials:</b>					
Glass Containers	4,429	1,513	2,916	3.71%	34.16%
Aluminum Cans	630	344	286	0.53%	54.55%
Bi Metal Cans	859	606	253	0.72%	70.56%
Plastic #1 thru #7	6,635	859	5,775	5.55%	12.95%
Plastic #1 and #2	1,675	487	1,189	1.40%	29.06%
<b>Paper:</b>					
Newspapers/Mechanical papers	4,367	3,165	1,203	3.65%	72.46%
Other Paper Nondurables	10,878	5,064	5,814	9.10%	46.56%
Corrugated Boxes	14,052	12,792	1,260	11.76%	91.03%
Other Paper & Paperboard Pkg	4,095	888	3,208	3.43%	21.68%
Other Miscellaneous Nondurables	1,752	53	1,699	1.47%	3.00%

## Reaching Schuylkill County's Potential Overall Recovery Rate

	Expected Total Generated tpy	Expected Total Recovered tpy	Expected Total Disposed tpy	2011 % of Total MSW	2011 % Recovered
<b>Other Recyclable Materials:</b>					
Textiles	4,931	706	4,224	4.13%	14.33%
Carpeting	1,828	129	1,699	1.53%	7.05%
Furniture	5,312	5	5,308	4.44%	0.09%
Rubber Tires	2,196	978	1,217	1.84%	44.57%
Batteries	1,379	1,327	53	1.15%	96.19%
Major Appliances	1,947	1,251	697	1.63%	64.22%
Small Appliances	845	57	788	0.71%	6.78%
Consumer Electronics	1,628	406	1,222	1.36%	24.93%
Other Misc Durables	8,415	177	8,238	7.04%	2.10%
Yard Waste	16,090	9,212	6,878	13.46%	57.25%
Steel Drums	181	143	38	0.15%	78.95%



## 2011 Performance Annual Tons Reported by Schuylkill County Compared to National Trends

RECYCLED MATERIAL BY CATEGORY	2011 % of Total MSW	Adjusted Schuylkill Reported 2011 tpy	Adjusted Schuylkill Reported 2012 tpy	Adjusted Schuylkill Average 2011-2012	2011 Expected	Percent of Expected
Glass Containers	3.71%	2,050.45	8,481.25	5,265.85	1,513	348.02%
Aluminum Cans	0.53%	2,384.33	2,054.14	2,219.23	344	645.76%
Bi Metal Cans	0.72%	618.29	696.37	657.33	606	108.44%
Plastic #3 thru #7	5.55%	3,738.07	3,205.32	3,471.69	859	404.08%
Plastic #1 and #2	1.40%	342.33	439.77	391.05	487	80.32%

## Reaching Schuylkill County's Potential Overall Recovery Rate

	Expected Total Generated tpy	Expected Total Recovered tpy	Expected Total Disposed tpy	2011 % of Total MSW	2011 % Recovered
<b>Unrecyclable Items:</b>					
Plastic Plates and Cups	492	0	492	0.41%	0.00%
Trash Bags	482	0	482	0.40%	0.00%
Disposable Diapers	1,733	0	1,733	1.45%	0.00%
Other Misc. Packaging **	415	0	415	0.35%	0.00%
Miscellaneous Inorganic Wastes	1,847	0	1,847	1.55%	0.00%
<b>Total Unrecyclable Items:</b>	<b>4,969</b>	<b>0</b>	<b>4,969</b>	<b>4.16%</b>	<b>0.00%</b>



## 2011 Performance Annual Tons Reported by Schuylkill County Compared to National Trends

RECYCLED MATERIAL BY CATEGORY	2011 % of Total MSW	Adjusted Schuylkill Reported 2011 tpy	Adjusted Schuylkill Reported 2012 tpy	Adjusted Schuylkill Average 2011-2012	2011 Expected	Percent of Expected
Newspaper	3.65%	2,015.19	1,568.27	1,791.73	3,165	56.62%
Magazines, Mixed paper	9.10%	5,675.38	4,653.37	5,164.37	5,064	101.98%
Corrugated Boxes	11.76%	15,504.56	22,054.58	18,779.57	12,792	146.81%
Other Paper & Paperboard Packaging	3.43%	15,504.56	22,054.58	18,779.57	12,792	146.81%

## Reaching Schuylkill County's Potential Overall Recovery Rate

	Expected Total Generated tpy	Expected Total Recovered tpy	Expected Total Disposed tpy	2011 % of Total MSW	2011 % Recovered
Subtotal Traditional Materials:	47,698	25,283	22,414	39.90%	53.01%
Total Traditional and Others::	92,450	39,674	52,776	77.35%	42.91%
Total Unrecyclable items:	4,969	0	4,969	4.16%	0.00%
Wood Packaging	4,773	1,136	3,637	3.99%	23.80%
Food Scraps	17,331	668	16,663	14.50%	3.86%
<b>Total all items</b>	<b>119,523</b>	<b>41,478</b>	<b>78,045</b>	<b>100.00%</b>	<b>34.70%</b>



## 2011 Performance Annual Tons Reported by Schuylkill County Compared to National Trends

RECYCLED MATERIAL BY CATEGORY	2011 % of Total MSW	Adjusted Schuylkill Reported 2011 tpy	Adjusted Schuylkill Reported 2012 tpy	Adjusted Schuylkill Average 2011-2012	2011 Expected	Percent of Expected
Textiles	4.13%	359.90	479.90	419.90	706	59.44%
Furniture	4.44%	0.00	0.00	0.00	5	0.00%
Rubber Tires	1.84%	263.90	324.00	293.95	978	30.04%
Batteries	1.15%	70.20	209.60	139.90	1,327	10.54%
Major Appliances	1.63%	7,656.50	16,418.40	12,037.45	1,251	962.57%
Other Misc Durables	7.04%	73.10	185.90	129.50	177	73.33%
Yard Waste	13.46%	6,227.30	1,749.10	3,988.20	9,212	43.29%
Steel Drums	0.15%	7.00	57.80	32.40	143	22.63%
Wood Waste	3.99%	17,197.90	43,580.70	30,389.30	1,136	2675.12%

## Traits of Sustainable Residential Programs

Convenience Capacity Communication	Curbside Recycling Collection bi-weekly minimum	Same Day Waste/Recycling Collection
Mandatory Participation/Payment Contracted Services Direct User Fees	Monetary Incentives Tied Directly to Volume Waste/Recyclables	Yard Waste Frequent Collections Additional Outlets
Bulky Waste & Appliances Outlets or Collections	Enforcement Mechanisms Prosecution of Violators	Consistent Tracking & Monitoring



## Comments and Discussion Schuylkill County Waste & Recycling Programs



- ▶ Access/Opportunities
- ▶ Performance
- ▶ Effectiveness
  
- ▶ Contracted Services
- ▶ Compliance
- ▶ Reporting



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## **Introductions**

- Quick rundown on directly related projects/results
- Rightsizing services
- Solutions, Tradeoffs & Compromises

## **Challenges Encountered in Analysis**

- Data anomalies
- Learning curve of staff
- Focus of local metrics - quantities
- Route Productivity and Accountability??

## **Clarity on PADEP Perceived vs. Actual Authority**

- Act 101 regulatory requirements
- Grant related contractual commitments
- Impact on municipal waste planning process

## **Economics of Recycling Programs-What that Means Locally**

- Importance of integrated services
- Who benefits financially
- Who bears the risks
- Status of grant programs
- Market trends and material projections
- Pending capital outlays – for most options

## **Factors That Influence Efficiencies and Costs - Time ...Labor ...Fuel...Equipment...**

### *Schuylkill Specific Issues – Pros and Cons*

#### *Haul-All System vs. Conventional Industry Options*

- Volume capacity of containers on site
- Volume capacity of vehicle
- Weight capacity of vehicle
- Route circuit distance/time & number of circuits
- Weight and density of materials
- Material Sales

### *Schuylkill Key Indicators – What Local Conditions Reveal*

- Overweight loads pose high liability risk – injury/litigation
- Public Perceptions
- Willingness to Pay
- Material Sources
- Site Locations – Invitation for Abuse
- Hidden Cost of Site Maintenance

## **Potential Options and Ramifications**

- Carry-on “as is” with greater budget allocations
  - *Aging equipment = increasing repairs/refurbishments*
- Downsize and reconfigure the sites and routes
  - *Goal to eliminate one-two route day equivalents*

- *Truck size and driver performance still factor in*
- *Expected decrease in revenue*
- Transition parts or all of the system to conventional equipment
  - *Significant capital outlay \$250K to \$500K*
  - *Bigger pay-load per circuit*
  - *Driver performance can “make or break”*
- Solicit bids from private contractors for all or part of the system.
  - *Built in controls*
  - *Shifts risk to contractor*
  - *Fixed Costs*
- Consider cost sharing or full cost shift to participating municipalities (regardless of Drop-off system)
  - *Need to always cover fixed costs*
  - *Could be cost prohibitive with fewer municipalities “opting-in”*
- Phase out the drop-off program by phasing in curbside collection
  - *Adapt an ordinance that requires haulers to offer curbside recycling to their residential accounts at “no additional cost.” (bundled pricing)*
  - *Assist municipalities develop joint contracts*
  - *Assist municipalities obtain collection carts with grants or as part of their collection contracts*

**Table 1. Summary of 2012 Schuylkill County Drop Off Recycling Program Results**

<b>Material</b>	<b>cubic yards</b>	<b>tons</b>	<b>cy/ton</b>	<b>% of Volume</b>	<b>% of Tons</b>	<b>Revenue</b>	<b>% of Revenue</b>
Cardboard	25,022.00	588.90	45.88	45.8%	20.8%	\$38,035	22.8%
Mixed Paper	8,367.50	1223.39	7.36	15.3%	43.1%	\$42,760	25.6%
Mixed Cans	2,703.50	119.48	24.29	4.9%	4.2%	\$17,720	10.6%
Glass	2,081.00	560.77	5.08	3.8%	19.8%	\$0	0.0%
Mixed Plastic	16,464.50	344.52	51.27	30.1%	12.1%	\$68,453	41.0%
<b>Total</b>	<b>54,638.50</b>	<b>2837.06</b>		<b>100.0%</b>	<b>100.0%</b>	<b>\$166,968</b>	<b>100.0%</b>

Based on those months when volume was reported.

Cost for glass recycling of \$6,606 not included.

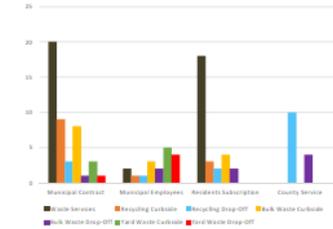


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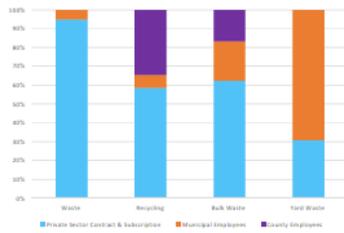
# Schuylkill County

MUNICIPAL WASTE SERVICES SURVEY 2014  
SOLID WASTE ADVISORY COMMITTEE MEETING  
NOVEMBER 5, 2014

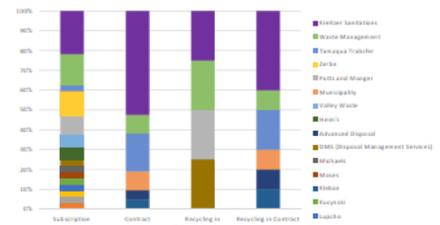
Methods of Providing Service



Service Providers



Market Share of Services

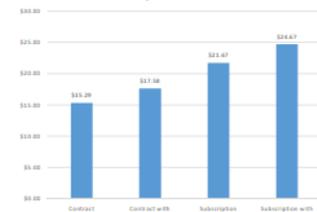


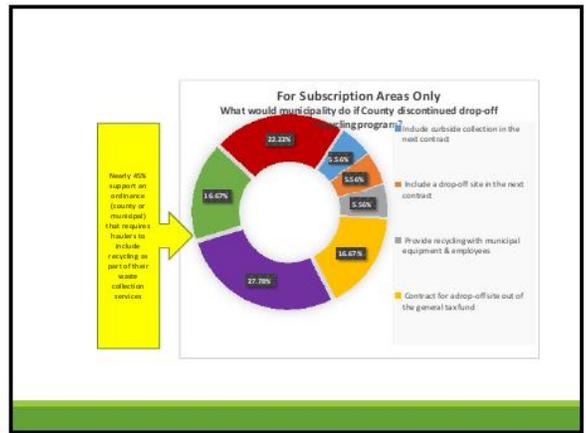
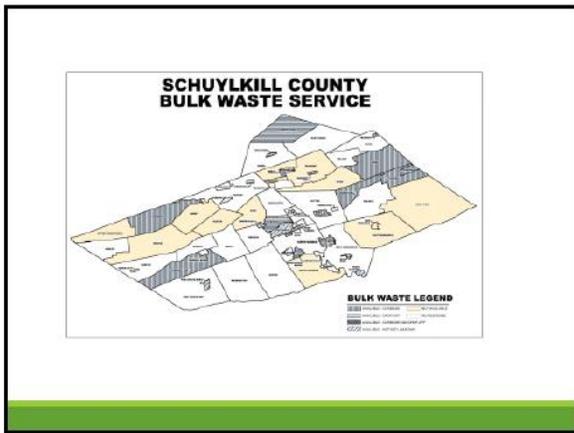
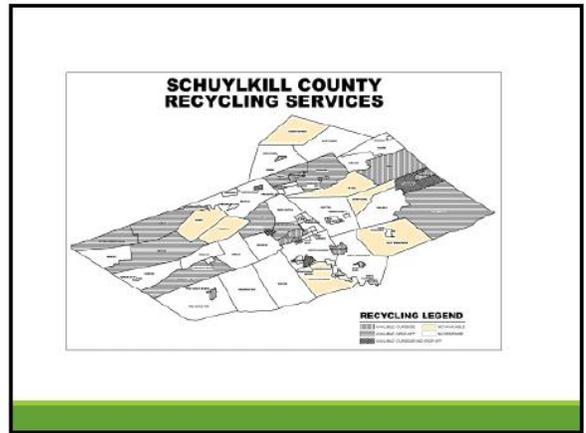
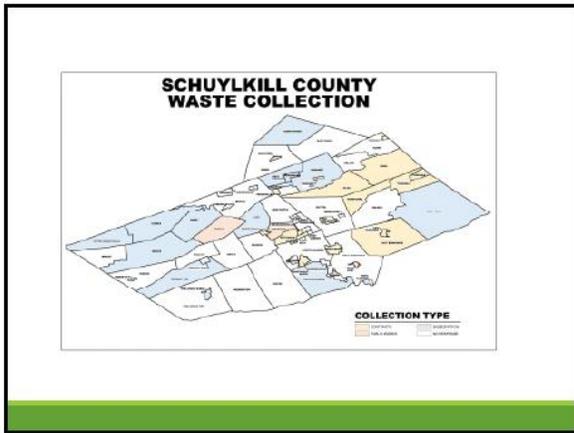
Funding Recycling



\* "at no additional charge" (based on the cost of waste collection)  
 \* "paid" from Municipality/General Tax Fund  
 \* "paid" provided by the County

Average Cost of Service







# APPENDIX I

## Executed Disposal Capacity Agreements

### PLEASE NOTE:

In the hard copy, published version of the Schuylkill County Municipal Solid Waste Management Plan, the executed disposal capacity agreements are inserted behind this cover sheet.

- For the cd rom electronic digital version of the plan, the executed disposal capacity agreements are not incorporated into the document, but are provided in a separate folder on the disk.
- For the internet version of the plan, the executed disposal capacity agreements are not incorporated into the document, but are available for review at the offices of the Schuylkill County Office of Solid Waste & Resource Management.

Schuylkill County Office of Solid Waste & Resource Management

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